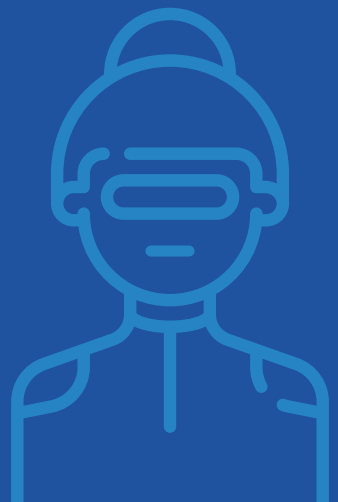
RETURN TO THE FUTURE

PALPA

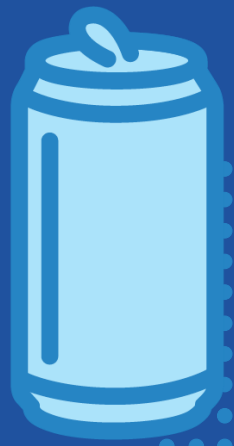
Over two billion environmental deeds every year

Recycling allows you to send a bottle or can into the future!

- A deposit is paid on almost all beverage containers in Finland.
- The deposit paid is returned when you return the bottle or can for recycling.
- By recycling a bottle or can, you may find it on the shelf of a shop far in the future – as a new bottle or can.
- A container with a deposit is indicated with a deposit marking that also shows the value of the deposit (10, 15, 20 or 40 cents).

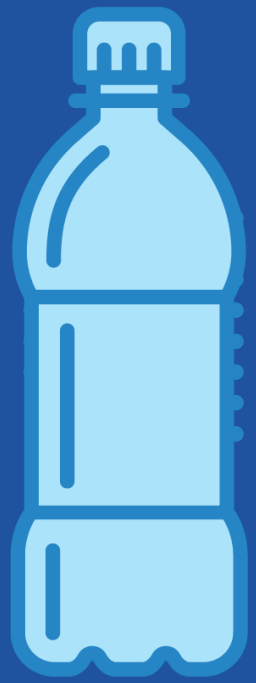


Each year, the average Finn returns...



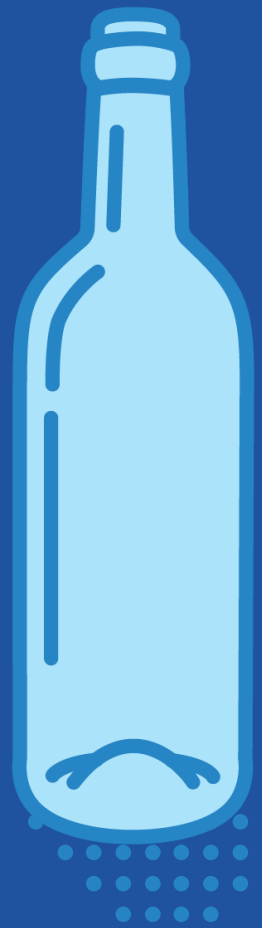
257

CANS



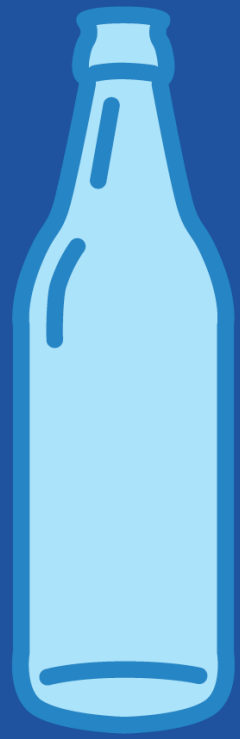
110

PLASTIC BOTTLES



26

GLASS BOTTLES



2

REFILLABLE GLASS BOTTLES

Each year, returning bottles and cans results in the recycling of...

