THIRD DOLOMITE CONFERENCE ON GOVERNANCE OF CLIMATE CHANGE AND SUSTAINABILITY

REDESIGN GREEN POLICIES IN A post 1.5°C WORLD

EFFECTIVE MANAGEMENT OF ELECTRONIC WASTE

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GREEN POLICIES WORLD

TRENTO

17-19.10.2024

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What is WEEE?

WEEE is **waste from electrical and electronic equipment**,
where electrical and electronic equipment is the equipment dependent
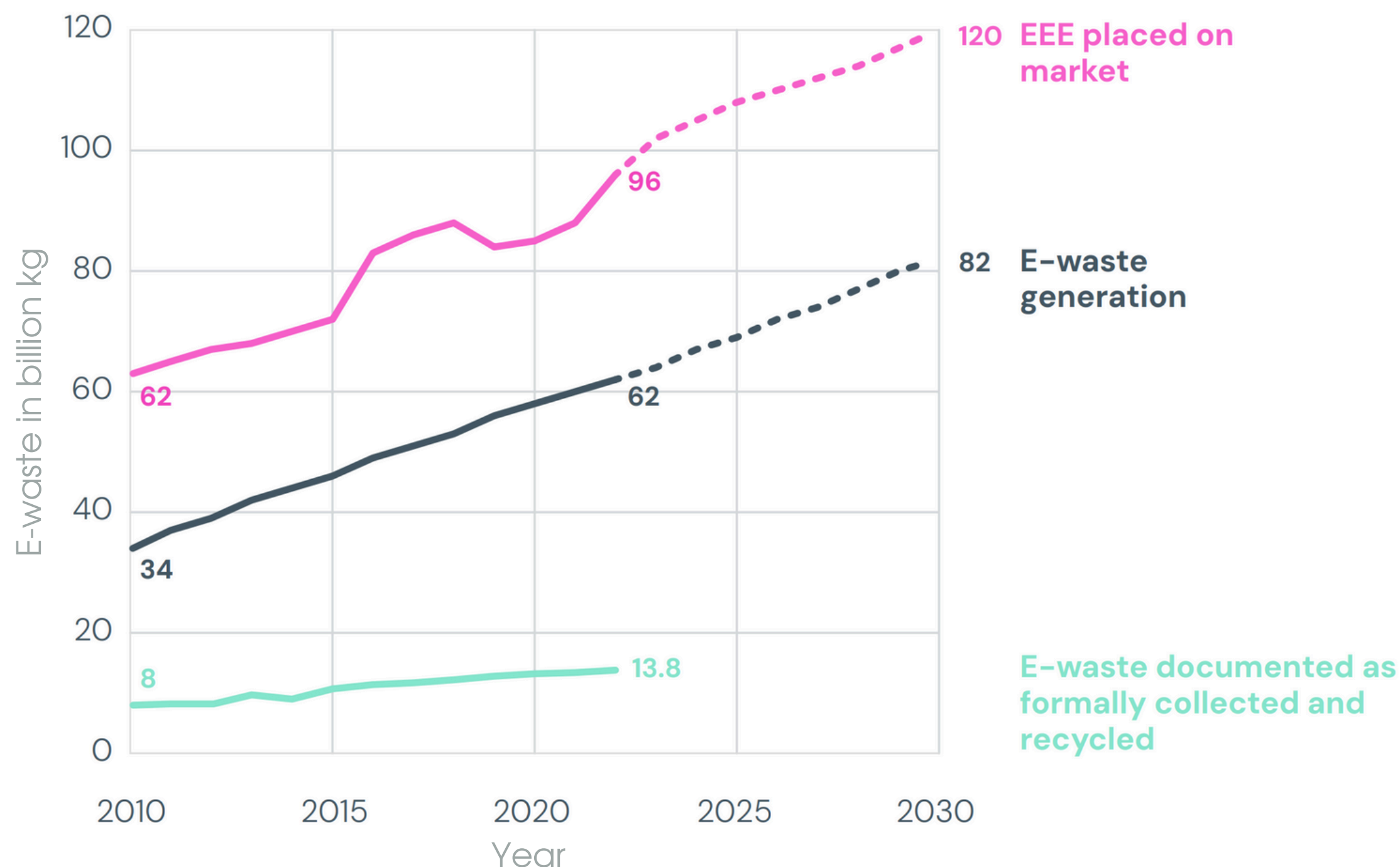on electric currents or electromagnetic fields to work.

EEE becomes WEEE once it has been discarded as waste
with **no intent of reuse**.

UNU-KEYs classification of EEE:

1. Temperature exchange equipment

2. Screen and monitors

3. Lamps

4. Large equipment

5. Small equipment

6. **Small IT and telecommunication equipment**

E-waste: a growing problem

120 — **EEE placed on market**

82 — **E-waste generation**

96

62 (pink, 2010)

62 (dark, start)

34

8

13.8

E-waste documented as formally collected and recycled

Y-axis: E-waste in billion kg

X-axis: Year (2010, 2015, 2020, 2025, 2030)

Source: The Global E-waste Monitor 2024

From 2010 to 2022, the amount of e-waste generated per year worldwide almost **doubled**.

Main reasons:
- technological progress
- increased consumption
- limited repair options
- short lifecycles
- inadequate e-waste management infrastructure

Why Recovering E-Waste is Essential

High ecological footprint:
0.023 gha/ton per year
for each ton of e-waste.

Improper management
leading to
hazardous activities.

