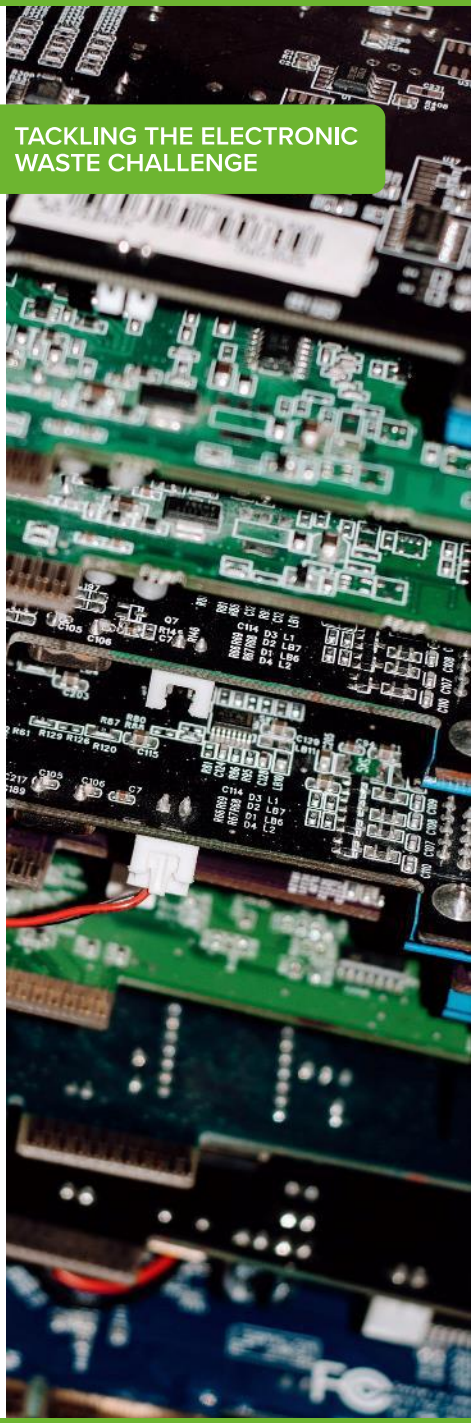
TACKLING THE ELECTRONIC WASTE CHALLENGE

IMPLEMENTING THE EPR PRINCIPLE

MEETMED, 1 JULY 2024

TACKLING THE ELECTRONIC WASTE CHALLENGE



WHO ARE WEEE?

THE WEEE FORUM IN THE WORLD

Fifty-two producer responsibility organisations

52

Not-for profit Producer Responsibility Organisations, controlled, owned or mandated by producers of electrical and electronic equipment, that responsibly manage collection and recycling of yearly 3,100,000 tonnes of e-waste on all five continents.

Created with mapchart.net

OUR WHY


E-waste is the fastest growing waste stream in the world
Global e-waste generated is projected to reach
74.7 million tonnes
by 2030
=
7390
Eiffel Towers
International E-Waste Day
weeeforum


Attic:
1.0 Central Heating/ boiler
0.03 Sunbeds
2 Other Lamps
1 Energy saving lamp
2 TL lamps
3 Luminaires
Work/ hobby room
6.0 Mice, keyboards, external drives, etc.
0.8 Desktops
0.8 Laptops/tablets
1.1 Printers
1.4 Phone sets
3.5 Mobile phones
0.4 CRT Monitors
0.7 LCD Monitors
1.1 Cameras
2 Other lamps
1 Energy saving lamps
3 Luminaires
0.2 Exercise equipment
Bed room
0.9 CRT TVs
2 Other lamps
1 Energy saving lamps
3 Luminaires
1 Smoke alarm
Kids room
2 Other lamps
1 Energy saving lamp
3 Luminaires
5.2 Electr. Toys
0.5 Game Consoles
0.7 Smoke alarms
Bath room
5.9 Shavers, elec. toothbrushes hairfohns, etc.
2 Other lamps
1 Energy saving lamps
3 Luminaires
1.3 Thermometers/ bloodpressure meters
Living room
0.07 Aircons
5 Small households appliances: Clocks, adapters, chargers, etc.
2.2 Remote Controls, headphones, etc.
2.2 Radio's/Mp3
4.0 Audio/HiFi compon.
1.9 DVD/ VCRs
2.3 Speaker sets
0.9 LCD TV's
4 Other lamps
2 Energy saving lamps
6 Luminaires
Kitchen
0.6 Dishwashers
0.8 Ovens/furnaces
1.1 Ventilators/ hoods
1.0 Magnetrons
1.4 Fridges
0.1 Icemakers, etc.
6.8 Small kitchen appliances: Blenders, mixers, frying pans, cooking plates, grills, toasters, etc.
2.0 Coffee/ watercookers
2 Other lamps
1 Energy saving lamp
3 Luminaires
Scullery
1.0 Washing mach.
0.6 Dryers
0.6 Freezers
3.9 Irons, scales, adapters, etc.
1.6 Vac. cleaners
2.8 TL lamps
Garden/garage
2.2 Other lamps
3.7 Energy sav. lamps
3.2 Luminaires
6.6 Drills, lawn mowers, saws, hedges, high pressure cleaners, etc.


