ITU and climate change

Tackling E-Waste

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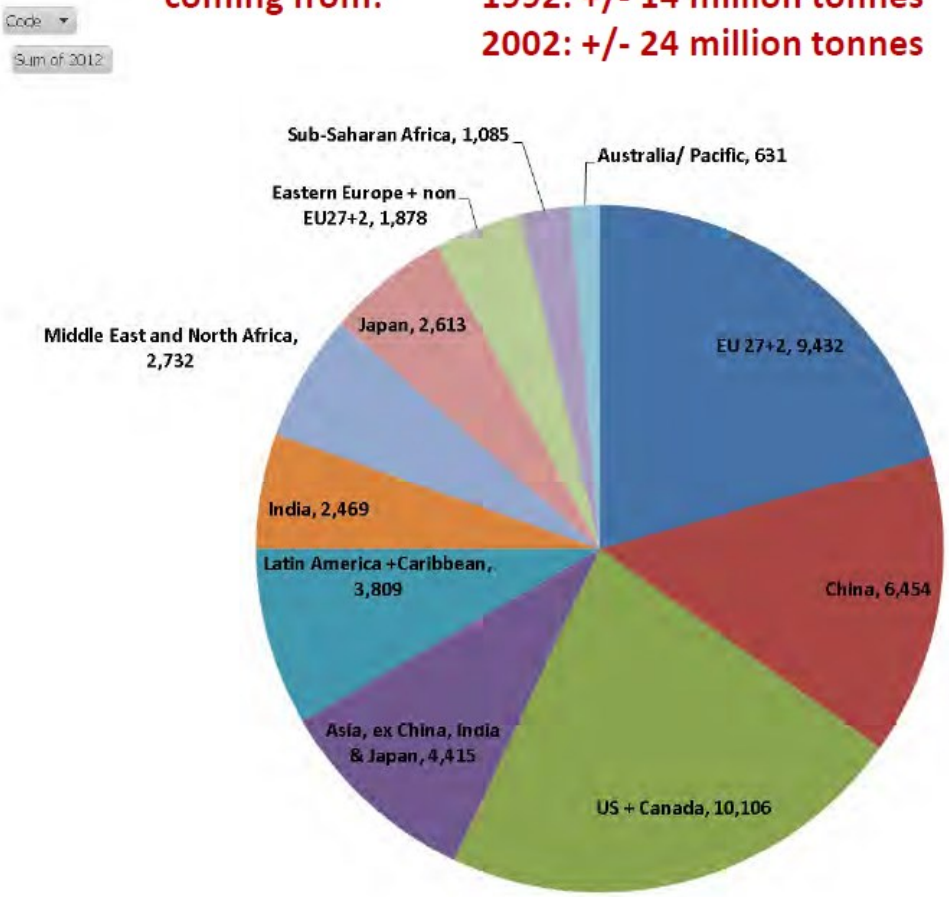
E-waste is the fastest growing waste stream

coming from: **1992: +/- 14 million tonnes**
2002: +/- 24 million tonnes



WEEE generated, 2012
(per region, in ktons)

2012 total: ~45 mln tonnes

Source: Huisman 2012

The best way to deal with e-waste is …

… avoid (or at least minimize) it!

- From the manufacturing phase through:
  - E-waste conscious design
  - Avoid use of heavy pollutants
  - Minimization on the use of resources
    - Regulations and standards
- During the life of equipment
  - Prolonging its lifetime
  - Designing for reuse/multiple use
- At end of life
  - Designing for easy disassembly

Avoid/minimize through standardization

- Environmentally conscious companies have e-waste minimization programmes in place but:
  - Such programmes are difficult to set up and manage
  - The extra cost can discourage them
  - As individual companies they can have little impact
- Need to create critical mass and act soon
- Regulation is complex and takes long time

