



DRS, Deposit Refund Systems for packaging in Europe

Analysis of DRS for Re-use and Re-cycling

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INTRODUCTION

The purpose of this document is to undertake an overview of DRS in use in Europe in both Re-use and Re-cycling, with a special focus on 5 countries (*Germany, Sweden, Lithuania, Estonia and the Netherlands*).

This document is based on the “*European Mapping of Packaging Return Schemes in the EU study*”¹ commissioned to EGEN-PNO by CONAI for the purposes of:

- describing DRS-related legislative framework developments;
- mapping DRS-level organization for Re-use and recycling;
- comparing the results and performance of the various systems;
- analysing DRS costs and benefits.

The EGEN-PNO study is consultable on the CONAI website (www.conai.org).

DRS OVERVIEW, DEPOSIT REFUND OR RETURN SYSTEM

Deposit Refund or Return Systems (DRS) are schemes involving packaging deposits in which **consumers leave a deposit** when they buy products which are then returned to them when they return empty packaging to **producers via** retail outlets.

DRS for Re-use exist globally and are designed to foster reuse of empty packaging for its original purpose and generally work on a **voluntary basis**.

DRS for Re-cycling for the purposes of recycling empty packaging materials to make new packaging or products also exist. These are generally **legally mandatory**.

To date, in 2022, there are 7 **DRS for Re-use** in Europe (the latest of these was introduced by Lithuania in 2006) and 13 **DRS for Re-cycling**.

Both of these DRS were designed for **beverage packaging only**.

DRS for Re-use are mainly used for **glass** packaging (beer and water bottles).

DRS for Re-cycling are mainly used for **plastic and aluminium** packaging (water and soft drinks bottles).

Where **DRS for Re-use** is concerned, beverage packaging **deposits** are calculated in accordance with the **value of the empty packaging**.

For **DRS for Re-cycling**, deposits are correlated directly with the **desired return rate**.

¹ www.conai.org

Re-use DRS are packing and packaging waste environmental impact **prevention measures**.

Re-cycling DRS are **alternative, parallel and non-integrable national measures to separate waste collection**.

In **governance** terms, DRS can be categorized into **centralized** systems – in which a single body is responsible for funding and organization (generally non-profit bodies set up by beverage producers in association with retailers or local authorities) – and **decentralized** systems in which it is the individual producers or retailers who are responsible for financial management and some organizational management aspects.

HOW DO DRS FIT INTO EUROPEAN LEGISLATIVE FRAMEWORK DEVELOPMENTS?

Packaging and Packaging Waste Directive (PPWD)

In 1994 the European Packaging and Packaging Waste Directive² (PPWD) encouraged member states to reuse packaging and set recycling goals for all packaging waste and individual packaging materials. In accordance with this directive, and on the basis of “shared responsibility” and the “polluter pays” principles, member states were required to set up systems for the following:

- a) return or collection, or both, of used packaging and packaging waste generated by consumers, other end users or waste streams for separate collection in the most appropriate ways;
- b) reuse or recovery, including via recycling, of the packaging and packaging waste collected.

In most member states packaging producers and users have set up compliance systems or organizations which work to achieve the Packaging Directive's goals on behalf of the companies required to comply with it, on the basis of pre-existing urban waste or commercial and industrial packaging waste collection infrastructure.

Only the **Scandinavian countries** and later **Germany** have set up reuse and recycling systems based on existing deposit refund systems.

The 2004 and 2018 amendments to the Packaging Directive required member states – a total of 28 from its previous figure of 15 with the EU's new Eastern European members – to achieve much more ambitious packaging recycling goals and increased reused packaging material percentages in the marketplace as well as systems for the reuse of packaging in environmentally friendly ways and in accordance with the EU treaty, without impacting on food safety or consumer health.

These measures are to include:

- a) deposit refund systems;
- b) qualitative or quantitative goal fixing;
- c) financial incentives;

² <https://eur-lex.europa.eu/legal-content/IT/TXT/?qid=1589558171411&uri=CELEX:01994L0062-20180704>

- d) fixing minimum reusable packaging percentages in the marketplace every year for each packaging stream.

PACKAGING RECYCLING GOALS				
Material	2002	2008	2025	2030
	%	%	%	%
Plastic	15	22.5	50	55
Wood	15	15	25	30
Ferrous metals	15	50	70	80
Aluminium	15	50	50	60
Glass	15	60	70	75
Paper and cardboard	15	60	75	85
TOTAL	25-45	55-80	65	70

The Waste Framework Directive (WFD)

In 2008 the new European Waste Framework Directive (WFD)³ required member states to set goals for the recycling of urban waste and the like, in paper, plastic, glass, metals and, with the 2018 amendment, organic waste. This directive required member states to use separate collection and, on the basis of the “extended producer responsibility” principle, members were also encouraged to set up Extended Producer Responsibility (EPR) Schemes, a series of measures, now in conformity with minimum general requisites, designed to ensure that product manufacturers or bodies appointed by them for this purpose are financially (or financially and organizationally) responsible for managing the product life cycle phase in which products become waste.

In 2018 the European Packaging and Packaging Waste Directive was amended to increase recycling goals and also to **require member states to adopt EPR schemes for packaging.**

URBAN WASTE RECYCLING GOALS				
	2020	2025	2030	2035
TOTAL	50%	55%	60%	65%

Single-Use Plastic Directive (SUPD)

In 2019 the Directive on reducing the environmental impact of certain plastics (SUP)⁴ fixed specific separate collection goals for the recycling of plastic beverage bottles up to 3 litres including their caps and lids.

³ <https://eur-lex.europa.eu/legal-content/IT/TXT/?qid=1589573038783&uri=CELEX:02008L0098-20180705>

⁴ <https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=CELEX%3A32019L0904>

RECYCLING COLLECTION GOALS

2025 2029

Plastic beverage bottles < 3L

77% 90%

To this end member states options include:

- a) setting up deposit refund systems;
- b) fixing separate collection goals for the relevant extended producer responsibility schemes.

The SUP Directive thus stipulated that the introduction of **DRS refund systems is equivalent to alternative separate collection tools.**

The SUP Directive also fixed recycled content goals for beverage bottles up to 3 litres.

