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Activity 3.2.3. Training of Trainers on integrated waste management in line with Circular Economy

Economic Instruments Used in Integrated Waste Management in the EU
Ankara, 10-11 October 2024

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Content of the Presentation

Extended Producer Responsibility (EPR) and Eco-modulation

Landfill and Incineration Tax

Plastic Tax

Pay As You Throw (PAYT)

Extended Producer Responsibility (EPR)

EPR:

A set of measures taken by Member States to ensure that product producers bear financial and/or organisational responsibility for the management of the waste phase of a product's life cycle

Producer Responsibility Organisation (PRO):

An organisation that implements the obligations of the EPR on behalf of its member producers

Minimum scope;

- Separate collection, transport and processing
- Awareness raising
- Data collection and reporting

New topics;

- Marine litter clean-up (Germany, Norway, UK)
- Eco-modulation (France, Germany, Belgium, Estonia, Portugal, Spain) (recycled material content, durability, repairability, reusability or waste prevention)

Extended Producer Responsibility (EPR)

Current waste types :

- Packaging waste
- Electronic waste
- End-of-life vehicles
- Waste batteries and accumulators
- Waste tyres
- Lubricants

Examples of State Coordinated EPR System :

Hungary : *The National Waste Management Agency* coordinates the recycling of WEEE and packaging waste.

Croatia : *Regulated through fee payments to a central fund* (WEEE, APA and packaging waste).

Denmark : Packaging waste management costs are collected as a tax.

Türkiye: Recovery Contribution Fee (*GEKAP*) *source : https://erp-recycling.org/wp-content/uploads/2021/07/adelphi_study_Analysis_of_EPR_Schemes_July_2021.pdf
https://www2.deloitte.com/content/dam/Deloitte/fr/Documents/sustainability-services/deloitte_sustainability-les-filieres-a-responsabilite-elargie-du-producteur-en-europe_dec-15.pdf*

MS	Batteries	WEEE	Packaging	ELV	Tyres	Oils
AT	X	X	X	X	X	X
BE	X	X	X	X	X	X
BG	X	X	X	X	X	
CY	X	X	X	X	X	X
CZ	X	X	X	X		
DK	X	X	Δ	X	X	
EE	X	X	X	O	X	
FI	X	X	X	X	X	
FR	X	X	X	X	X	
DE	X	X	X	O		X
GR	X	X	X	X		X
HU	X	X	Δ	X	Δ	
IE	X	X	X	X	X	
IT	X	X	X	X	X	
LV	X	X	X	X	X	X
LT	X	X	X	X	X	
LU	X	X	X	X		
MT	X	X	X	N/A		
NL	X	X	X	X	X	
PL	X	X	X	X	X	X
PT	X	X	X	X	X	X
RO	X	X	X	O		
SE	X	X	X	X	X	
SK	X	X	X	X	X	
SI	X	X	X	X	X	X
ES	X	X	X	X	X	X
UK	X	X	X	X		
HR	X	X	X	X	X	X
Total	28	28	27	27	20	10

Extended Producer Responsibility(GÜS)

Current waste types :

- Ambalaj atıkları
- Electronic waste
- End-of-life vehicles
- Waste batteries and accumulators
- Waste tyres
- Lubricants

New waste types :

- Wet wipes, balloons, cigarette filters (France)
- Fishing gear (Norway, Iceland)
- Textile waste (Belgium, France, Netherlands, Sweden)
- Construction waste (France, Netherlands)
- Food waste (France)
- Waste vegetable oils (Italy, Spain, Belgium)

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Türkiye: Recovery Contribution Fee (*GEKAP*)

Source : https://erp-recycling.org/wp-content/uploads/2021/07/adelphi_study_Analysis_of_EPR_Schemes_July_2021.pdf
[https://one.oecd.org/document/ENV/WKP\(2023\)17/en/pdf](https://one.oecd.org/document/ENV/WKP(2023)17/en/pdf)

Eco-modulation - the case of FRANCE



BONUSES		PENALTIES	
Consumer awareness On-pack sorting instructions 8%	Packaging actions Reduction (weight, volumes, refills) Recyclability actions (monomatériau) 8%	Recycling disruptors Packaging disrupting sorting or recycling process (glass packaging with ceramic cap; PET bottles with aluminium or PVC)	Packaging with no route Packaging with no recycling route (plastic bottles other than PET, HDPE or PP) or recovery route (other than soda-lime glass)
Off-pack sorting instructions 4%	Publication in best practices catalogue 4%	50%	100%
Up to 12%	Up to 12%		
Up to 24%			

PLAIN WATER BOTTLE 1.5 Litres plastic	OIL BOTTLE 75 cl glass	CAN 33 cl steel
<p>1994 47g. 2012 28g.</p> <p>- 40%</p>	<p>1994 545g. 2012 418g.</p> <p>- 23%</p>	<p>1994 31g. 2012 25.5g.</p> <p>- 18%</p>

Eco-modulation - the case of FRANCE

20% fee increase :

