

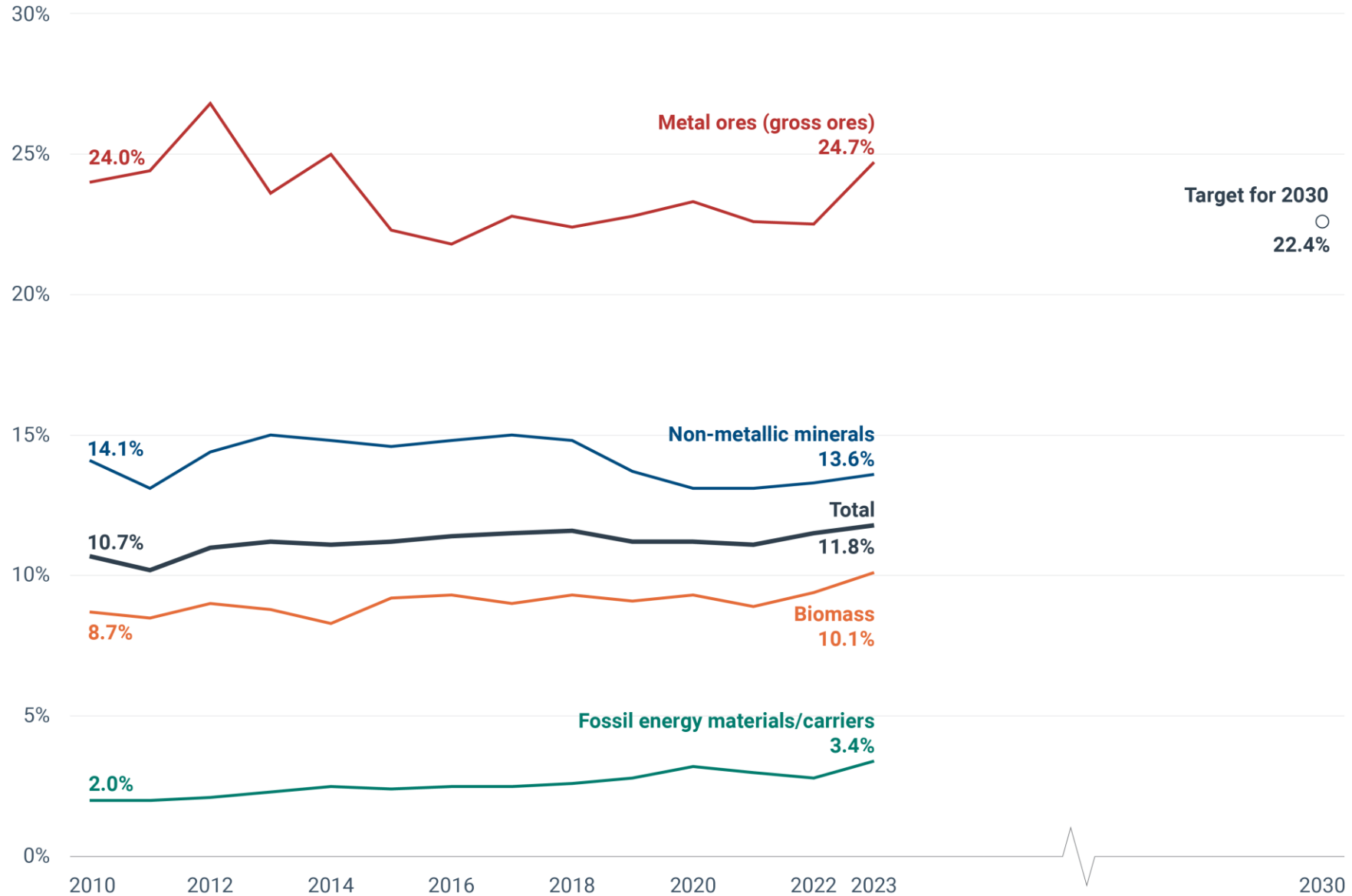
A woman with long blonde hair tied back, wearing a striped t-shirt, is sorting through glass bottles. A young boy in a blue t-shirt is also holding a glass bottle. They are outdoors, possibly on a balcony or in a courtyard, with a building in the background. The scene is overlaid with a teal gradient and a large white circle containing text.

Boosting glass circularity

Portugal in a European context

11th of
November
2025

Evolution of the EU's Circular Material Use Rate



Source: European Commission, European Environment Agency (EEA)



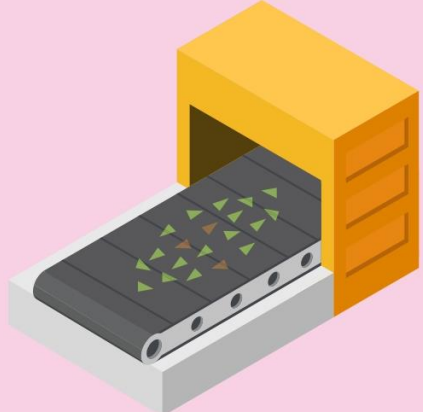
85%

Estimated performance of closed-loop recycling for collected glass packaging in 2022.

Glass recycling is a highly traceable value chain where post-consumer municipal waste becomes a high quality product for manufacturing new glass bottles & jars.

87%

of the total reported tonnage entering Glass Cullet Recycling Facilities was sourced from municipal waste



93%

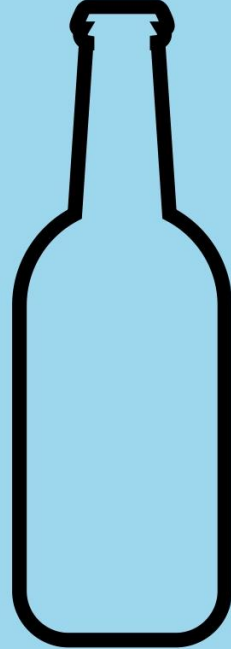
of the total reported tonnage entering Glass Cullet Recycling Facilities was effectively recycled in 2022

97%

of the total tonnage effectively recycled was recycled in a glass manufacturing process

92%

of the total tonnage effectively recycled was recycled in a closed loop glass packaging manufacturing process



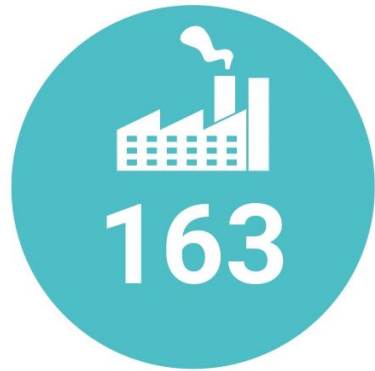
A photograph of a glass manufacturing furnace. The interior is filled with glowing orange and yellow molten glass. Several long, dark metal rods or pipes are visible, extending across the furnace. The overall scene is industrial and brightly lit by the heat of the glass.

52%

Average share of recycled glass in total amount of materials used for the manufacturing of glass packaging in the EU.

Source: Roadmap to Optimise Closed Loop Recycling of Glass Packaging

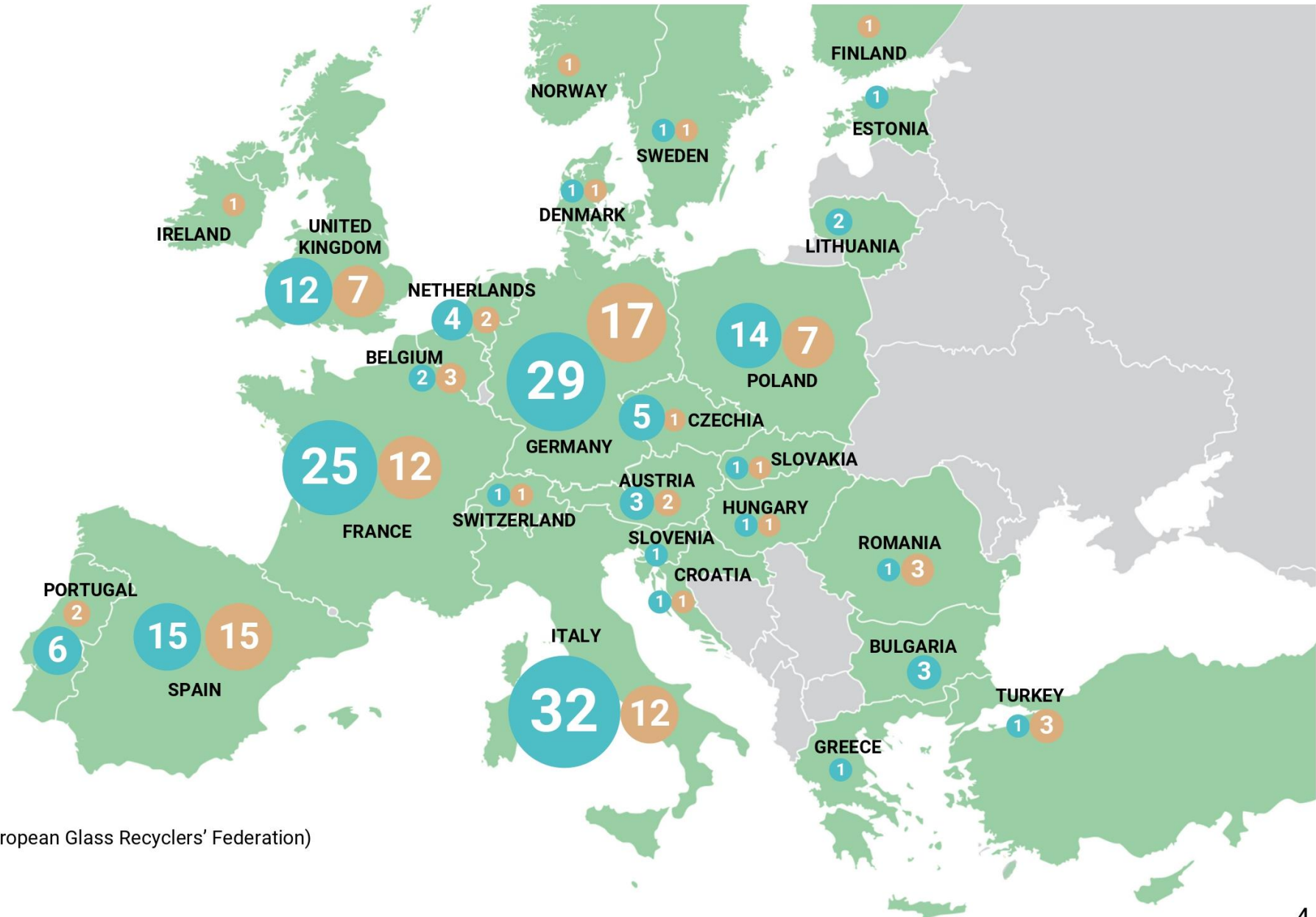
Glass Packaging Recycling in Europe - a general overview



