



Everything circulates



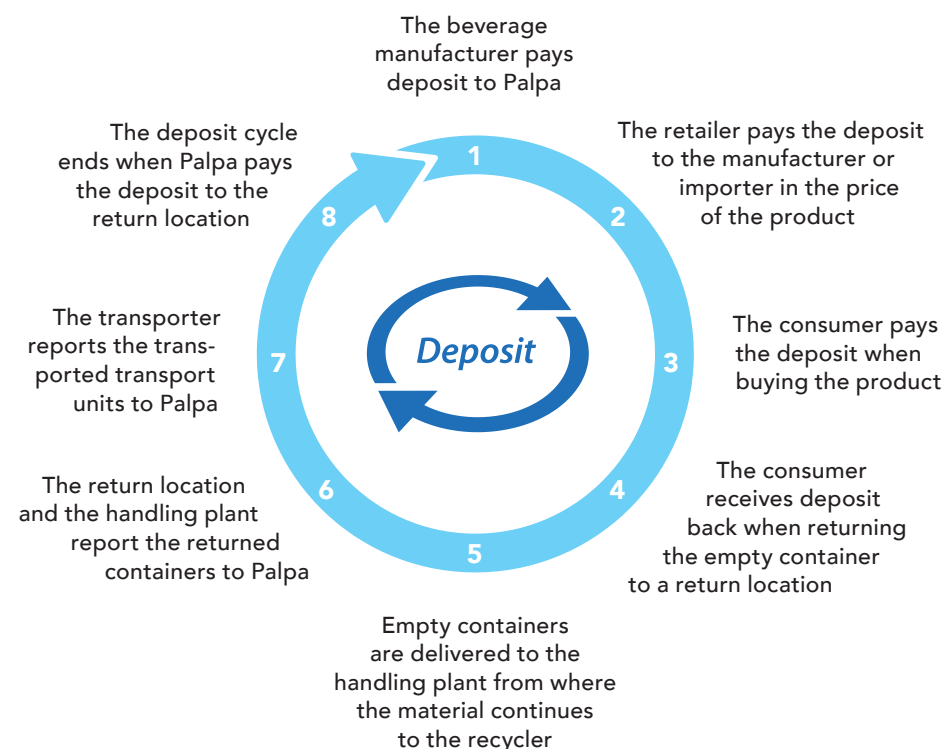
OVER 2 BILLION ENVIRONMENTAL ACTS IN A YEAR

IN A COOPERATIVE NETWORK,

A DEPOSIT CIRCULATES TOGETHER WITH THE BEVERAGE CONTAINER

The majority of beverage manufacturers and importers have joined the return system managed by Palpa. For beverage container recycling to work and for packaging materials to be reused again and again, cooperation is also required from retailers, logistics and recycling operators and, of course, consumers.

TURNOVER
80 MILLION EUROS



OVER TWO BILLION ENVIRONMENTAL ACTS IN A YEAR

Returning bottles and cans to the reverse vending machine is an act in favour of the environment: every bottle and can returned has a meaning, because only by returning its material can it be used again and again

The Finnish beverage container recycling system is an excellent example of a circular economy: Most of the materials received from beverage packages return to use as new beverage packages. The collected material is also suitable as recycled raw material for food packaging. This saves significant amounts of natural resources and energy.

In Finland, there are nearly 4,000 reverse vending machines where more than two billion beverage containers are returned every year. Finns are environmentally conscious and recycling is natural – in kindergartens, schools and at home, people learn to recycle and avoid unnecessary waste.

In addition, promoting recycling, reducing waste and saving energy has become more important to Finns every year. In 2015, around 31% of Finns said that environmental issues were their main reason for returning beverage containers. In 2022, 45% said the same. Around 52% of Finns say they return beverage containers primarily because of the deposit on them.