#DYK the most unused, hoarded electronic item is a mobile phone?
IN FRANCE:
up to 113 million unused phones sleep in drawers
+ 2/3 are still functional!
Sources: Soffex
International E-Waste Day
Pass it on!
weeeforum


#DYK your smartphone is a gold mine?
Al
Glass
Sn
Screen
C
Casing
Electronics
Cu
Au
Ag
Battery
Li
Co
* Over 40 elements can be found in a smartphone, 1/3 of those in Mendeleev's periodic table!
Source: Compoundchem.com
International E-Waste Day
Pass it on!
weeeforum

OUR WHY

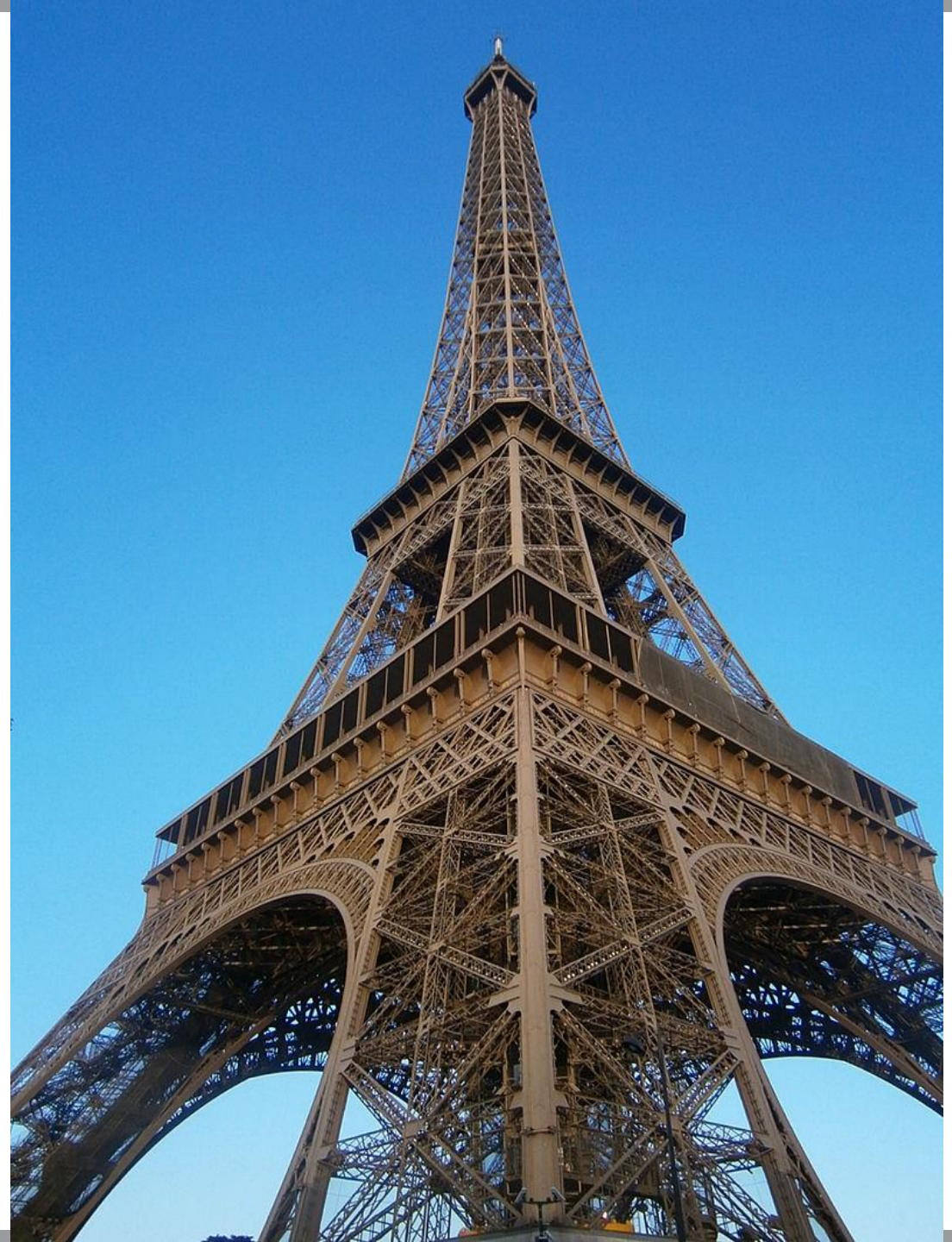
To make the world more sustainable through responsible and circular management of end-of-use electrical products.

HOW

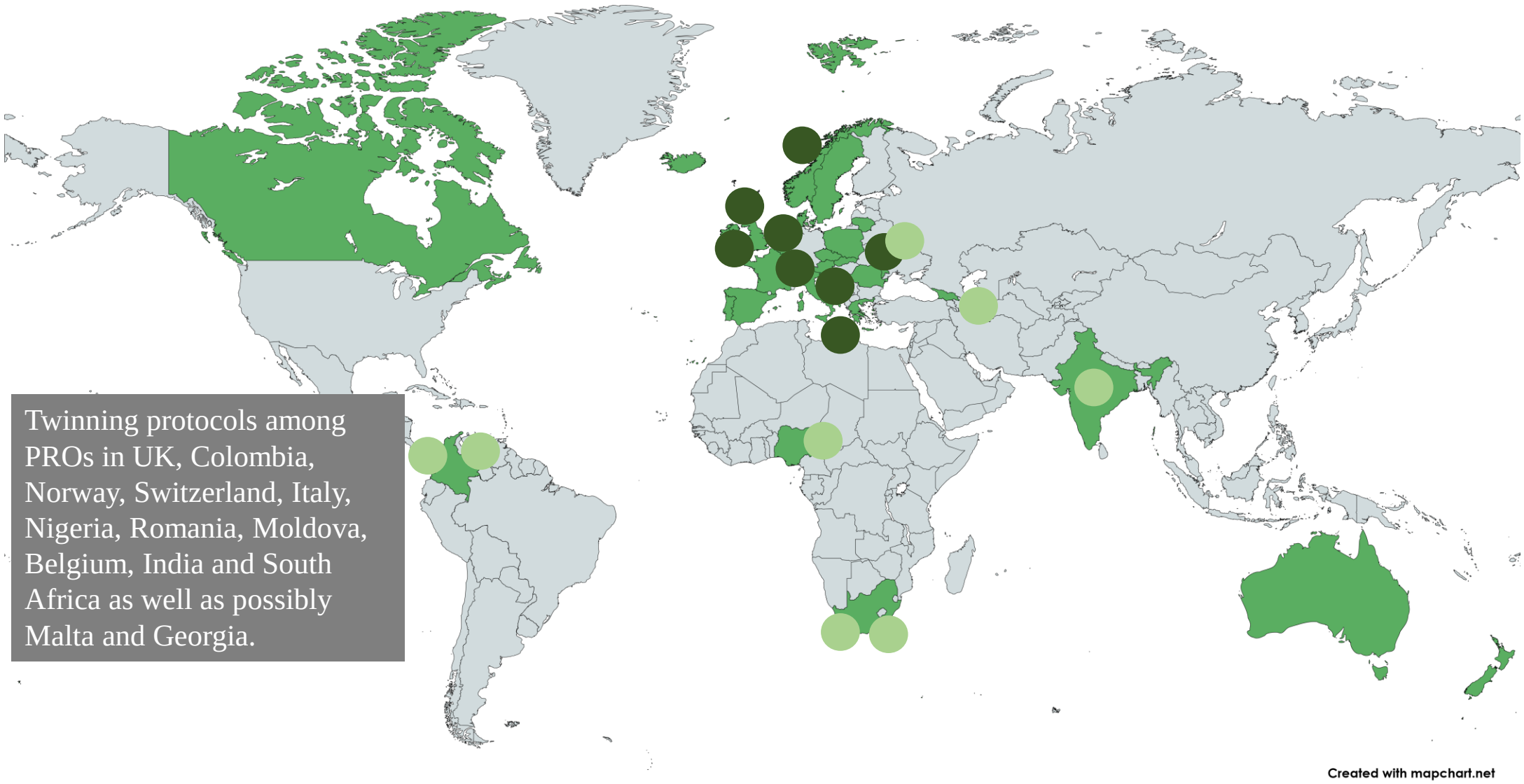
To make the world more sustainable through responsible and circular management of end-of-use electrical products.