Glass packaging manufacturing sites



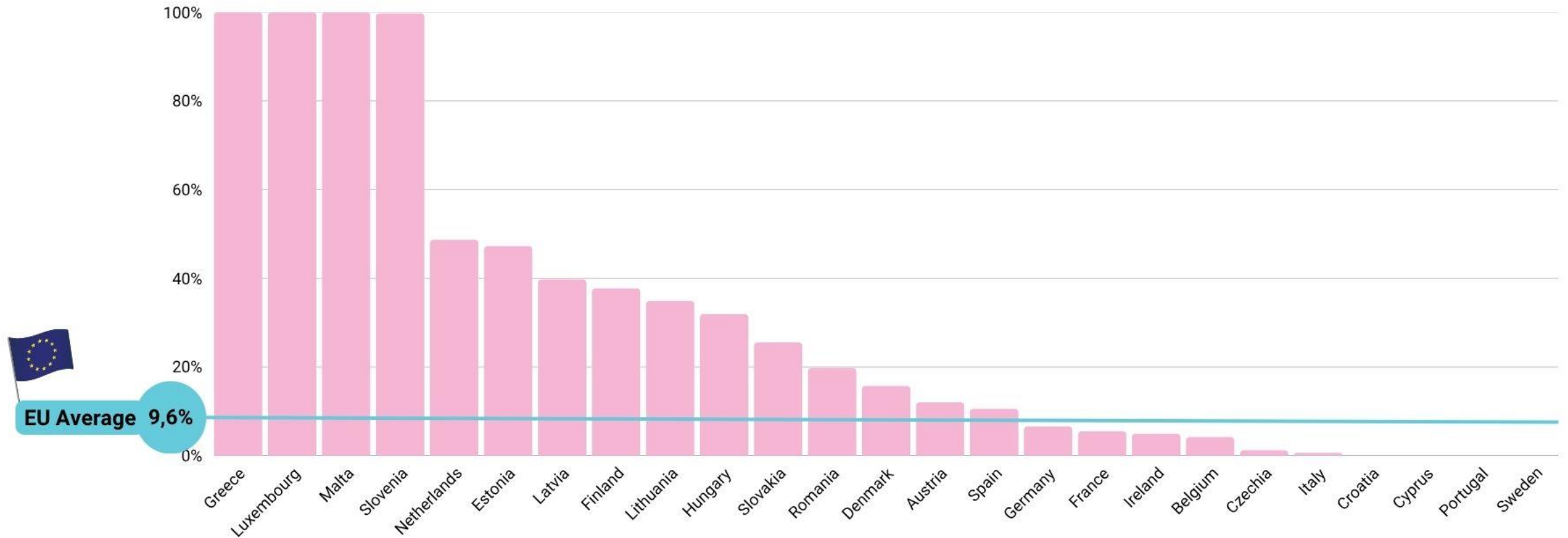
Glass Cullet Recycling Facilities

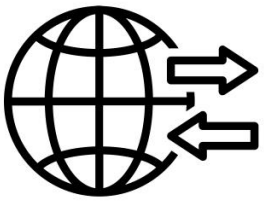


Figures based on the membership of FERVER (European Glass Recyclers' Federation) & FEVE (European Container Glass Federation).

WHICH COUNTRIES DEPEND THE MOST ON EXPORTS OF GLASS FOR RECYCLING TO ACHIEVE THEIR RECYCLING RATE?

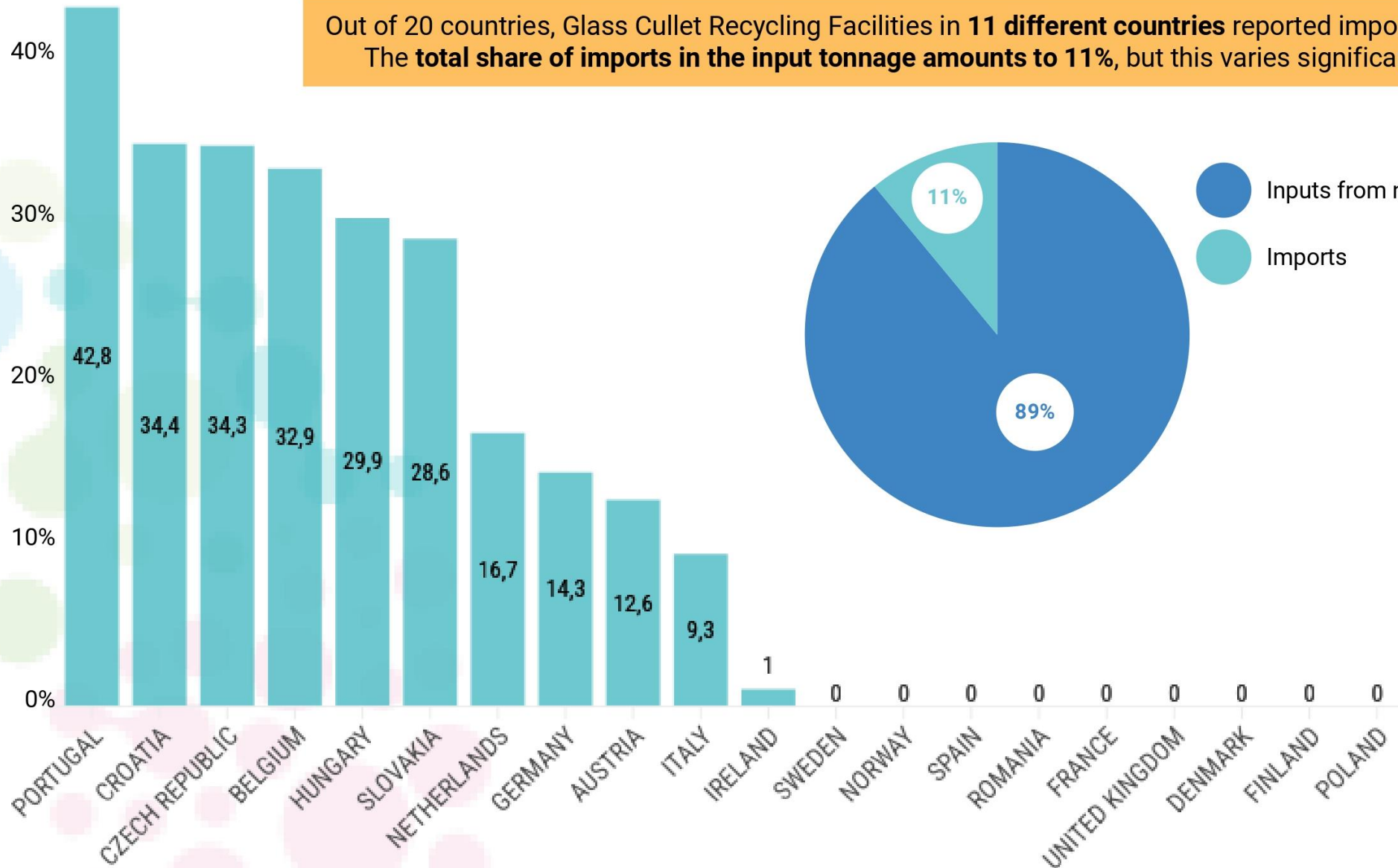
- The calculation is based on total tonnes exported for recycling inside and outside the EU compared to total tonnes reported as recycled.





Share of imports in the total input tonnage of Glass Cullet Recycling Facilities

Out of 20 countries, Glass Cullet Recycling Facilities in **11 different countries** reported importing materials. The **total share of imports in the input tonnage amounts to 11%**, but this varies significantly by country.



