



DRS Deposit return system





Kaupo Karba **General Manager**

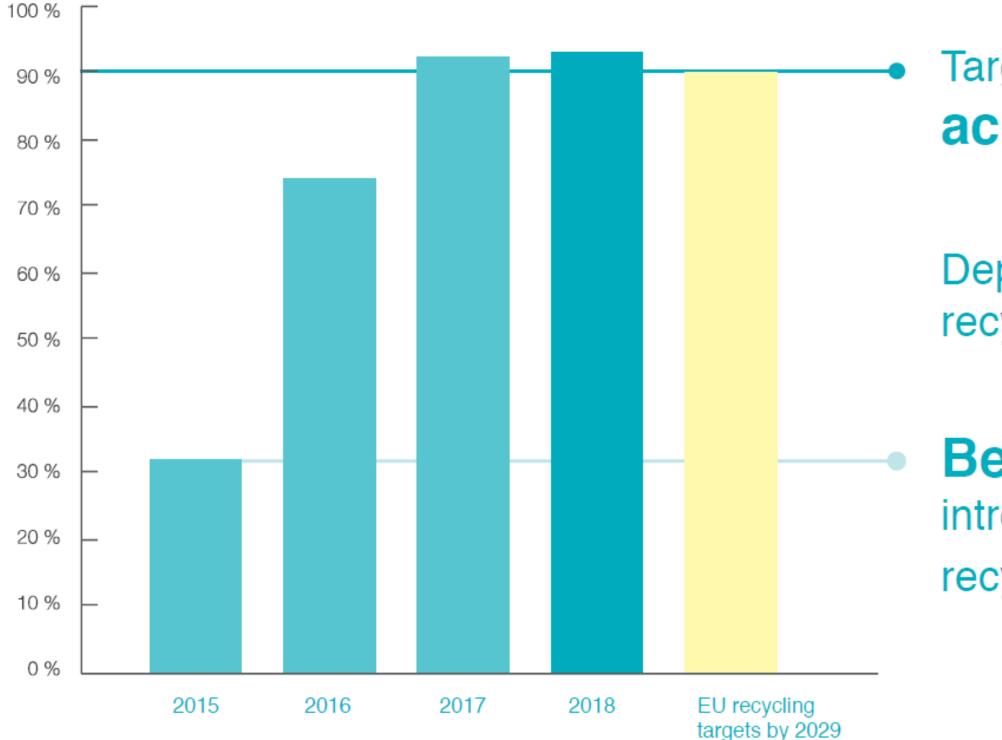
DRS – why?

- EU target 90% of single-use beverage bottles placed on the market are collected
- DRS is the most effective and almost the only way to achieve 90% and beyond
- ORS enables a high level of closed-loop recycling 2025 – beverage packaging (PET) must contain 25% recycled plastic
 - 2030 beverage packaging (all plastics) must contain 30% recycled plastic
- 13 countries in Europe have implemented DRS and the following European countries expected to join in the coming years: Romania ('23), Hungary ('23/'24), Ireland ('24), Portugal ('24), Greece ('24), Cyprus ('24), Austria ('25)



DRS – why?

Collection & recycling results



Lithuania started DRS beginning of 2016. Source: USAD



Targets for **2029** are already achieved and exceeded

Deposit system allows higher recycling targets vs. container system

Before deposit system introduction PET bottles recycling was below 33%



Eesti Pandipakend – Estonian DRS



recycling of beverage packaging by producers, importers and retailers. Our task is to manage and organize the collection, transport, sorting, counting and recycling of deposit packaging all over Estonia