40 MILLION TONNES

Last year, the PROs in the WEEE Forum collected 3,100,000 tonnes of e-waste, the equivalent of 310 Eiffel Towers. Over the past twenty years, they collectively managed close to 40,000,000 tonnes.



TWINNING



Twinning protocols among PROs in UK, Colombia, Norway, Switzerland, Italy, Nigeria, Romania, Moldova, Belgium, India and South Africa as well as possibly Malta and Georgia.

THE PRINCIPLES WE FIGHT FOR

A level playing field and a high environmental bar

A level playing field

A high environmental bar

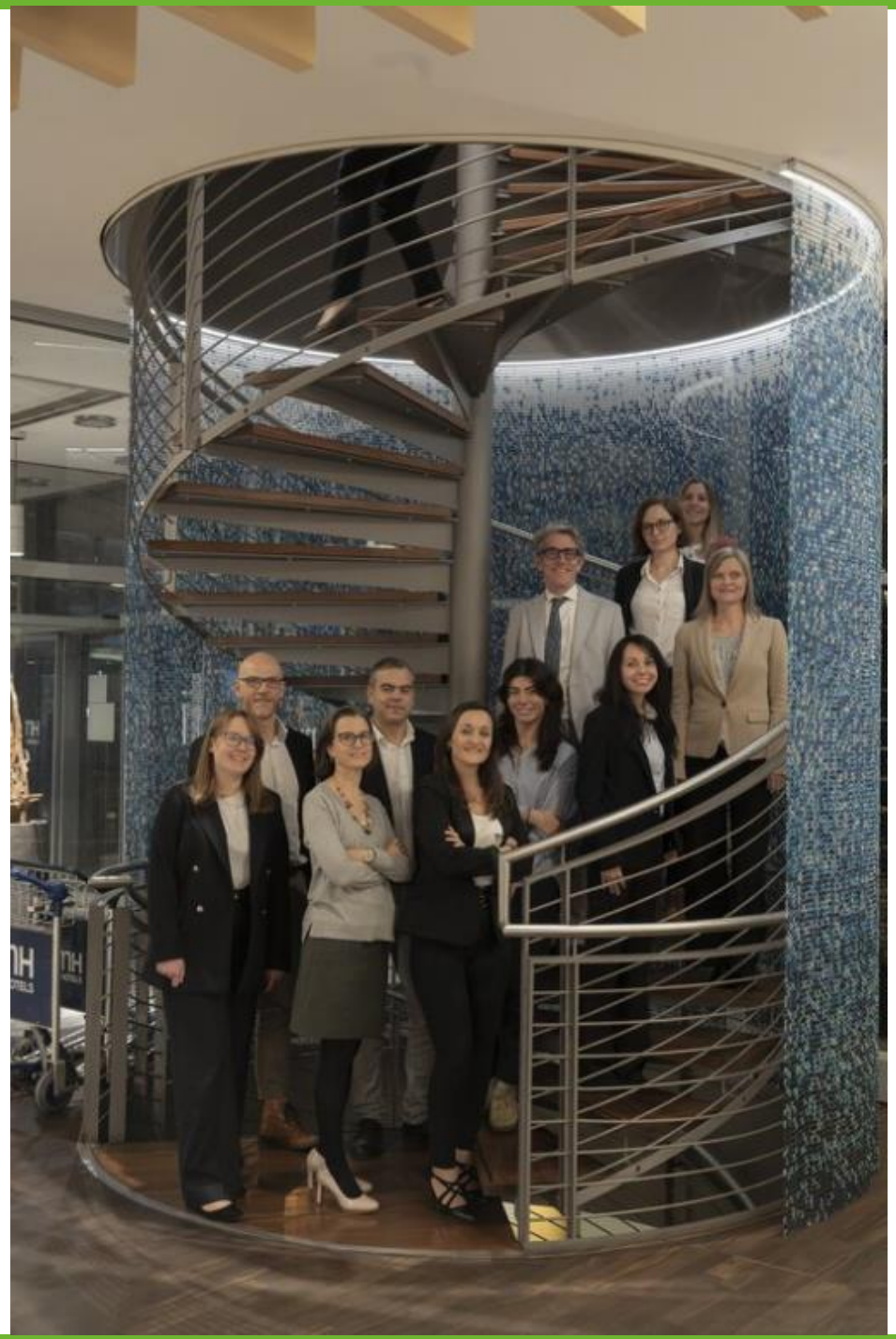
THE MEMBERS

Responsibly managing collection of e-waste

THE TEAM

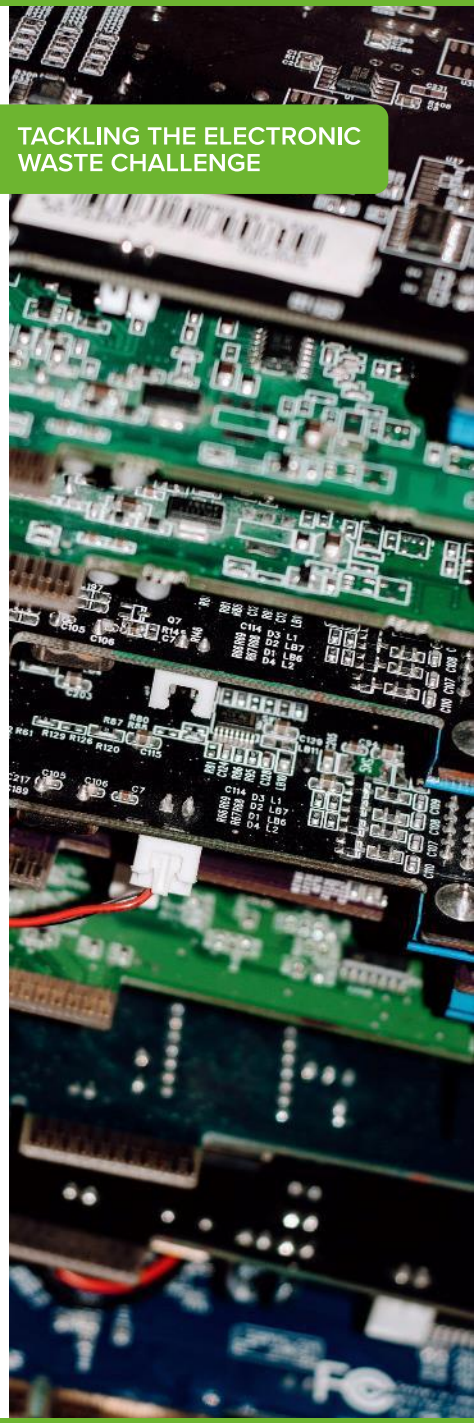
The WEEE Forum's main asset

Mandana, Lucía, Nanett, James, Dimitris, María, Michelle, Enikő, Magdalena, Sophie and Pascal