RECYCLED CONTENT GOALS

2025 2029

PET beverage bottles < 3L

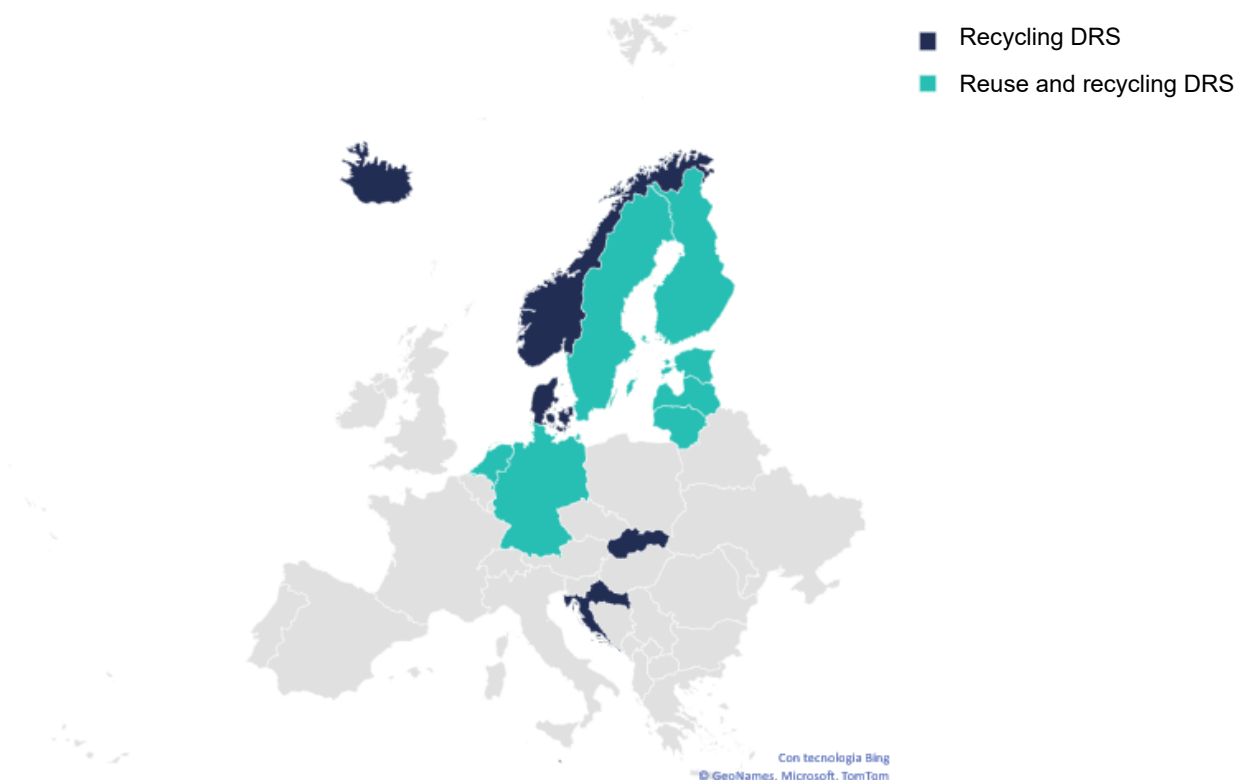
25%

Plastic beverage bottles < 3L

30%

OPERATIONAL EUROPEAN DRS MAPPING

EU DRS FOR RE-CYCLING AND RE-USE MAP 2022



COUNTRIES WHICH HAVE ADOPTED DRS SYSTEMS

Countries	2021 population Millions of inhabitants
Germany	83
The Netherlands	18
Sweden	10
Denmark	6
Finland	6
Slovakia	6
Norway	5
Croatia	4
Lithuania	3
Latvia	2
Estonia	1
Malta	1
Iceland	0
TOTAL PERCENTAGE OF EUROPEAN POPULATION COVERED BY DRS SYSTEMS	(32%)144

Source: Eurostat 2021.

From the mapping of the tools adopted in Europe in 2022 to achieve its goals, the study shows that 13 countries have adopted DRS and these account for around 144 million people (around 32%) out of an EU population of 447 million, with the only large European country being Germany (population 83 million).

EUROPEAN DRS FOR RE-USE

The first DRS for Re-use dates back to 1885 in Sweden. 7 EU countries now have these, with the latest having been set up in Lithuania 17 years ago (DESA). As the table below shows, the oldest still active Re-use DRS is the Swedish one (*Sveriger Bryggerier*), dating to 1985.



DRS FOR RE-USE - FOUNDATION DATE

Country	Operator	Year introduced
Sweden	Sveriges Bryggerier	1985
The Netherlands	BNR	1986
Norway*	RENTPACK	1995 - 2018
Denmark	Dansk Retursystem A/S	2002
Germany	Mehrweg pfand	2003
Estonia	Eesti Pandipakend	2005
Lithuania	DESA	2005

*Terminated in 2018

None of the countries studied have legal obligations to set up a Re-use DRS in place.

Producer and distributor participation is always **voluntary** but some countries have system planning requirements (Lithuania) or goal fixing requirements (Germany, Sweden and France).

DRS FOR RE-USE - SCHEMES				
Country	RE-USE DRS		RE-USE system	
	Voluntary	Goal	Centralized	Individual
Germany	X	70%	X	
The Netherlands	X		X	
Sweden	X	20%	X	
Denmark	X		X	
Finland	X		X	
Norway*	X		X	
Lithuania	X			X
Estonia	X		X	

*Terminated in 2018

In all the cases looked at, Re-use DRS are managed by centralized **non-profit** bodies set up by **beverage producers** most of which work on a national basis.

Refund schemes are based on producer and distributor **reverse logistics** agreements and use automated (reverse vending machines) and/or manual infrastructure.

DRS FOR RE-USE – MANAGERS				
Country	Large scale retail	Beverage producers	Packaging producers	Local authorities
Germany		X		
The Netherlands		X		
Sweden		X		
Denmark		X		
Finland		X		
Norway*		X		
Lithuania		X		
Estonia		X		

*Terminated in 2018

As the table below shows, this system is widely used for **glass** packaging but less so for **plastics** and no Re-use DRS collects metal packaging.

DRS FOR RE-USE - MATERIALS			
Country	Glass	Plastic	Metals
Germany	X	X	
The Netherlands	X	X	
Sweden	X	X	
Denmark	X	X	
Finland	X	X	
Norway*	X	X	
Lithuania	X		
Estonia	X	X	

*Terminated in 2018

The types of packaging covered by the Re-use DRS are mainly products such as **beer and soft drinks**. Only two cases include transport packaging (the Netherlands and Finland).

DRS FOR RE-USE - TYPES OF BEVERAGES/PACKAGING		
Country	Glass	Plastic
Germany	Water, beer, soft drinks (0.33-0.5 L)	Water (rigid PET bottles)
The Netherlands	Beer (0,30-0.5 L)	Pallets, beer crates Soft drink crates
Sweden	Beer (0,33-0.5 L)	€2.21-2.77
Denmark	Soft drinks, beer	Soft drinks Pallets/soft drink crates
Finland	Soft drinks (0.33-0.5-1 L)	rigid PET bottles (0.5-0.1 L)
Norway*	Beer	Pallets, beer crates
Lithuania	Water, beer, soft drinks, alcoholic drinks, juices	
Estonia	Beer, soft drinks (0.1-0.3 L)	Water, beer, soft drinks (0.1-0.3 L)

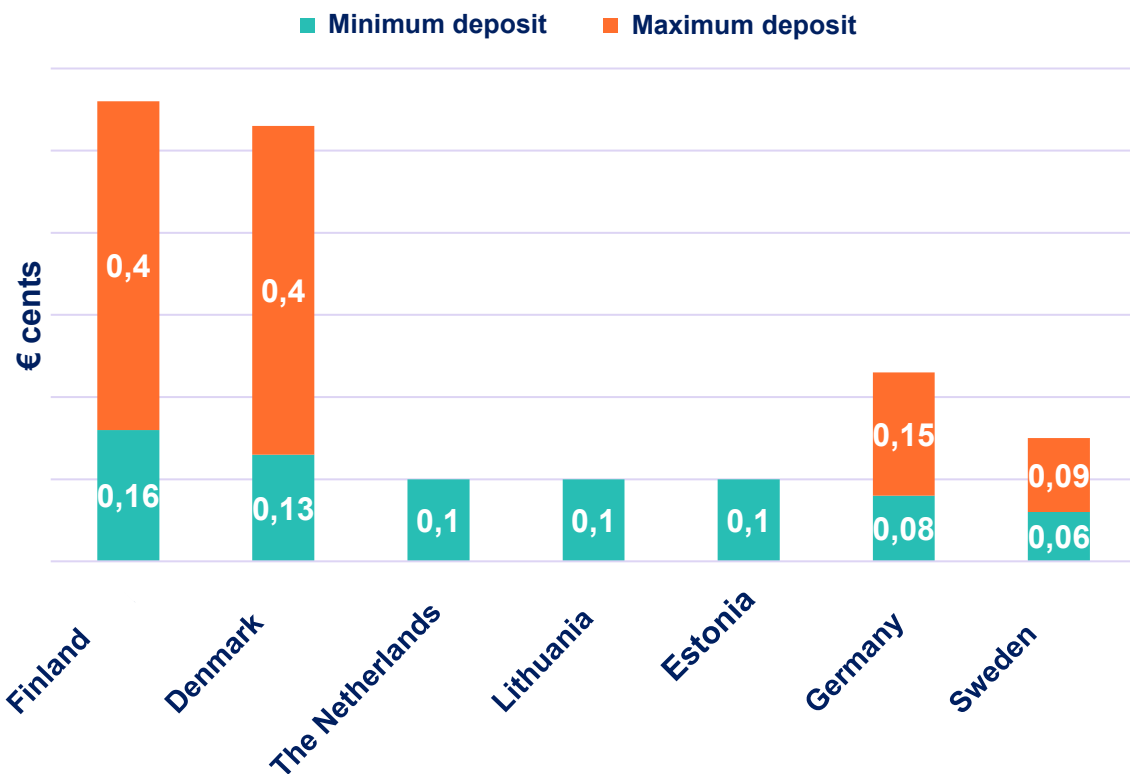
*Terminated in 2018

Packaging is generally **standardized** in conformity with specific design requirements for fresh use by producers of the same beverage.

