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Sustainable Cycles Programme

SCYCLE

Programme

Statistics on E-waste

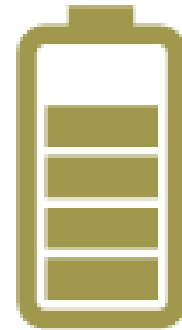# Kees Baldé

balde@vie.unu.edu

Senior Programme Officer

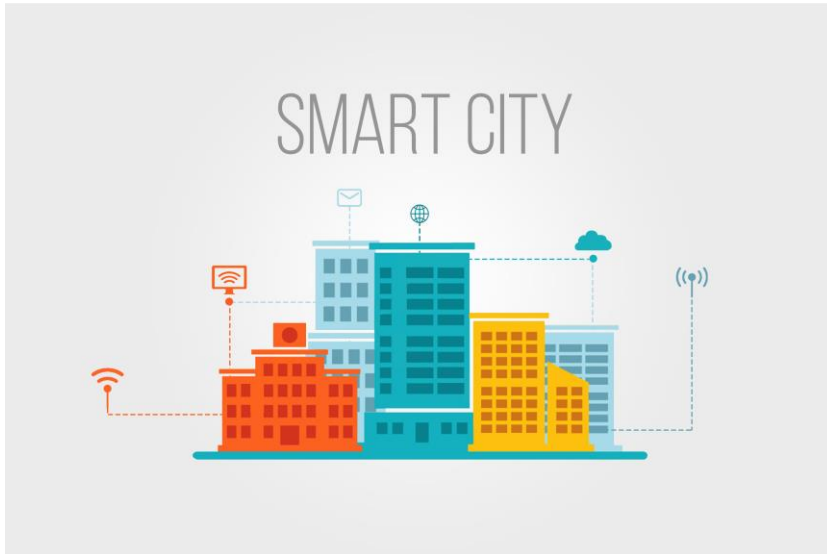**UNITED NATIONS UNIVERSITY**

Products contain valuable materials

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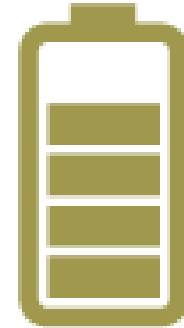Sustainable Cycles Programme

Toxics can cause environmental pressure

Need for the materials !

Where are those materials in our economy? Urban Mine !

Global E-waste Statistics Partnership

1. National and regional capacity building

- Producing reliable e-waste statistics
- Guiding countries to collect national data

2. Global e-waste database

- To track developments
- To inform policy makers and industry

3. Communicate data

- Via the Global e-Waste Monitor

4. Map recycling opportunities and health effects

5. Identify best practices of global e-waste management

6. Inform on Sustainable Development Goals (SDG)

Formed in January 2017 to address the e-waste challenge by improving e-waste data

Join us!

March '18 – UN E-waste Coalition

UNU, UNEP, ITU, ILO, UNITAR, UNIDO, SBC

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Global Political Targets

Current Connect 2020

- Target 3.2: Volume of redundant e-waste to be reduced by 50% by 2020

NEW Draft ITU 2023 Targets include:

- Target 3.2: by 2023, increase the global e-waste recycling rate to x%

- Target 3.3: by 2023, raise the number of countries with an e-waste legislation to x%