Reduce extraction of critical raw materials:

- reduce harmful effect of **mining** (CO_2 & pollutants release, biodiversity loss, land degradation)
- reduce reliance on **imports** from geopolitically unstable countries
- exploit **urban mines**

Our solutions

Deposit Return System
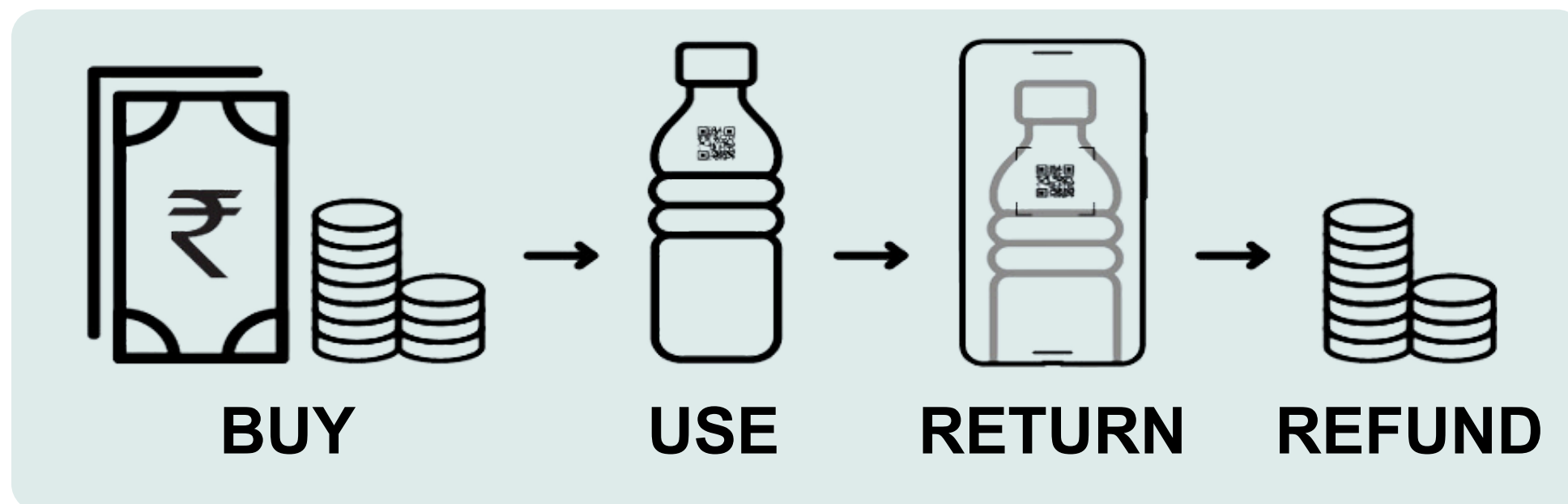
ECODESIGN FOR SUSTAINABLE PRODUCTS REGULATION

Improves product durability, repairability and recycling and introduces a **Digital Product Passport.**

Partnership with repair shops

RIGHT-TO-REPAIR (R2R) DIRECTIVE

Prioritizes **repair over replacement** to reduce waste and support the repair sector.

Deposit Return System

BUY → USE → RETURN → REFUND

WHAT IS DRS?

Incentive scheme that adds a **deposit** to the **purchase price** which is **refunded** when the product is returned for **recycling**.

HOW
Collaboration with local producers and authorities.

WHAT
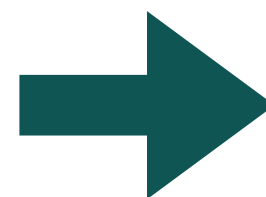Small Electronic Devices

WHERE
Supermarkets and malls

BENEFITS

Effectiveness of the economic incentive

Proper e-waste Collecting

Versatile and innovative system

Digital Passport

Essential tool that **contains the characteristics** of each product, including the allocated deposit.

→

A specific smart bin can autonomously manage e-waste and assign incentives.

DIGITAL PRODUCT PASSPORT
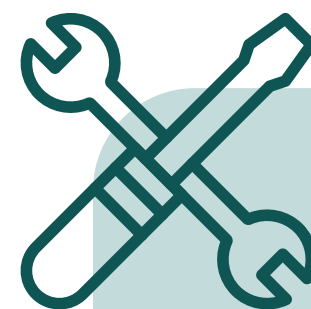
WHY?

Establishing Customized **Deposits**

Keep track into a **database** of all the collected goods

Shared key information between users and producers

Partnerships with Repair Shops

DRS is an effective tool for managing e-waste, but it **doesn't cover products purchased before** the deposit was introduced.

Partnerships with repair shops offer a **complementary solution**, allowing older electronics to be repaired rather than discarded.

Repair before recycle:

By providing **economic incentives** for consumers to **repair and refurbish** their devices instead of buying new ones, we reduce e-waste and **extend the lifespan** of electronics.

DRS scalability in a global perspective

- **Proven Effectiveness:** Following the German and Scandinavian example in plastic bottles collection.

- **Flexibility in each national system:** DRS tailored to fit each legal, cultural, and economic contexts of different countries, but spreading a common vision.

- **Growing Awareness on E-Waste:** Making responsible disposal practices more feasible.

- **Brussel effect:** EU as leader to foster e-waste collection worldwide.

CHALLENGES

| Infrastructure Requirements | Adaptability to Local Organization | Finding the right Deposit amount |

Our manifesto proposal

EFFECTIVE E-WASTE COLLECTION

The Deposit Return System (DRS) allows an effective e-waste collection by incentivizing consumers to act responsibly.

REPAIR BEFORE RECYCLE

Reusable devices are given a second life through partnerships with repair shops, avoiding additional waste.

Thank YOU!

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