- *Refrigerators, vacuum cleaners and drills without technical documentation for repair - OR - spare parts not available.*
- *Game consoles without technical repair documentation - OR - lack of spare parts*

20% fee reduction :

- *Washing machine or dishwasher with spare parts available for up to 11 years - OR - post-consumer recycled content >10.*
- *Coffee machines and kettles with spare parts available for up to 5 years - AND - availability of technical documentation for repair.*
- *Computers with standard peripherals, including memory cards and readers, no paint and covers that make recycling and reuse difficult, and recycled content of post-consumer plastics >10.*
- *Fully dismountable printers with standard equipment - AND - Spare parts availability up to 5 years.*

Eco-modulation - The Case of SPAIN



Product technical specifications

COLOUR	Transparent/ Light Blue/ Clear/Black / Carbon Black
MULTIPLE MATERIALITY	Monomaterial/Multimaterial/Compound
LABEL	Factors to consider: material and size
ACCESSORY ELEMENTS	Factors to consider: separability and material
POST-CONSUMER RECYCLED MATERIAL %	Yes (>%25 / >%20) / No

Application according to waste type

UNDER ECOMODULATION

- PET
- PET tray
- HDPE
- Flexible plastic
- Other plastics (PP, PS, PVC)
- Cardboard

NOT COVERED BY ECOMODULATION

- Steel
- Aluminium
- Brick
- Wood

Distribution of discounts and penalties

DISCOUNTS

The amount in euros obtained from the penalised tonnages is the maximum amount to be distributed among the discounted tonnages.

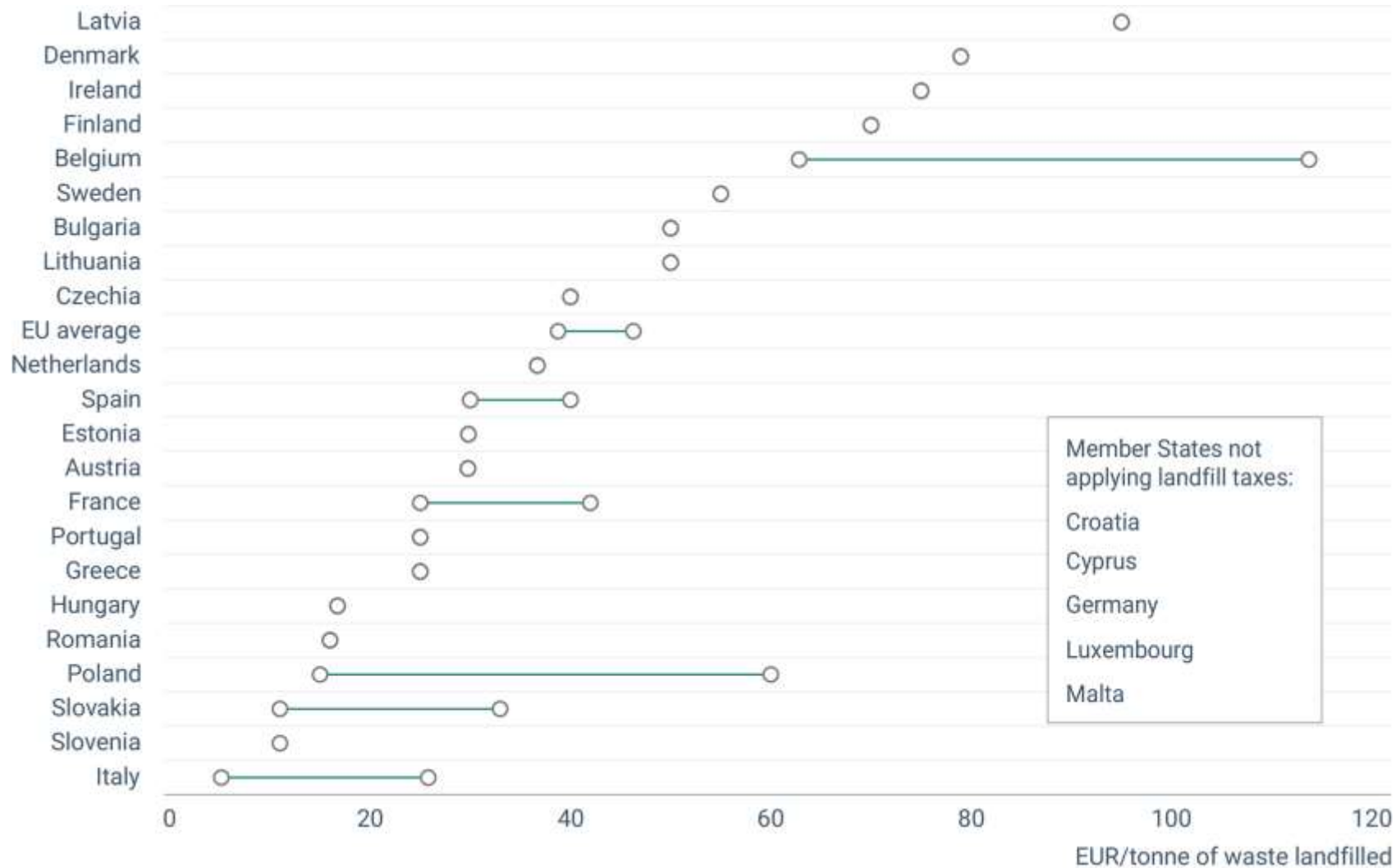
PENALTIES

A single penalty percentage of 10% is set for all fractions.