Links to many SDGs

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Global work - Methodologies

- UN Partnership on Measuring ICT for Development

  - Chair: Task Group on Measuring E-waste

- Endorsed by: ITU, UNCTAD, Eurostat, OECD, ILO, UNECA, ESCAP, UNEP-SBC, etc

- Guide countries to measure relevant parameters for e-waste

  - http://ias.unu.edu/en/research/e-waste-quantification.html#outputs

- E-waste Statistics Guidelines

  - First edition 2015

  - Second Edition 2018

What is e-waste
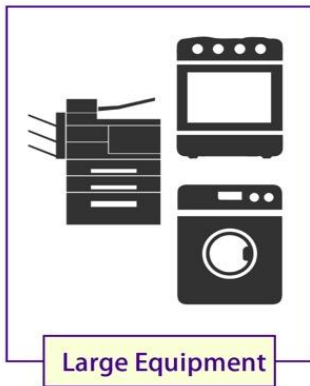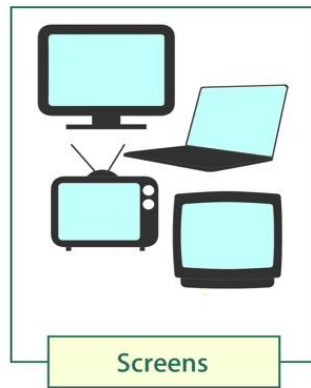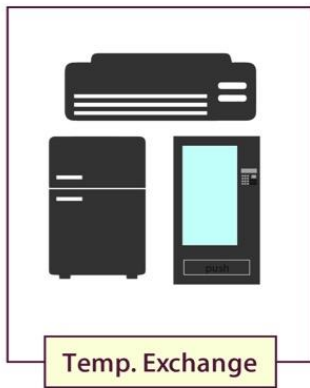
"E-waste, refers to all items of electrical and electronic equipment (EEE) and its parts that have been discarded by its owner as waste without the intent of re-use"

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Measure e-waste:
flows

Legislation, policies, expenditures (countering illicit trade / Financing / environmental protection), benefits (environmental, reclaimed materials, jobs)

Production And trade → EEE Sales → Stock: Households, businesses, public sector → Life-time → E-waste generated: Collected e-waste, Other recycling, Waste bin

Trade

Trade Legal and illegal

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Measure e-waste:
indicators

Legislation, policies, expenditures (countering illicit trade / Financing / environmental protection), benefits (environmental, reclaimed materials, jobs)

Production And trade

EEE Sales

Stock — Households, businesses, public sector

Life-time

E-waste generated
- Collected e-waste
- Other recycling
- Waste bin

Trade

Trade — Legal and illegal

E-waste collected (tonnage or kg/inh)

Put On the Market (POM) (tonnage or kg/inh)

E-waste generated (tonnage or kg/inh)

Global Work - Monitoring

- Policy advice by monitoring e-waste flows
  - European Commission
  - 10 countries in EU, e.g. Italy, France
  - GMSA – Latin America

- Two Global E-waste Monitors 2015 and 2017

- Regional e-waste monitor 2017 (South East Asia)
  - Co financed by Japan

- More e-waste monitors in future
  - Subject to funding
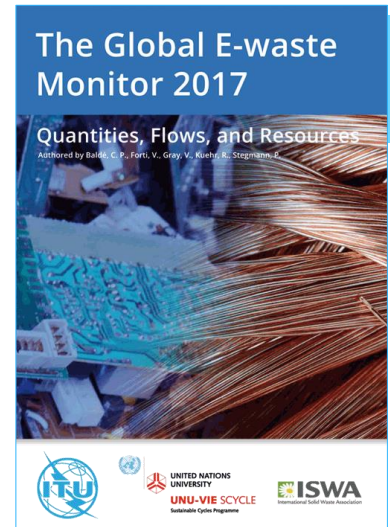 - Latin America, Arab States, EAC, CIS

Key drivers for growth of e-waste

- More people joining the information society

- Product lifecycles become shorter

- Many designs do not support repair or reuse

Global E-waste Quantities

Source: The Global E-waste Monitor-2017 (UNU, ITU, ISWA)

The Global E-waste Monitor 2017

Quantities, Flows, and Resources
Authored by Baldé, C. P., Forti, V., Gray, V., Kuehr, R., Stegmann, P.

