

Digital Environmental Sustainability through Circular Economy and Responsible Production & Consumption: A guide to the circular economy of digital devices



A guide to the circular economy of digital devices

The guide to the circular economy of digital devices, produced in 2022, aims to show you how to understand, think and act collectively to clearly change direction towards a regenerative and redistributive economy respecting both human and ecological rights and limits. It is aimed at civil society organisations wanting to transform their day-to-day use of technology, social entrepreneurs who want to make a positive impact on the world and the environment we live in, or anyone else interested in connecting, whether online or offline, in a more sustainable way.

This resource focuses on the digital devices that we use and touch – desktop computers, laptops, mobile phones and tablets. We know that these personal devices depend on network devices such as routers, and big data centres crammed with racks of computer servers that deliver content and services. There is also an explosion of “smart” devices that create the “internet of things” (IoT). Billions of new IoT devices are produced every year. These electronic and connected “things” include similar electronic components to our personal digital devices, but contrary to these, they are limited to a specific purpose. While they definitely have energy and material impacts on the environment, this “other” category deserves another report.

We cannot hope to cut emissions to net-zero by 2050 without significant improvements in all processes along the life cycle of digital devices. These include product designs that seek maximal durability and repairability, manufacturing that incorporates recovered materials from e-waste instead of just mining for raw materials, and product repair and reuse. And even if the Intergovernmental Panel on Climate Change (IPCC) emissions targets are unlikely to be reached, we still need to act. In terms of practice, and practical steps, together we can do many things, and together we can change direction towards a more economically, socially and environmentally just world.

This guide is divided into 12 modules, and illustrated through case studies. It describes the concepts, processes and some of the major challenges to circularity, summarises the key challenges and opportunities, including for policy advocacy, and offers a glossary of terms to help you along.

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- ☞ Case study - Benelux Afro Center: Innovative relay stations involving young people in the proper recycling of e-waste in the DRC
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- ☞ Case study - Transitioning to the circular economy in the South Asia region: A phased policy approach for Bangladesh, India, Sri Lanka and Pakistan

The full guide can be accessed here - <https://circulartech.apc.org/books/a-guide-to-the-circular-economy-of-digital-devices>

Acknowledgements

This guide to circular economies of digital devices was developed by a working group of the Association for Progressive Communications (APC) network, led by Leandro Navarro (UPC and Pangea), Syed Kazi (Digital Empowerment Foundation) and Shawna Finnegan (APC). Publication of the guide was coordinated by Maja Romano and Flavia Fascendini. The guide was edited by Alan Finlay and proofread by Lori Nordstrom. All visuals were designed by Cathy Chen.

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The guide was translated into French by Morgane Boëdec, Karine Ducloyer and Florie Dumas-Kemp, and into Spanish by Clio Bugel, María Laura Mazza and Florencia Roveri.

A guide to circular economies of digital devices was produced through APC's Technology, environmental justice and sustainability initiative, funded by the Swedish International Development Cooperation Agency (Sida) and the Ford Foundation.