ATTRIBUTES	COLOUR	% POST-CONSUMER RECYCLED MATERIAL
OTHER RIGID PLASTICS (PP, PS, PVC)	1.60%	1.60%
HDPE	5.95%	5.95%
PLASTIC FLEXIBLE	0.60%	0.60%
PET TRAY	-	5.55%
PET NON-TRAY	0.57%	0.57%

Landfill Tax (2023)

- EU Average: € 40-45
- Between 5 € and 115 €
- Applied in 22 EU MSs
- Not applied in 5 EU MSs
- 16 Member States have **landfill restrictions** for **some waste streams** (biodegradable, recyclable, etc.) associated with a tax or not.



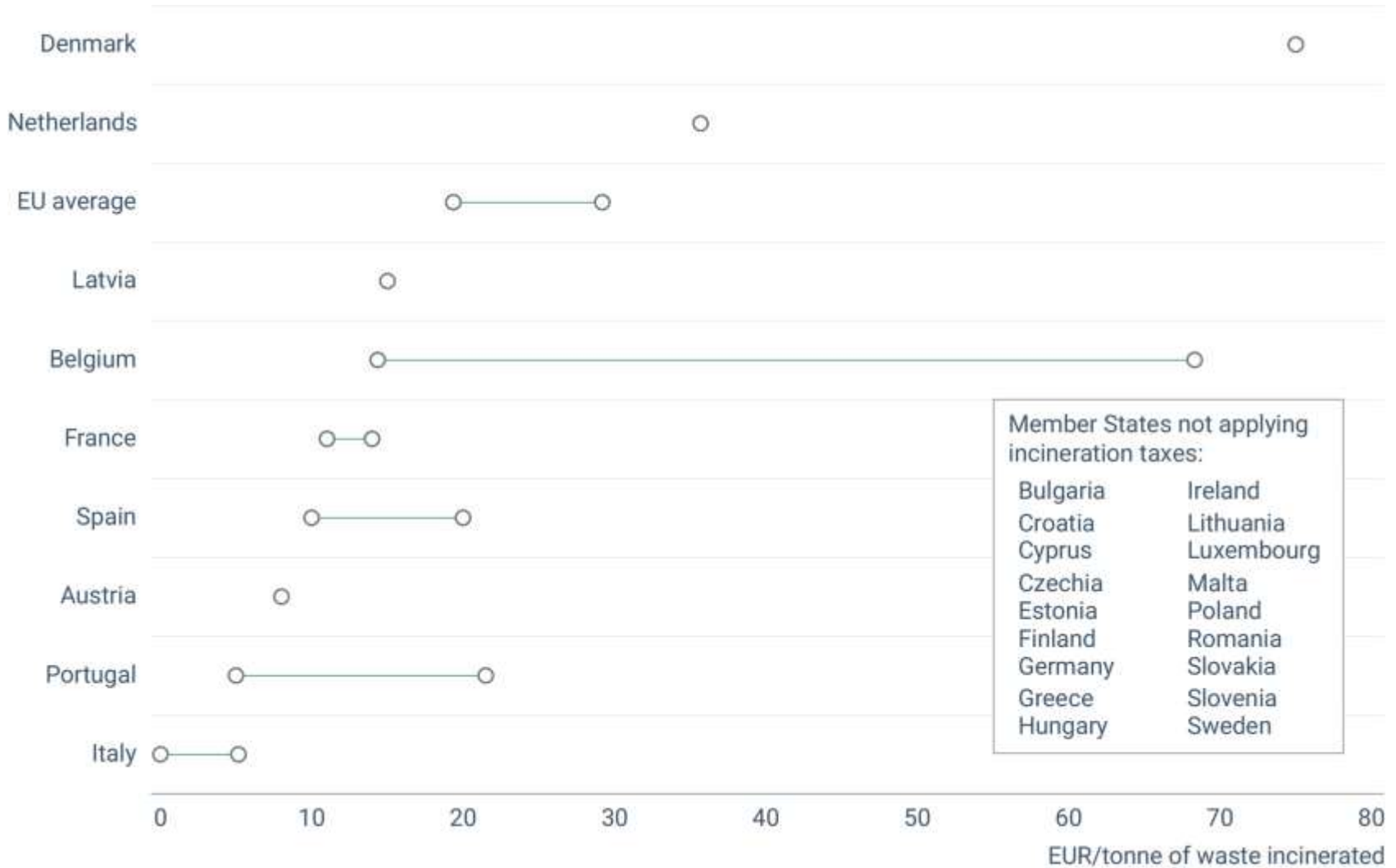
Landfill Prohibitions

- Belgium, Estonia, Hungary, Lithuania, Luxembourg, Netherlands, Slovenia, Slovakia (as of 2024)
- Belgium, Czech Republic, Denmark, Finland, Slovenia, Sweden
- Austria, Germany, Luxembourg, Slovenia