Container glass collection for recycling in Europe

In 2023, in the EU27, on average **80,8%** of glass packaging was collected for recycling

>90%

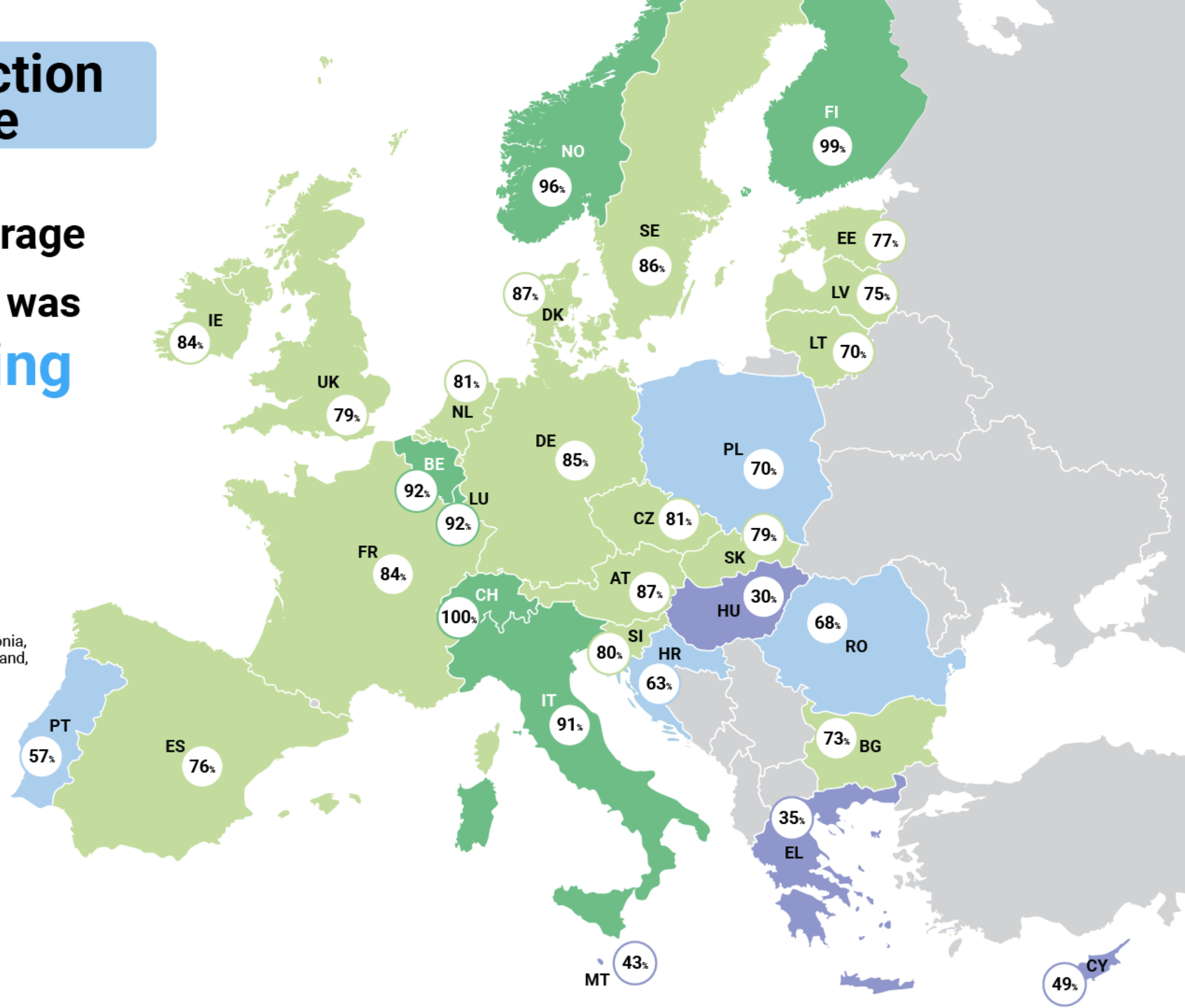
70-90%

50-70%

<50%

1. The EU average is calculated from total tonnes collected for recycling vs. total tonnes placed on the market in the EU. The data for non-EU countries is for reference only.
2. In some cases, the national rates reflect a "recycling rate" and not a "collection for recycling rate".
3. Where estimates for 2023 were not available, Eurostat 2022 data (Bulgaria, Croatia, Denmark, Estonia, Hungary, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Slovakia, Slovenia, Sweden) was used.

Source: Close the Glass Loop - 2023 data

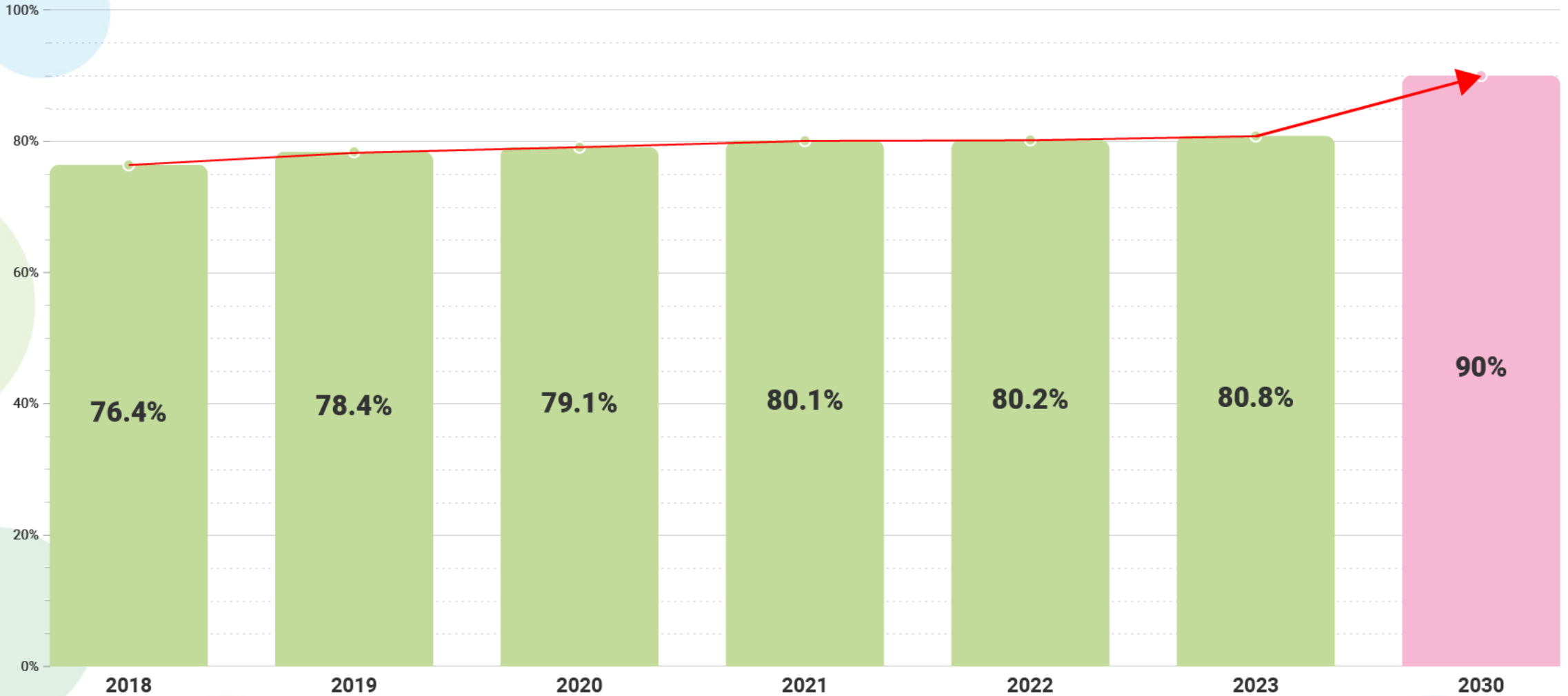


More details on www.closestheglassloop.eu





Paving the Way to 90%



• Scope: EU27 + UK until 2020; EU27 in 2021 - 2023

PACKAGING GLASS RECYCLING RATE IN THE EU – 2023

74,9%

Source: Eurostat data reported by 21/10/2025. The EU average will be adjusted accordingly as missing data from countries that have not yet reported becomes available, and as provisional estimates already reported by some countries are replaced with final figures.