Return deposits are **standardized, self-determined** and calculated on the basis of **packaging value** to ensure packaging continues to circulate.

Analysis of minimum and maximum packaging reuse deposit values show that Germany's (*Mergweg*) is the lowest, at 8 € cents while Finland's and Denmark's are the most expensive, at 40 € cents.

MINIMUM AND MAXIMUM PACKAGING REUSE DEPOSITS

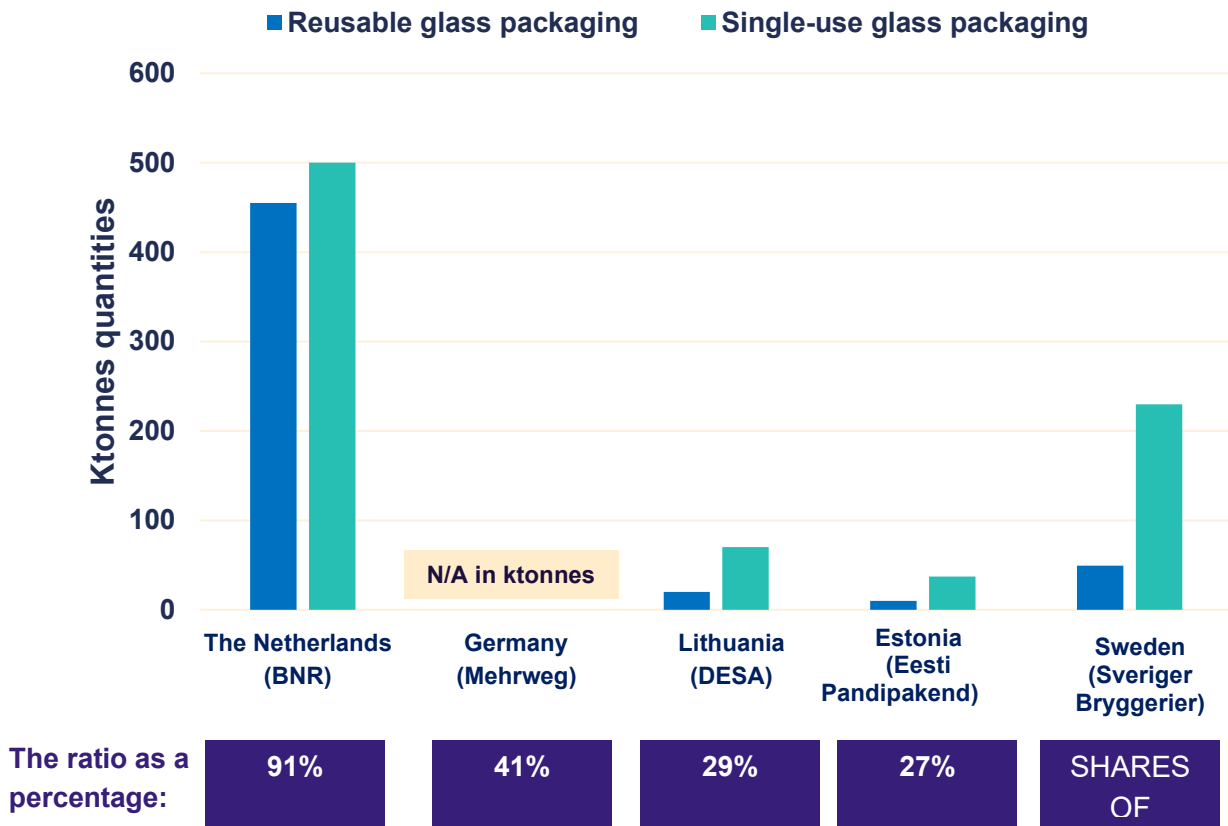


Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

The study then analysed the DRS of 5 countries in detail by means of targeted interviews with DRS operators, the authorities and other key players.

The graph below shows that of the 5 cases examined the share of reusable glass packaging as compared to single-use packaging is relatively low, except for in the Netherlands (*BNR*) where 91% of packaging is reusable, while in Sweden (*Sveriger Bryggerier*) it accounts for only 22% of the total of glass single-use packaging.

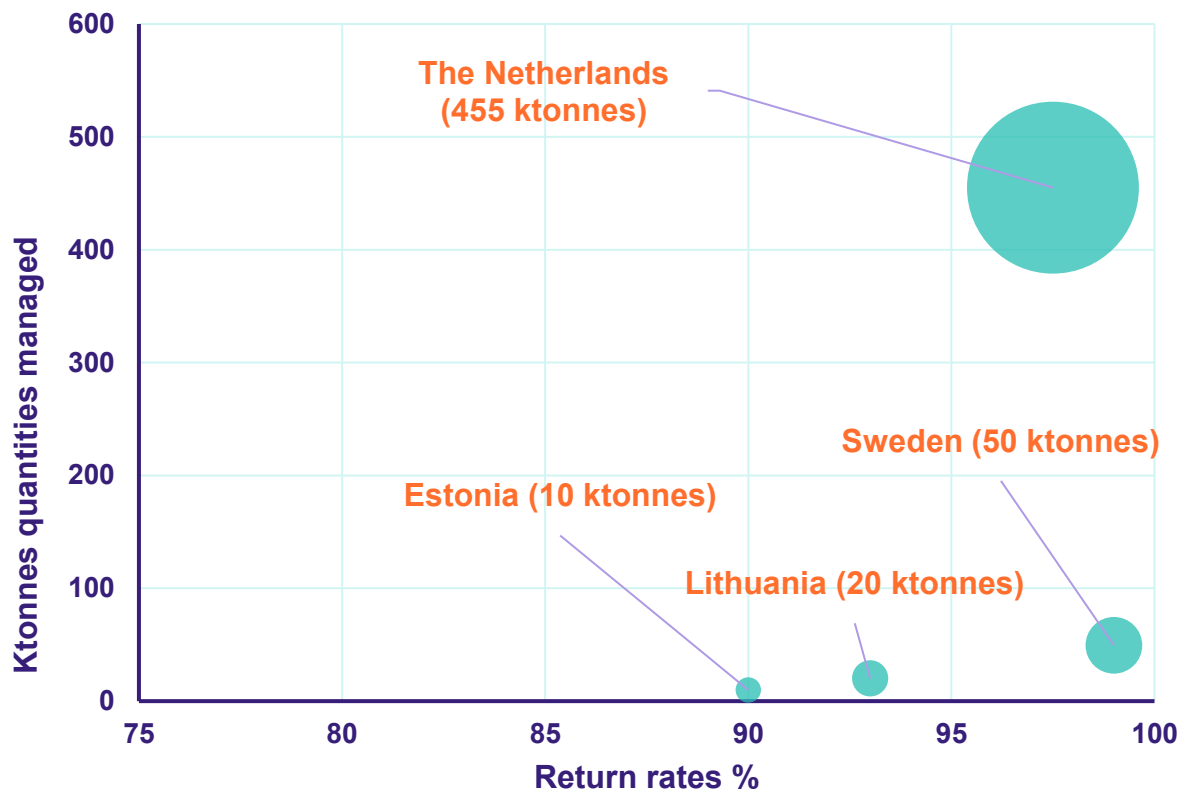
THE REUSABLE AND SINGLE-USE PACKAGING RATIOS



Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

The cases studied also show a high level of DRS for Re-use, as high as 99% in Sweden (Sveriger Bryggerier) above all where the quantities to manage are large.