- Poland and Sweden
- Czechia (as of 2030)
- Czechia, France, Malta and Slovenia
- Latvia (as of 2030)
- Poland
- **Untreated municipal waste**
- **Biodegradable waste**
- **Wastes exceeding a certain total organic carbon value**
- **Combustible waste**
- **Wastes exceeding a certain calorific value**
- **Separately collected recyclable waste**
- **Recyclable waste**
- **Separately collected bio-waste**



Incineration Tax (2023)

- EU Average: 20-30 €
- Between 5 € and 75 €
- Applied in 9 EU MSs
- Not applied in 18 EU MSs



Landfill Tax Implementation in Some European Countries



BELGIUM (FLANDERS)

- **Tax rate:** 59,33-107,87 EUR/tonne
- **Tax payer:** Landfill operators
- **Revenue:** Regional Government
- **Ban:** Landfilling biodegradable waste

Source: <https://www.eea.europa.eu/publications/economic-instruments-and-separate-collection>
<https://eeb.org/wp-content/uploads/2022/11/Circular-Taxation-study-EEB-Final-Report.pdf>
<https://www.oecd-ilibrary.org/sites/72859b22-en/index.html?itemId=/content/component/72859b22-en#annex-d1e33790-9f0953c549>



ITALY

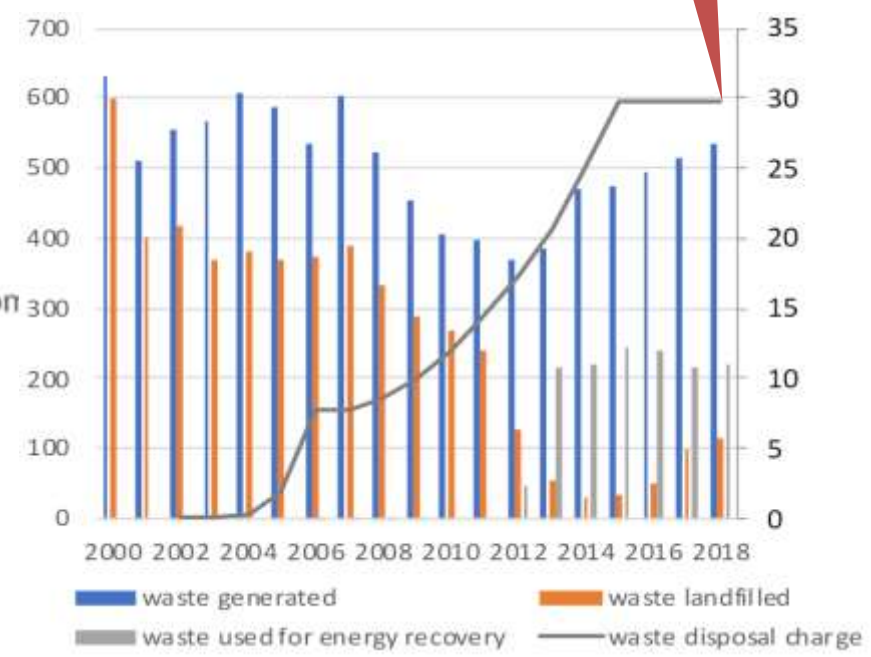
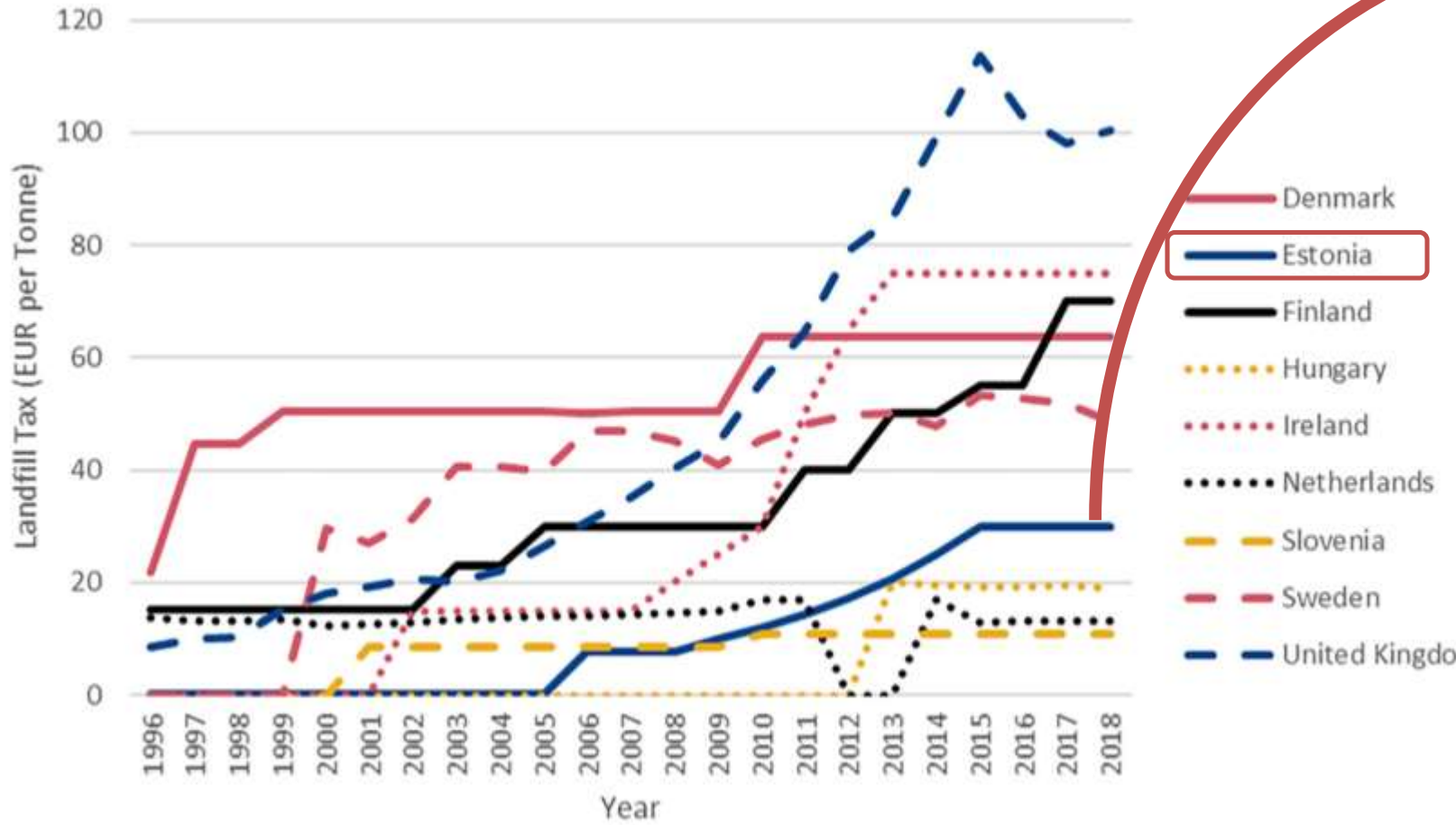
- **Tax rate:** 5,17-25,82 EUR/tonne
- **Tax payer:** Landfill operators
- **Revenue:** Regional and Local Governments
- **Tax refund:** A gradual refund of 30-70% if the 65% separate collection at source target is exceeded