<55%

Countries **below the 2035** target of recycling at scale

<70%

Countries **below the 2025** glass recycling target

<75%

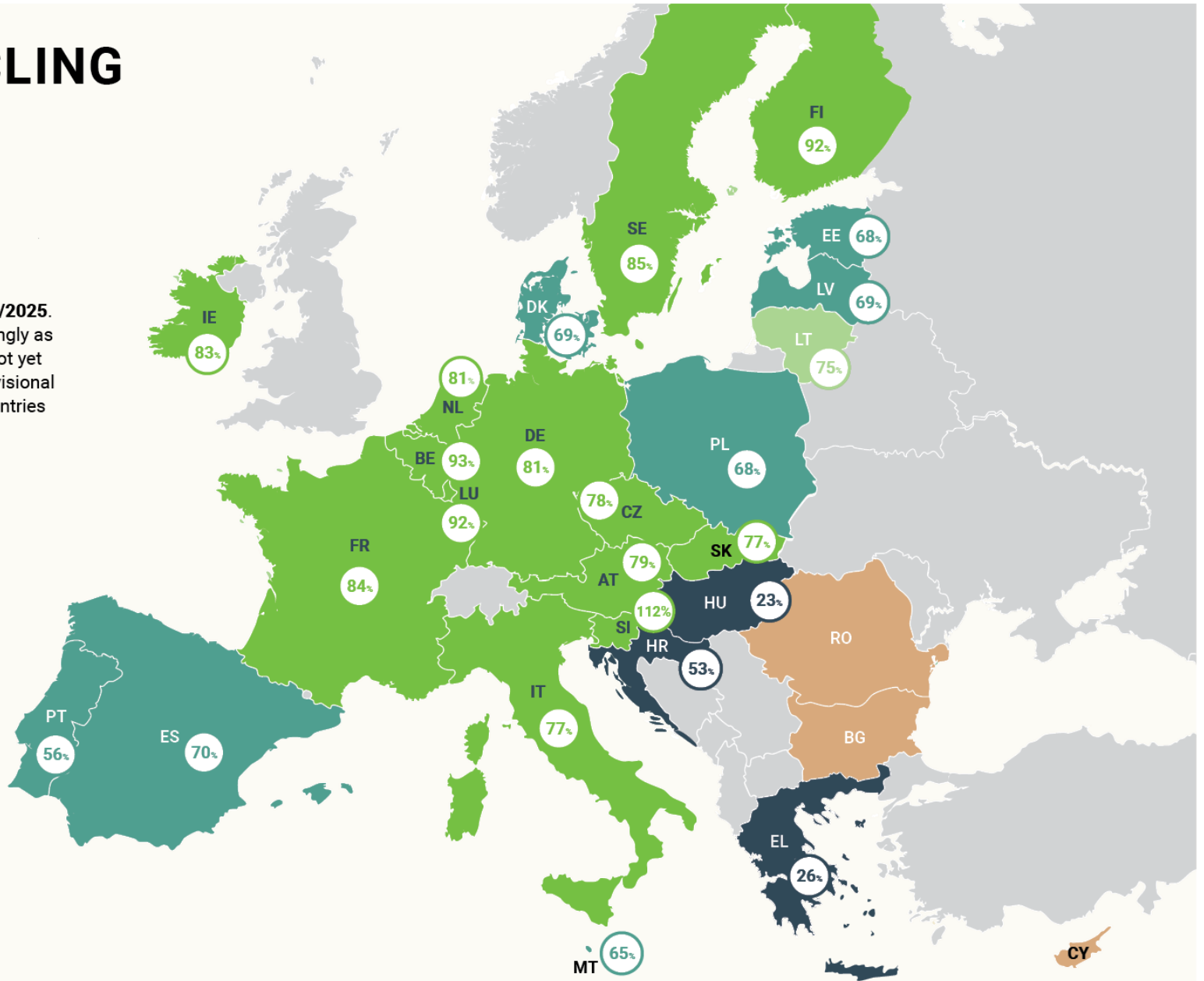
Countries **below the 2030** glass recycling target

>75%

Countries **above the 2030** glass recycling target

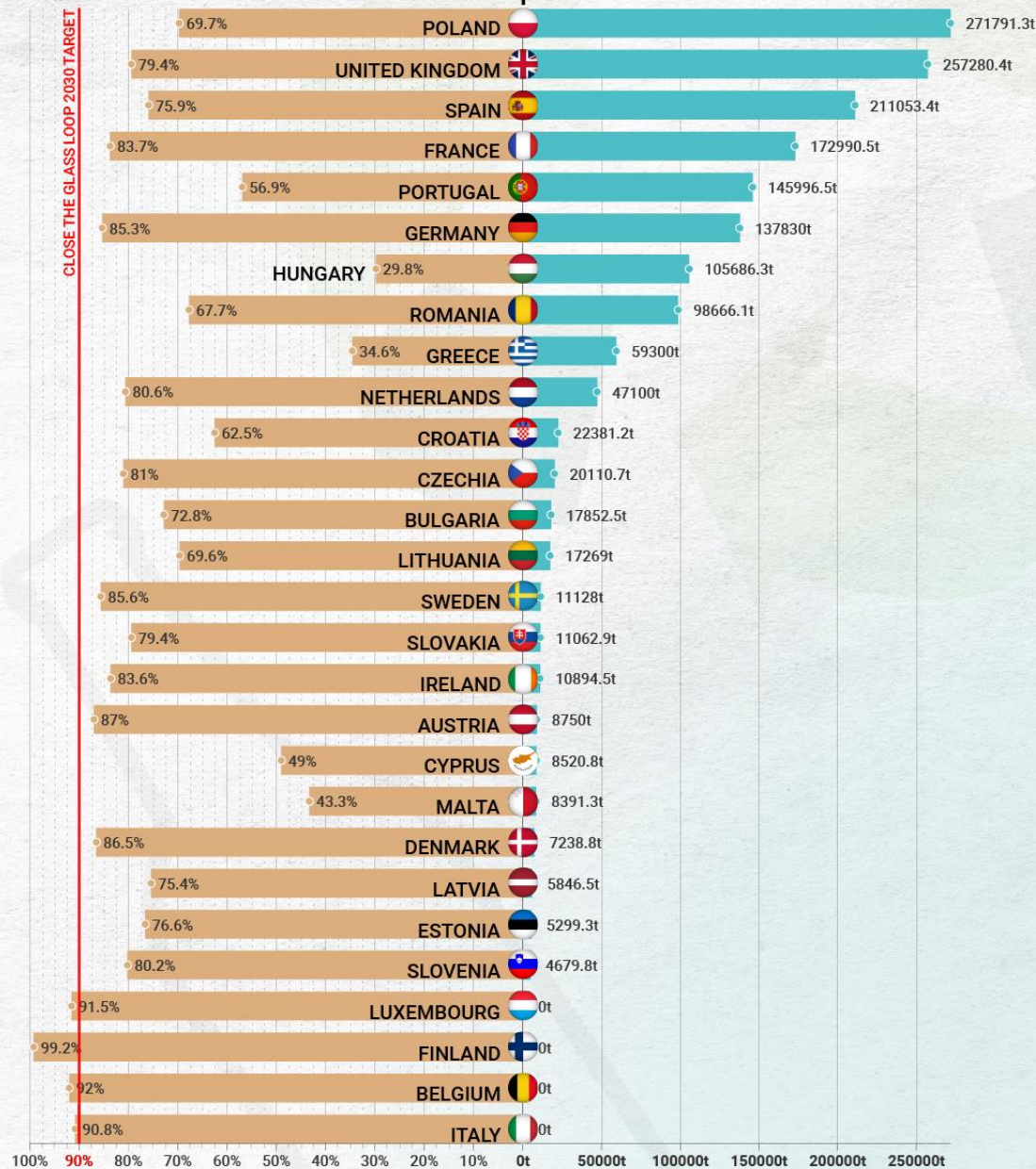
no data

Countries **that have not reported data** into Eurostat



close the glass loop

COLLECTION FOR RECYCLING RATE 2023 | TONNAGE TO REACH 90%



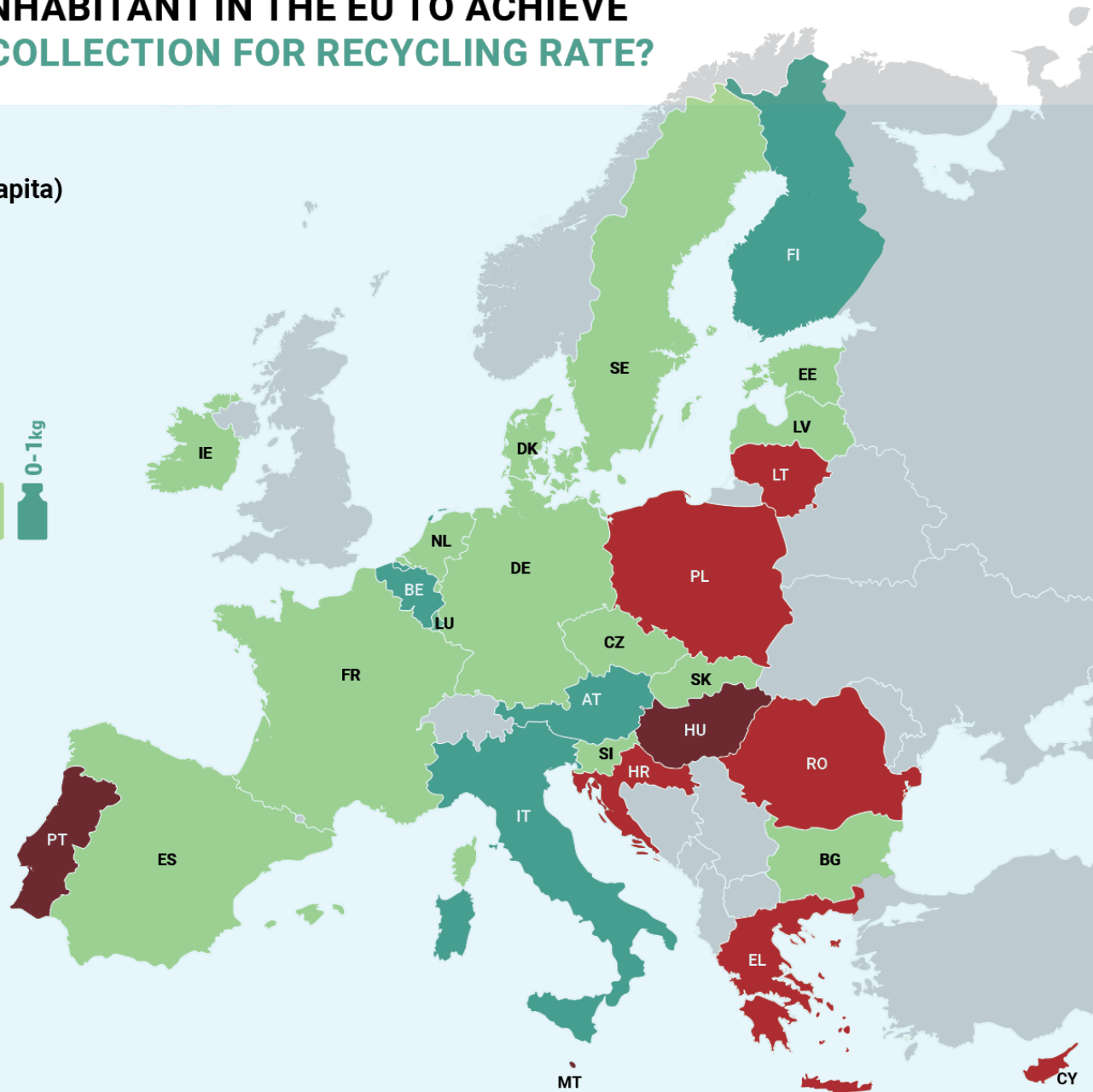
- It's not all about rates
- The circular economy is also about offer and demand



