



Setting the standard

The Role of International Standards in Tackling E-waste and Achieving a Circular Economy

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E-waste: a growing challenge

Did you know that ~50 million metric tonnes (Mt) of **e-waste** were produced in 2018?*



2018
50 Mt



2021
52 Mt



2050
120 Mt

In 2017, just **20%** of e-waste was recycled and only **67** countries had developed e-waste legislation.

What you can do



REUSE
use things more
than once



RECYCLE
separate
waste materials



REDUCE & REPAIR
use fewer
resources

Solving the issue together

International
Commitments

ITU's activities

ITU & other UN bodies



ITU: UN specialized agency for ICTs

- ITU-T Study Group 5: lead expert group to develop standards & guidelines to tackle e-waste & achieve a Circular Economy
- Annual Green Standards Week
- Raising awareness & capacity building

- U4SSC: A UN initiative which provides an open platform
 - Guidelines on strategies for circular cities
- E-waste Coalition
- UNIDO/GEF Project in Latin America



E-waste Management & Recycling of Rare Metals



Rare-metals should be recycled

A mobile phone contains around 20 rare metals.

A ton of gold ore yields just 5g of gold, whereas a ton of used mobile phones **yields a staggering 400g.**

Recommendation ITU-T L.1100 - A method to provide recycling information of rare metals in ICT products



Details recycling process and provides guidelines as to how organizations may fairly and transparently report on rare metal recycling.



Power Supply Series

Recommendation ITU-T L.1000: Universal power adapter and charger solution for mobile terminals and other hand-held ICT devices:

- Saves 82,000 tons of e-waste per year
- Saves at least 13.6 million tonnes of CO2 emissions annually

Recommendation ITU-T L.1001: External universal power adapter solutions for stationary information and communication technology devices:

- Saves 300,000 tons of e-waste per year
- Reduces the energy consumption and greenhouse gas (GHG) emissions of external power supplies by between 25% and 50%



ITU-T Standards on E-waste & Circular Economy

Classified by

Take back systems

ITU-T L.1021: Extended producer responsibility – Guidelines for sustainable e-waste management

Framework and guidelines

ITU-T L.1030: E-waste management framework
ITU-T L.Suppl.27: Success stories

Reduction of e-waste

ITU-T L.1000: Universal Power Adapter (UPA) for mobile phones
ITU-T L.1001: UPA for fixed terminals
ITU-T L.1002: UPA for notebooks
ITU-T L.1005: UPA assessment solution
ITU-T L.1006: UPA assessment for stationary ICT
ITU-T L.1010: Green batteries

Recycling

ITU-T L.1100: Rare metals
ITU-T L.1101: Measurement methods
ITU-T L.1102: Use of print labels
ITU-T L.1400: Methodologies for assessing environmental impacts of ICT
ITU-T L.1410: Methodologies for LCA for ICT

Circular Economy

ITU-T L.1020: Guide for operators and suppliers
ITU-T L.Suppl.28: Definition and approaches



Setting the standard



New Report: *Turning Digital Technology Innovation Into Climate Action*

- Responsible use and uptake of ICTs;
- Use of global ICT standards and best practices;
- **Mainstreaming of eco-design principles;**
and
- Environmentally efficient applications of frontier technologies.



Setting the standard

GEF Project on “Strengthening of National Initiatives and Enhancement of Regional Cooperation for the Environmentally Sound Management of POPs in Waste of Electronic or Electrical Equipment (WEEE) in Latin American Countries”



Development of two case studies on the implementation of ITU-T Recommendations to tackle e-waste and achieve a circular economy in two Latin American countries.

Call4Action: *Use of Frontier Technologies in Combating Climate Change and Achieving a Circular Economy*



Using AI to accelerate climate and circular economy actions.



Comprehensive framework to ensure positive technological disruption.



Multi-stakeholder partnerships and international cooperation to facilitate sustainable and inclusive growth.



Implementation of international standards to harmonize the deployment of next-generation ICT infrastructure and evaluate the environmental impacts of frontier technologies.



Raising awareness on the role of frontier technologies in combating climate change and achieving a CE.



Reducing the negative impact of ICT-related e-waste to contribute to tackling climate change and moving to a CE.



Frontier technologies to reduce societal greenhouse gas emissions in line with scientific trajectories and to foster a CE.

Thank you!

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