

Preparation for Reuse of WEEE

Standardisation and civil society involvement

Lindsey Wuisan

Programme manager Circular Economy

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What is ECOS?

- EU eNGO with 46 member organisations
- Aim to ensure EU & international standards contribute to sustainable development and a circular economy
- Transparency & inclusiveness in standardisation



What is a standard?

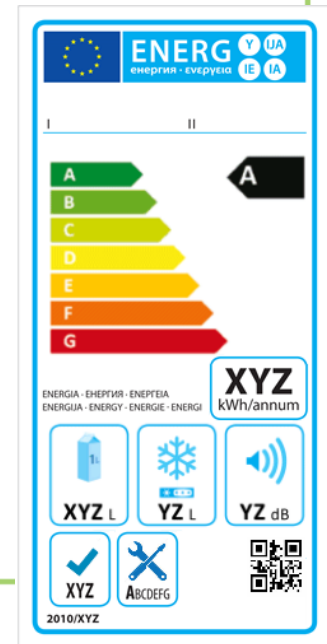
An set of technical or quality requirements for materials, products or services

- Ensure fit for purpose (safe, interoperable etc.)
- Voluntary, but help to prove compliance with the law
- Create a level-playing field and facilitate int. trade
- Based on state-of-the-art knowledge



16 Energy Labels

-175 million tons oil equivalent
~ 9% of EU total energy consumption



Waste Electrical & Electronic Equipment

Household appliances, consumer equipment, photovoltaic panels,
IT & telecom equipment,
lighting equipment, tools

Contain valuable materials but
sometimes also hazardous substances

*How to ensure safe & sustainable
collection, transport and treatment?*

EEE: 7.5 M tonnes.

WEEE: 3.1 M tonnes

(officially reported as collected)



WEEE Directive

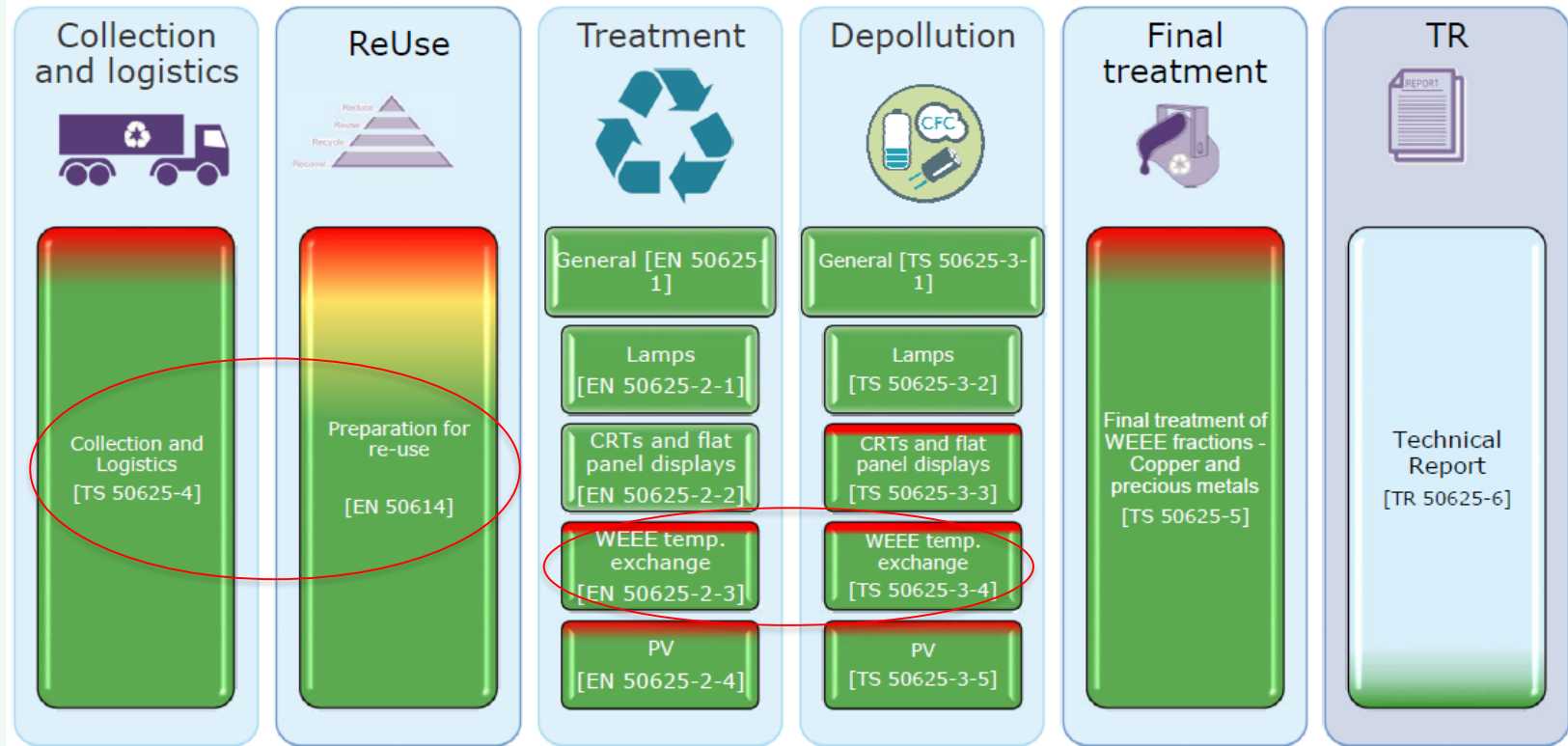
Standardisation request from EC to CEN/CENELEC in 2012 (Article 8.5 of WEEE Directive 2012/19/EU)