The quantities of packaging managed by DRS for Re-use are relatively small, however. Of the five cases studied, the highest was in the Netherlands, 450,000 tons (*BNR*), and the lowest in Estonia, 10,000 tons (*Eesti Pandipakend*).

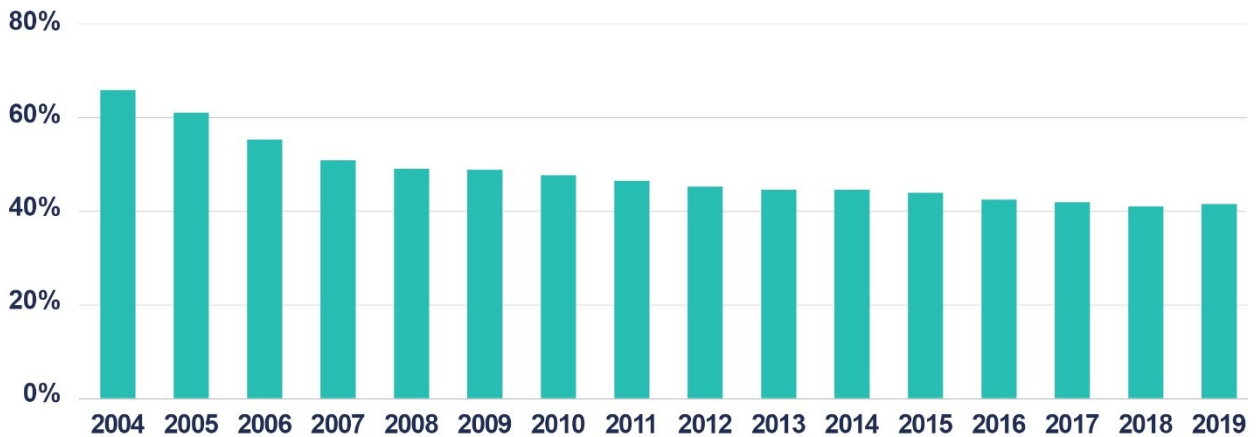


Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

The graphs drawn from other studies⁵ show that the packaging trend for Re-use DRS is in constant decline.

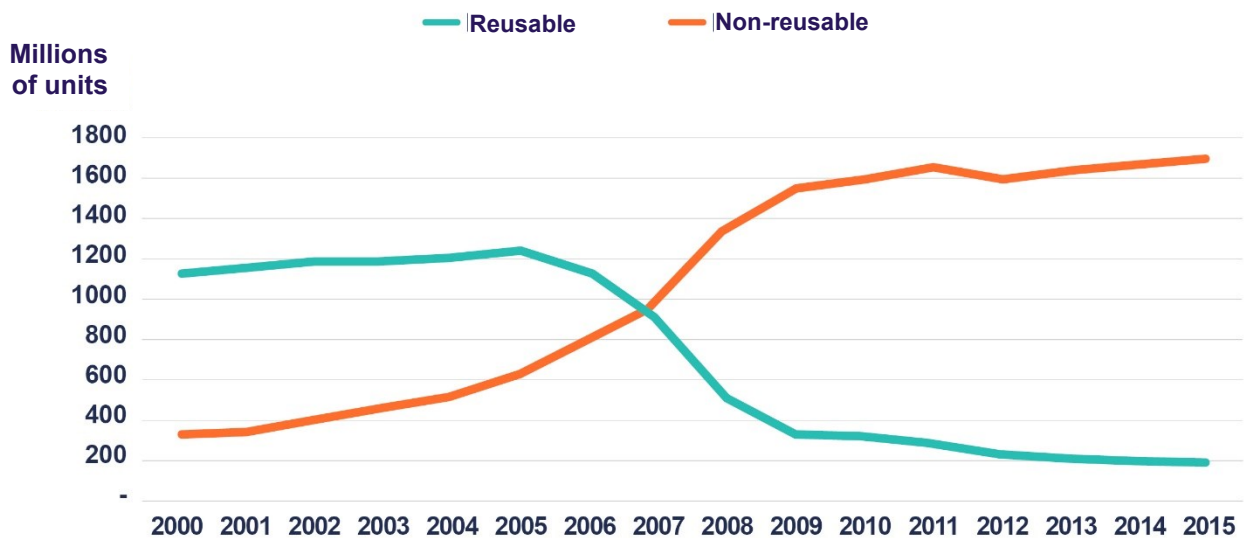
SHARES OF RE-USABLE BEVERAGE PACKAGING IN GERMANY

(2004-2019)



SHARES OF RE-USABLE AND NON-REUSABLE PACKAGING IN FINLAND

(2000-2015)



⁵ Germany (<https://www.bmu.de/themen/wasser-ressourcen-abfall/kreislaufwirtschaft/statistiken/verpackungsabfaelle>)
 Finland (https://www.reloopplatform.org/wp-content/uploads/2016/05/FinlandREF_vs_NR.png)

EU DRS TO ACHIEVE RECYCLING GOALS

CONAI commissioned EGEN PNO to perform a state-of-the-art study on European DRS for Re-cycling and analysis, in particular of the Netherlands (*Statiegeld NL*), Germany (*DPG*), Lithuania (*USAD*), Estonia (*Eesti Pandipakend*) and Sweden (*Returpack*) and this generated a number of elements of use in better understanding the European experience.



The study can be consulted on the [CONAI](#) website.

The earliest DRS for Re-cycling dates to 1984 in Sweden (*Returpack*) and the latest are Latvia's, Malta's and Slovakia's, dating to 2022. In all there are 13 systems, most of which are in Northern Europe and then Eastern Europe when these countries joined the EU and worked to comply with EU directives.

DRS FOR RE-CYCLING - FOUNDATION DATE		
Country	Operator	Year introduced
Sweden	Returpack	1984
Iceland	Endurvinnslan Hf	1989
Finland	PALPA	1996
Norway	Infinitem	1999
Denmark	Dansk Retursystem A/S	2002
Germany	Pfand System	2003
Estonia	Eesti Pandipakend	2005
The Netherlands	Statiegeld	2005
Croatia	FZOEU	2006
Lithuania	USAD	2016
Latvia	Depozīta iepakojuņa operators Ltd	2022
Malta	BCRS	2022
Slovakia	Správca zálohového systému, n.o.	2022

In most of the cases studied, DRS for Re-cycling are run by **non-profit** bodies set up by **beverage producers in conjunction with the large scale retail network**. Packaging return is based on infrastructure which is mostly large scale retail network based, both automatic (Reverse-Vending Machines) and **manual**.

DRS FOR RE-CYCLING - MANAGERS

Country	Large scale retail	Beverage producers	Packaging producers	Local authorities
Germany	X	X	X	
The Netherlands	X			
Sweden	X	X	X	
Denmark	X	X		
Finland	X	X	X	
Norway	X	X	X	
Croatia				X
Lithuania		X	X	
Estonia	X	X	X	
Iceland		X	X	X

In all countries studied the DRS for Re-cycling are **legally mandatory** and specific to beverage packaging principally in **plastic (PET)**, **metals (ALU)** and **glass**.