UNITED KINGDOM

- **Tax rate:** 3,15-98,6 GBP/tonne
- **Tax payer:** Landfill operators transfer the cost of disposing of municipal waste to waste generators, the waste industry and local authorities.
- **Revenue:** Central Government
- **Tax evasion:** Due to tax increases, crimes such as illegal dumping, exemption breaches, illegal exports and open incineration have increased. The total cost of waste crime in the UK was GBP 924 million in 2018/19, not all of which is attributable to landfill tax.

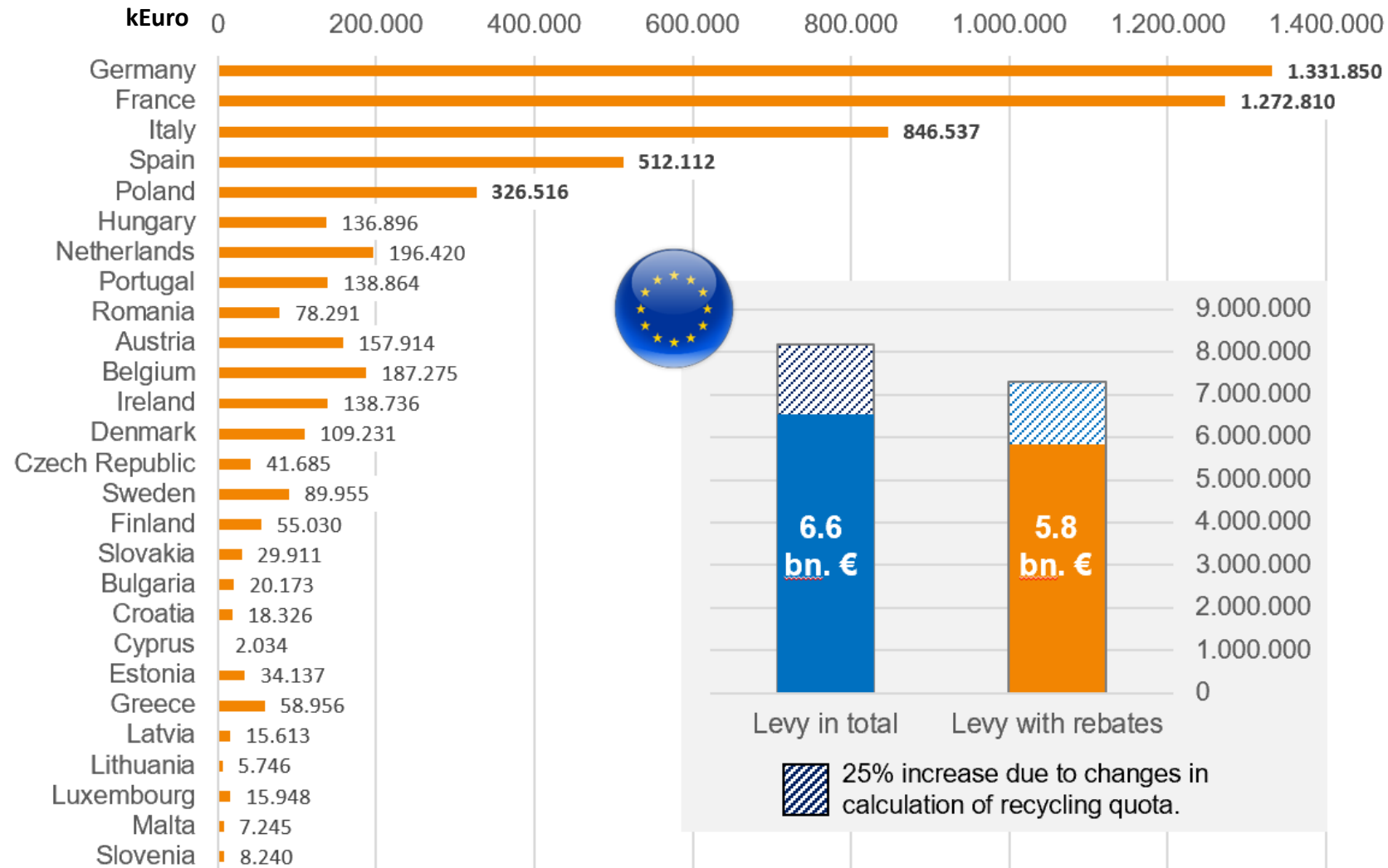
Impact of Landfill Tax



Source: <https://www.sciencedirect.com/science/article/pii/S0956053X23002659>
https://environment.ec.europa.eu/document/download/dfff60be-3c31-4fcb-93a6-fa6e2ea5f219_en?filename=Taxes%2C%20charges%20and%20fees.pdf

Plastic Tax

- "Council Decision 2020/2053 of 14 December 2020 on the **system of own resources of the European Union**"
- From **1 January 2021**, each Member State must pay a **contribution** to the EU budget of **€0.80** per kilogram of non-recycled plastic packaging waste it produces.
- The EU sets out the method of calculating the contribution and refund amounts. Member States collect them in different ways.



Plastic Tax Implementation in Some European Countries



UNITED KINGDOM (2022)

- **Plastic type:** Plastic packaging produced/imported that does not contain at least 30% recycled plastic
- **Tax rate:** 0,20 GBP/kg
- **Tax payer:** Producers and importers
- **Expected revenue:** 235 million GBP/year



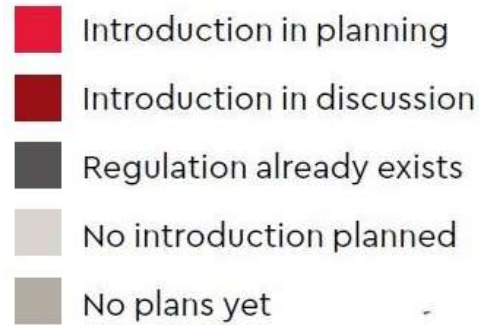
SPAIN (2023)

- **Plastic type:** Non-recycled plastic packaging
- **Tax rate:** 0,45 EUR/kg
- **Tax payer:** Producers and importers
- **Expected revenue:** 724 million EUR/year



ITALY (2024)

- **Plastic type:** All single-use plastics produced
- **Tax rate:** 0,45 EUR/kg
- **Tax payer:** Producers and importers
- **Expected revenue:** 290-470 million EUR/year



Pay As You Throw (PAYT)

Advanced PAYT systems provide a direct and visible economic incentive at the moment the waste is generated. The service provider weighs the waste containers on collection, so that waste producers pay according to the weight of waste produced. Another example is systems where citizens purchase waste bags from the municipality or service provider, providing an immediate response to the citizen's waste behaviour.

Basic PAYT systems are systems that mainly consider container volume and collection frequency when determining the collection fee.