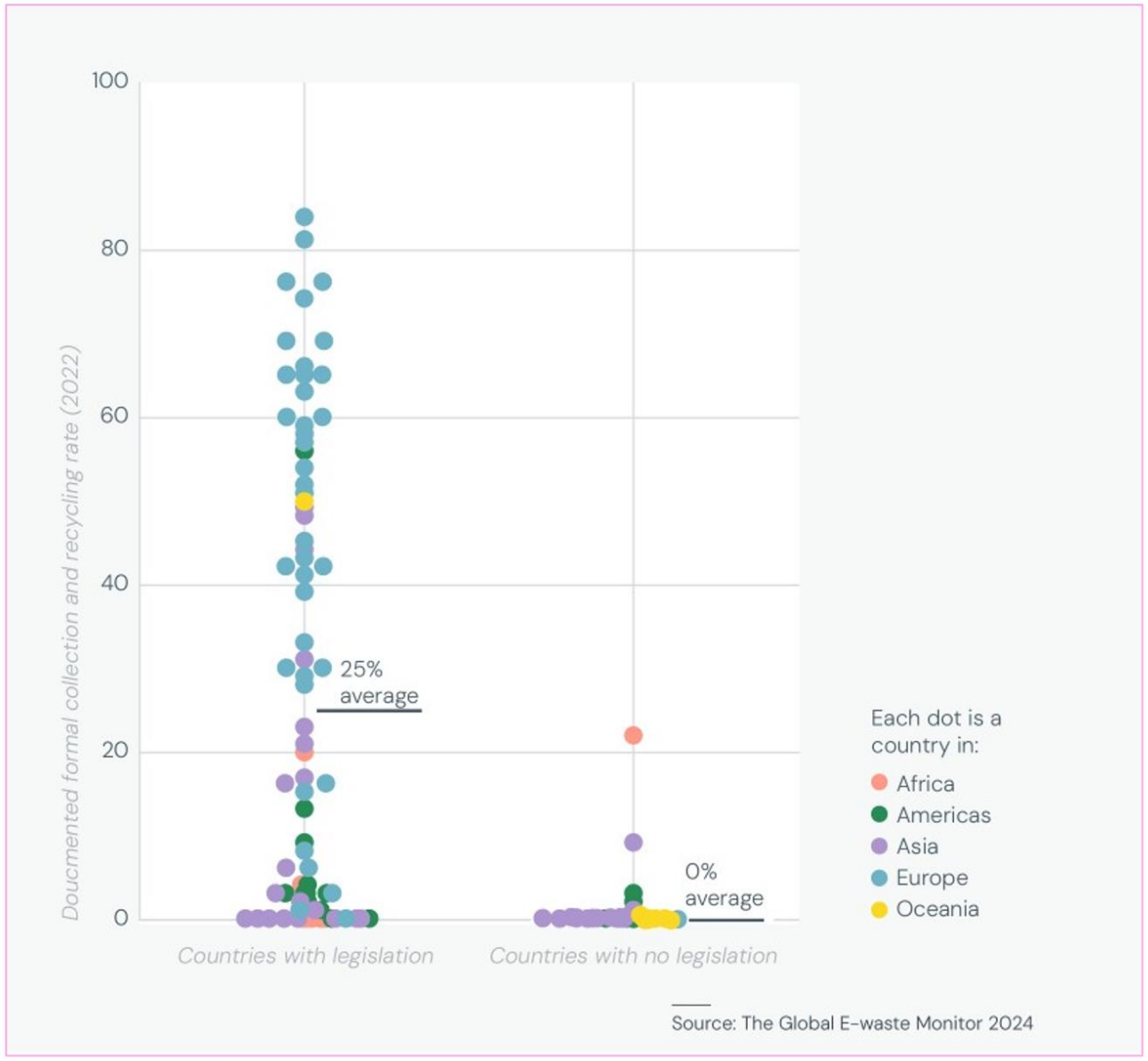


TACKLING THE ELECTRONIC WASTE CHALLENGE

STRENGTHS & WEAKNESSES OF EPR IN WEEE LEGISLATION



LEGISLATION IS A CONDITIO SINE QUA NON



Countries with legislation achieved a collection rate of 25% on average. The countries with no legislation had practically zero documented collection and recycling.

WHAT IS EXTENDED PRODUCER RESPONSIBILITY

The OECD's definition

An environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle.

An EPR policy is characterised by

– the shifting of responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities; and
– the provision of incentives to producers to account for environmental considerations when designing their products.

While other policy instruments tend to target a single point in the chain, EPR seeks to integrate signals related to the environmental characteristics of products and production processes throughout the product chain.

STRENGTHS AND WEAKNESSES OF EPR PRINCIPLE

Twenty years of EPR in WEEE legislation in Europe

Strengths

- Creation of the world's most extensive ecosystem of technologies, institutions, rules and practices
- Environmental standards have gone up
- Manufacturers bear most of the costs
- Distributors play a key role
- Awareness has gone up

Weaknesses

- 45% of WEEE remains unaccounted for
- Free-riding, both upstream and downstream
- Standards not legally binding
- Little prevention of irresponsible actions
- Collection target not fit for purpose
- No material-based targets
- No levers for circularity
- Scope for more awareness remains
- Ineffective in mitigating amount of WEEE generated

TWENTY YEARS

The world's most extensive ecosystem

2003	2024
No national WEEE registers	90,000 producers registered
Few PROs	More than190 PROs
Incipient legal framework	WEEE legislation across EU
No clearing houses	Clearing houses in eight states
Few WEEE statistics	Eurostat and Key Figures
Little market intelligence	WEEE flows studies

AWARENESS AND IMPACT ON THE GROUND

NOT 'EXCLUSIVE' PRODUCER RESPONSIBILITY

The minimum collection rate cannot be met by producers or PROs alone