DRS FOR RE-CYCLING - MATERIALS

Country	Plastic (PET)	Metals (>ALU)	Glass
Germany	X	X	X
The Netherlands	X	2022	
Sweden	X	X	
Denmark	X	X	X
Finland	X	X	X
Norway	X	X	
Croatia	X	X	X
Lithuania	X	X	X
Estonia	X	X	X
Iceland	X	X	X

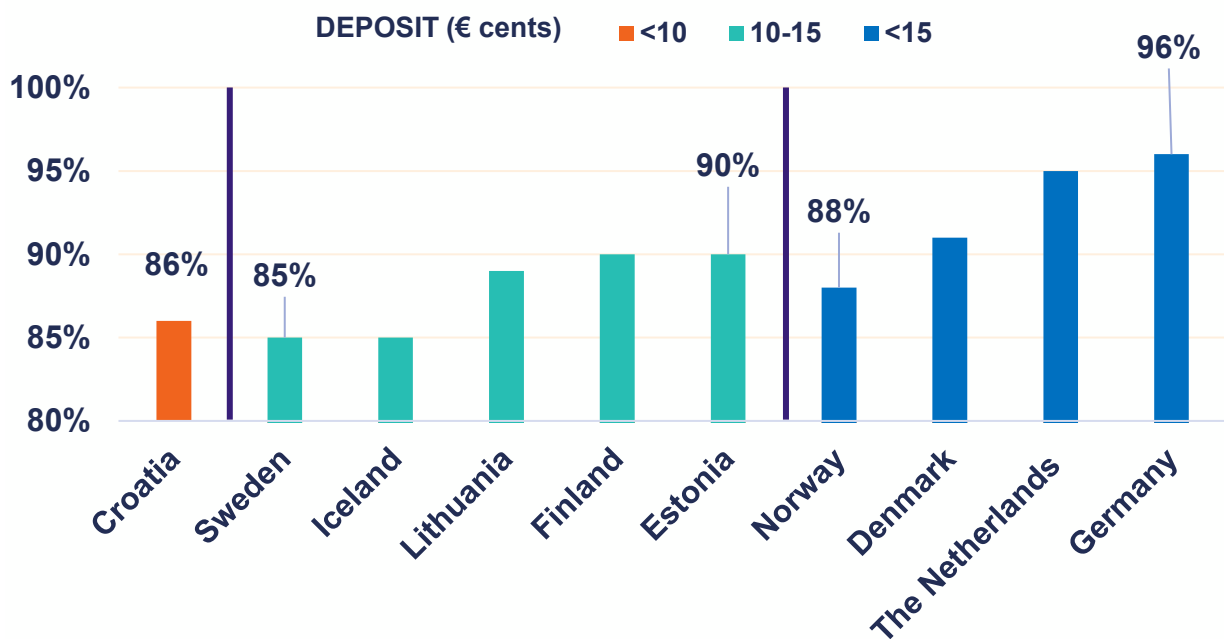
Beverage packaging covered by the DRS for Re-cycling include **water**, **soft drinks** and **beer**.

DRS FOR RE-CYCLING - TYPES OF BEVERAGES/PACKAGING

Country	Plastic (PET)	Metals (>ALU)	Glass
Germany	Water, soft drinks (0.1-3 L)	Soft drinks, beer (0.1-3 L)	Beer (0.1-3 L)
The Netherlands	Water, soft drinks (>= 0.8 L)		
Sweden	Water, soft drinks	Soft drinks, beer	
Denmark	Water, soft drinks	Soft drinks, beer	Beer
Finland	Water, soft drinks	Soft drinks, beer	Beer, wine, spirits
Norway	Water, soft drinks	Soft drinks	
Croatia	Water, soft drinks (> 0.2 L)	Soft drinks (> 0.2 L), beer	Beer, wine, spirits (> 0.2 L)
Lithuania	Water, soft drinks, wine (0.1-3 L)	Soft drinks, beer, wine (0.1-3 L)	Beer (0.1-3 L)
Estonia	Water, soft drinks (0.1-3 L)	Soft drinks, beer (0.1-3 L)	Beer (0.1-3 L)
Iceland	Water, soft drinks	Soft drinks, beer	Beer, wine, spirits

Deposits are generally legally fixed and relate to the desired interception rate. In fact the study shows higher packaging return levels in countries where deposit values are higher. An example is Germany which has achieved 96-98% capture rates with 25 € cent deposit levels.

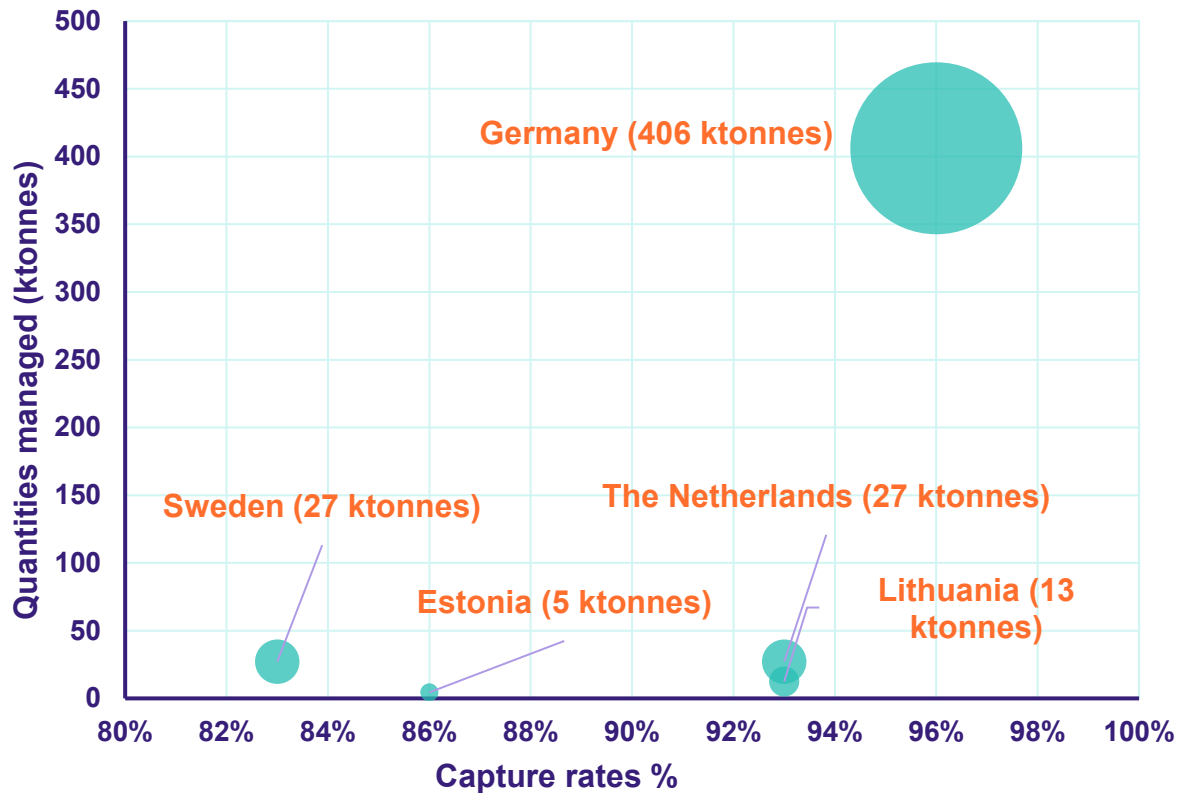
CAPTURE RATES VS DEPOSITS



Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

The very high return and capture rates achieved for beverage packaging – easy to recycle and high added financial value – notwithstanding, the study shows that DRS for Re-cycling **manage limited quantities of plastic, glass and aluminium packaging.**