By the end of 2022, 11 countries in Europe already had a deposit system in place. Finland has one of the most efficient systems in the world, with well over 90% of beverage containers being returned to circulation. Five new European countries are currently planning their own deposit schemes.

Finns are the world's biggest per capita recyclers of beverage containers. Suomen Palautuspakkaus Oy, or Palpa, makes this returning easy.

Palpa is a non-profit company whose task is to manage and develop the return systems of beverage containers in Finland.

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RETURN TO THE FUTURE

When you return a bottle or can to a reverse vending machine, you give it eternal life.

The idea behind recycling beverage containers is closed loop recycling. This means that the material from the returned bottles and cans is used to make new bottles and cans. In this way, the raw materials used for beverage containers are recycled, natural resources are saved and climate emissions are reduced.

So, a beverage container returned today could be on a store shelf far into the future.

THE ETERNAL LIFE OF A BEVERAGE CONTAINER

The recycling of beverage containers effectively saves natural resources and energy as materials are reused over and over again. There are four different types of beverage containers that have the deposit-return systems in Finland: aluminum cans, PET plastic bottles, recyclable glass bottles and refillable glass bottles. After return, all containers with a deposit are recycled into new beverage packaging or for use by other industries.

THE ALUMINIUM CAN IS BEING REBORN AGAIN AND AGAIN

The aluminium used in cans is a valuable raw material that can be recycled almost forever. The aluminium in used cans can be used as such to make new cans.

Making a can from recycled aluminium consumes around 95% less energy than making it from virgin raw materials.

PET PLASTIC CIRCULATES FROM BOTTLE TO BOTTLE

Most of the returned PET plastic bottles are made of clear plastic which is the most suitable material for new bottles.

The material from returned plastic bottles goes through several stages before it is made into small bottle preforms, that are blown into new bottles.

In addition to the new bottles, clear PET plastic is used to make other packaging for the food industry. Coloured plastic is used to make plastic packaging, packaging materials and textiles, for example.

MANY USES FOR GLASS BOTTLES

Recycled glass is an excellent beverage container material as it can be recycled almost indefinitely.

Recycled materials can be used to make not only new glass bottles but also other glass packaging and cans. Recycled glass is also used to make materials for the construction industry, such as glass wool and foam glass.

Each tonne of recyclable glass made from recycled glass raw material consumes about 30% less energy than producing it from virgin raw material.

REFILLABLE GLASS BOTTLE CIRCULATES A LONG TIME

The vast majority of reusable glass bottles are brown 0.33 litre beer bottles. The refillable glass bottle is a pioneer of deposit return beverage containers, as the deposit-based return system was created in the 1950s specifically for these bottles.

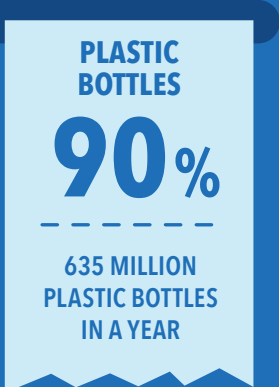
Refillable glass bottles are reused 33 times on average. The material is then reused as recycled glass.



EACH YEAR, THE AVERAGE FINN RETURNS:

251 cans
114 plastic bottles
24 glass bottles

THE RETURNING RATES ARE AT RECORD LEVELS:



IN TOTAL, MORE THAN **2 billion** cans and bottles are returned every year.

~400 returns per Finn.

THE DEPOSIT SYSTEM RECYCLES ANNUALLY:

19,800 = **1300 x**
TONNES OF RECYCLED ALUMINIUM WEIGHT OF A BUS

16,800 = **84 x**
TONNES OF RECYCLED PLASTIC WEIGHT OF A JUMBO JET

52,300 = **11 x**
TONNES OF RECYCLED GLASS WEIGHT OF A CRUISE SHIP

THIS IS HOW CONTAINERS CIRCULATE

Finns are the world's most diligent bottle and can returners: every Finn returns an average of 400 beverage containers every year.