Based on WEEELABEX standards

Assist treatment operators in fulfilling the requirements of the WEEE Directive & give additional guidance

SUBJECT	WEEE DIRECTIVE ARTICLES AND ANNEXES	ADDRESSED IN STANDARDS *
Disposal and transport of collected WEEE for proper treatment and preparing for re-use	6.1 and 6.2	✓
Proper treatment	8.1, 8.2 and 8.3	✓
Permits	9.1 and 9.3	✓
Shipments of WEEE	10.2	✓
Recovery targets, calculation method and monitoring	11.1, 11.2, 11.4	✓
Registration, information and reporting	16.4	✓
Inspection and monitoring	23.1	✓
Categories of EEE covered	ANNEX I, ANNEX III	✓
Indicative list of EEE which falls within categories	ANNEX II, ANNEX IV	✓
Minimum recovery targets	ANNEX V	✓
Minimum requirements for shipments	ANNEX VI	✓
Selective treatment for materials and components of WEEE	ANNEX VII	✓
Technical requirements for proper treatment	ANNEX VIII	✓

7 WEEE standards + 8 TS + 1 TR



prEN 50614 **Preparation for reuse standard**

Actors involved

Technical Committee 111x

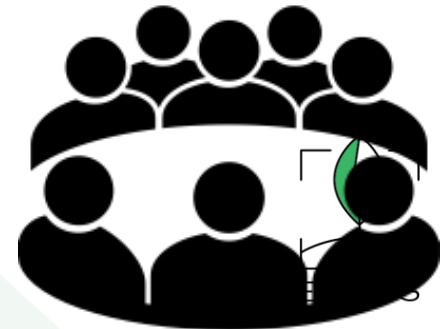
National delegation principle

Working Groups

Mainly experts from national committees, manufacturers, producer federations, logistical operators, recyclers, consultants/auditors, only some reuse operators (+/- 25%)



*Imbalance of representation in the standardisation process
favoring product manufacturers*



Opinion of ECOS & RREUSE on EN 50614

Obstacles for (preparation for) reuse operators

Documentation requirements for PfR operators → administrative burden, lack of access to information

References to TS 50625-4 on collection & logistics (and other standards) → inadequate requirements (e.g. weatherproof covering)

Increased costs



Future outlook

- Voluntary but presumption of conformity
- WEEELABEX certification / CLC standards legally required in BE, FR, NL, IRE & SLO
- EC may adopt minimum quality standards based on the standards in the future



Case study: Netherlands (BKN)



Importance of civil society involvement

Wider perspective to ensure standards benefit society & the environment

- Make sure the waste hierarchy is followed
- Incorporate views from reuse operators
- Policymakers of EC adopted our concerns!
- Impact assessment & cost-benefit analysis before making standards mandatory



What can YOU do?

