The role of the The Digital Product Passport for ICT for the implementation of the Basel Convention for the environmentally sound management of e-waste

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E-waste generation

- E-waste Generation increased of 2.5 Mt every year since 2014

- in 2019 was 53.6 Mt

- 73.7 Mt by 2030

Effects on Climate Change

- Waste fridges and air conditioners discarded and not managed in an ESM manner **generated 98 Mt of CO_2** equivalent in 2019

- Primary extraction of most relevant metals and materials in e-waste accounted for **23% of global GHG** emissions in 2015

Countries with the highest e-waste generation per sub-region

Eastern Africa

👤 0.3 Mt | 0.8 kg per capita ♻ 1.3% | 0.004 Mt 👥 383

Ethiopia	55.2 kt
Kenya	51.3 kt
Tanzania	50.2 kt

Middle Africa

👤 0.2 Mt | 2.5 kg per capita ♻ 0.03% | 0.0001 Mt 👥 80

Angola	125.1 kt
Cameroon	26.4 kt
Congo	18.3 kt

Northern Africa

👤 1.3 Mt | 5.4 kg per capita ♻ 0% | 0 Mt 👥 240

Egypt	585.8 kt
Algeria	308.6 kt
Morocco	164.5 kt

Southern Africa

👤 0.5 Mt | 6.9 kg per capita ♻ 4% | 0.02 Mt 👥 67

South Africa	415.5 kt
Botswana	18.8 kt
Namibia	15.7 kt

Western Africa

👤 0.6 Mt | 1.7 kg per capita ♻ 0.4% | 0.002 Mt 👥 382

Nigeria	461.3 kt
Ghana	52.9 kt
Côte d'Ivoire	30.0 kt
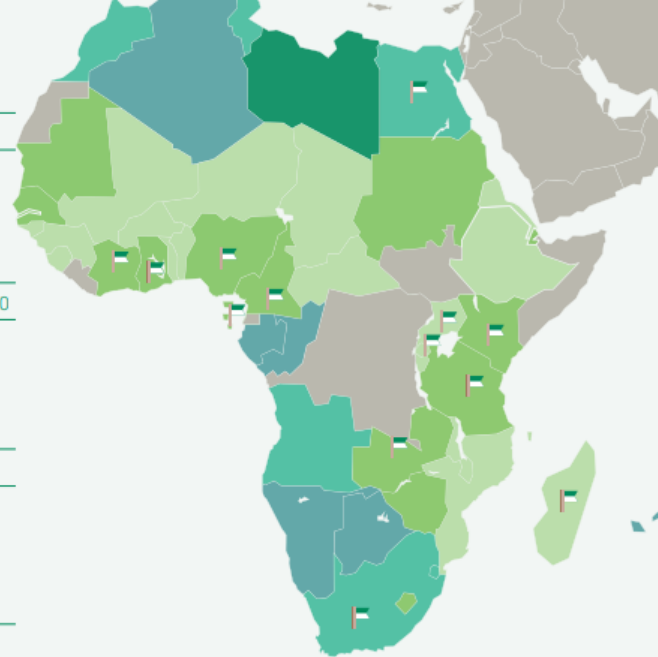
Legend

👤 E-waste generated (in Mt and kg per capita)
♻ E-waste documented to be collected and properly recycled
👥 Population (in millions)

E-waste generated
- 0 to 1 kg per capita
- 1 to 3 kg per capita
- 3 to 6 kg per capita
- 6 to 10 kg per capita
- 10+ kg per capita

E-waste status in Africa in 2019

2.9 Mt | 2.5 kg per capita
e-waste generated

0.9% | 0.03 Mt
e-waste documented to be collected and properly recycled

13 countries
have a national e-waste legislation/policy or regulation in place

👤 **1152** population (millions)   🌍 **49** countries analysed

$3.2 Billion
value of raw materials in e-waste

9.4 Mt CO$_2$ equivalents
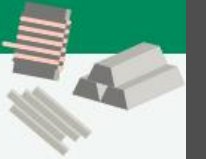potential release of GHG emissions from undocumented wasted fridges and air conditioners

0.01 kt
amount of mercury from undocumented flows of e-waste

5.6 kt
amount of BFR from undocumented flows of e-waste

Raw materials

Recycling

Residual waste

Collection

CIRCULAR ECONOMY

Design

Production, remanufacturin

Distribution

Consumption, use, reuse, repair

Benefits of a circular model

- Reduce hazardous chemicals by design
- Extends life
- Sustainable consumption
- Reduced e-waste
- Recycle

Loss of Economic Resources

- In 2019, the value of raw materials such as iron, copper, and gold in e-waste was USD 57 billion.

