WSIS+20 Review
Action Lines
Milestones, Challenges and Emerging Trends beyond 2025

C7 ICT Applications: E-environment

Goals

The WSIS Geneva Plan of Action defined three goals for Action Line C7 E-Environment:

- **Goal 1:** Use and promote ICTs as an instrument for environmental protection and the sustainable use of natural resources;
- **Goal 2:** Initiate actions and implement projects and programs for sustainable production and consumption and the environmentally safe disposal and recycling of discarded hardware and components used in ICTs; and
- **Goal 3:** Establish monitoring systems, using ICTs, to forecast and monitor the impact of natural and man-made disasters, particularly in developing countries, LDCs and small economies.

The Evolution of Context

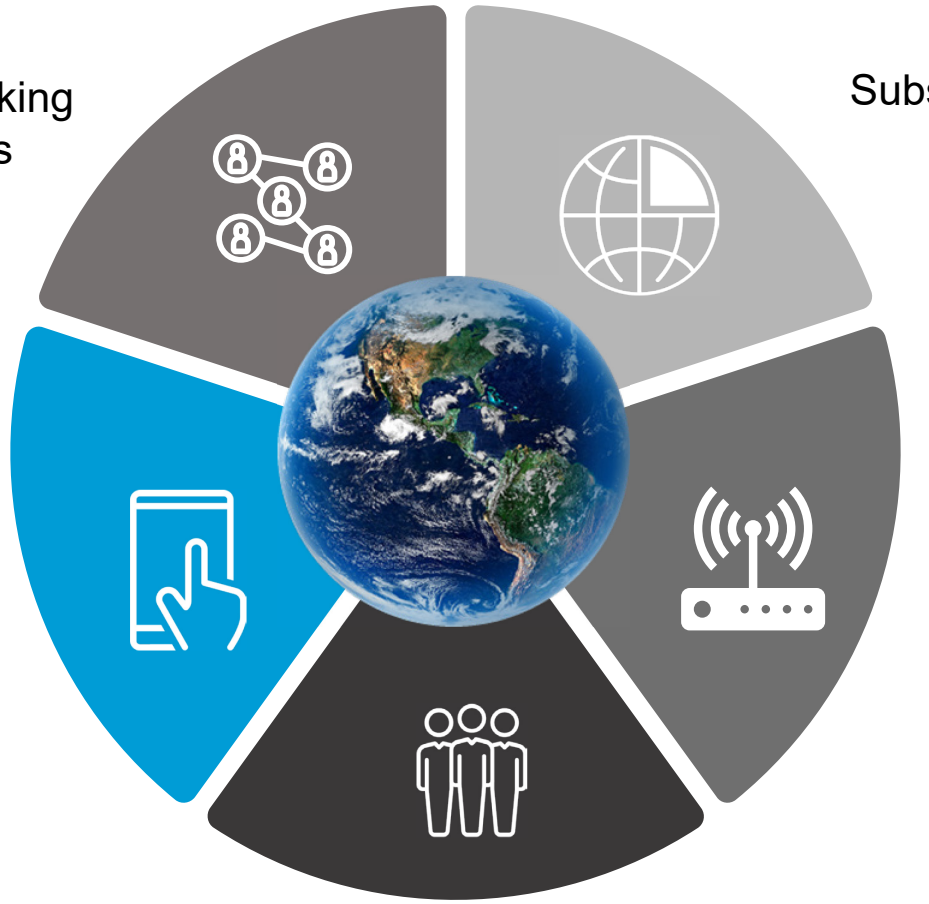
Digital technologies offer major opportunities to speed and scale solutions to the Triple Planetary Crisis:

- **Climate action:** digital information and communication technologies (ICT) can enable a 20 per cent reduction of global CO2 emissions when applied to five sectors: mobility, manufacturing, agriculture, energy, and buildings. ICT solutions can help cut nearly 10 times more CO2e than they emit.
- **Nature protection:** digital technologies and improved design can help reduce natural resources and other materials used in products by 90 per cent - through efficiency, tracking and tracing as well as by turning products into services in a circular economy.
- **Pollution prevention:** digital technologies can help reduce waste & detoxify supply chains by a factor of 10-100 times through improved design, resource substitution and circularity showcasing the evolution of the engagement of stakeholders.