- *Public authorities & producer schemes*: provide guidance & (operational/financial) support to reuse operators
- *Manufacturers*: provide information free of charge
- *Reuse operators & NGOs*: monitor issues at national level → report to ECOS/RREUSE, provide feedback to national standardisation body
- Provide input for revision (every 3-5 years)



Other relevant standards

Within the scope of the Ecodesign and Energy Labelling framework

prEN 45552

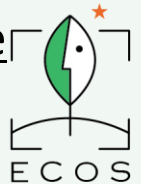
General method for the assessment of the durability of energy-related products (ErP)

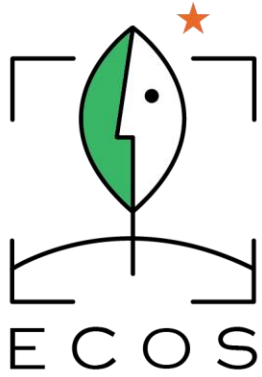
prEN 45553

General method for the assessment of the ability to remanufacture ErP

prEN 45554

General methodology for the assessment of the ability to repair, reuse and upgrade energy-related products





Lindsey Wuisan

Mundo B, Rue d'Edimbourg 26
1050 Brussels, Belgium

lindsey.wuisan@ecostandard.org

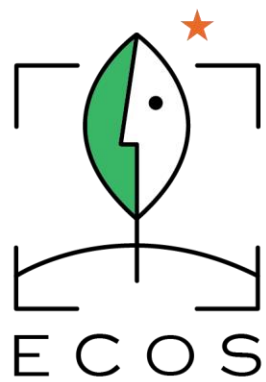
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ECOS-EU



Our approach



Reduce
Environmental
Footprint

**Green
products**

non-toxic,
long-life,
recyclable

**Cleaner
production**

using fewer
resources

**Circular
Economy**

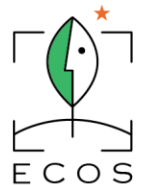
**Recycle
waste, reuse
resources**

**Better service
to extend
lifespan**

Minimize
Waste

**Collect at
end-of-life,
remanufacture**

Reduce
Resource
Dependency



Definitions

Preparation for reuse

Checking, cleaning, testing & repairing operations, by which products or components of products that have become waste are prepared so that they can be re-used (*by a person other than its previous owner or user*) without any other pre-processing

Reuse

Any operation by which products or components that are not waste are used again for the same purpose for which they were conceived



Example: Fridges

*19 million cooling and freezing appliances discarded in Europe every year have a greenhouse warming potential of up to **26 million tonnes of CO₂***

TS 50625-4

Specification for the collection and logistics associated with WEEE

prEN 50614 (2019)
Preparation for reuse

EN 50625-2-3 (2017)

Treatment requirements for temperature exchange equipment

TS 50625-3-4 (2017)