Austria 100% of the population - **Mandatory** by legislation

Croatia 90% of the population - **Mandatory** by legislation

Slovenia 100% of the population - **Mandatory** by legislation

Ireland 100% of the population with doorstep collection - **Household Waste Collection Price**

Monitoring Group

Kaynak: <https://www.eea.europa.eu/publications/economic-instruments-and-separate-collection>

		Type of PAYT system in place		
		Mixed advanced/Basic	Basic	No PAYT
Population coverage of the PAYT system	High	Austria Belgium Croatia Ireland Slovenia	Finland Hungary Sweden	
	Medium	Denmark Lithuania Luxembourg Romania	Estonia	
	Low	Czechia Germany France Netherlands Slovakia	Spain Italy	
Plans for implementation of PAYT				Cyprus Greece Malta
No plans for implementing PAYT				Latvia Poland Portugal

Note: No information was available for Bulgaria. Poland applies a PAYT system to only non-household waste producers. Further details are provided in the [Technical note](#).

Source: Compiled by the ETC CE based on the [EEA early warning assessments](#) related to the 2025 targets for municipal waste and packaging waste (EEA and ETC CE, 2022).

THE NETHERLANDS



Pay As You Throw (PAYT)

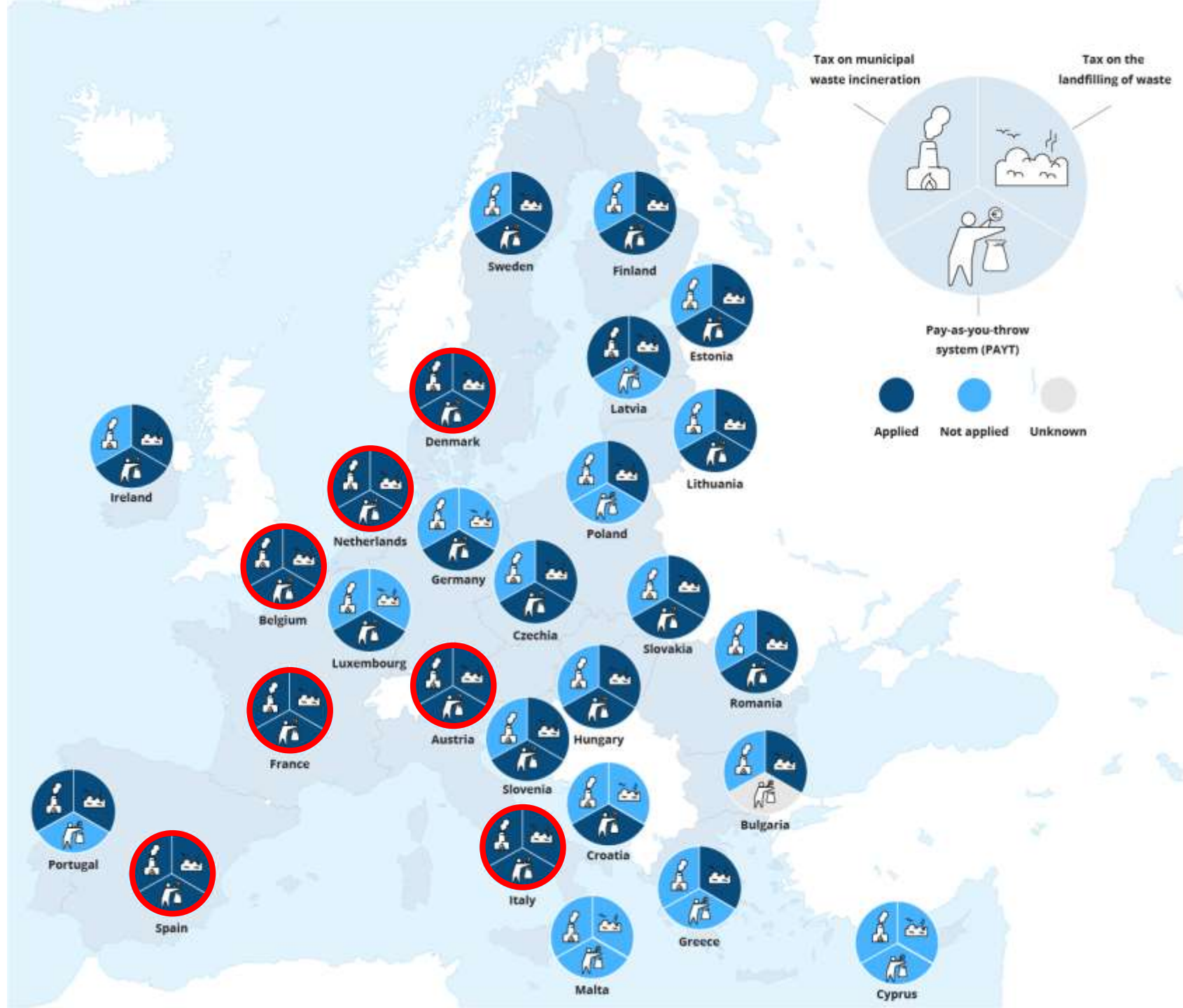
Tariff System	Municipality Rate(%) (Number of Municipalities)	Population Ratio(%)	Average Municipality Population
Volume	3,4 (12)	3,1	20.228
Volume and frequency	23,3 (82)	16,7	15.707
Paid bags	10,2 (36)	8,4	18.108
Paid bags and number of people	2,3 (8)	1,2	11.232
Weight	0,9 (3)	0,5	12.648
Weight and frequency	3,2 (11)	2,7	18.210
Weight, frequency and number of people	0,3 (1)	0,1	11.450
Weight, frequency and number of people	6,8 (24)	4,5	14.517
Total PAYT	50,4 (177)	37,3	16.221
Number of people	44,8 (158)	57,0	27.871
Fixed tariff	4,8 (17)	5,8	26.135

Landfill Tax Incineration Tax Pay As You Throw Combined Use of Instruments (2023)

"A consistent and stable combination of economic instruments is needed for high recycling rates and reduction of landfilling."