WHAT IS THE EXTRA EFFORT REQUIRED FOR EVERY INHABITANT IN THE EU TO ACHIEVE A 90% GLASS COLLECTION FOR RECYCLING RATE?

Amount of glass packaging to be collected to achieve 90% glass collection for recycling rate in 2023 (kg per capita)

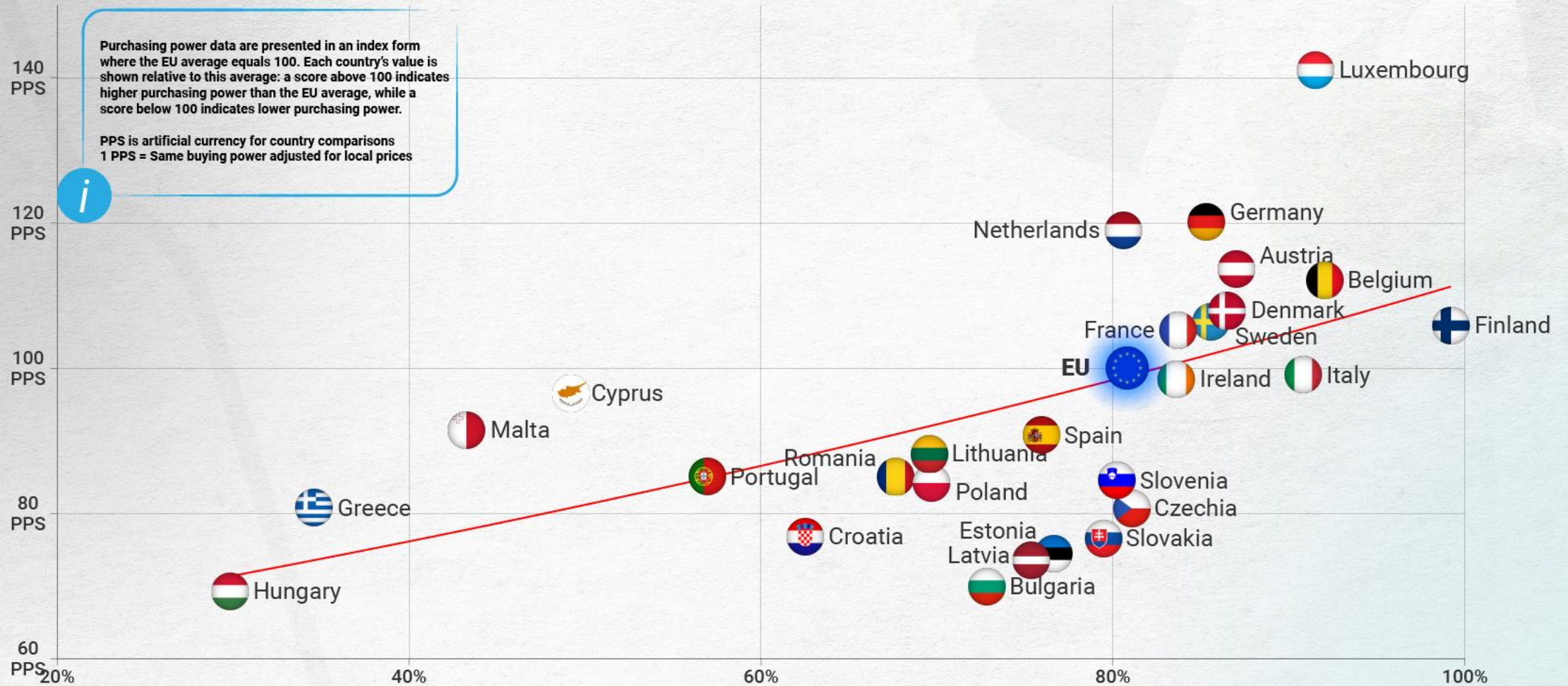
Malta	15,49
Portugal	13,89
Hungary	11,01
Cyprus	8,98
Poland	7,39
Lithuania	6,04
Croatia	5,81
Greece	5,70
Romania	5,18
Spain	4,39
Estonia	3,88
Latvia	3,10
Bulgaria	2,77
Netherlands	2,64
France	2,53
Slovenia	2,21
Ireland	2,07
Slovakia	2,04
Czechia	1,86
Germany	1,66
Denmark	1,22
Sweden	1,06
Austria	0,96
Belgium	0,00
Finland	0,00
Italy	0,00
Luxembourg	0,00



Sources: Eurostat population data for 2023 and CGL glass collection for recycling data

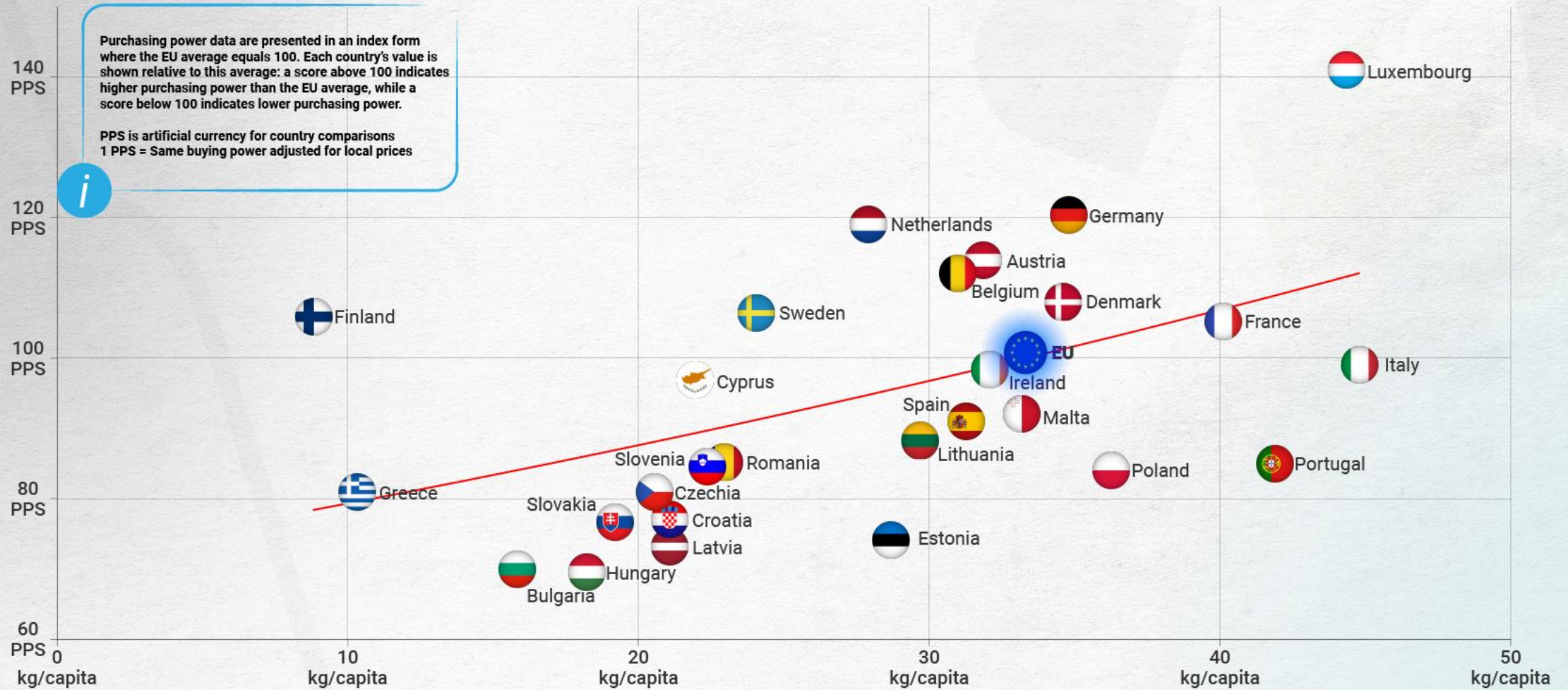
AIC vs glass packaging collection for recycling rate