Specification for de-pollution of temperature exchange equipment

Metal, Plastic and Glass

Casing/Shell
Metal
Plastic
Glass

CFC-11

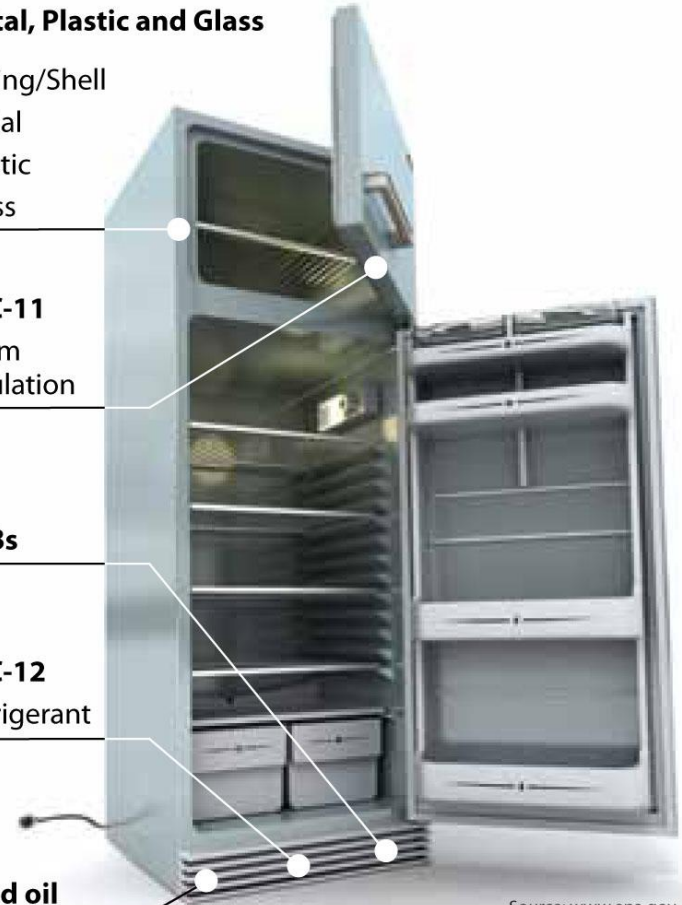
Foam
Insulation

PCBs

CFC-12

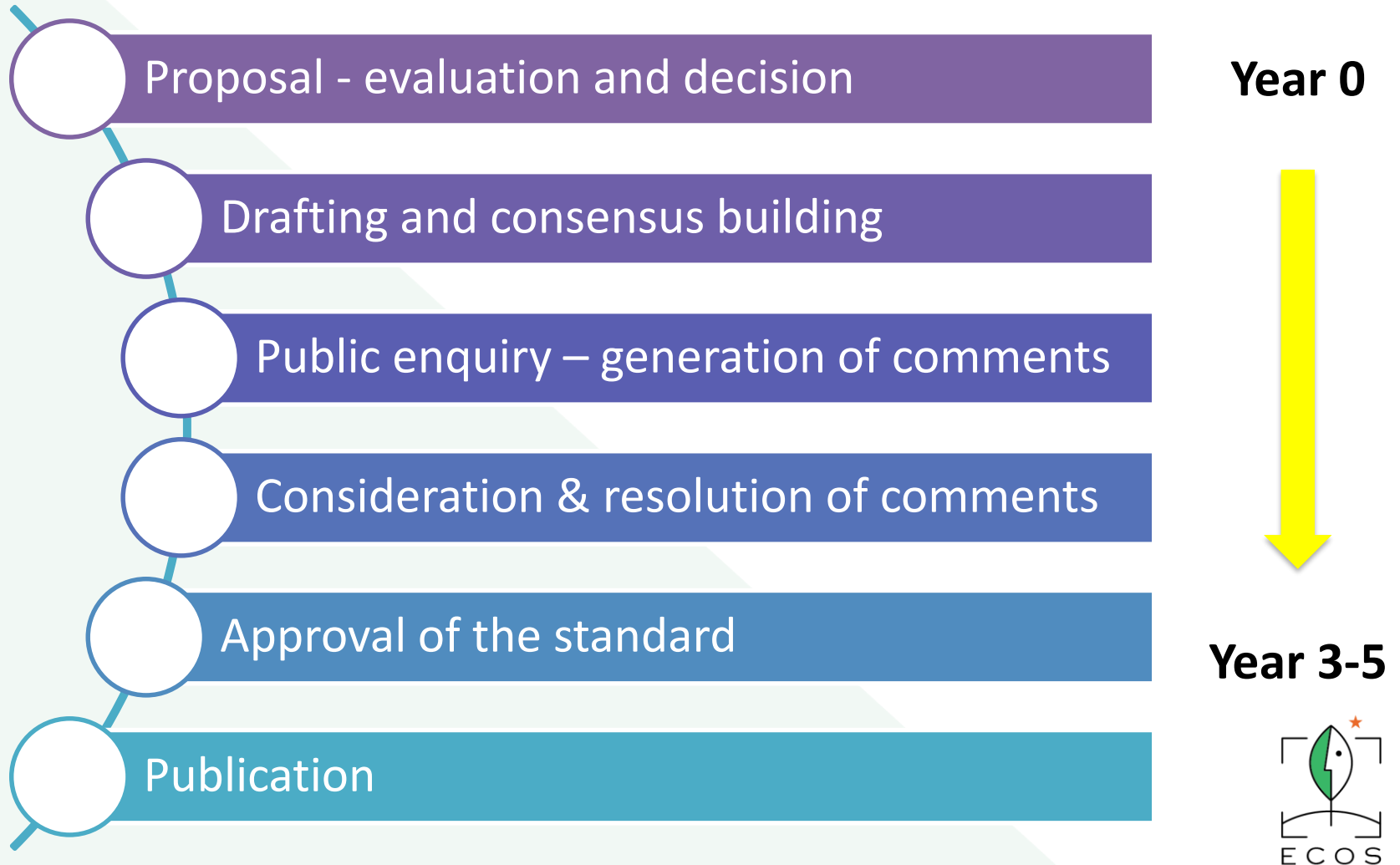
Refrigerant

Used oil



Source: www.epa.gov

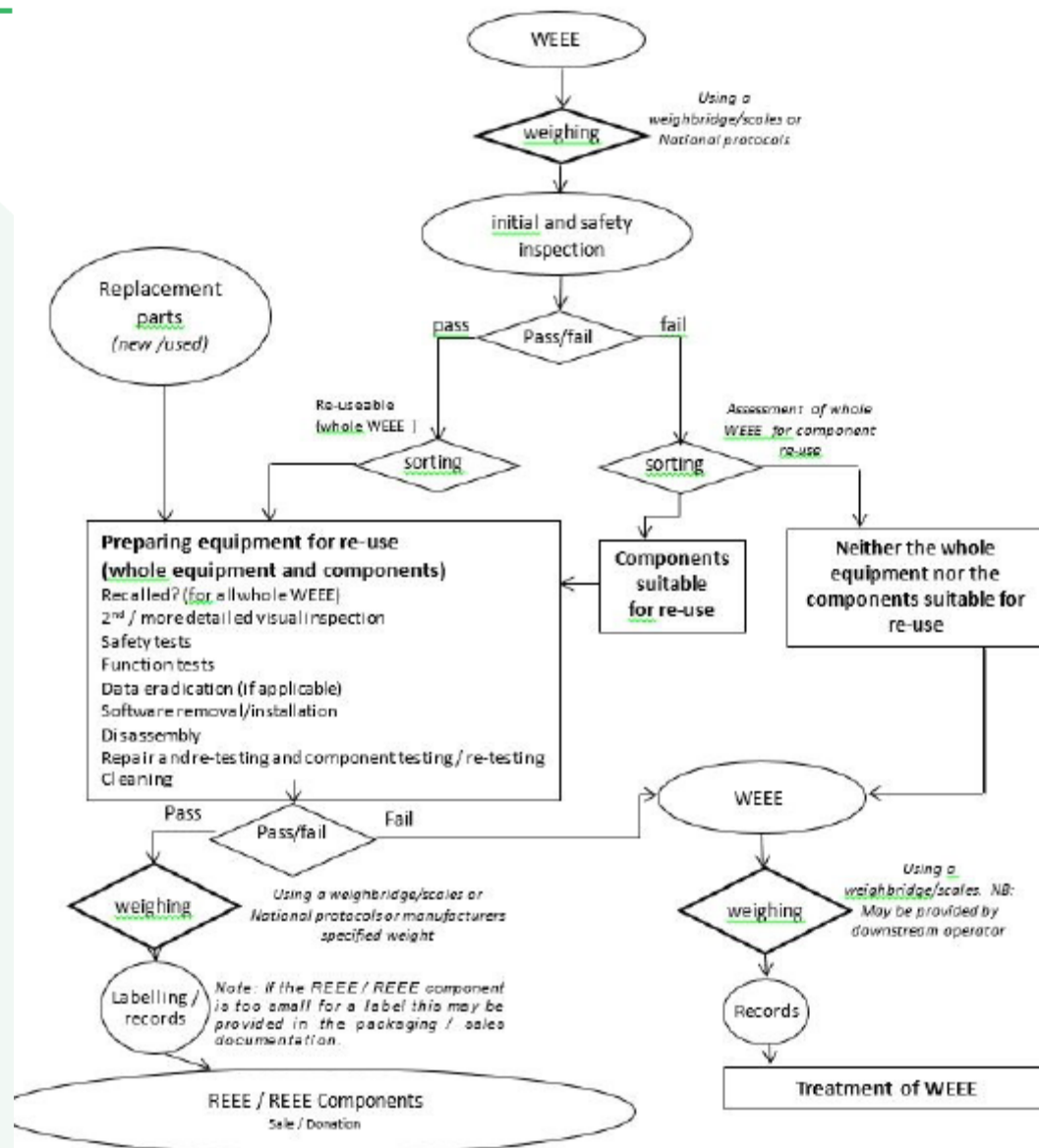
Standardisation Process