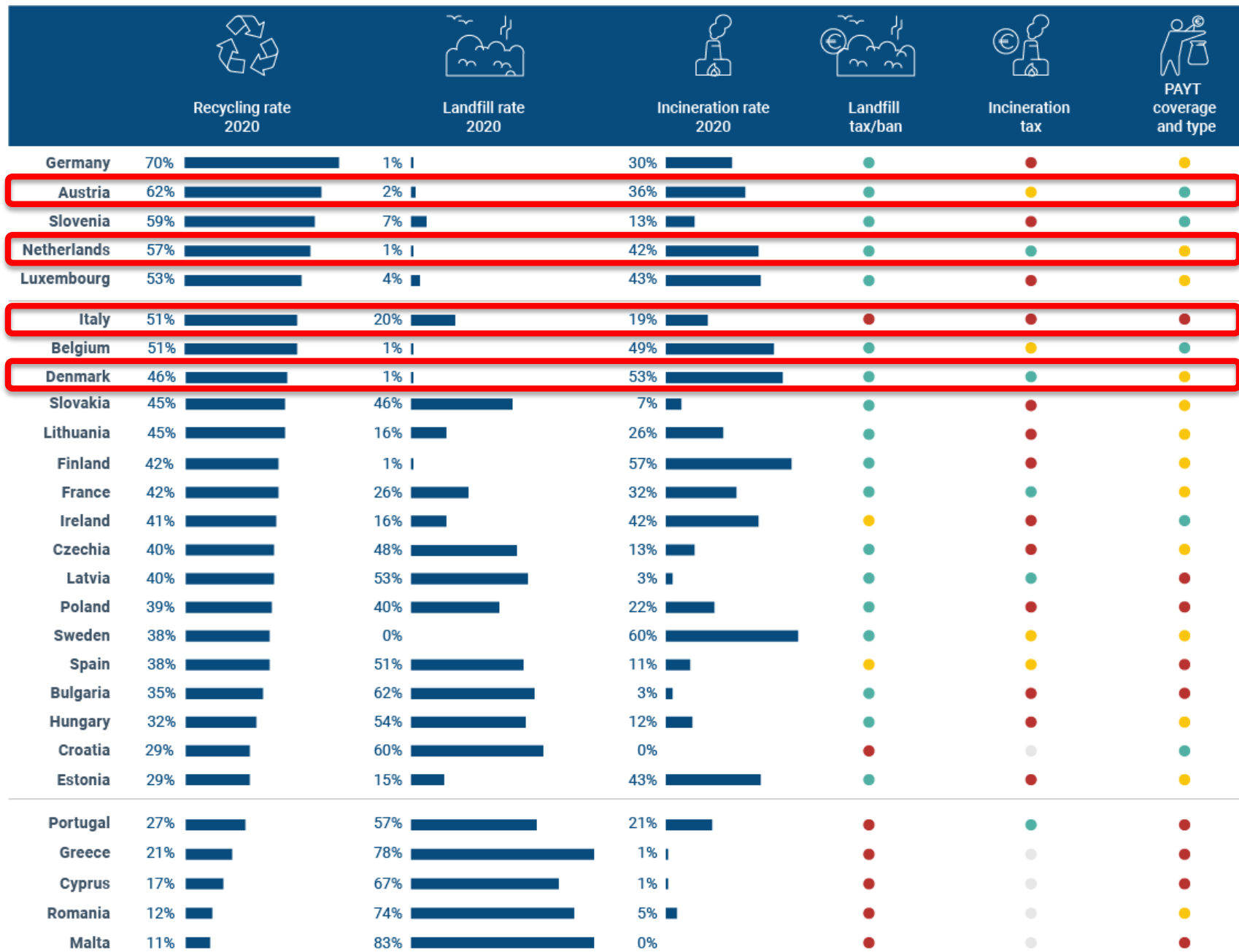
Source:

<https://www.eea.europa.eu/publications/economic-instruments-and-separate-collection>



Impact of "Circular Taxes" on Landfill and Recycling Rates

- Strong design of the instrument
- Weak design of the instrument, not applied, or no information
- Medium-level design of the instrument
- Not applicable (no incineration plants)



Source: <https://www.eea.europa.eu/publications/economic-instruments-and-separate-collection>

Economic Instruments Used in Integrated Waste Management in Türkiye





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Thank You



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