

## **WEEE Producer Responsibility**

Supporting Irelands transition to a circular economy

Elizabeth O'Reilly, Head of Environmental Compliance







## The E-Waste Challenge

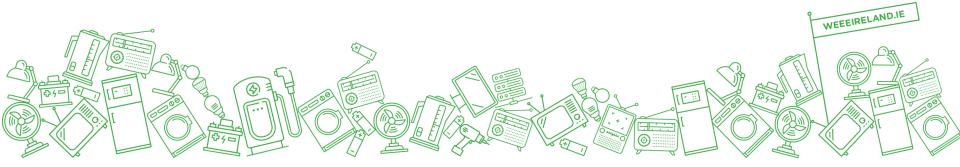


#### **Global Scale**

- 62 million tonnes (Mt) of e-waste generated in 2022;
   up 82% from 2010
- Projected to reach 82 million tonnes by 2030.
- 14 million tonnes discarded in household bins annually.
- Only 22.3% documented global recycling rate in 2022,
- Billions €£\$ worth of strategically-valuable resources wasted
- Only 1% of rare earth element demand is met by e-waste recycling.



Global e-Waste Monitor 2024 www.globalewaste.org



## The E-Waste Challenge



#### Directive 2012/19/EU

- Requires separate collection and proper treatment of WEEE
- Sets targets for separate collection, recycling and recovery
- Implements polluter pay principle through an extended producer responsibility (EPR) system;
   producers pay necessary costs including collection, transport and treatment of WEEE
- Aims at reducing administrative burden, requiring harmonisation of national EEE registers, and reporting format

#### **EU data (EUROSTAT 2022)**

- 40% average collection rate
- Only 3 (?) Member States met 65% target

#### Ireland (EPA 2023)

- 64,000 WEEE tonnes collected
- 44% collection rate
   (51% in 2022, 64% in 2021)
- 85% recovery rate achieved across all categories.
- Increasing Consumption & long-life EEE impacting collection rates







The purpose of this approval is to ensure clear service ownership, and that the accountability and responsibilities of WEEE Ireland satisfy the provisions of the European Union (Batteries and Accumulators) Regulations 2014, the Batteries Regulation, 2023, and the European Union (Waste Electrical and Electronic Equipment) Regulations 2014 in an efficient and effective manner.

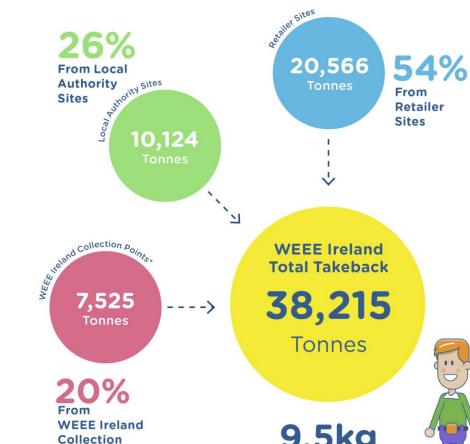
WEEE Ireland Schedule of Conditions of Approval, 2024

## The overall Approval contains 21 separate criteria including requirements under the headings:



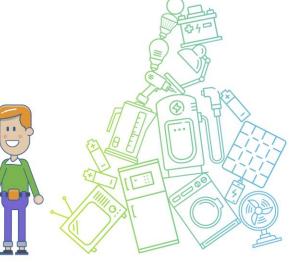


## WEEE Ireland Direct Collection & Treatment



Points\*





- Includes education sites, public collection events, waste industry and workplace collection points.
- \*\* Based on 2022 population census data for WEEE Ireland's core designated collection area. An 8% growth in population since 2016 is having a significant impact on the KG per capita benchmark in WEEE Ireland designated core collection areas and will also impact national