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44.7 Mt
Of e-waste generated in 2016

= **4500 Eiffel Towers**

8.9 Mt

Is documented to be collected and recycled

Municipality
Private collection Companies
collection stores
*for more information see scenario 1
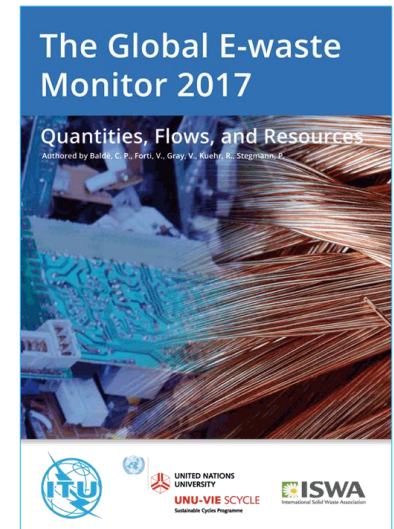
2 Mt

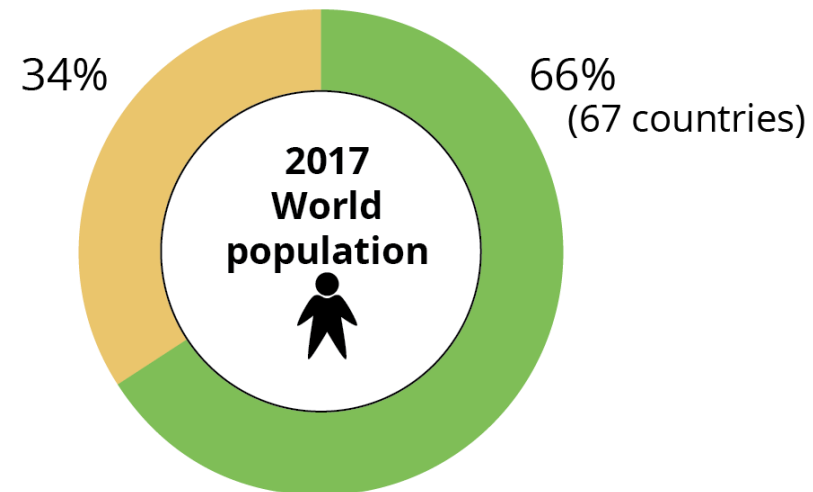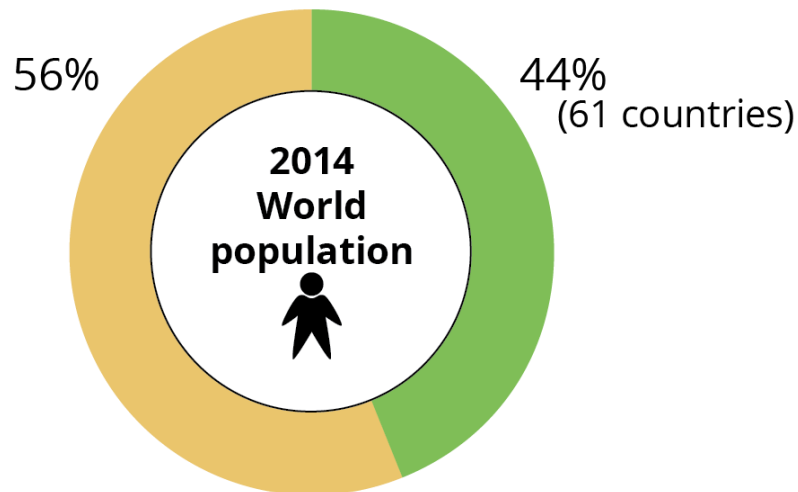**end up in waste bins**