19,800 T

ALUMINIUM,

which corresponds to the weight of 1,320 buses

52,300 T

GLASS,

which corresponds to the weight of 11 cruise ships

16,800 T

PLASTIC,

which corresponds to the weight of 84 jumbo jets

- When did you last return bottles or cans to a shop?
- Estimate how many beverage containers you empty per month. What about your family?
- What good does a deposit do for recycling?
- Which other ways could be used for recycling beverage containers?
- What is done elsewhere in the world to empty beverage containers?

RETURN TO THE FUTURE

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Containers with a deposit

TRAVEL COMPANIONS TO THE FUTURE

Can

- A can is disposable, but the aluminium used for it can be reused almost infinitely.
- Approx. 46 cans are returned per second.
- Approx. 99 per cent of cans are returned the future, that is, back into circulation.

Value of deposit: Pantti 0,15 € Pant

Plastic bottle

- Each bottle is sold filled only once, but the PET plastic used for it can be recycled in many ways.
- Approx.
  19 plastic bottles are returned per second.
- Approx. 90 per cent of plastic bottles are recycled.

Value of deposit: Pantti 0,10 € Pant Pantti 0,20 € Pant Pantti 0,40 € Pant

Glass bottle

- A bottle is used only once, but the scrap glass obtained from it can be recycled almost infinitely.
- Approx. 5 glass bottles are returned per second.
- Approx. 98 per cent of glass bottles are recycled.
- Some glass bottles do not have a deposit marking. In this case, the deposit can be checked from the price tag on the shelf or the receipt.

Value of deposit: Pantti 0,10 € Pant

Refillable glass bottle

- Refillable glass bottles are washed and reused 33 times on average.
- Fewer that 1 bottle is returned per second.
- Approximately 100 per cent of the bottles are recycled.

Value of deposit: Pantti 0,10 € Pant

- Why isn’t the return rate for all bottles and cans as good?
- What happens to the bottles and cans not returned for recycling?

RETURN TO THE FUTURE

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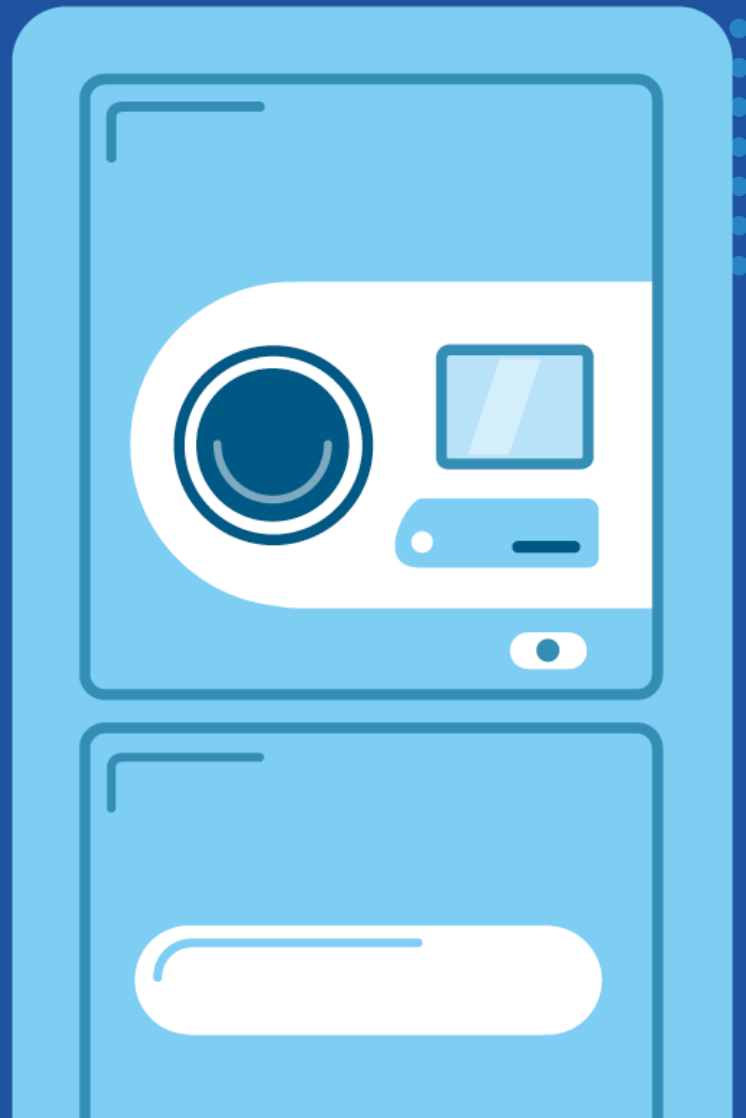
Towards the future!

