

Overview of ITU-T Activities on E-Waste

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E-waste is the fastest growing waste stream

Many developing countries face the specter of hazardous e-waste mountains with serious consequences for the environment and public health.



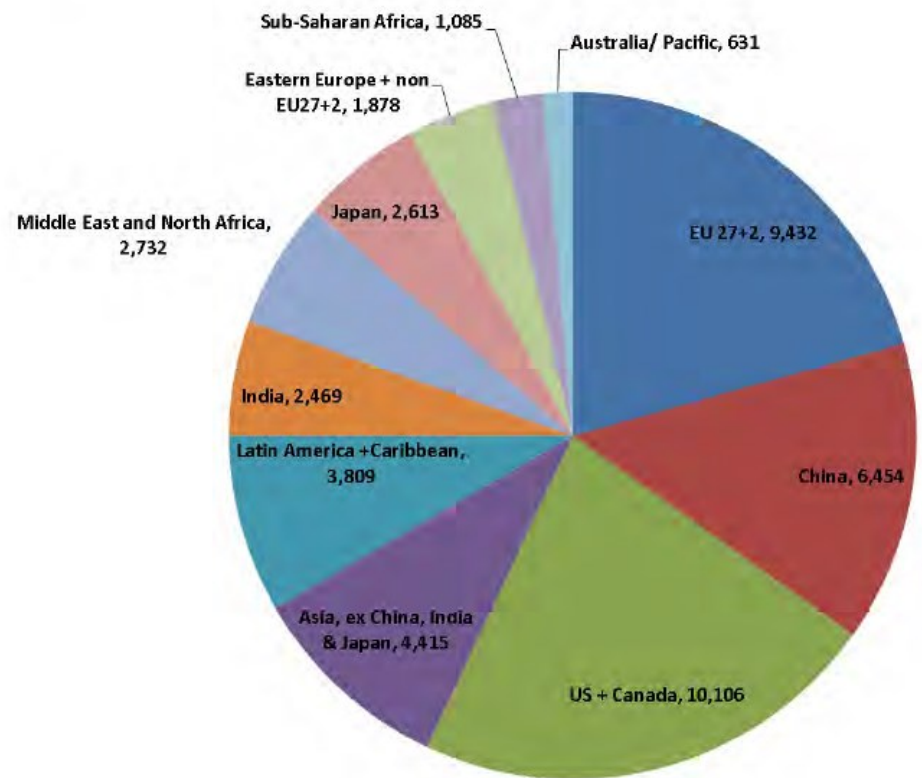
E-waste is the fastest growing waste stream (cont'd)

Code Sum of 2012

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

WEEE generated, 2012
(per region, in ktons)

**2012 total:
~45 mln tonnes**



- Country group
- EU 27+2
 - China
 - US + Canada
 - Asia, ex China, India & Japan
 - Latin America + Caribbean
 - India
 - Middle East and North Africa
 - Japan
 - Eastern Europe + non EU27+2
 - Sub-Saharan Africa
 - Australia/ Pacific

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**

ITU-T Activities

Working Party 3/5

“ICT and climate change”

WP3/5 is responsible for studies relating to ICT, environment and climate change, development of methodologies for evaluating the ICT effects on climate change and publishing guidelines for using ICTs in an eco-friendly way.

Work areas:

- **Q13/5** - Environmental impact reduction including e-waste
- **Q14/5** - Setting up a low cost sustainable telecommunication infrastructure for rural communications in developing countries
- **Q15/5** - ICTs and adaptation to the effects of climate change
- **Q16/5** - Leveraging and enhancing the ICT Environmental sustainability
- **Q17/5** - Energy efficiency for the ICT sector and harmonization of environmental standards
- **Q18/5** - Methodologies for the assessment of environmental impact of ICT
- **Q19/5** - Power feeding systems

Question 13/5

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 effect 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
- Study solutions to mitigate e-waste. UCS/CPS, rare metals, battery, conflict material.....

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...

- **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)



E-Waste ... the solution!

- Need of an integrated waste management approach to generate decent employment, curb health problems, cut greenhouse gas emissions and recover a wide range of valuable metals including silver, gold, palladium, copper and indium – by turning an e-challenge into an e-opportunity.

Key Actions:

- Raise awareness on the dangers of e-waste;
- Encourage the consideration of e-waste management in the design of ICT policy;
- Adopt strategic policies, international standards and regulatory approaches that are sensitive to local context;
- Encourage concerted cooperation in handling e-waste at the national, regional and international level.

Links & Additional Information

- ITU-T/SG5 “Environment & Climate Change”
<http://www.itu.int/ITU-T/studygroups/com05/index.asp>
- ITU-T and Climate Change
<http://www.itu.int/ITU-T/climatechange>
- ITU Symposia & Events on ICTs and Climate Change
<http://www.itu.int/ITU-T/worksem/climatechange>



Thank YOU

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