Standardization can fill the gap and lead the market

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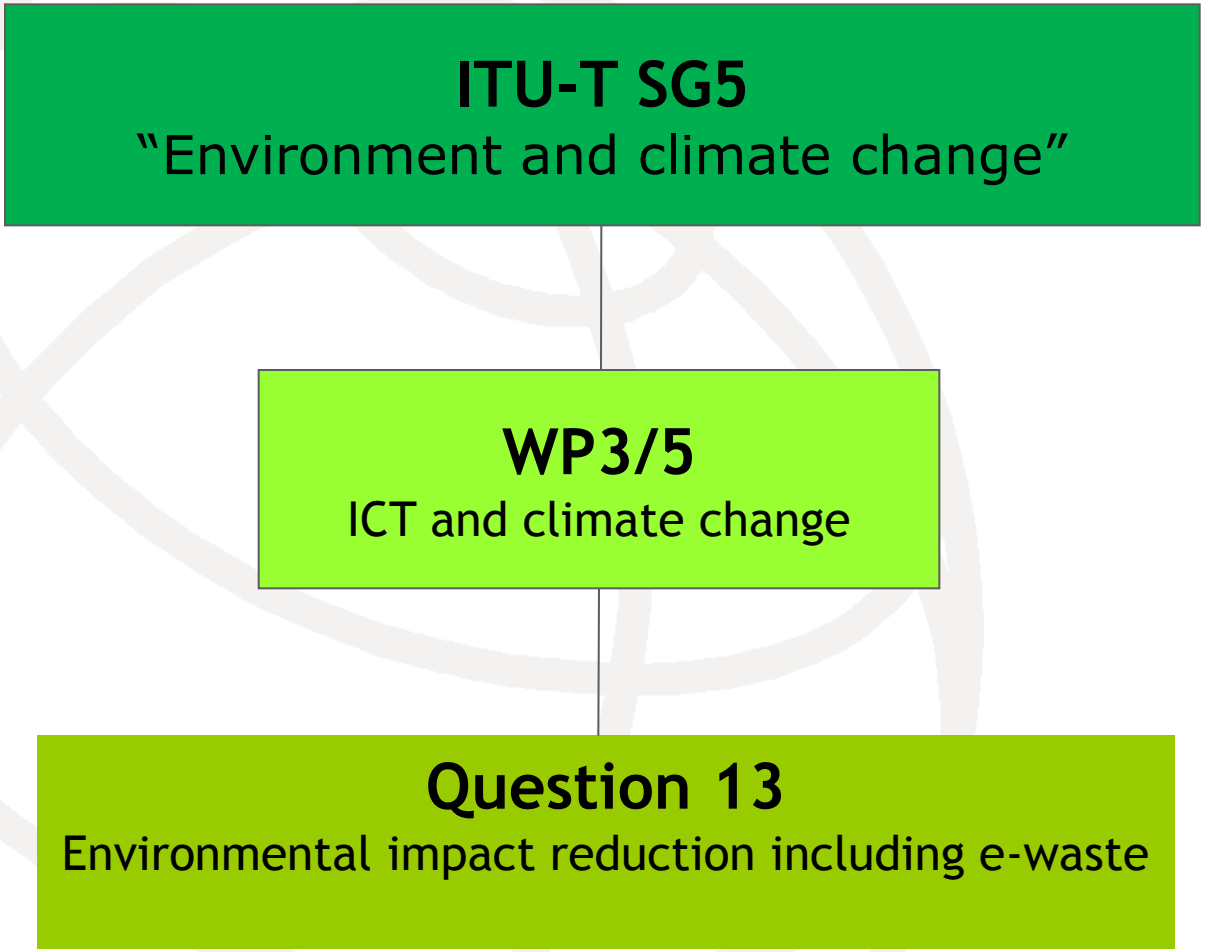
ITU-T Activities

ITU Telecommunication Standardization Sector (ITU-T)



Highlights on Q13

"Environmental impact reduction including e-waste"

Brief Description

- Study the safety and environmental performance associated with ICTs, including the avoidance of hazardous materials and final disposal.
- Ensure that ICTs cause minimum environmental and health impact.
- Minimize and mitigate the effects of e-waste.