THIS IS HOW THE REVERSE VENDING MACHINE WORKS



① Returning

- The reverse vending machine examines the barcode of the beverage container with a scanning ray of light and its shape with cameras.
- It uses this data to identify the type of can or bottle.

② Sorting

- Based on the identification, the machine sorts the beverage containers according to the material into separate containers.
- Usually, the machine also crushes plastic bottles and cans to make transporting and processing them more efficient.

3 Deposit

- The reverse vending machine prints out a receipt for the returned bottles and cans.

What if the machine is not working?

- Fluids and debris hamper the operation of the machine. Only return empty bottles!
- The reverse vending machine can stop if running out of receipt paper or its containers becoming full.
- The machine cannot recognise crushed cans or bottles that are missing a label completely or partly.

It is worthwhile recycling beverage containers even if they do not have a deposit!

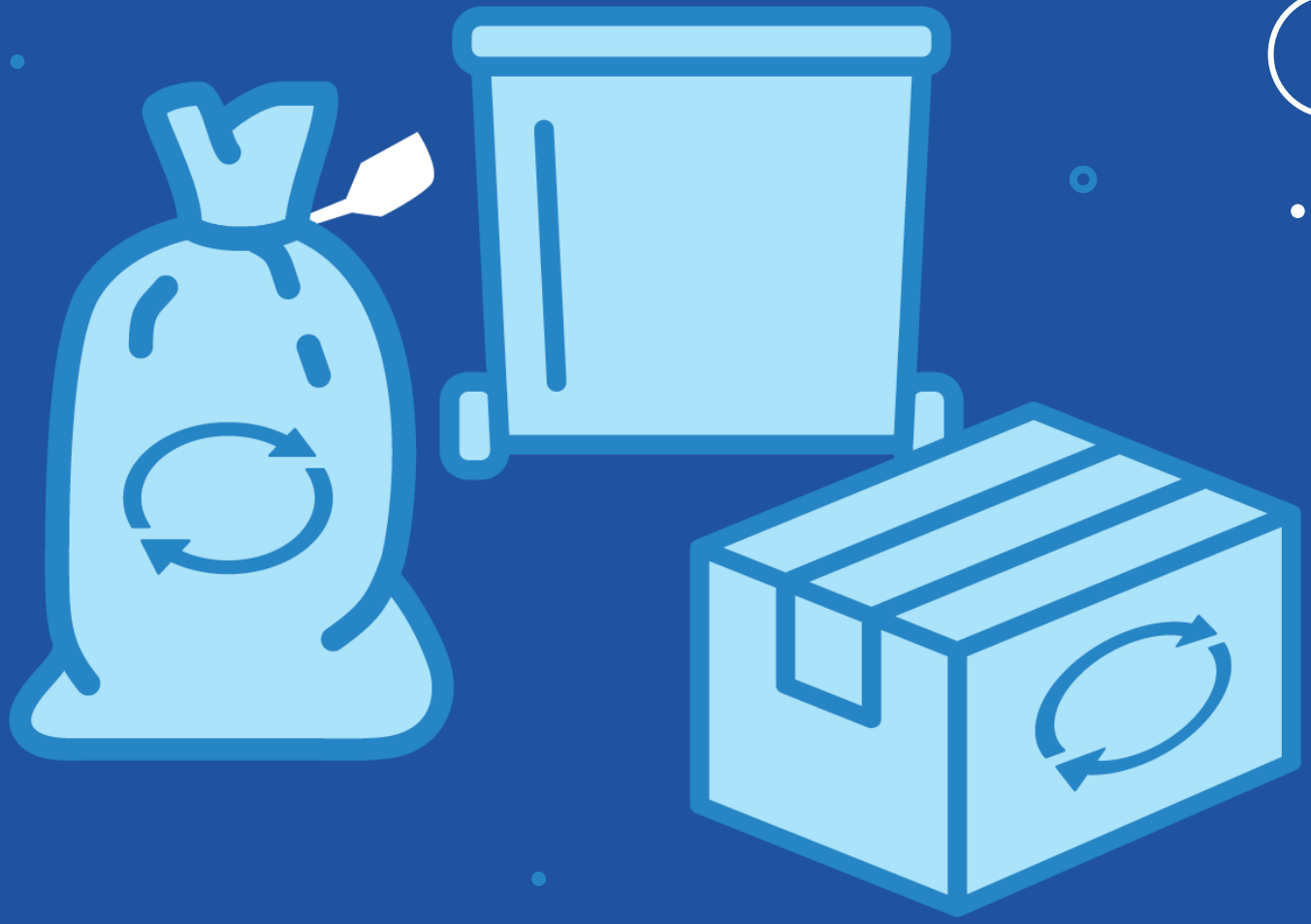
- Cans to a reverse vending machine or metal collection point
- Glass bottles to a glass collection point
- Plastic bottles to energy waste or mixed waste