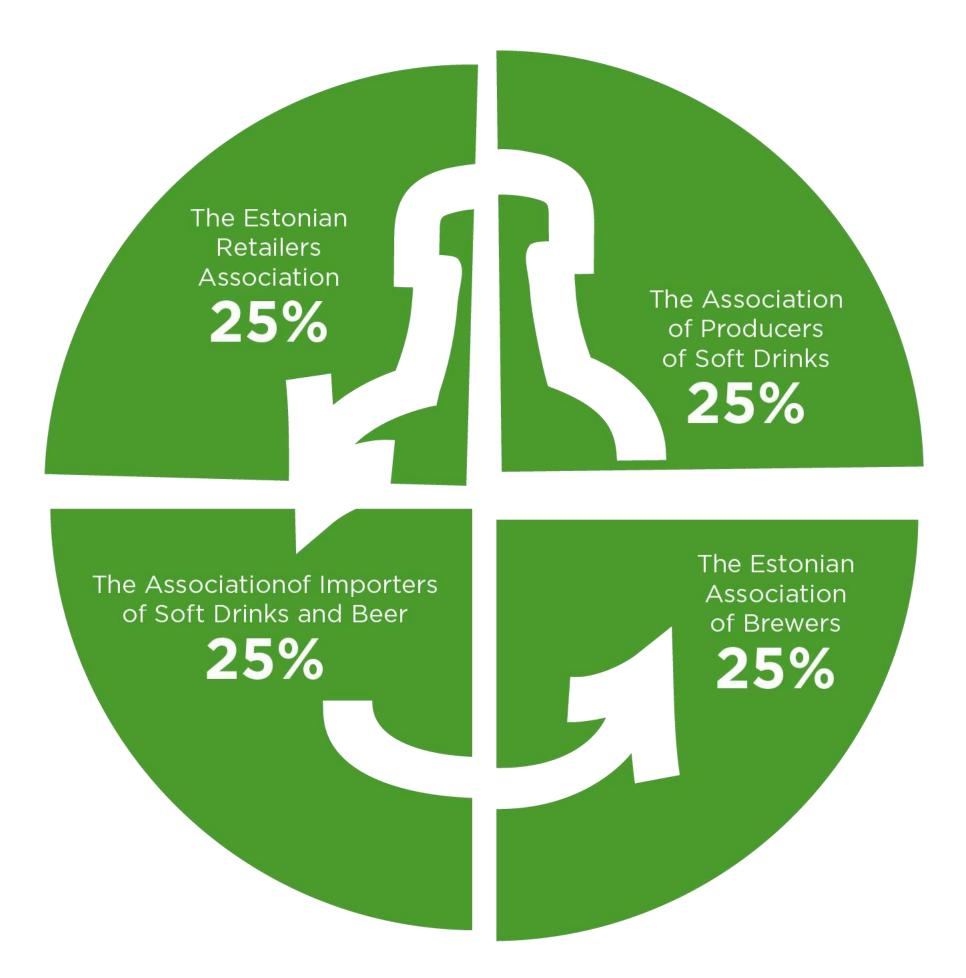
Packaging and Packaging Excise Tax Act sets minimum mandatory recycling rates for beverage packaging, non-compliance with which is subject to packaging excise tax (on the missing part):

	Material	Excise tax in € per kg
R	Plastic	2,5
R	Metal	2,5
R	Glass	0,6

Eesti Pandipakend is a producer responsibility organization established in 2005, which organizes the



Eesti Pandipakend





C The Estonian Retailers Association

- The Association of Producers of Soft Drinks
- The Association of Importers of Soft Drinks and Beer
- The Estonian Association of Brewers

Accredited by Ministry of Environment since 03/2005 Operating from 05/2005 Centralized system

eestipandipakend.ee









Investment



Sorting/counting center(s)



Collection infrastructure





Free riders







、 パ し

Marketing campaign

Scandinavian experience only



Product categories and materials

PRODUCT CATEGORIES UNDER DEPOSIT:



Soft drink



Water



Beer



Cider, perry



Low-ethanol alcoholic beverages



Juice, juice concentrate, nectar







Since July 2021 – alcoholic beverages of a alcohol content exceeding 6% and syrups can be added to the DRS on *a voluntary basis*



Deposit value



Deposit does not raise the price of the product, but it is a separate price component that the consumer returns when he returns the package



The value of the deposit must be indicated separately in every transaction made with package, the value is always the same



Deposit in Estonia is VAT free



DEPOSIT PACKAGING PRICE 0,10€/packaging



One-way plastic packaging Up to 0,5 I



One-way plastic packaging Over 0,5 I



One-way metal packaging All sizes

One-way glass packaging

All sizes



Refillable glass packaging

All sizes

eestipandipakend.ee



How the DRS works?