Main Tasks

- Motivate ITU members to share experiences and spread knowledge related to environmental sustainability aspects.
- Determine processes to minimize the environmental impact of e-waste.
- Study solutions to mitigate e-waste (UCS/CPS, rare metals, battery, conflict material…).

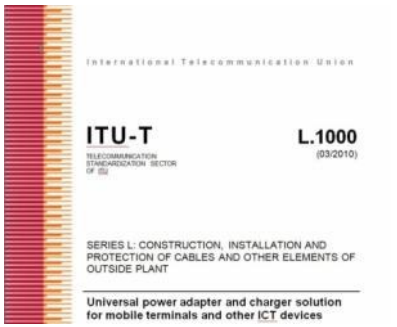
ITU's universal charger standard

Instead of this …

… have this:

Tackling E-waste with Global ICT Standards

- "Universal power adapter and charger solution for mobile terminals and other ICT hand held devices" (**Recommendation ITU-T L.1000**)
- *Saves 82,000 tons of e-waste per year*
- *Saves at least 13.6 million tonnes of CO2 emissions annually*



Waste Management with Smart ICT Standard

The step after L.1000… … L.1001

- **NEW -** "External universal power adapter solutions for ICT equipment for stationary use" (**Recommendation ITU-T L.1001**)
- Saves 300,000 tonnes of e-waste annually
- Reduces the energy consumption and greenhouse gas (GHG) emissions of external power supplies by between 25% and 50%

- **Approved!**
- **Contributions are needed** to develop Universal Power Adapter for portable devices (Phase 2)

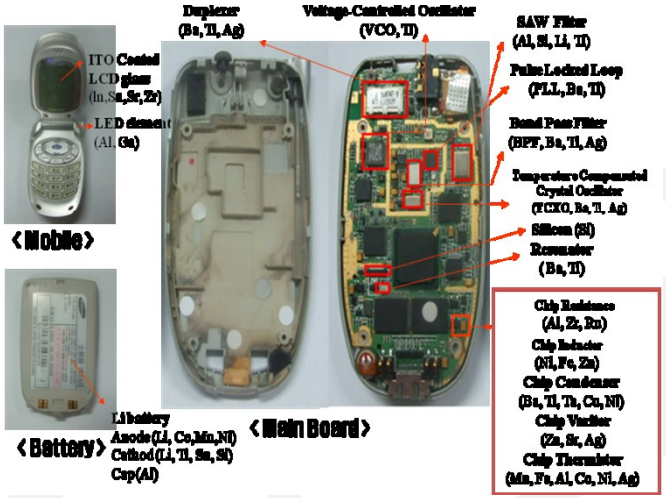
Avoiding/reducing e-waste through standardization

- **An example → the external power supply (EPS)**
  - Market loudly demands for interoperable, reusable and longer life equipment
  - Volume produced is enormous (>4Billion/year)
  - It is about 1 million tons of electronic equipment

It could correspond to an 1000km queue of trucks full op EPSs

Ecodesign is key!

- Assembling solutions designed for end of life: easy disassembling and parts separations (e.g. minimize screws, adopt snap-fits)
- Materials choice for the external case, cords and cables
- Materials choice for the electronic board, to be built up minimizing the presence of brominates
- Choice of substances that improve the end of life procedures and avoid the production of toxic compounds in that life cycle phase



Recycling Rare Metals in ICT Products

ITU-T L.1100 Recommendation on Rare Earth Metals outlines key considerations in all phases of the recycling process, and provides guidelines as to how organizations may fairly and transparently report on rare metal recycling.

More information

- ITU-T, the Environment and Climate Change

http://www.itu.int/ITU-T/climatechange/

- ITU-T Study Group 5 “Environment and Climate Change”

http://www.itu.int/ITU-T/studygroups/com05/index.asp

Thank YOU