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An overview of the preparing for re-use process

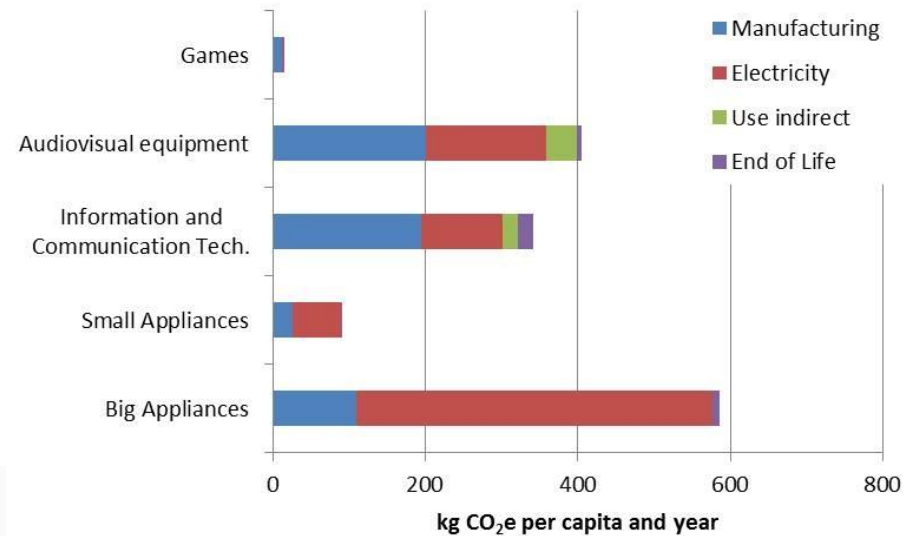


Further recommendations

- Preparation for reuse target in WEEE
- EoW criteria for WEEE (national level)
- Fiscal and legal support measures for (prep. for) reuse
- Partnerships with collection & logistics operators and operators who prepare waste electronics for re-use



Environmental impacts of WEEE



- 31.1 g Aluminium
- 19.9 g Carbon
- 18.7 g Oxygen
- 18.6 g Iron
- 8.1 g Silicon
- 7.8 g Copper
- 6.6 g Cobalt
- 5.5 g Hydrogen
- 4.9 g Chrome
- 4.9 g Others
- 2.7 g Nickel
- 129.0 g Total



@StatistaCharts Source: 911 Metallurgist