- Only USD 10 billions of this was recovered (ITU/UNU-UNITAR/ISWA 2020)

- 15 Metals in e-waste are considered at risk of scarcity (e.g.Lithium)

Employment in Waste Management

- To grow by 70%, or another 45 million jobs by 2030 (ILO)

- Improper disposal of e-waste threatens the health and abilities of future generations.

- Increasing child labor

- Increasing involvement of women

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

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- **Adopted:** 22 March 1989

- **Entry into force:** 5 May 1992

- **Number of parties:** 190

- **Objective:** To protect human health and the environment against the adverse effects of hazardous wastes

- **Scope:** Hazardous wastes and other wastes

The Role of the Basel Convention

- ESM of E-waste
- Distinction between waste and non-wastes and TBM of e-waste
- Waste Prevention and sound recycling
- Policy development
- Illegal traffic
- PACE II partnership in cooperation with other entities and initiatives

Controlling Transboundary Movements

- **Conditions:** transboundary movement only among Parties (exception - Article 11 Agreements);
- **PIC** = Prior Informed Consent Procedure
- **Four stages:**
    1. notification of proposed shipment;
    2. written consent to proposed shipment:
    3. issuance of movement document;
    4. confirmation of ESM disposal.
- **Right to restrict or ban** imports, transits or exports
- **Illegal traffic:** defined by the Convention - consequences provided

The Basel Convention and WEEE
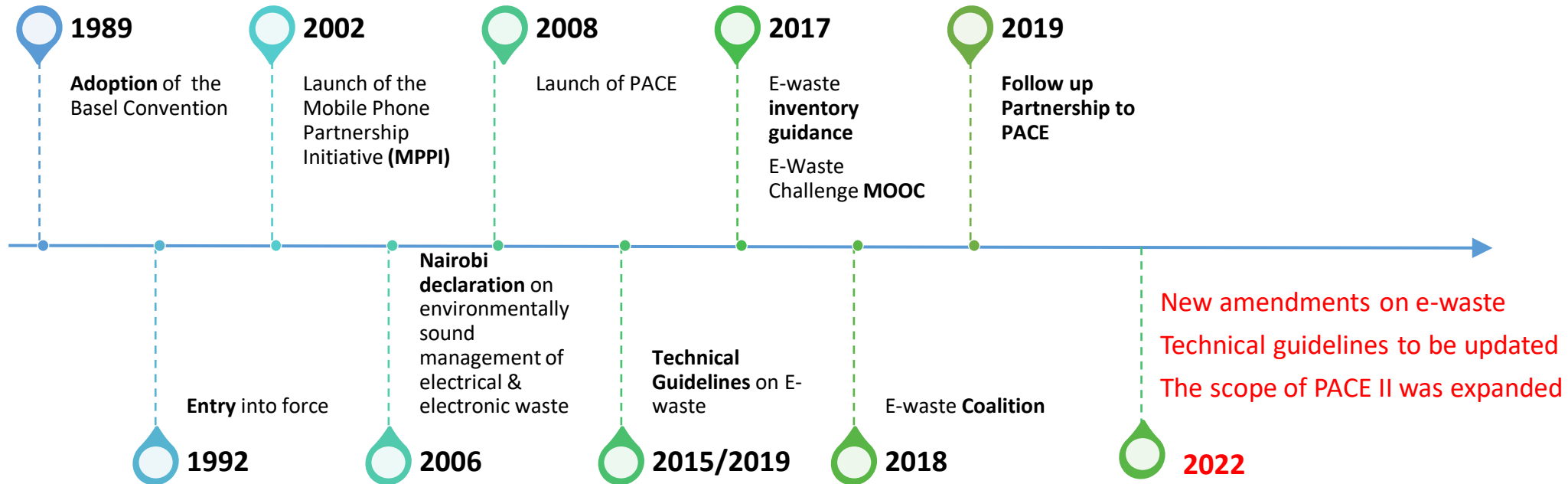
E-waste amendments adopted by COP-15 in 2022