- Why should waste in general be sorted carefully?
- Why does it make sense to crush cans and bottles already at the shop?
- Why is it important that the reverse vending machine identifies the containers correctly?
- What benefit is there in the reverse vending machine being able to sort beverage containers of different types accurately into separate containers?

PALAUTA TULEVAISUUTEEN

PALPA

Towards the future!
WHAT HAPPENS AFTER THE REVERSE VENDING MACHINE?

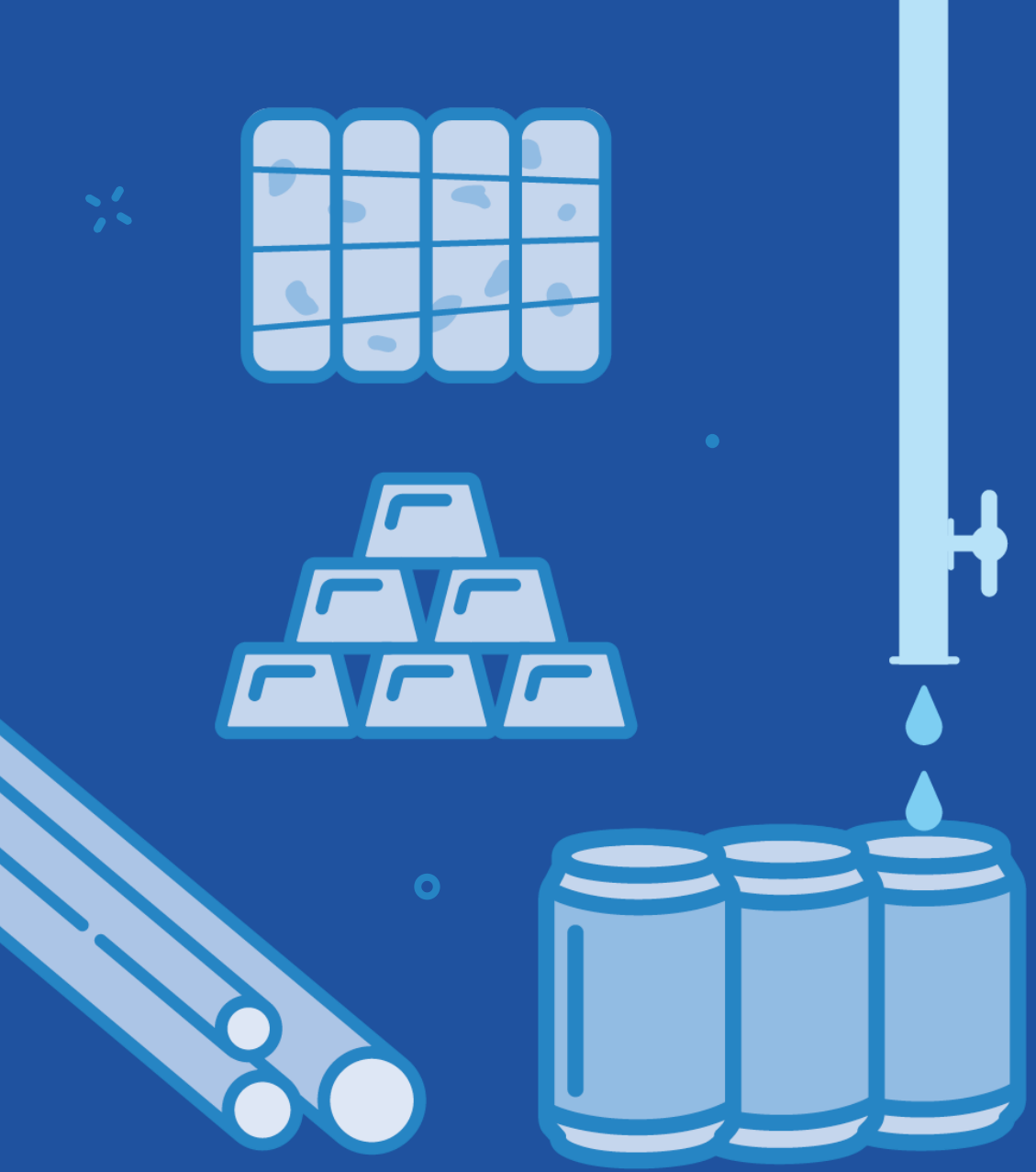


1 Container

- The reverse vending machine sorts the containers and they are packed at the shop for transport.

② Transport

- The bottles and cans are transported from the return location to the handling plant or brewery.



3a Processing of a can

- Compression into bales
- Transport to further processor
- Melting
- Shaping into aluminium bars