- Many Member States have appointed PROs and producers as the only actors that can effectively contribute to the attainment of the collection targets.
  - It does not account for the fact that PROs and producers do not have the levers to access all WEEE
  - Some Member States have imposed penalties on PROs for not attaining the targets

- PROs in the WEEE Forum are willing to collect 100% of WEEE that is available for collection

CIRCULARITY CALLS FOR COLLABORATION

The importance of collective, collaborative action and good governance

The #allactors principle means that all entities that have access to e-waste sit around the table, are subject to minimum legal obligations and actively collaborate towards responsible operations.

Updated mapping of collection practices; technical and financial role of each actor involved in each pilot, factors that affect the collection rate.

ECOSWEEE
Enhancing collection of small W/EEE and batteries

OTHER FACTORS THAT AFFECT COLLECTION RATE

Improve collection rate by requiring #allactors to report, handover of WEEE to official EPR entities (PROs), targeted enforcement and compliance and co-ordination body, e.g. clearing house. The DPP will be a tool to make this happen.

Chapter 4.

Analysis of factors affecting WEEE collection

In-depth-review_WEEE-Collection-Targets-and-Rates_UNITAR_2020_Final.pdf (weee-forum.org)

Table 3

Overview of implementation models for selected countries

Country	EEE POM Target Method	Substantiated Estimates	All Actors Approach	Mandatory Handover	Clearing House
BEL	x		x	partial	
CHE	x		x		
CYP	x		x		
FRA	x			x	x (b2c only)
GBR	x	x			
GRC	x		x	x	
IRL	x		x	x	
ITA	x		x		x
MLT	x				
NLD	x		x	x	x (partial and private)*
ESP	x	x	x		x (private) *
PRT	x	x			x
ROU	x			x	

* Private means that it has been established among several collective PROs, and there is no involvement of government or authorities. All of them are controlled, financed, and coordinated by PROs.

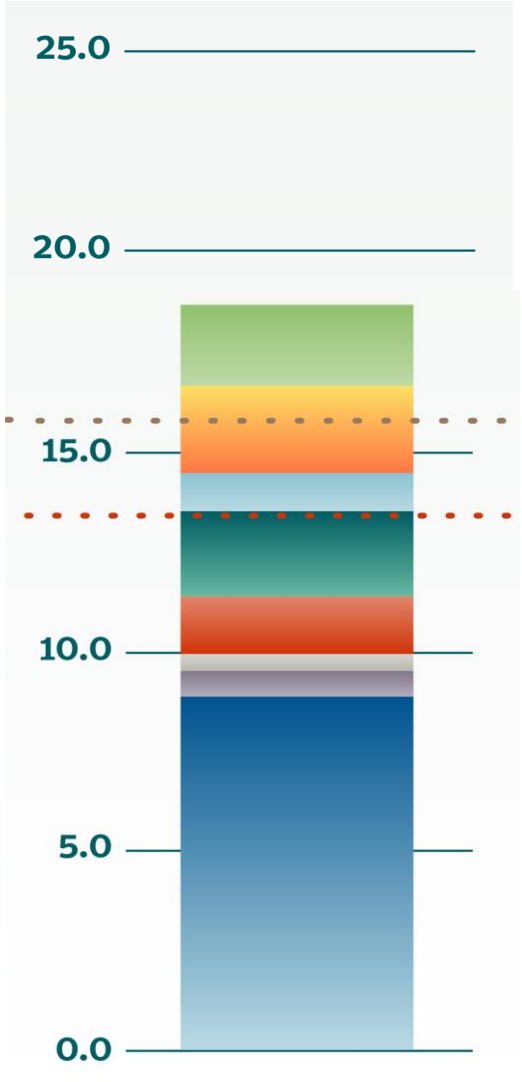
…45% OF WEEE REMAINS UNACCOUNTED FOR

The role of transparency and traceability in mapping WEEE flows and #allactors

55% of WEEE is reported as officially collected, 20% in other WEEE flows, and 25% unknown