9.5kg per capita\*\*

#### **Collection Rate Data**





CATEGORY		HOUSEHOLD ONLY TAKEBACK 2024	AVG WI % TAKEBACK 2024
		TAKEBACK TONNES	%
CAT 1	Cat 1 (1.1, 1.2, 1.3 Fridge Freezers)	6,025	51.8%
	Cat 1 (1.4 Heatpumps)		0%
	Cat 1 (1.5 Other heating)	399	47.4%
	Cat 1 Temperature Exchange	6,424	46.7%
CAT 2	Screens	2,837	44.8%
CAT 3	Lamps	263	22.2%
CAT 4	Cat 4 (4.1 LHA)	15,477	62.5%
	Cat 4 (4.4 Large PV Panels)	-	0.0%
	Cat 4 (Other Large Appliances)	5,105	48.5%
	Cat 4 Large Appliances	20,582	43.4%
CAT 5	Small Appliances	6,774	32.4%
CAT 6	Small IT&T	1,335	52.4%
TOTAL		38,215	41.5%

\*When a WEEE flows approach is taken the effective collection rate is 54% or higher. See 'Mapping WEEE Flows & Distance to Target'

#### WEEE Standards for Critical and Strategic Material Recovery

CATEGORY	DESCRIPTION	RECYCLING FACILITY	CERTIFICATION STANDARD EN 5062	5
1	Temperature Exchange Equipment	GAP     AO Recycling     Enva Toomebridge	EN 50625-2-3; Temperature exchange equipment.	
2	Screens	KMK Metals Recycling	EN 50625-2-2; Displays (CRT, FPD)	
3	Lamps	Irish Lamps Recycling	EN 50625-2-1; Lamps	
4	Large Appliances	KMK Metals Recycling     Irish Lamps Recycling	EN 50625-1; General Treatment and depollution requirements, LHA	
5	Small Appliances	KMK Metals Recycling	EN 50625-1; General Treatment and depollution requirements, Mixed WEEE	
6	Small IT&T	KMK Metals Recycling     Wisetek	EN 50625-1; General Treatment and depollution requirements, IT&T	



#### **Co-operation Agreements**





Contributions	Description	€*	Benefit
Retailer We'll take it back Communication Programme	Drives a unified communications message from key electrical retailers on takeback with no purchase necessary and supports contributions to segregation and separation costs for WEEE collected	750,000	Acknowledges the role retailers play in maintaining a takeback network of collection points for consumers, as part of their distributor obligations
	Retailer groups involved in the initiative include Curry's, DID, Euronics, Expert, Harvey Norman, Power City and Soundstore		
Local Authority WEEE Fund	Contributes to regional and Local Authorities for takeback at the network of 100 plus municipal Civic Amenity Sites and Bring and Recycling Centres where WEEE can be taken back free of charge by consumers	1.2 million	Supports municipal WEEE collection facilities at Civic Amenity sites nationwide
EPA Enforcement and R&D	Provides funding towards WEEE and battery enforcement and guidance programmes, provided by the Office of Environmental Enforcement and Environmental Protection Agency Research Strive projects	250,000	Supports a collaborative approach and industry engagement

Details of nationwide electrical recycling collection points are available at weeeireland.ie and mywaste.ie

\*These contributions are from both WEEE EPR Schemes in Ireland. WEEE Ireland contributed in accordance with its share of visible fee income which was 67% for 2024. WEEE Ireland operates an additional back door contribution programme with retailers to support necessary infrastructure and encourage proper separation and segregation of WEEE for collection.

We'll Take It Back Electrical Retailer Programme







We'll take your old appliances back, in store today!

Please ask staff for details.





#### **Digital Outreach**



































































































## WEEE Ireland Circular Vision & Mission



A New Circular Vision

To be the leading EPR
Circular Economy solution
for the electronics and
battery industry