? Outside official take-back systems

1. Collection outside official take-back systems in developed countries is still unknown

2. Transboundary movement is still unknown

3. Informal collection systems in developing countries are still unkown

Legislation

The Global E-waste Monitor 2017

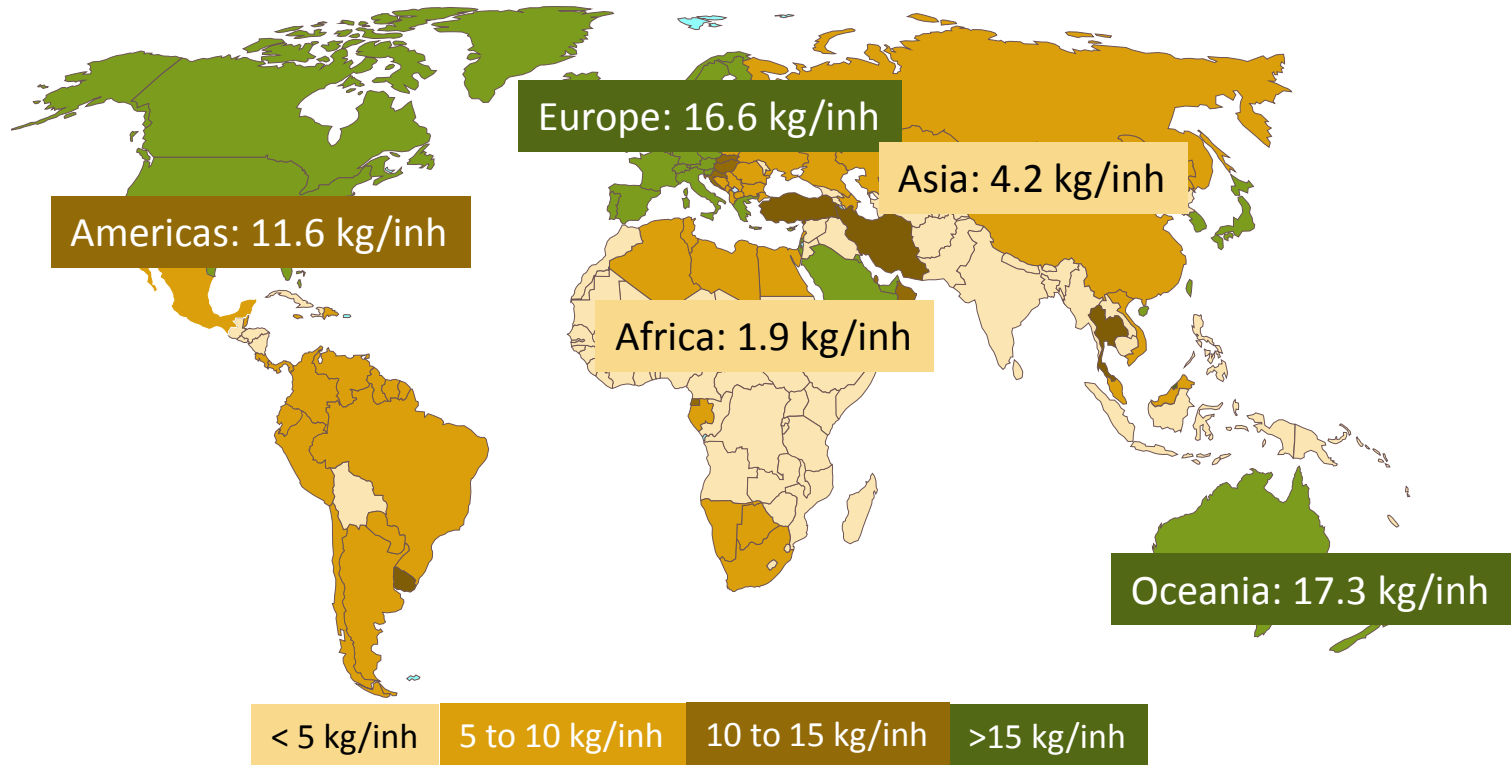Quantities, Flows, and Resources
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- 67 countries have e-waste legislation

■ Covered by legislation
■ Not covered by legislation

56%

44%
(61 countries)

2014 World population

34%

66%
(67 countries)

2017 World population

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Global E-waste Quantities
Source: The Global E-waste Monitor-2017 (UNU, ITU, ISWA)