WEEE Generated target

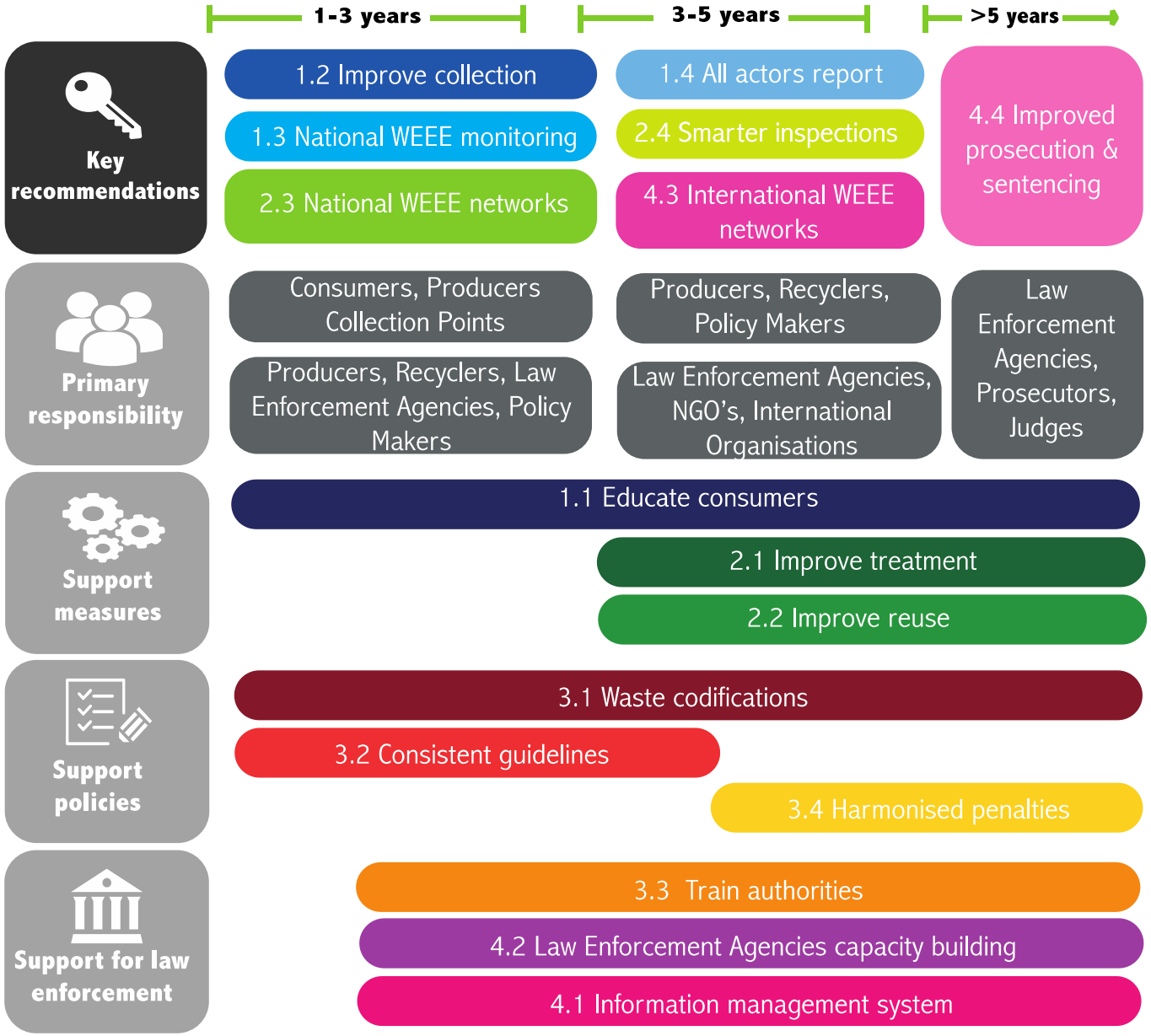
‘Placed on market’ target



MINIMUM COLLECTION RATES

Multiple ideas around minimum collection rate methodologies

- X kilogram/inhabitant/annum
- Mix of different types of targets (see Colombia)
- Percentage of placed on market in x preceding years
- Percentage of placed on market in x preceding years, varying according to product category
- Percentage of WEEE that arises



Countering WEEE Illegal Trade

- The world’s most extensive and advanced eco-system of practices, institutions and technologies
- Extended Producer Responsibility, not Exclusive Producer Responsibility
- #allactors
- Circularity
- Inspection of leakages
- Beyond weight-based targets
- Critical Raw Materials
- Stable financing of the EPR scheme
- Enforcement and market surveillance