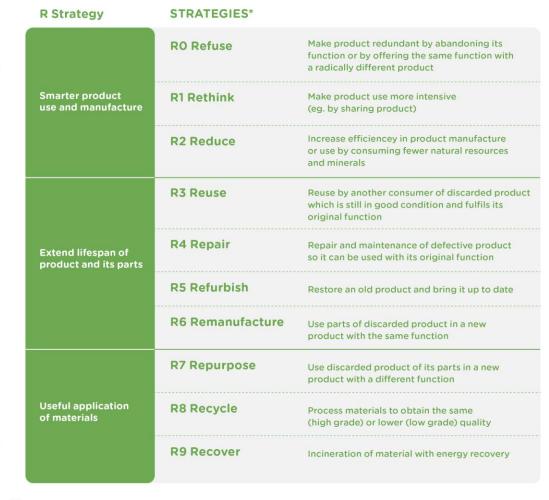
A New Circular Mission

Providing
sustainable pathways
to new-life for
end-of-life e-waste



LINEAR

**ECONOMY** 









preparation

for reuse







### REWEEE







#### KEVVEEE

#### **Separation of WEEE for Preparation for Reuse**

- System of separation of equipment suitable for **Preparation for Reuse** at their Kilbeggan facility
- The aim is to achieve targeted material to *EN 50614* for certified and registered PfR operators
- Producer interest in a return-loop model for (W)EEE reuse
- Reviewing the feasibility of extending its current extensive site certification to include the EN
   50614 standard
- WEEELABEX organisation pathway to EN 50614 with initial certificate of conformity for 2 years for developing PfR operators



### **WEEE Flows**

Visit <a href="https://weee-forum.org/projects-campaigns/weeeflows/">https://weee-forum.org/projects-campaigns/weeeflows/</a>

#### Data gathering for circular reporting

- WEEE Forum/Deloitte have documented the potential for an enhanced WEEE target system
  - POM-based collection target is not fit for purpose
  - Available for Collection methodology
  - Incorporating the lifecycle data of products
  - Multi-target framework incl. circular strategies
  - All Actors' Principle
- Building on existing work by WEEE Forum Members addressing the limitations and challenges of the existing 65% linear takeback target









## **CIRCULÉIRE IMR Partnership**





#### National Platform for Circular Innovation – extended EPR partnership proposal

CIRCULÉIRE & WEEE Ireland: A 3+ year programme is being discussed with Irish Manufacturing Research and CIRCULÉIRE, as our expert Circular Economy and Sustainability partners, supporting Producer Members and Retailers in training, guidance, and innovation project funding to accelerate the EEE and Battery sector circular transition.

#### 2025 partnership:

- Circular Innovation Project Development Training
- Circular Economy Capacity building
- RD&I Synthesis Report WEEE Ireland 2015 2025
- Q4 CIRCULÉIRE Network meeting WEEE & Battery EPR Policy & Innovation Day
   3<sup>rd</sup> December 2025



# **Supporting Repair and Reuse Skills Development...**





Circular Economy Skills Initiative (CESI) – White Goods Repair



Fastrack into Information Technology
Consumer Electronics project



Long-Life Lithium Batteries (LLLB) Centre of Excellence



### **Close the E-Loop**

Visit www.weeeireland.ie/our-story/close-the-weeeloop-new/

- Close the E-Loop is essential to the CE Strategy, encompassing the core values
  of the Scheme
- Our aim is to highlight and learn from WEEE & Battery industry best practices in circular activity
- Microsite compiles quantitative/qualitative data on circular activity in Ireland to enhance our baseline knowledge on Rstrategies
  - Improving methodology on reporting
  - Highlighting European and Irish partnerships for circular innovation
  - Providing inspiration and connection on circular solutions



### R-strategies across the EPR sector...



Apple: Repair services and recycled content



Signify: Rethinking lighting in Dublin Port Tunnel



## refurbed.ie repair and refurbishment initiatives







## Repair by numbers: white good sector repair data

- Study conducted on behalf of WEEE Ireland, ERP, and the White Goods Association
- Methodology replicated from previous work at EU level with APPLiA
- Survey administered in February/March 2022 to 22 companies, gathering 2020 data for the Republic of Ireland
- The survey completion rate was 54.5% which we estimate is around 65% of the LHHA and C&F Irish POM



#### Conclusion: extrapolation to the Irish market

- Based on the total number of large home appliances put on the Irish market in 2020, we proceeded to extrapolate the survey results to the full size of the Irish market.
- Projecting the survey findings to the Irish market gives the following results:

Total number of job created in the repair & reuse sectors

790

Total number of products repaired

209,400

Total number of repair and after-sales partners

240

Total number of types SKUs handled or stored as inventory

312,000

Total number of products with repair requests

218,900

Total number of SKUs handled or stored as inventory

1,366,000



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## **Collaboration Experience & Innovation**