After they are returned, the journey of the containers continues through processing back to the shops or restaurants as new beverage packaging.



1 RETURNING

The consumer returns the empty beverage container to the return location and gets back the deposit that was included in the price of the product they paid for. Also restaurants return empty beverage containers with a deposit.

2 CONTAINER

In shops, containers are packed in return bags, boxes and glass bins.

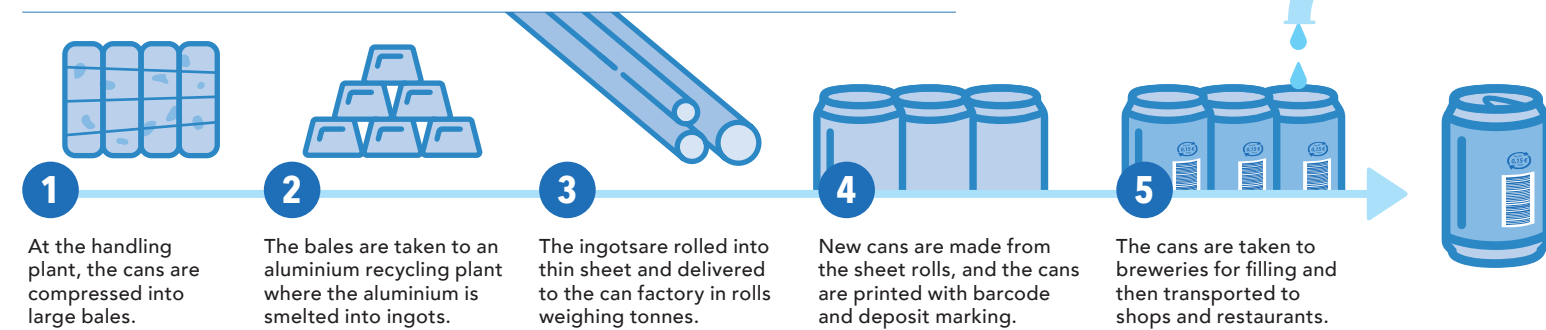


3 TRANSPORT

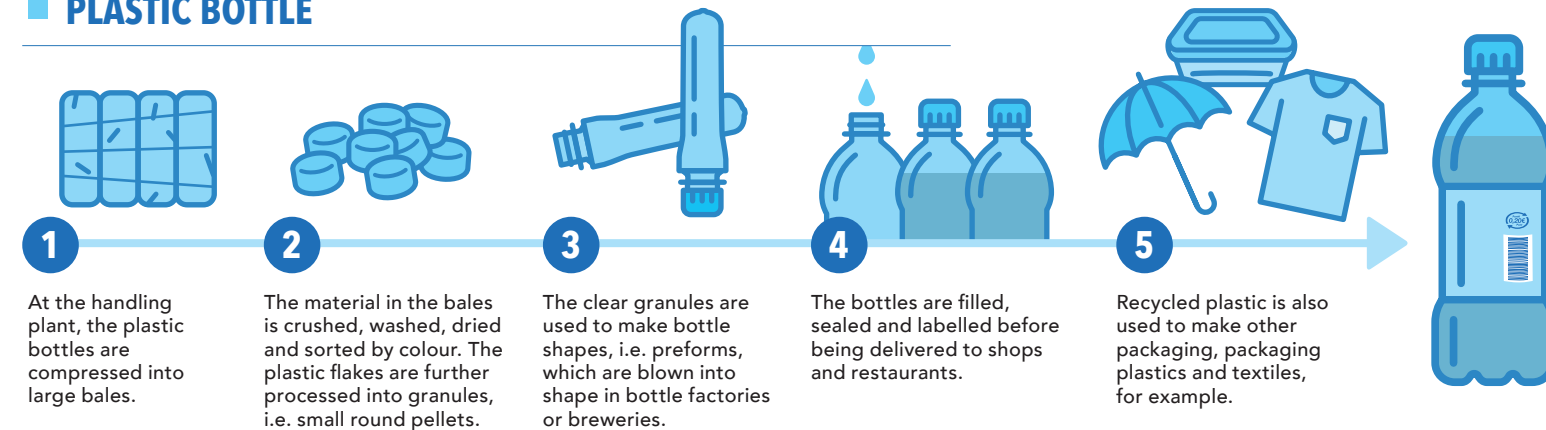
Empty packages are transported away while new ones are brought up for sale. In addition, some packages are picked up directly for further processing. There are handling plants in different parts of Finland to make transport journeys as short as possible. Compacted bottles and cans take up only one-sixth of the space they would take without crushing. This way more can fit in one transport car.