(Close the Glass Loop Data 2023)



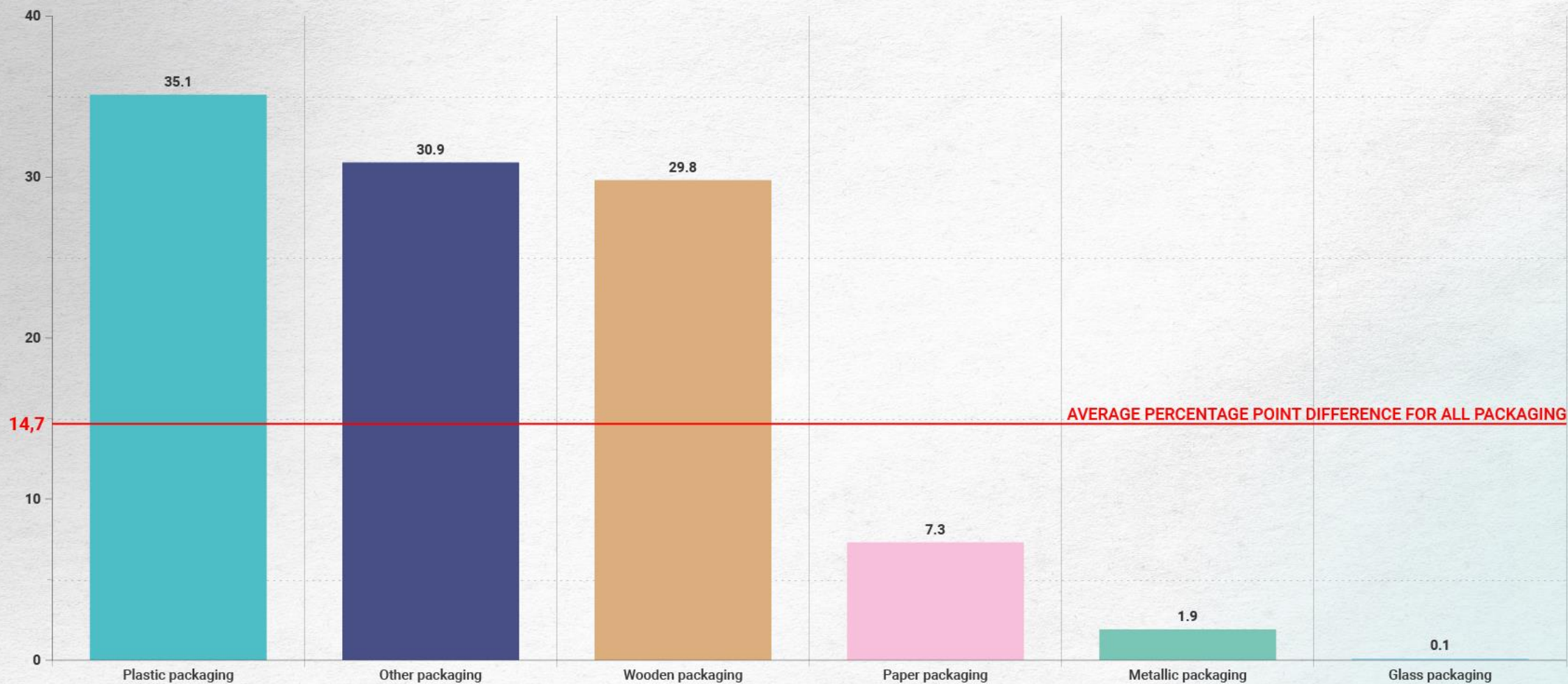
AIC vs kg/capita of glass packaging placed on the market

(Close the Glass Loop Data 2023 & Purchasing Power Standard, Eurostat 2023)



Percentage Point Difference between Recovery and Recycling

(Eurostat 2022 Data)





1

**SORTING &
TREATMENT**



2

**RECYCLED
CONTENT**

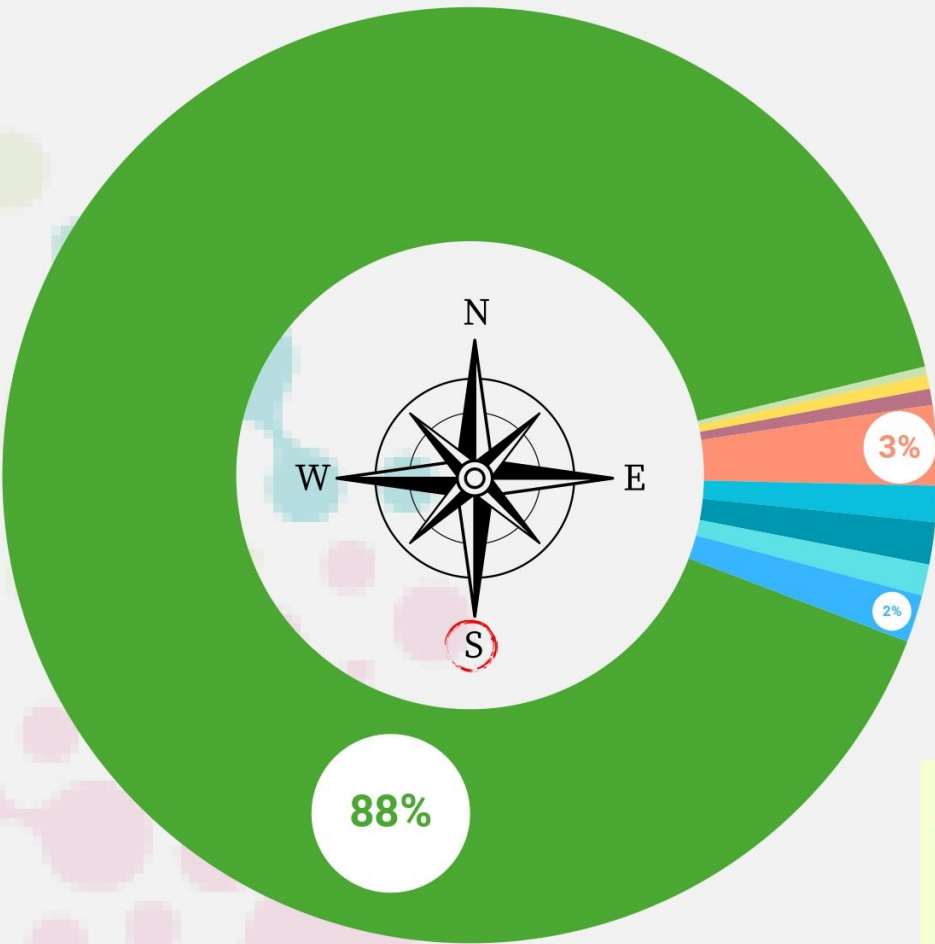


3

**GLASS RECYCLING
APPLICATIONS**

Recycling performance of Europe's South Region: a strong closed loop complemented by several other recycling applications.

SOUTH (Italy, Portugal, Spain)