weeeforum

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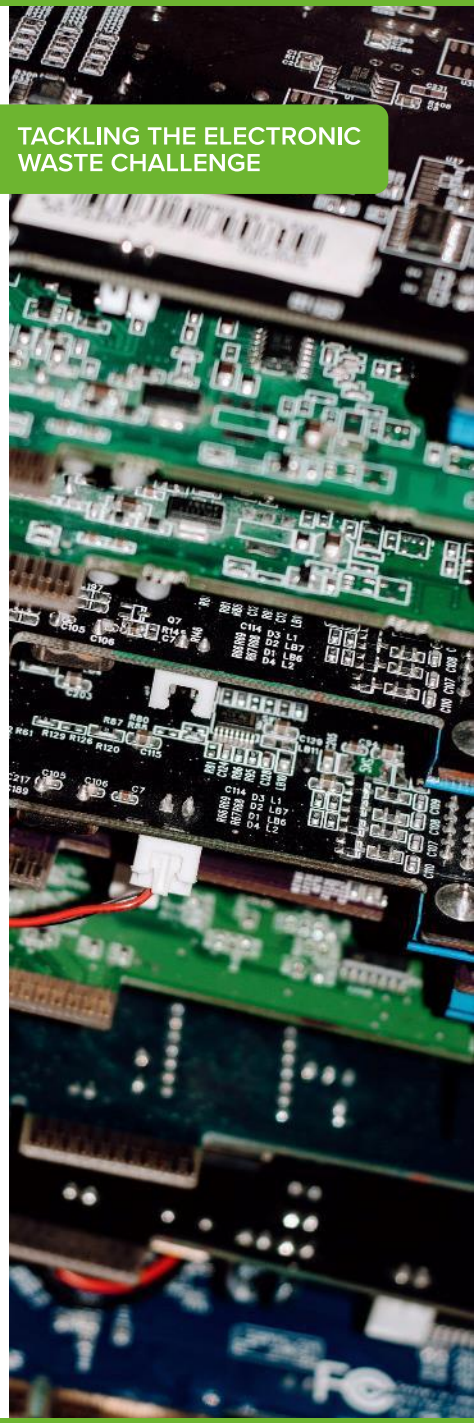
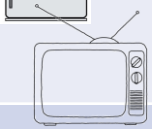


TRANSPARENCY IN WASTE MANAGEMENT REPORTING

wf-reptool.2

TRANSPARENCY IN WASTE MANAGEMENT REPORTING

Downstream monitoring, calculation of recycling rates

Category	Recycling/Reuse	Recovery
1, 4 	80%	85%
2 	70%	80%
5, 6 	55%	75%
3	80%	-

PROs are required to submit information on recycling rates of WEEE they collect.

WF-RepTool provides for harmonised recycling rates calculation method and downstream monitoring (destination, output fractions, technology, depollution, SRM, audits).

%

wf-reptool.2

SECONDARY CRITICAL RAW MATERIALS

FutuRaM project and CRM Act

Develop a Secondary Raw Materials knowledge base on the availability and recoverability of SRMs in the EU.

Special focus on Critical Raw Materials.

Enable decision making for the recovery and use of SRMs within and outside the EU.

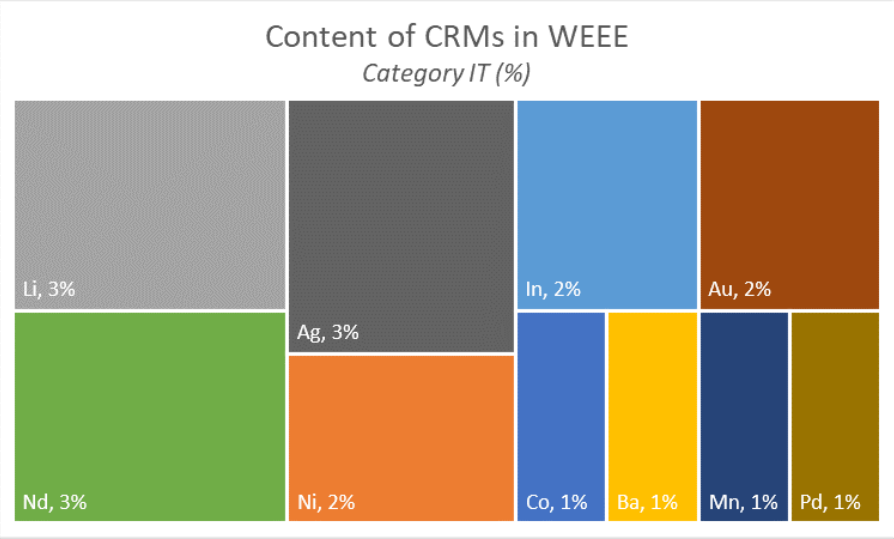
CRM Act: "(…) Member States shall identify separately, and report, the quantities of components containing relevant amounts of critical raw materials removed from WEEE, and the quantities of critical raw materials recovered from the WEEE. The Commission shall adopt implementing acts specifying the format and details of such reporting (…)"

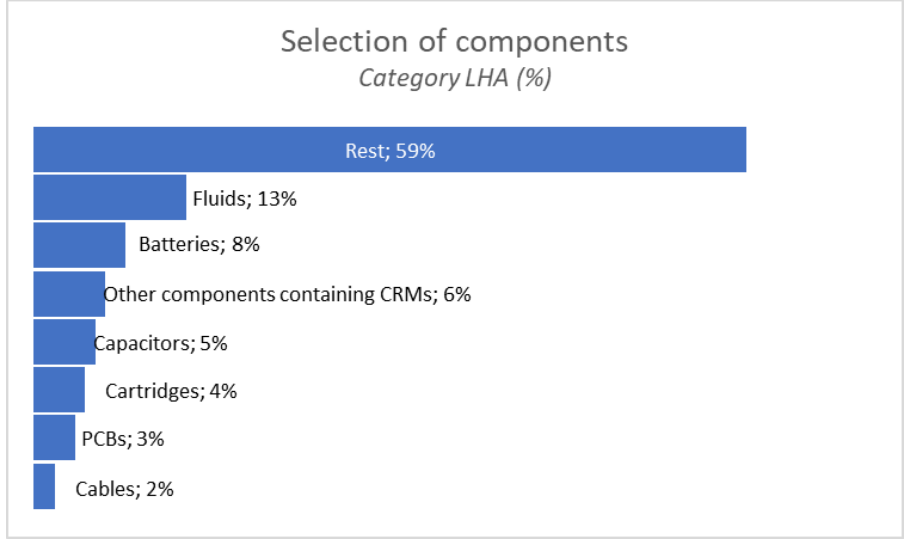
Report removal of components containing CRMs from WEEE