- Amendment proposal made by Ghana and Switzerland
- Adopted amendments to Annexes II, VIII and IX regarding e-wastes
- Non-hazardous e-wastes added to Annex II ("wastes requiring special consideration")
  - → **All transboundary movements of e-wastes, whether hazardous or not, will be subject to the prior informed consent (PIC) procedure**

- The amendments will become effective on **1 January 2025**

E-waste amendments

Annex VIII (hazardous waste)

- New entry A1181
- PIC Procedure
- Hazardous e-wastes, its components and wastes from the processing of e-waste (e. g. fractions from shredding),

Annex II (waste for special consideration)

- New entry Y49
- PIC Procedure
- E-wastes, its components and wastes from the processing of e-waste (e. g. fractions from shredding), except for those e-waste covered by entry A1181

Annex IX (non-hazardous)

- No PIC Procedure
- Deletion of the existing e-waste entries B1110 (e-wastes) and B4030 (single-use cameras).

Digital Control Procedure

- Expert Working Group looking at existing experience

- The DPP can enhance the traceability of wastes in the TBM procedure

PACE-II

- Focus on used and waste:
    - TV screens, audio and video eq.
    - Refrigerators, cooling and heating equipment
    - Mobile Phones and
    - Computing Equipment
- Programme work on:
    - Pilot projects
    - Dissemination activities
    - Development of ESM guidance on used and waste: TVs, Refrigerators, cooling and heating equipment
- Partnership reaches out to over 1000 entities involved with the members

The DPP for ICT

- ❑ **The Digital Product Passport for ICT will provide information on the applicability of the Basel Convention in the waste stage of the life cycle, the HS codes and hazardous characteristics**

- ❑ **Increased traceability, information on the year of construction, a criteria for distinguishing wastes from products (In some countries a computer older than 5 years is a waste)**

- ❑ **Information on hazardous and non-hazardous materials will support repair, refurbishment and dismantling. With the DPP it will be easier to access dismantling and recycling information**

- ❑ **Introduction of proper recycling system** has to find a way to involve the informal sector without harming health and environment. **This will be supported by the information in the DPP**

- ❑ Collection, dismantling, refurbishment and recycling of used and end-of-life e-products **provides jobs to thousands of people, women and men**; **the DPP can support decent work**

Thank you for your attention!

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BASEL / ROTTERDAM / STOCKHOLM
CONVENTIONS

**The Basel Convention:
Mobile Phone Partnership Initiative (MPPI)**

Guidelines on:

- Refurbishment of Used Mobile Phones
- Collection of Used Mobile Phones
- Material Recovery and Recycling of End-of-Life Mobile Phones
- Awareness Raising-Design Considerations
- Transboundary Movement of Collected Mobile Phones;

Guidance document on the environmentally sound management of used and end-of-life mobile phones

- **Guidelines on** :
  - Environmentally Sound Testing, Refurbishment, and Repair of Used Computing Equipment
  - Environmentally Sound Material Recovery and Recycling of End-of-Life Computing Equipment
- Overall **guidance** document
- **Report** with ESM criteria recommendations;
- **Report** on strategies, actions and incentives to promote environmentally sound management of end-of-life-computing equipment
- **Manual** on Steps to Establish and Implement Environmentally Sound Management for Used and Waste Computing Equipment

Scope of the Technical Guidelines on Transboundary Movement of E-waste

- Information on the relevant provisions of the Convention applicable to transboundary movements of e-waste;

- Guidance on:

  - the distinction between waste and non-waste when equipment is moved across borders;

  - the distinction between hazardous waste and non-hazardous waste;

- General guidance on transboundary movements of used equipment and e-waste and enforcement of the control provisions of the Basel Convention

- Do not cover aspects of collection, treatment and disposal technologies.