2,7%
unaccounted tonnage

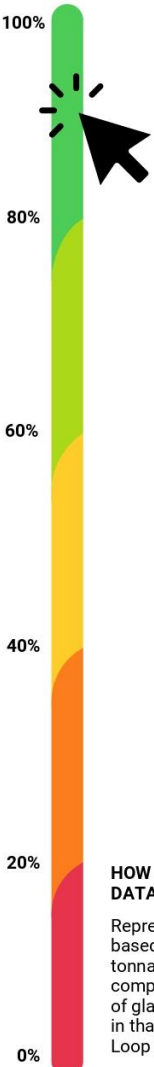
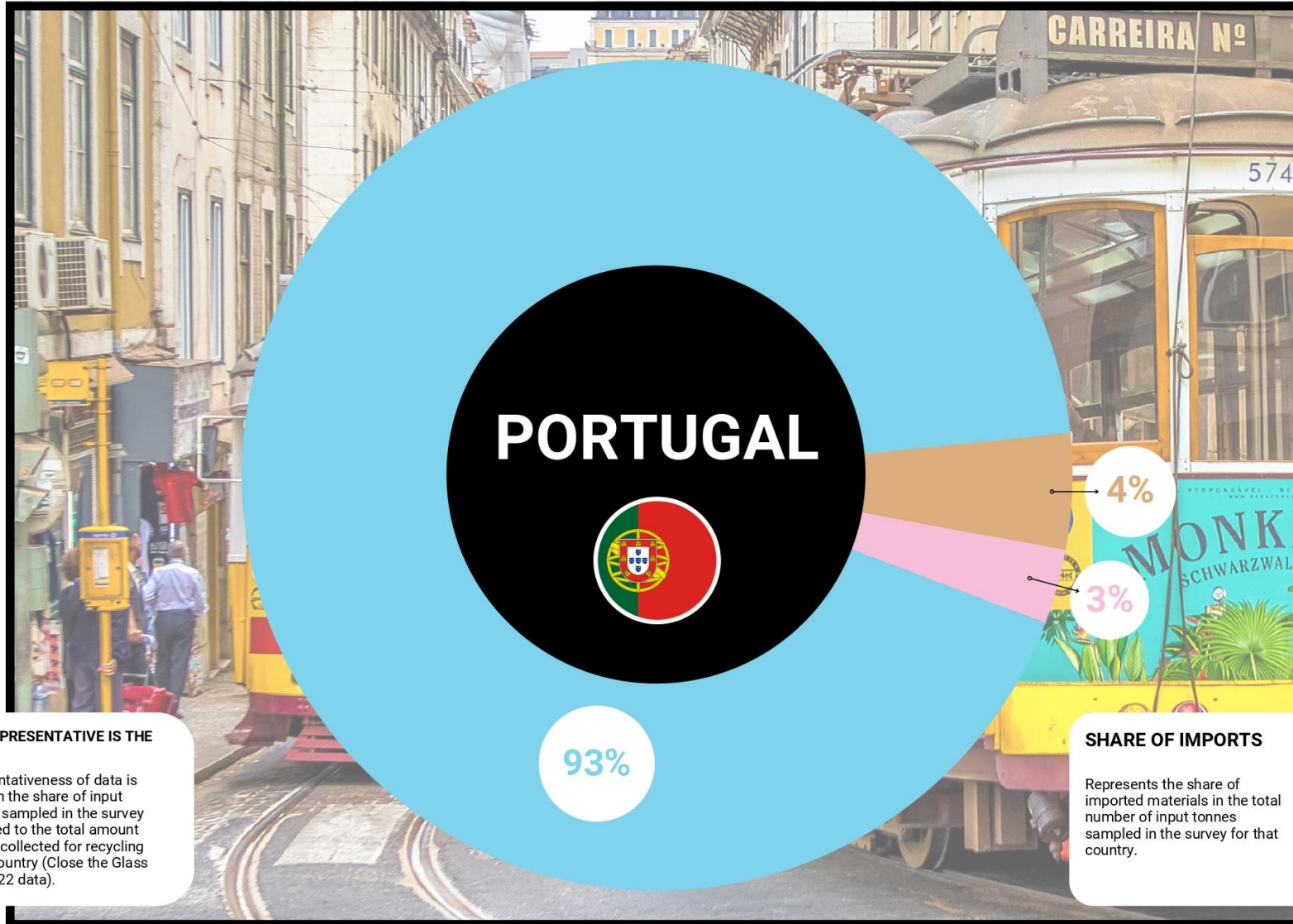
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- Glass packaging manufacturing
- <1% Glass wool manufacturing
- <1% Filtration media
- <1% Brick-making
- Construction materials
- <1% Tableware glass

- 1% Materials sent to landfill cover
- 1% Materials sent for recycling in another material stream
- 1% Materials sent to landfill
- Storage of glass that did not get recycled in 2022

- Closed loop glass recycling
- Open loop glass recycling
- Open loop recycling
- Materials sent for recycling in another material stream (e.g. metals, paper, PET...)
- Materials sent to landfill cover
- Materials sent to landfill (excluding landfill cover), waste to energy or incineration
- Storage of glass that did not get recycled in 2022

Portugal - a recycling system predominantly based on municipal waste collectors and relying very strongly on imports.



HOW REPRESENTATIVE IS THE DATA?
Representativeness of data is based on the share of input tonnage sampled in the survey compared to the total amount of glass collected for recycling in that country (Close the Glass Loop 2022 data).

SHARE OF IMPORTS
Represents the share of imported materials in the total number of input tonnes sampled in the survey for that country.



- Municipal waste collectors
- Glass recovered from mixed waste or residual waste
- Direct acquisition from bottlers

Input material categories:

- Post-consumer glass from municipal waste (accounting towards EU glass recycling rate)
- Post-consumer glass other than municipal waste (accounting towards EU glass recycling rate)
- Pre-consumer glass (not accounting towards EU glass recycling rate)

4

COMMUNICATIONS



5

INFRASTRUCTURE



6

SEPARATE
COLLECTION
POLICY



Overview of collection systems for glass packaging in Europe

GLASS MIXED-COLOUR MONOMATERIAL MUNICIPAL BRING-BACK SYSTEM



MOSTLY USED COLLECTION SYSTEM



PARTLY USED COLLECTION SYSTEM

GLASS DUAL COLOUR MONOMATERIAL MUNICIPAL BRING-BACK SYSTEM



MOSTLY USED COLLECTION SYSTEM



PARTLY USED COLLECTION SYSTEM

GLASS MIXED-COLOUR MONOMATERIAL DOOR-TO-DOOR SYSTEM



MOSTLY USED COLLECTION SYSTEM

CO-MINGLED MUNICIPAL DOOR-TO-DOOR SYSTEM FOR ALL PACKAGING



GLASS THREE-WAY COLOUR MONOMATERIAL MUNICIPAL BRING-BACK SYSTEM



MOSTLY USED COLLECTION SYSTEM

DEPOSIT RETURN SYSTEM FOR RECYCLING



MOSTLY USED COLLECTION SYSTEM



PARTLY USED COLLECTION SYSTEM

CO-MINGLED GLASS & METALS MUNICIPAL BRING-BACK SYSTEM



MOSTLY USED COLLECTION SYSTEM



PARTLY USED COLLECTION SYSTEM

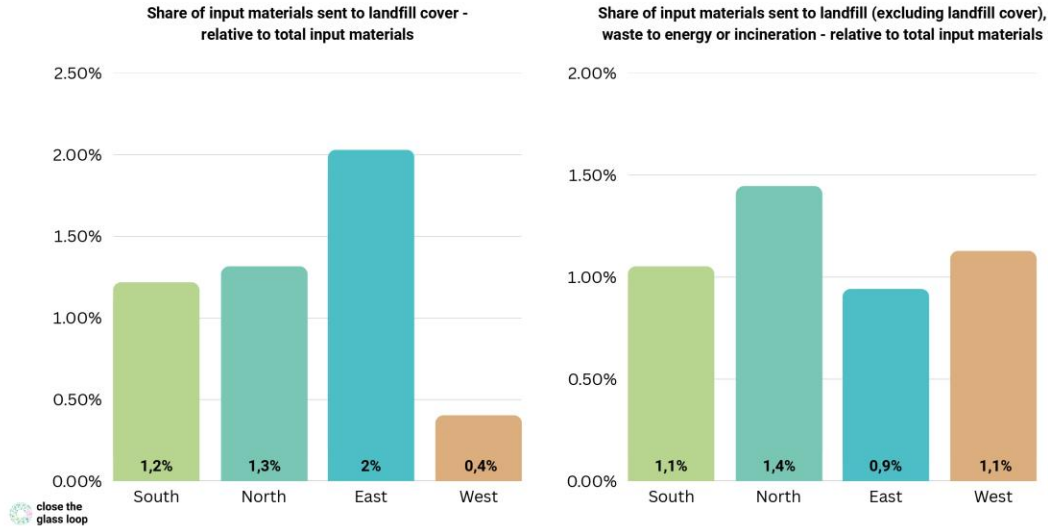
- With +/- 1 bottle bank for every 200 inhabitants, Portugal has an extensive network of glass waste bins
- Mixed-colour monomaterial bring-back system is the most common system used around Europe

"Mostly used collection system" means that the majority or all of glass packaging placed on the market in a country is collected for recycling through this system. It is the main collection system used nationwide. In some cases, countries may have several widespread collection systems.

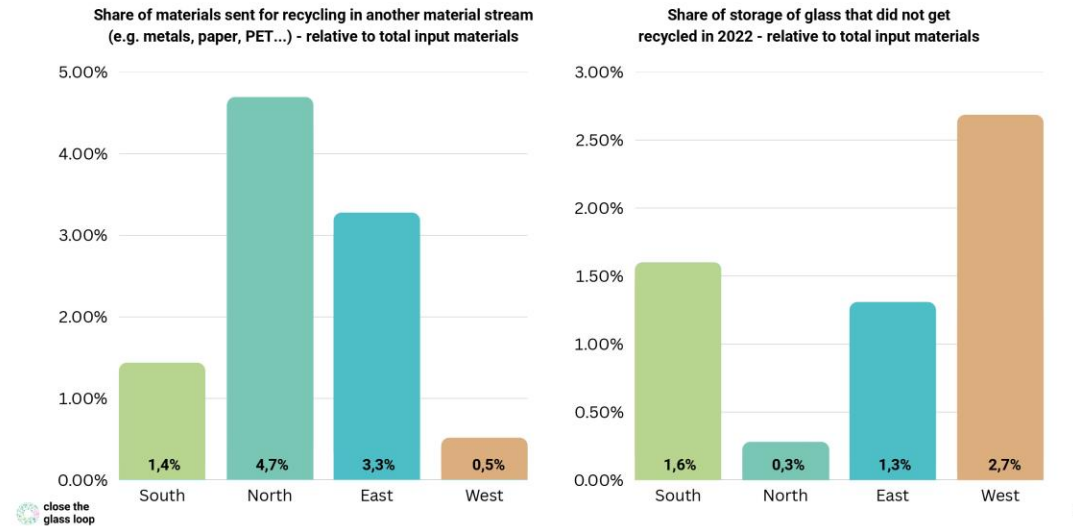
"Partly used collection system" indicates that the system is used in some areas or for a smaller share of glass packaging alongside other systems. It plays a secondary or complementary role in the country's overall collection approach. As we estimate that most (if not all) countries partly rely on door-to-door collection, we have only focused on countries where door-to-door systems represent a majority system.