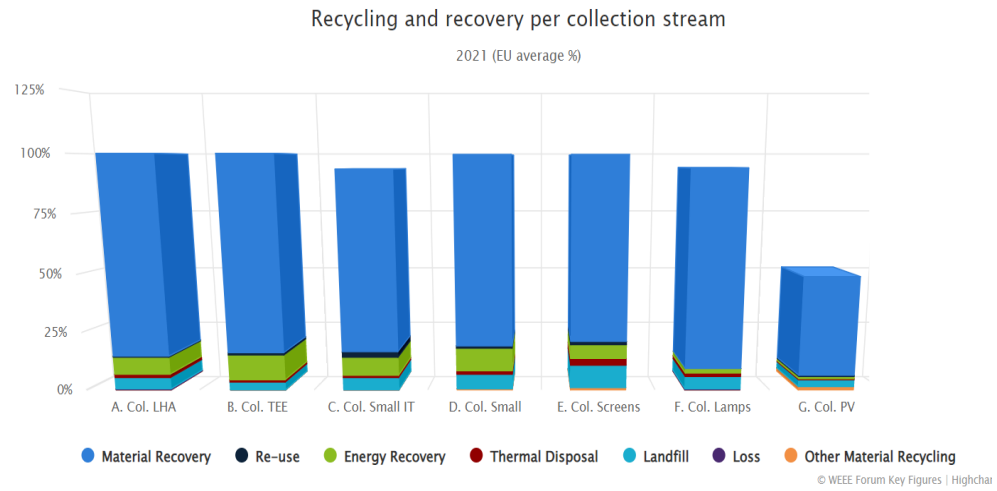
Report recovery of CRM from WEEE

SECONDARY CRITICAL RAW MATERIALS

The data that WF-RepTool.2 will allow you to report







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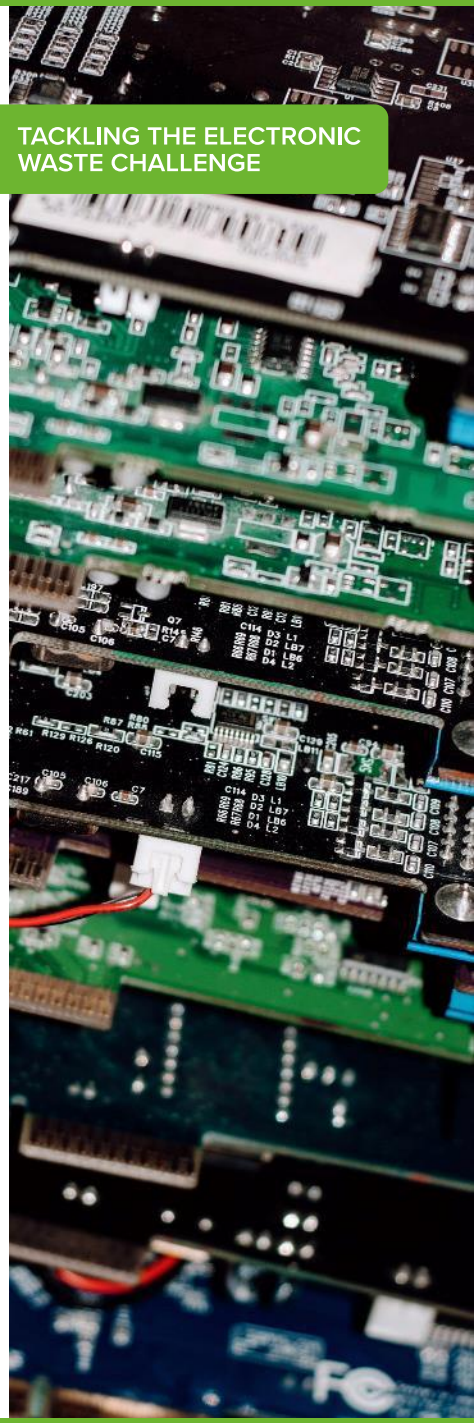

FUTURE-ORIENTED GRANT-FUNDED PROJECTS

GRANT-FUNDED PROJECTS THROUGHOUT THE YEARS

Obtained an award, also based on our policy recommendations

COLLECTORS
WASTE COLLECTION SYSTEMS ASSESSED AND GOOD PRACTICES IDENTIFIED

LibraWEEE and WEEE Directory, tangible research tools

Digital Product Passport in response to Eco-design Regulation and CRM Act

Circ Thread

Access to CRM team in European Commission; Adaptation of WF-RepTool in response to CRM Act

Futu RaM
Future availability of secondary raw materials

Mapping of technologies designed for treatment of flat panel displays – ReVolv is continued at the WG Screens

ReVolv

CRM standards & certification relevant for CRM Act

CEWASTE
Voluntary certification scheme for waste treatment

Learning how to manage new scope products such as vapes

Digital Health in the Circular Economy

Technological innovation to counter fires associated with batteries in WEEE

GRINNER

Data about average weight, lifespans, composition, waste flows; knowledge for CRM Act

ProSUM
Prospecting Secondary raw materials in the Urban mine and Mining wastes

Circular business models affecting collection

SERVEES
Activating Circular Services in the Electric and Electronic Sector

Developing technologies recovery of CRM

WEEE NET9

DPP in response to CRM Act

CE-RISE

WEEELABEX standards, audit tools, certification…

weeelabex

Allowed us to raise statistics quality issue

ORAMA
Optimising quality of information in RAw MAterials data collection across Europe

Updated mapping of collection practices; timely & targeted impact on WEEE evaluation; offer knowledge for CRM Act

ECOSWEEE
Enhancing collection of small W/EEE and batteries

GRANT-FUNDED PROJECTS IN 2023

Digital Product Passport in response to Eco-design Regulation and CRM Act

Circ Thread

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Thank you!

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