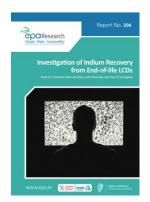


























### **Battery Target: Available for Collection**



Supporting development of methodology with evidence from EPR Schemes



- EUCOBAT with Members including WEEE Ireland,
- Active contribution to AfC methodology development -waste battery sampling
- New target criteria measuring impact of takeback systems and Schemes
- Requires real evidence from portable waste battery collection streams.
- Analysis of battery types, ages, and lifecycle data.
- Supports more accurate and future-proof target setting



## **Battery Collection**

#### **Continual improvement**









### **WEEE 3.0**



#### **WEEE Directive Evaluation Report\* - Key Findings**

The WEEE Directive has been found to be **relevant**, **coherent**, **proportionate**....It has had positive effects on the performance of all actors involved......The evaluation identified five **shortcomings** of the Directive;

- 1. Scope of the Directive: ...renewable energy and digital technologies, e.g. wind turbines
- 2. Collection of WEEE: .....65% collection target not being achieved,
  Economic factors, illegal trade, lack of infrastructure, and low public awareness were barriers to reaching the collection target.....differing interpretations and calculation methods further complicated collection efforts.
- 3. Recovery of CRMs: lost opportunity.... critical raw materials...copper, rare earth elements, gallium, germanium or tungsten....recycling targets in the Directive did not effectively encourage recovery of secondary raw materials.
- 4. Lack of harmonisation of EPR schemes: fragmented implementation of EPR schemes across the EU and gaps in the enforcement of EPR obligations, particularly concerning online sellers.
- 5. Inconsistent treatment requirements: ...only 23% of recycling facilities in the EU implement high-quality treatment standards.

<sup>\*</sup> Visit https://environment.ec.europa.eu/publications/final-report-study-supporting-evaluation-directive-201219eu-waste-electrical-and-electronic\_en

### **EPR Scheme Positions**

#### **Circular Economy Act**

"We particularly welcome the Act's **focus on key enablers** for circularity, including facilitating the free movement of secondary raw materials and circular products, improving access to high-quality recyclates, lowering feedstock costs for sustainable production, simplifying e-waste regulations, establishing clear "end-of-waste" criteria, and enabling innovative circular business models."

To ensure the upcoming policies and legislations are effective and economically viable, we have identified six key challenges:

- Regulatory challenges and the need for a level playing field in the Circular Economy
- Fragmented markets
- Barriers to a sustained & competitive supply of secondary materials
- Inconsistent quality of recyclates
- Suboptimal WEEE collection targets
- The need for more effective enforcement



#### Joint Industry Priorities for the Circular Economy Act





















The European Union's upcoming Circular Economy (CE) Act is a crucial and timely opportunity to accelerate Europe's transition to a clean, competitive, and resource-efficient economy. As leading industry associations representing the diverse electrical and electronic equipment (EEE) producer community, we fully endorse the Act's overarching objectives and are committed partners in this endeavor.

We particularly welcome the Act's focus on key enablers for circularity, including facilitating the free movement of secondary raw materials and circular products, improving access to high-quality recyclates, lowering feedstock costs for sustainable production, simplifying e-waste regulations, establishing clear "end-of-waste" criteria, and enabling innovative circular business models.

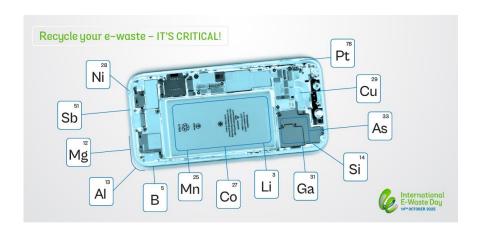
To ensure the upcoming policies and legislations are effective and economically viable, we have identified six key <u>challenges</u> and <u>proposed actionable solutions</u>:





#### Register to take part at <a href="https://weee-forum.org/iewd-about/">https://weee-forum.org/iewd-about/</a>

As the demand for smartphones, electric vehicles, solar panels, and other technology continues to surge, so does the need for the materials that make them work. This year, International E-Waste Day – taking place on **14 October 2025** – will spotlight Critical Raw Materials (CRMs), the elements that are mined in only a handful of countries and that are crucial to foster the green and digital transition, and we want you to get involved!



A recent study authored by TNO shows that selective recovery of CRMs from e-waste could contribute up to 31% of the EU's current CRM demand.











### **WEEE** Thank you

#### **WEEE Ireland**

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