Europe: 16.6 kg/inh

Asia: 4.2 kg/inh

Americas: 11.6 kg/inh

Africa: 1.9 kg/inh

Oceania: 17.3 kg/inh

< 5 kg/inh   5 to 10 kg/inh   10 to 15 kg/inh   >15 kg/inh

Global E-waste Quantities

Source: The Global E-waste Monitor-2017 (UNU, ITU, ISWA)
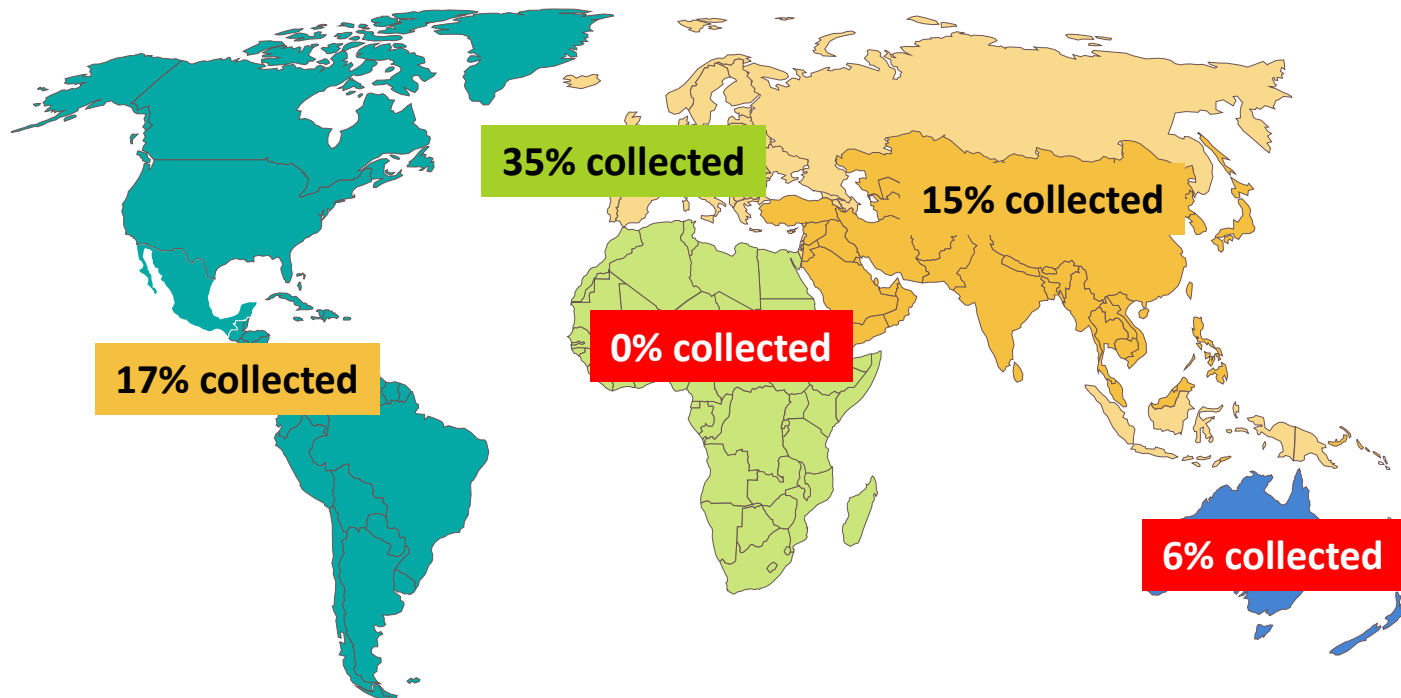
Statistics are not harmonized throughout the countries

Only **41** countries in the world collect international statistics on e-waste

Global Work- Workshops

- **Statistics**
  - November 2017 – Arusha with UNSD
  - April 2018 – Zanzibar with ITU

- **Policy Makers / e-waste management**
  - Several in EU pre 2017 (WEEE Directive)
  - May 2018 in Bangkok
  - Several in Fall 2018+2019 in Latin America

Summary

- E-waste is coming more on the global political agenda

- More countries are developing legislation

- Monitoring of e-waste increasingly important to measure progress
    - Results of the pilots of UNSD/UNECE/OECD have been used in Global E-waste Monitor 2017
    - Addition data was needed (literature research)

- 2018 Data of UNU/UNEP questionnaire used in the Global Monitoring of e-waste in 2019

- Your input is needed to improve data coverage