



EuRIC Summary: WEEE Directive Evaluation

Brussels, 23 July 2025

Trends in EEE and WEEE between 2012-2021:

- The amount of EEE placed on the market grew by 80%
- The amount of WEEE generated increased from 7 Mt to 8,4 Mt, making WEEE one of the fastest growing waste streams globally and in the EU
- Average composition of WEEE: 40% metals; 0,01% precious metals; 25% plastics; 30% other materials (glass, concrete, wood, etc.)

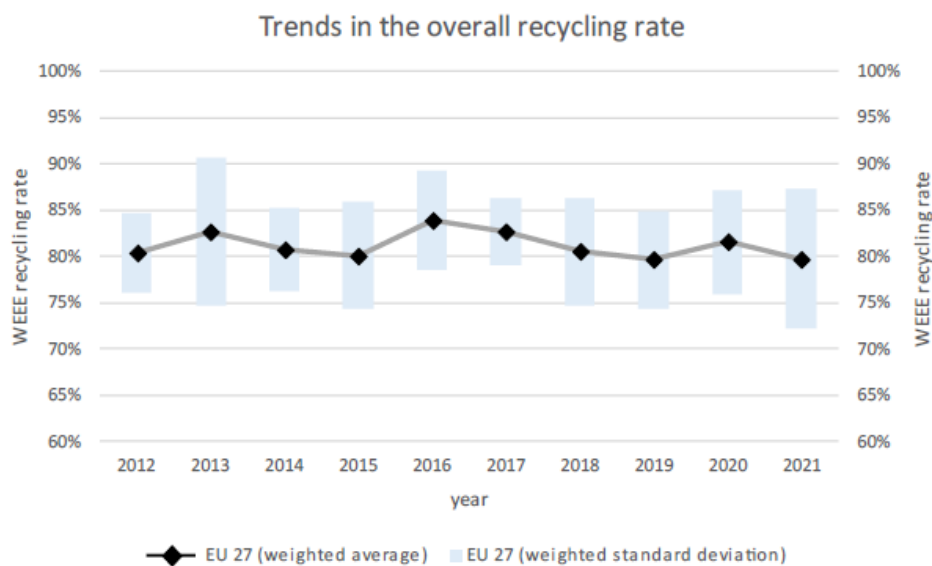
Collection:

- WEEE collection increased by 68% in weight between 2012 – 2021, but this is mainly linked to the increasing amounts of EEE sold in the EU
- In 2021, the overall amount of WEEE collected reached 4.9 Mt which is slightly below 50% of all EEE placed on the market and far from the 65% collection target. Moreover, 46% of the WEEE generated is not collected separately (5% is illegally exported; 14% ends up in metal scrap; 8% ends up in residual waste bins (decreasing trend); 5% is exported for reuse; for 14% there is no information)
- Most Member States do not reach the collection target set out in the Directive
- Moving forward, the requirements for the collection of B2C and B2B WEEE should be aligned

Recovery, reuse and recycling:

- Recovered WEEE increased from 2,6 to 4,4 Mt (69,8%) between 2012 – 2020, WEEE recycled and prepared for reuse grew from 2,4 to 4 Mt (64,8%)
- The recycling and preparation for reuse rate was rather stable between 2012 – 2020: over 87% of WEEE collected was recovered, over 80% was recycled and prepared for reuse. But: overall only around 40% of all WEEE is recycled in the EU
- Recycled steel in WEEE enabled 7 243 kt CO₂ eq savings, recycled aluminium 2 870 kt CO₂ eq, recycled copper 1 405 kt CO₂ eq, plastics 2 030 kt CO₂ eq, palladium 391 kt CO₂ eq and glass 285 kt CO₂ eq
- Metals: High recycling rates of metals (up to 95%), but for CRMs/precious metals, the recycling rate depends very much on the choice of pretreatment
- Plastics: 44% of plastics are sent to material recovery; 45% directly to energy recovery; the rest to landfill
- On average, only 50-60% of the input into a WEEE recycling facility is effectively recycled, the rest is incinerated
- Factors hindering recycling:
 - Missing quality standards for recyclates that would promote higher recycling efficiencies and better quality of recycling
 - No incentives to increase recycling of materials whose recovery is not (yet) commercially viable