CAN



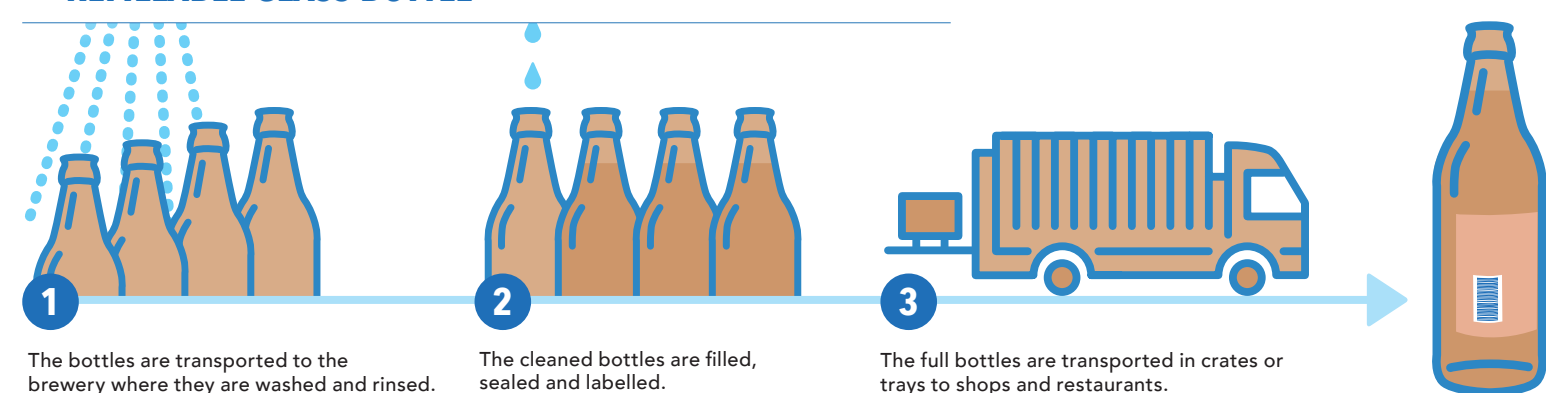
PLASTIC BOTTLE



GLASS BOTTLE



REFILLABLE GLASS BOTTLE



PALPA.FI – READ MORE

PALPA'S WEBSITE COVERS ALL ABOUT RETURNS:

- A comprehensive information package on the return system of beverage containers and how Palpa works
- Current news
- Palpa communication materials
- Comprehensive material bank
- Contact details for the beverage industry and return points
- Information on Palpa membership and how to become a member for breweries and importers
- Guidance on product registration, packaging labelling, material requirements and price lists
- Information for retailers, horeca and associations on how to become a return location
- Registration of a new return location

PALPA'S EDUCATIONAL MATERIALS FOR SCHOOLS

Palpa has produced popular teaching materials to support educational activities. The materials include a variety of information and task materials.

The Return to the Future educational kit for primary and secondary school pupils explains in an understandable way how to recycle beverage containers and the environmental impact, while challenging them to reflect on the impact of their own recycling habits on the environment. You can download it from palpa.fi/kouluille or order it from the subjectaid.fi educational materials service.