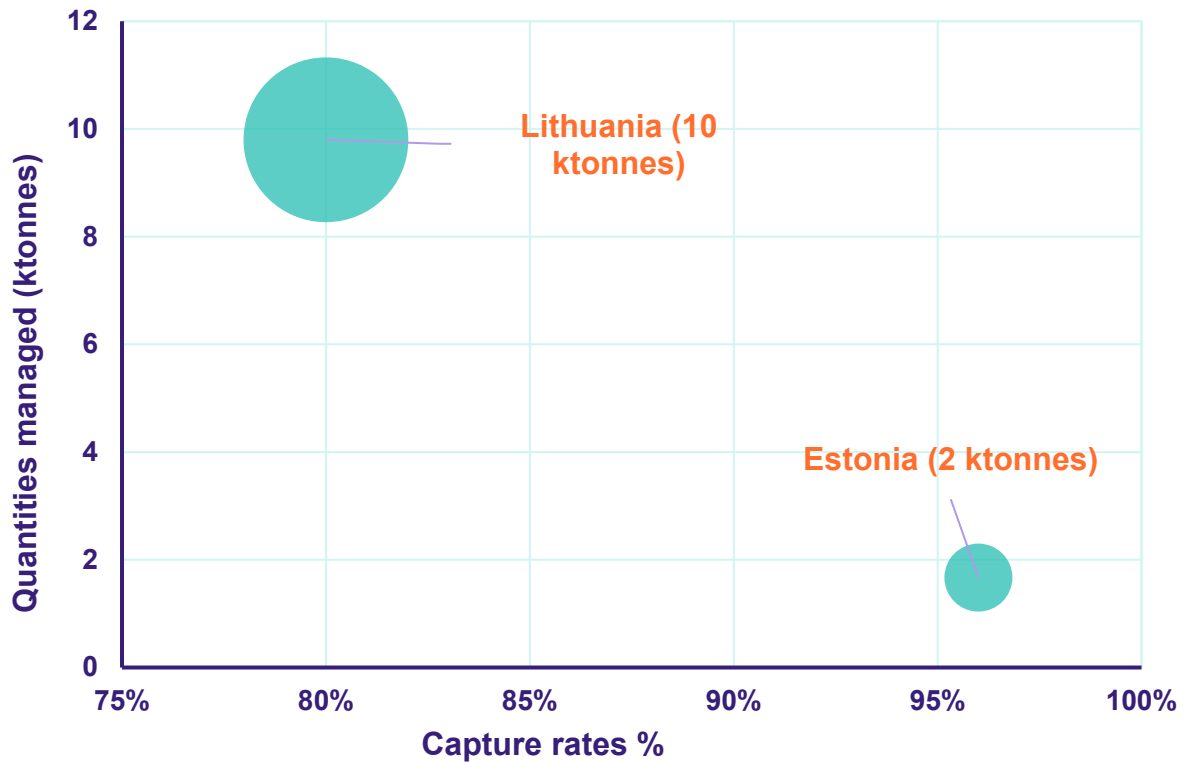
DRS FOR RE-CYCLING - VOLUMES MANAGED AND CAPTURE RATES FOR PLASTIC BEVERAGE PACKAGING



Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

As regards the plastic share, Germany (*Deutsche Pfandsystem*) manages around 400,000 tons, a capture rate of 96%. By contrast Sweden (*Returpack*) manages around 27,000 tons of plastic packaging, a capture rate of 83%.

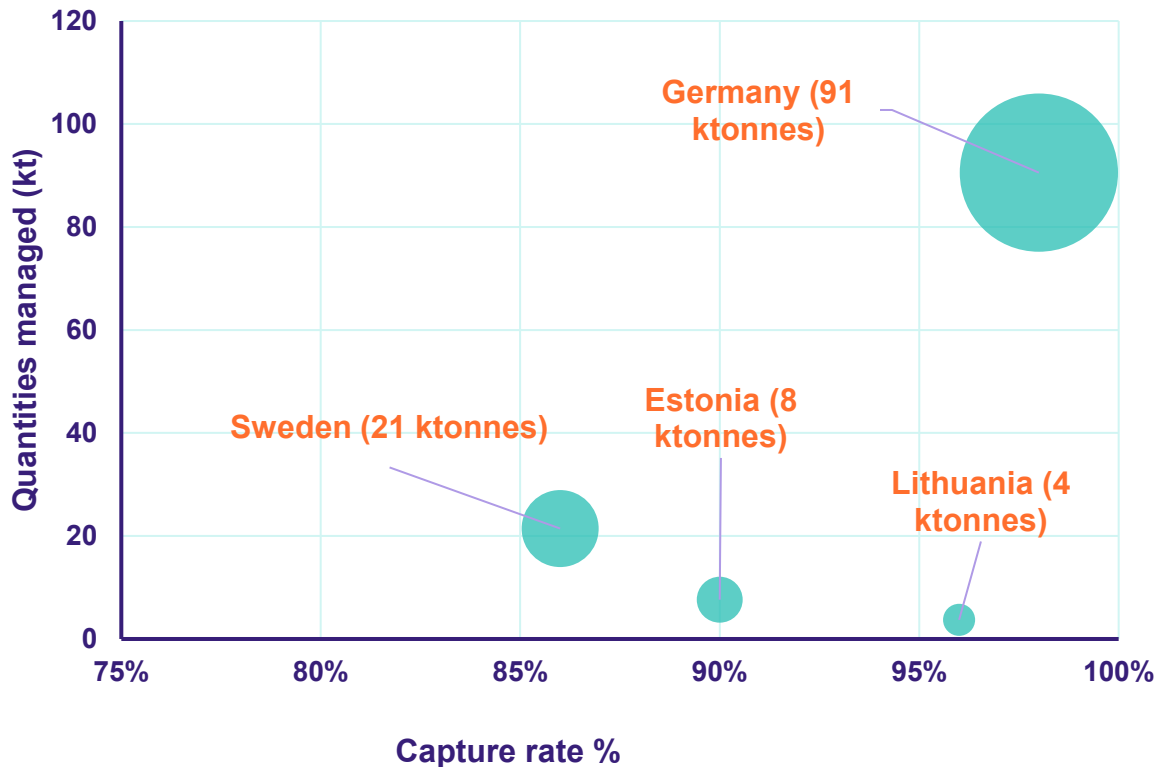
DRS FOR RE-CYCLING - VOLUMES MANAGED AND CAPTURE RATES FOR GLASS BEVERAGE PACKAGING



Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

As concerns glass shares **there is no data for Germany**, whilst the Netherlands and Sweden do not have glass recycling DRS. The study shows that Lithuania (*USAD*) and Estonia (*Eesti Pandipakend*) manage 9000 and 2000 tons of glass packaging respectively, capture rates of 80 and 96% respectively.