- Legal uncertainties at the intersection of chemicals/products/waste legislation regarding substances in WEEE
- Limited recycling capacity in certain Member States
- Burdensome procedures for shipping between Member States
- The current recovery target (based on the input material stream) does not incentivize increasing the quality of recycling or the quantities of recovered materials
- The Directive has not been very effective in incentivizing the recovery of valuable secondary raw materials, specifically CRMs
- The rate of WEEE treated outside the EU and not in line with EU requirements increased from 22% in 2010 to 25% in 2020



Scope of the Directive:

- A separate category for PV panels is missing in the current Directive
- Differences in the interpretation of the 'open scope' influence the achievable WEEE collection rate and can cause market distortions
- Need for clarification regarding new products that are placed on the market that have electrical/electronic functions but are traditionally not considered WEEE (smart textiles, furniture, etc.)
- New technologies stemming from digitalization and the deployment of renewable energy need to be considered: PV panels, heat pumps, wind turbines, solar thermal collectors
- Need to assess whether the current definition of EEE is still relevant

WEEE treatment facilities and requirements:

- There are more than 2700 facilities in the EU that can treat WEEE with a minimum capacity of 3Mt/year
- Treatment operators face administrative costs for complying with reporting obligations: they are estimated at 11 700 EUR/year for surveillance and certification (including batch testing), further costs can stem from the obligation to obtain CENELEC certification (on average 5000 EUR per certified waste stream)

- Lack of level playing field among Member States regarding WEEE treatment requirements
- Only about 23% of all WEEE facilities implement high-quality standards for WEEE treatment

	Cat 1	Cat 2	Cat 3	Cat 4	Cat 4	Cat 5	Cat 6
	Temperat ure exchange equipmen t	Scree ns	Lamps	Large EEE	PV panels	Small EEE	Small IT and telecommunic ation equipment
Number of facilities in the EU-27	108 (step II*)	149	50	min. 940	25	min. 681	min. 657
Member States with missing/insufficient capacities	EE CY IE LU LV MT SI PT	LU NL DK CZ CY RO** *	AT EE LU NL SI BG**		ES LT HU NL DK	DK CY	DK CY
* Step II treatment = shredding of the insulation and recovery of the blowing agents							
no information for Bulgaria, * no information for Romania,							
CAT 1: Temperature exchange equipment; CAT 2: Screens; CAT 3: Lamps; Cat 4 (a): Large equipment excluding PV panels; Cat 4 (b): PV panels; CAT 5: Small equipment; CAT 6: Small IT and telecommunication equipment							

Extended Producer Responsibility (EPR) schemes:

- The implementation of EPR schemes varies significantly among Member States in terms of fees and models for calculation of fees; PROs' business model; etc.
- The implementation of eco-modulation fees remains fragmented with a relatively low impact on the ecodesign of products
- Four different EPR models are implemented in the EU:
 - State fund (eco-tax) model, with/without single executing agency
 - Single organization model, applicable only in small countries
 - Competing organization model, with/without coordination center or with eco-tax back-up, model applied in most Member States
 - German model, with is based on individual producer responsibility
- Persistent issues with free riders among producers, namely online free riders

Conclusions:

Status Quo:

- The WEEE Directive has not (fully) reached its objectives in terms of waste prevention, preparation for reuse, collection and recovery of CRMs

- The current input-based, non-material specific targets do not encourage the recovery of secondary raw materials, which entails a potential loss of CRMs
- Disparity in WEEE treatment standards: only six Member States have introduced mandatory treatment standards
- Lack of harmonization of EPR schemes

Possible solutions:

- Scope: Reassess the scope of the Directive and the definition of EEE (including the voltage rating/threshold). Introduce a separate category for PV panels and overall improve the definition of the different categories
- EPR: Harmonize formats for reporting to PROs, information availability, transparency, coordination between national registers and reform the authorized representative system
- Collection: consumer friendly systems for WEEE return and awareness campaigns; involve retailers in the WEEE collection infrastructure; introduce different methods of collection (including door-to-door collection for specific categories of WEEE); provide financial incentives to those involved in WEEE management; enable close cooperation between stakeholders through a formal platform
- Treatment: harmonize WEEE treatment requirements based on European standards and best practices, this should not place an unnecessary burden on WEEE operators, especially SMEs
- Develop a secondary raw materials market