PACKAGING COMPANIES

The retailer returns reusable packaging to the packaging company. The packaging company reimburses the deposit to the retailer.

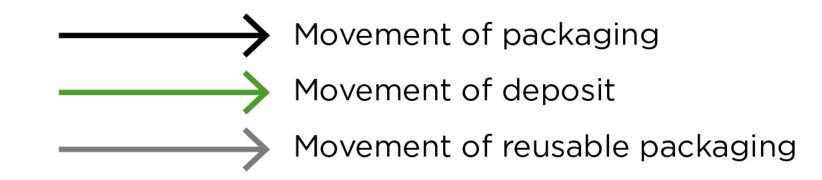
The packaging company pays a deposit to EPP for every item of packaging sold.



EESTI PANDIPAKEND

EPP counts one way packaging and returns the deposit to the retailer on the basis of the counted packaging.

RETAILER



The consumer pays the retailler the price of the product plus the deposit for the packaging.

> The consumer returns the packaging to the retailer. The retailer reimburses the deposit to the consumer.

eestipandipakend.ee

CONSUMER



Involvement of the deposit return system



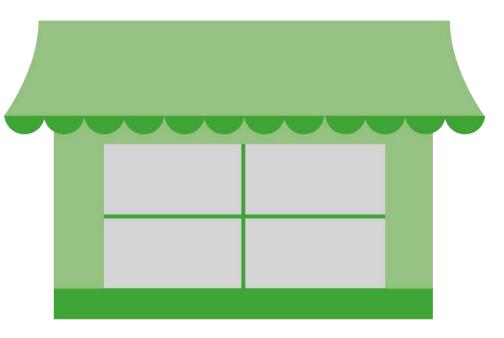
PRODUCERS/IMPORTERS



Packages registered in the packaging register:



~5500 active packages



RETAILERS



800 manual 460 automated (566 reverse vending machines)

Horeca:



eestipandipakend.ee



Retailers structure

Estonian legislation (take back obligation):





Up to 20 sqm – voluntary



20-199 sqm – it is possible to apply for an exemption from the local authority



Over 200 sqm – an obligation to take back packaging at the point of sale or its service area

Collection structure

In 2006

80% manual collection

20% RVM (reverse vending machine)

Since 2015







6-7% manual collection



Deposit packages collection&recycling in Estonia



A total of over **5.1 billion deposit packages collected** and recycled/reused (as of May 2023)

2022 (2021)	Min requirement by excise law
389 (348)	
320 (293)	
88% (87%)	85%
83% (89%)	50%
93% (86%)	85%







Keys to a successful deposit return system



Non-profit principle



Correct initial setup – law, handling/ baling centres, logistics, etc



Stakeholders involvement – producers, retailers



Controlling



Constant awareness building towards public and stakeholders





The journey of a deposit packaging



Refillable glass bottle is sent from the store to the factory of the beverage maker, where it will be carefully washed, refilled and resold.





One-way glass bottles shall be sorted according to their colour.



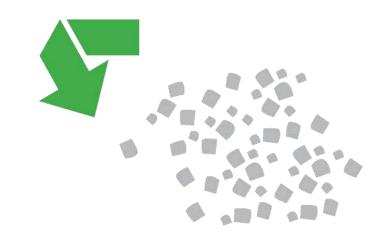
Then, they are crushed and melted.

An old glass bottle is used for making **a new** glass bottle, a soup or a marmalade jar.



The melted glass drops are used to form new glass things, which after forming will go to annealing oven, where they are heated up and gradually cooled down again. This reinforces the glass and removes the accumulated tensions.

Plastic bottles are sorted into two groups: transparent and coloured **bottles,** and then they are flaked and granulated.



The granules are used for making a new plastic bottle form.

The form will become a plastic bottle, if it is heated up and blown up like a balloon with the help of machines.



New cans are lacquered, sprayed with a protective layer from the inside, which prevents the corrosion of the can, and covered with a lid after the can has been filled with the beverage.



metal bars are formed.