DRS FOR RE-CYCLING - VOLUMES MANAGED AND CAPTURE RATES FOR METAL (ALUMINIUM) BEVERAGE PACKAGING

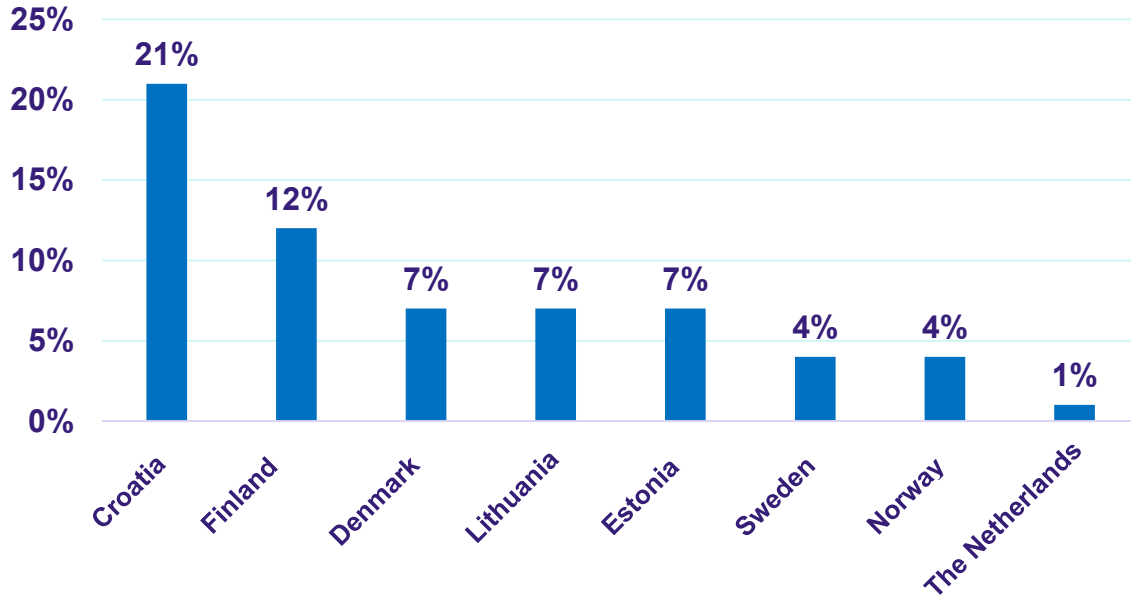


Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

As regards **metal (aluminium)** waste the study shows that **Germany** (*Deutsche Pfandsystem*) manages the highest volumes of aluminium beverage packaging, 90,000 tons and a capture rate of 98% while Sweden (*Returpack*) manages around 20,000 tons, a capture rate of 86%.

Moreover, the quantities managed by DRS for Re-cycling account for just a small share of the packaging sold in the various countries: for the countries studied rates range **from 1% in the Netherlands** (*Statiegeld*) **to 21% in Croatia** (*FZOEU*).

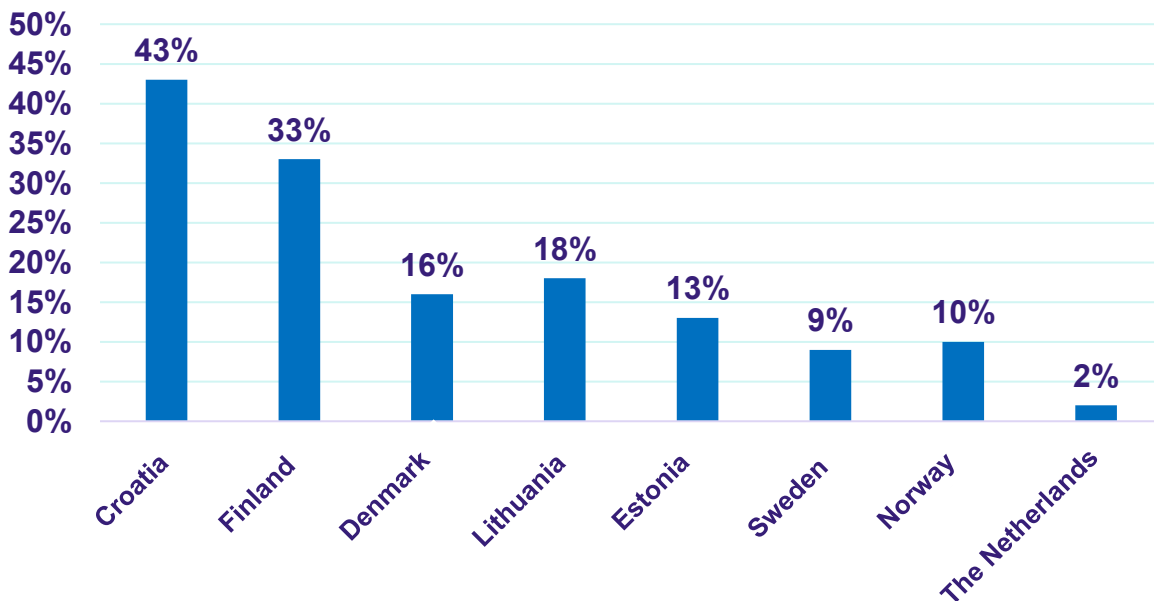
SHARE OF PACKAGING MANAGED BY DRS OF THE TOTAL PACKAGING PUT ON MARKET



Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

As compared to the consumption of plastic, glass and metal packaging alone, on the other hand, the share managed by recycling DRS varies **from 2% in the Netherlands (*Statiegeld*) to 43% in Croatia (*FZOEU*).**

SHARE OF PLASTIC, GLASS AND METAL PACKAGING MANAGED BY DRS OF THE PACKAGING TOTAL

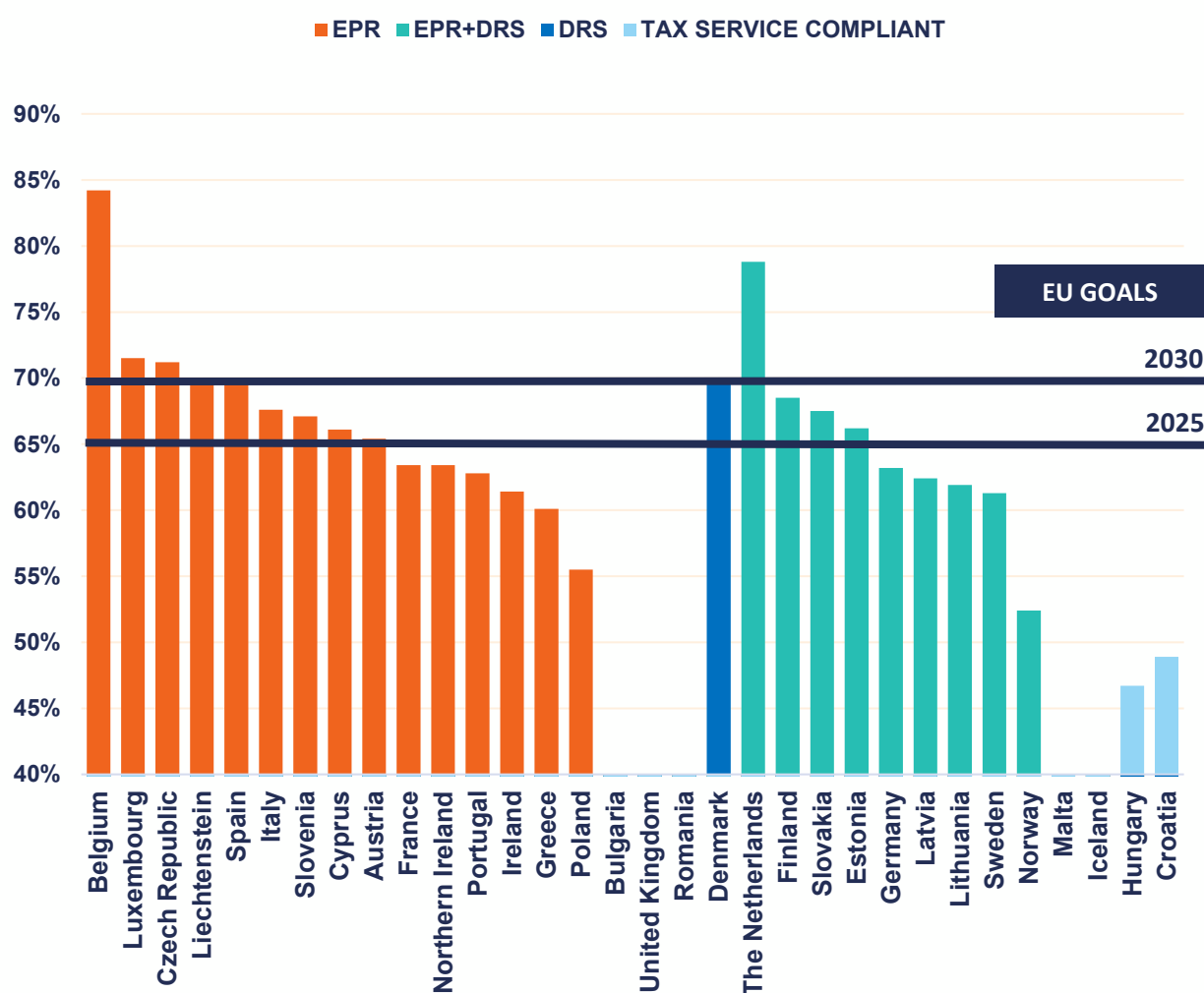


Source: "Mapping of packaging return schemes in the EU" Egen-Pro study.