Enabling Environmental Sustainability *Five Main Pathways:*

Efficiency, optimization and tracking and tracing natural resources

Substitution of physical product for digital product



Planetary-scale data and analytics for decision making by all stakeholders

Empowering people to connect and select sustainable products

Sustainability innovations, solutions, and insights gained from digital applications

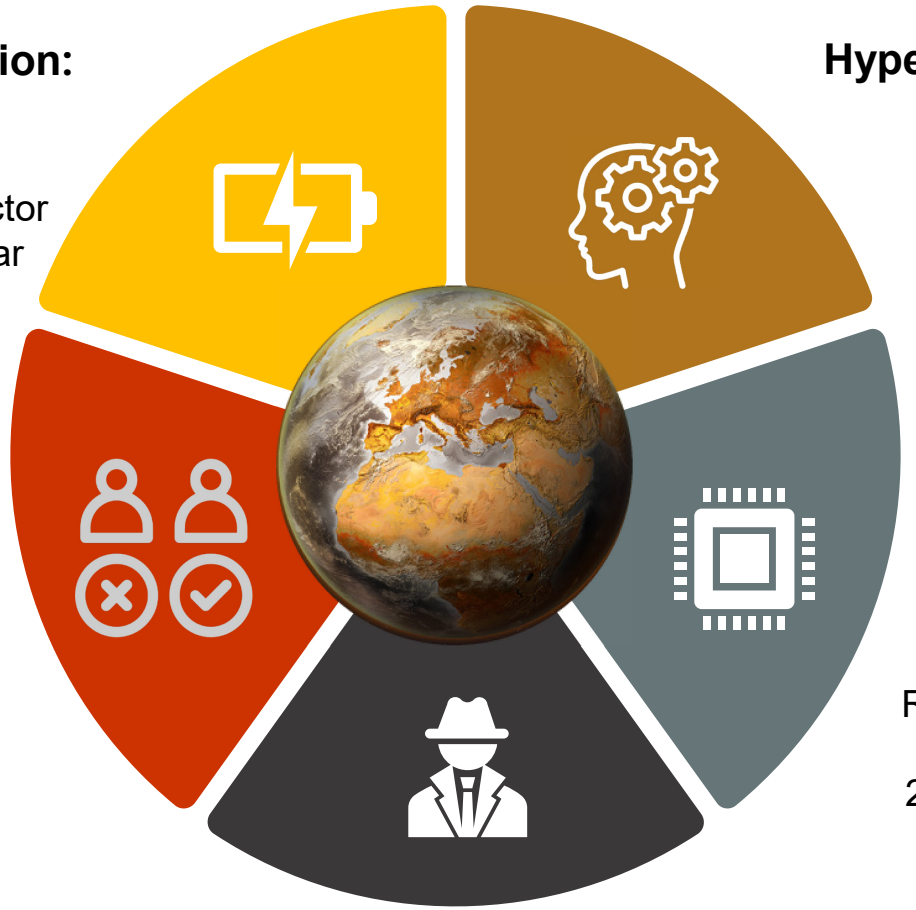
Generating New Environmental Impacts *Five Types:*

Energy and materials use and pollution:

3% of global electricity consumption
2-4% of GHG emissions
24 critical minerals needed for digital sector
53 million metric tons of e-waste per year

Hyper consumption and rebound effects:

62% of advertising sales are now digital and worth 710 billion.
More efficient production leads to lower prices and higher consumption



Digital divide:

Lack of environmental services and economic opportunities for the disconnected - 2.6 billion people

Obsolescence effects:

Rapid evolution of digital technologies incentivize constant replacement.
20% of smartphone owners upgrade each model

Spread of misinformation:

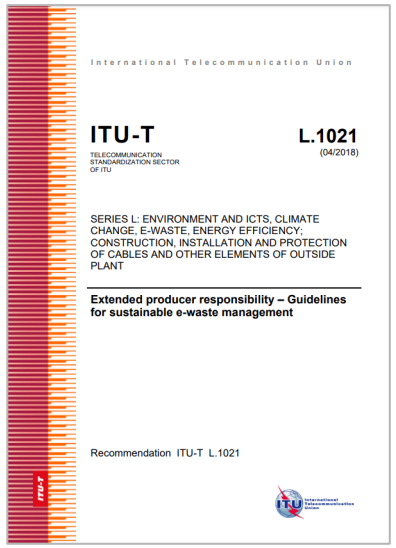
misinformation spreads 6X faster than facts,
70% more likely to reshared