Regional comparison of materials that are not sent for glass recycling



Regional comparison of materials that are not sent for glass recycling



Estimated share
of one-way glass beverage packaging in HORECA.



17,5 million tonnes

**Total glass packaging placed on the market
in EU27 + UK in 2019**
(in tonnes, Close the Glass Loop data)

17%



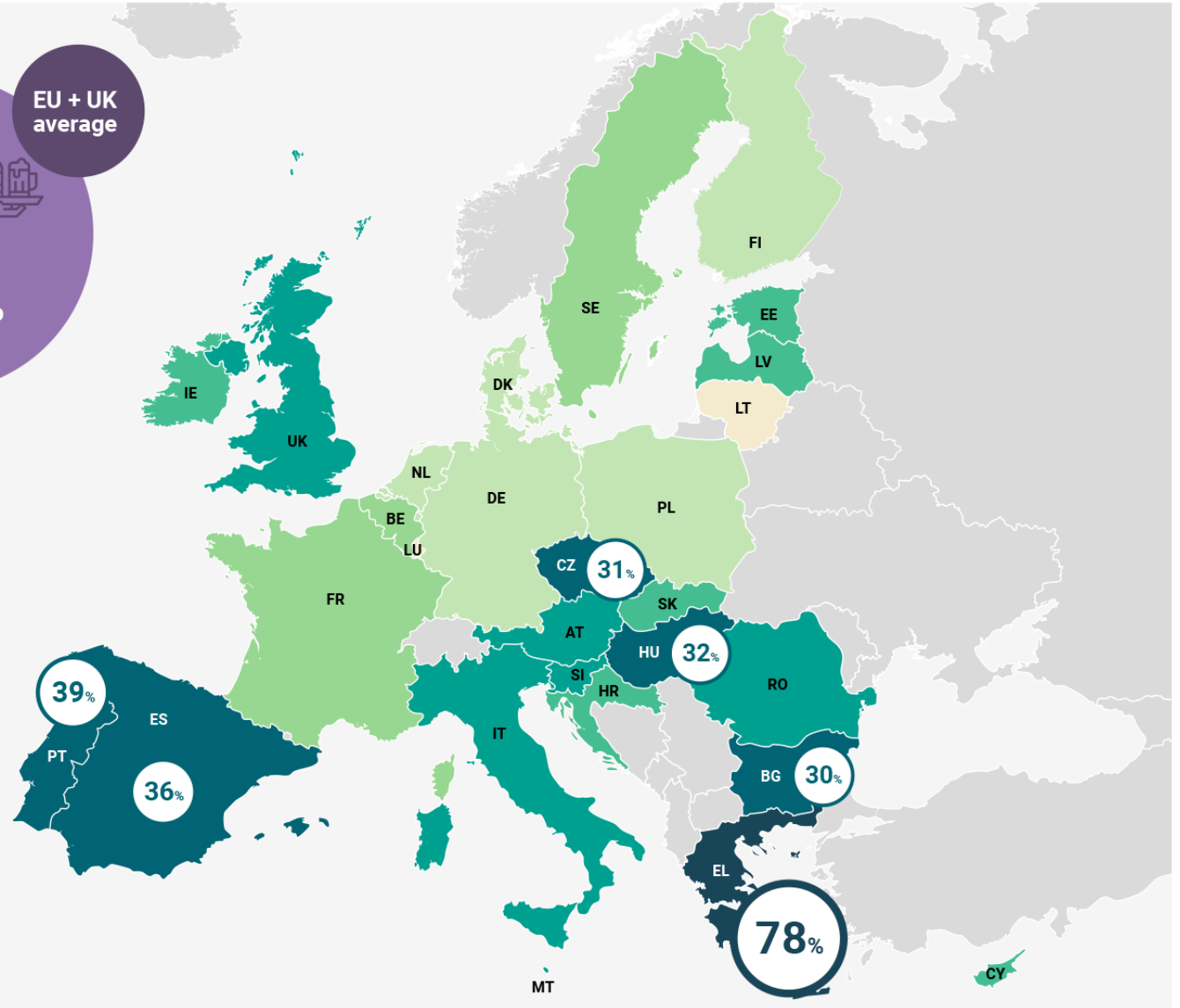
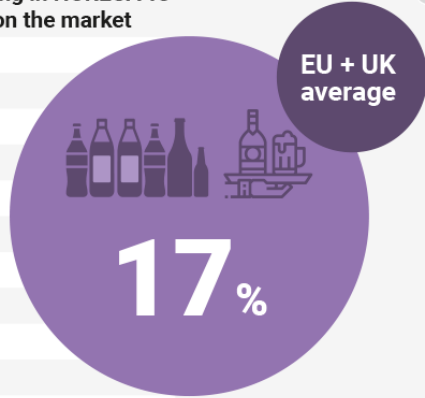
3 million tonnes

**Estimated total one-way glass beverage
packaging placed on the market in
HORECA in EU27 + UK in 2019**
(estimate made by Oakdene Hollins,
based on Global Data)

WHICH COUNTRIES HAVE THE HIGHEST SHARE OF TONNAGE FOR ONE-WAY GLASS BEVERAGE BOTTLES IN HORECA COMPARED TO THE TOTAL GLASS PACKAGING TONNAGE PLACED ON THE MARKET?

Estimated share of one-way glass packaging in HORECA vs total glass packaging tonnage placed on the market

Greece	78%
Portugal	39%
Spain	36%
Hungary	32%
Czech Republic	31%
Bulgaria	30%
Slovenia	26%
Malta	26%
United Kingdom	24%
Romania	23%
Italy	20%
Austria	20%
Latvia	19%
Cyprus	18%
Slovakia	18%
Croatia	17%
Ireland	15%
Estonia	15%
Sweden	12%
France	11%
Belgium	11%
Netherlands	7%
Denmark	7%
Germany	7%
Finland	7%
Poland	6%
Lithuania	5%
Luxembourg	3%
EU + UK Average	17%





4%
relative to
EU + UK total

7th

90 232

HORECA establishments

3rd
1 for every
114 inhabitants

Portugal has the 3rd highest density of HORECA establishments relative to population and is home to the 7th biggest hospitality sector in Europe, with the 2nd largest relative share of pubs, clubs and bars. Portugal is also the 6th biggest market for the collection and recycling of glass packaging in HORECA. In unit terms, Portugal ranks 2nd on the number of one-way glass beverage bottles placed on the market in HORECA, and 2nd also on the tonnage share compared to all glass packaging. This is also reflected in terms of consumption, with Portugal being the country which consumes the most one-way glass beverage packaging in HORECA in kg/capita, and ranks 4th in consumption per establishment. Portugal is therefore a priority country when it comes to glass collection and recycling in HORECA.

Number of one-way glass beverage bottles in HORECA vs. all glass beverage bottles (units placed on the market)

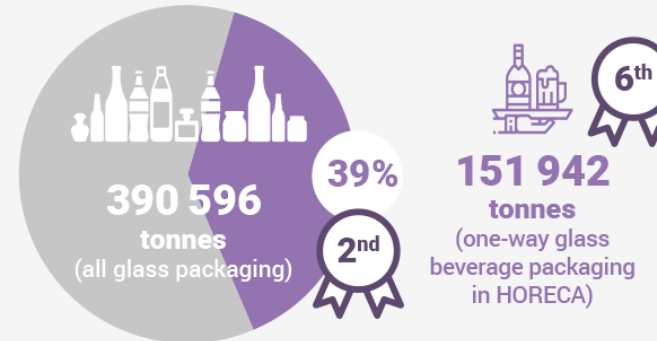


2,3
/10
2nd

Annual consumption of one-way glass beverage packaging in HORECA vs. all glass packaging



- Accommodation
- Pubs, Clubs & Bars
- Restaurants



Share of one-way glass beverage packaging in HORECA vs. all glass packaging (tonnes placed on the market)



Average annual consumption of one-way glass beverage packaging in a HORECA establishment (tonnes / establishment)

xth
Ranking out of 28 countries
(EU + UK)

A child in a blue shirt is holding a clear glass bottle up to a large green recycling bin. The background is a blurred outdoor setting with trees and a building. The entire image is overlaid with a pattern of semi-transparent teal and light green circles of various sizes. A large white circle on the right side of the image contains text.

100% Recycled Portuguese Glass

- It's possible! Although even then, there may still need to be a need to import extra materials
- Collection is the single biggest challenge, **BUT:**
 - **Data accuracy:** is the market failure on collection as big as we think?
 - **Against the clock:** especially with the introduction of a Deposit-Return System
- Apply specific measures to HORECA
- Communication (and incentives?) campaigns to connect citizens to the collection system
- Make use of digital tools where possible
- Experiment – we're here to help!

A child in a blue shirt is holding a clear glass bottle up to a large green recycling bin. The background is a blurred outdoor setting with trees and a building. The image is overlaid with a white circle containing text and a logo, and decorated with various sized teal and light green circles.

Thank you for your time to
Close The Glass Loop!



**close the
glass loop**