Reworking EUROSTAT data on **recycling results** for packaging in 2019 shows that if European countries are clustered by management schemes (*EPR schemes, DRS, EPR+DRS schemes, Tax Service Compliance*), there are no significant differences between countries with EPR schemes alone and those with both EPR and DRS.

As the following graph makes clear, all countries have achieved the recycling goals set at EU level and many countries are on course to achieve their new 2025 (65%) and 2030 (70%) goals. Italy is one of these, having sent 73.3% of its consumer packaging to recycling in 2021. There is no data, on the other hand, for **Bulgaria, the United Kingdom, Romania, Malta and Iceland**.

% OF PACKAGING RECYCLED BY TYPE OF SYSTEM IN THE EU



Source: Elaboration Eurostat 2019 data.

DRS COSTS AND BENEFITS

DRS FOR RE-USE

Economic data relating to DRS for Re-use is not publicly available as regards transport and packaging cleaning costs for reuse. Thus, the only economic evaluation parameter available for the system is returned and non-returned deposit calculations which are used primarily to keep the packaging circulating.



In the context of the return deposits analysed in the countries studied, the Dutch DRS (*BNR*) shows the highest amount of deposits, €179 million per year, amounting to €10.3 per capita. There is no deposit data available for Germany (*Mergwehg*) as the data published refers to beverage volumes and not to packaging units or tons.

ECONOMIC DATA - DRS FOR RE-USE

	The Netherlands		Lithuania		Estonia		Sweden		Germany	
	M€/year	€/inhab.	M€/year	€/inhab.	M€/year	€/inhab.	M€/year	€/inhab.	M€/year	€/inhab.
Deposit Paid	174.7	10	5.67	2.03	2.7	2.03	9.51	0.92	N/A	N/A
Not returned	4.48	0.26	0.43	0.15	0.3	0.23	0.14	0.14	N/A	N/A
Managed	179.1	10.3	6.1	2.18	3	2.26	9.65	0.93	N/A	N/A
Transparency	Limited		Limited		Limited		Limited		Limited	

DRS FOR RE-CYCLING



In the case of the DRS for Re-cycling studied, the economic data is based on an analysis of the deposits (deposits managed) and on the costs and revenues for which partial estimates are available.

The most significant **costs** are:

- 1) management (installation and upkeep of Reverse Vending Machines, separate waste collection centres, etc.);
- 2) logistics (packaging collection and transport);
- 3) administrative and marketing (IT platform management, etc.);
- 4) other, such as anti-fraud labelling, etc.

The DRS for Re-cycling **revenues**, on the other hand, can be split up into:

- 1) deposits not returned by consumers;

- 2) sale of material;
- 3) producer registration with the system;
- 4) other operational revenues.

For system planning purposes (producer-centric, distributor-centric, system-centric⁶), the costs and revenues can be **incurred/earned by the subjects** operating within the reference country's system, including:

- 1) Packaging producers;
- 2) Distributors;
- 3) Italian municipalities;
- 4) EPR organizations.

The study's analysis shows that the **German DRS for Re-cycling system (DPG)** receives the highest volumes of managed deposits, a total of **€4.5 billion per year**, in per capita terms, **€54 per person**. The country which records the lowest volumes of managed deposits is Estonia (*Eesti Pandipakend*) with **€28 million per year**, €21 per person in per capita terms.

Where costs are concerned, the study shows that **Germany (DPG)** incurs the **highest operational costs** for PET bottles, a total of **€1 billion per year**, a per capita rate of €13 on top of the **€1 billion in initial investments** required to get the system going. The Estonian DRS for Re-cycling (*Eesti Pandipakend*), on the other hand, recorded **the lowest operating costs, €10 million per year**, or €8 per person.

ECONOMIC DATA - DRS FOR RE-CYCLING										
	The Netherlands		Lithuania		Estonia		Sweden		Germany	
	M€/year	€/inhab.	M€/year	€/inhab.	M€/year	€/inhab.	M€/year	€/inhab.	M€/year	€/inhab.
DEPOSITS										
Paid	279	16.03	61	21.93	24	18.04	270	26.13	4365	52.48
Unredeemed	21	1.21	6	2.04	4	2.95	52	5.04	135	1.62
Managed	300	17.41	67	23.96	28	21.05	322	31.18	4500	54.11
COSTS										
Management	N/A	N/A	10.9	3.9	7	5.4	N/A	N/A	N/A	N/A
Operating	N/A	N/A	27.9	10	10.63	8	N/A	N/A	1080 (PET)*	12.9 (PET)
REVENUES AND TRANSPARENCY										
Revenues	N/A	N/A	21.5	7.7	7.33	5.63	N/A	N/A	270-370	3.3-4.5
Transparency	Limited		Good		Good		Limited		Limited	

⁶ <https://www.sciencedirect.com/science/article/abs/pii/S0959652620356468>

Where revenues are concerned – most of which come from the sale of materials and packaging producer registration fees, where these exist – the study shows that the German DRS for Re-cycling (*DPG*) has the highest revenues, at €270-370 million per year. The Estonian DRS for Re-cycling (*Eesti Pandipakend*) earns the least, on the other hand, around €7 million per year. Sweden (*Returpack*) and the Netherlands (*Statigeld*) do not publish revenue data.

Unredeemed deposits can simply cover costs or be a full-blown revenue, depending on the DRS. Of the DRS for Re-cycling studied, the highest unredeemed deposit value was in Germany (*DPG*), €135 million per year, and Sweden (*Returpack*), with a per capita rate of €5 per year.

THE RESULTS OF THE STUDY

The study CONAI commissioned to EGEN PNO revealed various characteristics specific to Re-use DRS and others to Re-cycling DRS. Both systems have high return rates (85-96%) but also show limited financial reporting levels.

DRS for Re-use:

- are **voluntary**;
- are run by **non-profit bodies** and managed by **beverage producers**;
- usually apply to **glass** packaging such as **beer, soft drinks and water**;
- are **only** suitable for **packaging designed** to be **reusable** and generally **standard**;
- are designed **nationally** and/or **locally**;
- are declining in favour of recycling DRS for single-use beverage packaging.

DRS for Re-cycling:

- are **legally mandatory**;
- are generally run by **non-profit bodies** and organized by **beverage producers** in conjunction with the **large scale retail network**;
- usually apply to **plastic, metal and glass** packaging used for **water, soft drinks and beer**;
- are designed for **national use only**;
- the packaging volumes managed by DRS are **relatively low** – on average from 1 to 21% of the **total packaging put on the market**;
- the percentages increases from 2 to 43% in regards of the only **plastic, glass and metal** packaging.

In general the study reveals limited financial data reporting, information transparency, in particular related to the deposit management costs and functioning, and those involved are reluctant to share system data publicly.

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What is CONAI?

CONAI, the Italian National Packaging Consortium, is a private, non-profit consortium with around 760,000 members consisting of packaging producers and users. The CONAI system is a private sector response to a collective environmental challenge in accordance with the policies and goals set politically. CONAI works with Italian municipalities on the basis of specific individual agreements regulated by the ANCI CONAI Framework Agreement and constitutes a guarantee for citizens that materials from separate collection are fully used in appropriate recycling and recover processes.