Key Milestones: 20 years of Achievements

Standards, Guidelines and Training

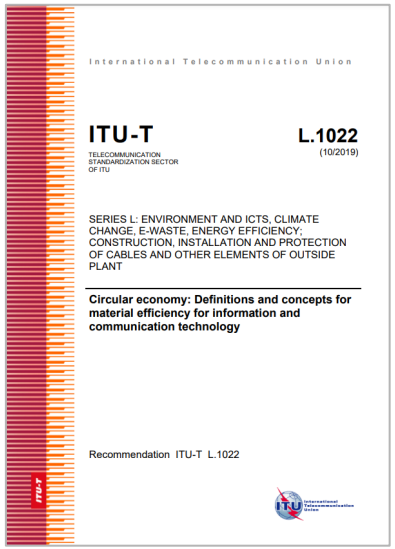
2018

Guidelines on E-waste



2019

Recommendations on Circularity and ICT



2022

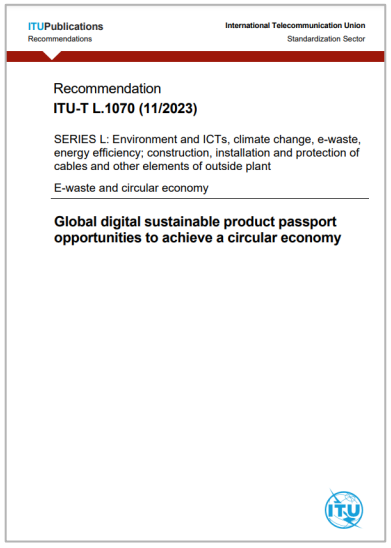
Digital 4 Sustainability e-learning

2023

Green Data Centers

2024

Recommendations on Digital Product Passport for ICT

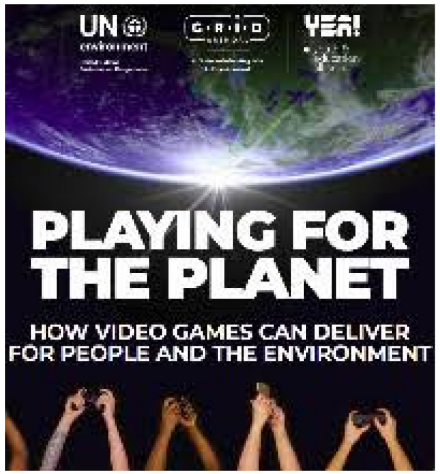


Key Milestones: 20 years of Achievements

Assessments, Agreements, Coalitions

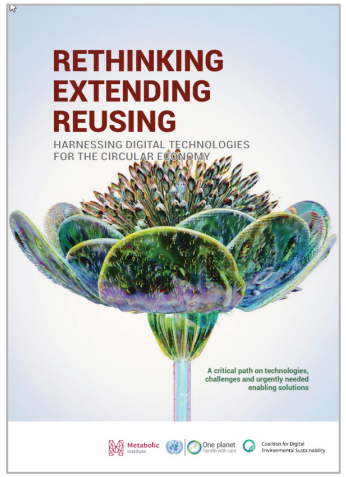
2019 — [Global Environmental Data Strategy]

2020 — [Playing for the Planet]



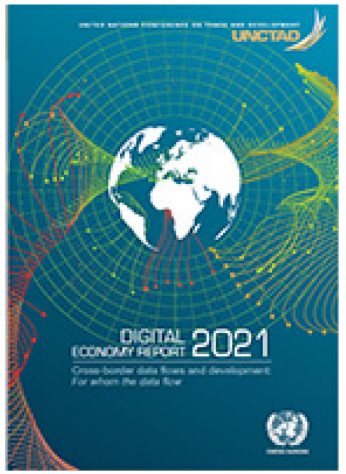
2022 — [CODES Action Plan for the Digital Age]

2023 — [Digital for Circularity Impact Initiative]



2023 — [Greening Digital Companies]

2024 — Digital Economy Report: Environment



Key Milestones: 20 years of Achievements

Environmental Monitoring Platforms

2003 — [GCOS Essential Climate Variables]

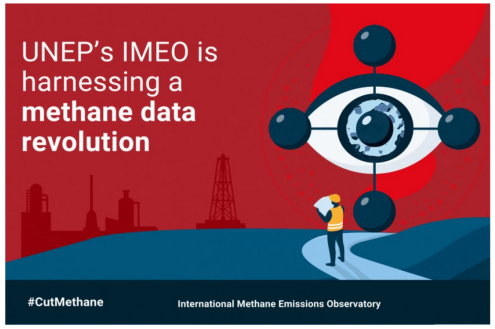
2014 — [Global E-waste monitor]

2019 — [Freshwater Surface Water Explorer]

2021 — [UN Biodiversity Lab v2.0]

2023 — [Early Warnings for All]

2024 — [International Methane Emissions Observatory]



Challenges in implementing the Action Line

- **Challenge 1:** environmental fora (e.g. multilateral environmental agreements) are not systematically including digital technologies as enablers of their goals or considering negative impacts from digital technologies

- **Challenge 2:** national strategies for digital transformation and digital public infrastructure are not considering environmental opportunities and risks in a systematic manner

- **Challenge 3:** there are a lack of international standards for measuring digital environmental sustainability, disclosing impacts and sharing environmental data

Trends and Opportunities Beyond 2025

- Embedding sustainability within filters, recommendation engines and algorithms of major digital platforms (e.g. social media, e-commerce, gaming) to enable sustainable consumption
- Use of digital product passports to track and trace the environmental footprints of products across their supply chains and lifecycles as well as to contribute to circularity
- Embed digital enabling goals within major international environmental agreements to accelerate their work
- Establish digital sustainability standards and environmental data standards to enable global measurement, sharing, etc.
- Potential resolution on digital environmental sustainability at UNEA 7 in 2025