



# **ICT resource-efficiency and e-waste**

**Consultation on facilitation of WSIS  
Action Line: C7 e-Environment**

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# UNEP and Resource Efficiency

- Midterm Strategy on Resource-Efficiency/ Sustainable Consumption and Production (SCP)
- Division of Technology, Industry and Economics (Paris)
  - Sustainable Consumption and Production Branch
  - International Environmental Technology Centre (Osaka)
- Marrakech Process/ 10-year Framework of Programmes on SCP facilitated by UNEP and UN DESA
- OECD – UNEP Conference on Resource-Efficiency
- International Panel for Sustainable Resource Management
- UNEP-SETAC Life Cycle Initiative

# UNEP E-Waste activities

- **Global e-Sustainability Initiative (GeSI)**
  - UNEP/ITU ICT private sector partnership
  - 23 Member Companies
  - Launched 2001, Independent legal entity in 2008
  - UNEP co-chairs E-Waste Working Group
- **Solving the E-Waste Problem (StEP) Initiative**
  - UNU facilitated multi-stakeholder Initiative
  - Launched in 2006, now around 50 members
  - UNEP in Steering Committee
- **Resource Panel – Global Metal Flows Group**
  - Started recently to assess global metals flows, including metal recycling
- **E-Waste Recycling Pilot Project in India/ Mumbai**
  - Project from 2005-2007
  - Partnership with local and international NGOs
  - E-waste manual

# Activities of the Secretariat of the Basel Convention

- **World Forum on E-waste**

- Organized on 30 November 2006 as part of COP-8
- Chaired by **UNEP's Executive Director Achim Steiner**, who said:

***“Governments need to develop effective regulatory regimes that empower the market to respond positively to the challenge of e-wastes. By partnering with the private sector and with civil society, they can promote collection chains that channel obsolete goods back to their original manufacturers for recovery and recycling”.***

- **Global Partnership on e-waste**

- Great advances made by the Asia-Pacific Programme in a short period of time

- **Mobile Phone Partnership Initiative (MPPI)**

- Launched in 2002, during COP-6

- **Partnership for Action on Computing Equipments (PACE)**

- Currently being set up

# GeSI & e-waste - Progress to date

- **Priority areas for collaboration identified: improving take-back efficiency and effectiveness**
- **Funding approved to re-launch UNEP co-chaired E-Waste Working Group**
  - Enhance existing supply chain e-Tool and Audits to improve take back mechanisms and EoL management of e-waste
  - Develop a roadmap to integrate E-Waste as a transversal issue in the work of other Working Groups
  - Improve cooperation and coordination with other e-waste initiatives

# StEP Initiative and Resource Panel – Progress and Work plan

- **StEP Initiative**

- Task forces on Redesign, Reuse, Recycling and Capacity Building working and expected to deliver White Papers
- 1<sup>st</sup> Reuse Forum in September in Berlin

- **Resource Panel – Global Metal Flows Group**

- Study on the stocks of metals in use
- Study on environmental implications of global metal flows
- Study on opportunities and challenges for metal recycling

- [illegible]

# Priorities for multi-stakeholder collaboration

- Expand the work of the GeSI E-Waste WG (ICT Private sector and others)
- Set up PACE successfully with the Secretariat of the Basel Convention (Governments and others)
- Expand the work of the Resource Panel's Global Metal Flow Group (Scientists)
- Set up a new e-waste pilot projects, probably in Cambodia (national and local authorities, informal sector, civil society)
- Work with the StEP Initiative in finalising the White Papers and other project ideas (Multi-stakeholders)
- Expand the e-waste topic into a material stewardship perspective going from extraction to EoL
- Improve cooperation and coordination among the various initiatives



# Metals required in eco-innovation

**Energy**  
Generation, conversion, storage

**Energy use**  
Heat, lighting, mobility, information

**Cleaning**

Solar cell

Fuel cell

Battery

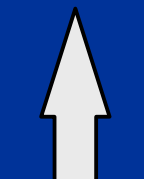
Thermo-  
electric

Motor

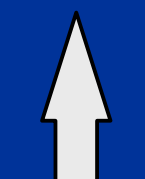
LED

Electronic  
parts

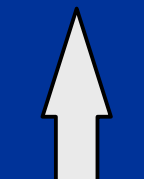
Catalyst



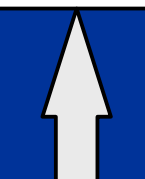
Ga  
As  
In  
Cd  
Rn



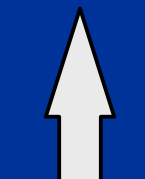
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Rh  
La  
Ce  
Gd



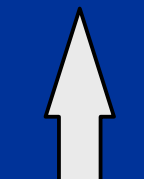
Li  
Co  
Ni



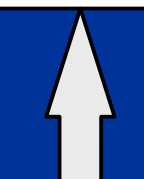
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Te  
Co  
Sb



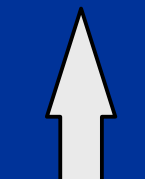
Dy  
Nd  
Sm  
Co  
B



Ga  
In  
La  
Eu  
Y



Ag  
Au  
Pd  
Rh  
In  
Ta  
W  
Ni



Pt  
Pd  
Rh



## More information about UNEP's work on ICT resource-efficiency and e-waste

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