- Rolling into thin sheets
- Production of new cans

In practice, all aluminium obtained from cans is used for making new cans.

3b Processing of a plastic bottle

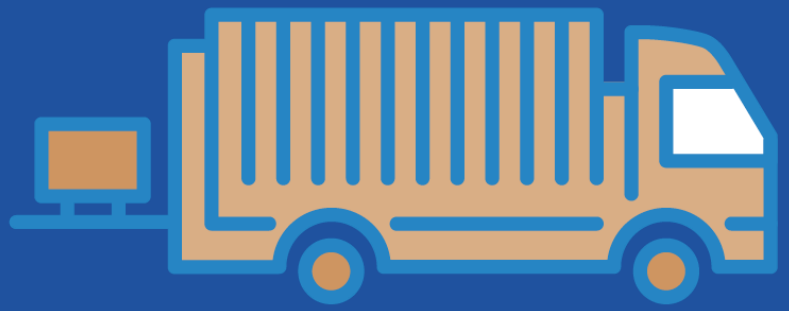
- Compression into bales
- Transport to the reprocessor
- Sorting
- Milling
- Production of recycled raw material
- Production of new products

Most of the plastic in plastic bottles is used to make new bottles.

3c Processing of a glass bottle

- Transport to the reprocessor
- Crushing
- Cleaning
- Sorting by colour
- Reuse

Crushed glass mainly produces new bottles, as well as, for example, jars, glass wool and foam glass.



3d

Further processing of a refillable glass bottle

- Transport to brewery
- Washing and rinsing
- Refilling
- New labels
- Back to shop

- Which of the items you own may have been plastic bottles in the past?
- Think about what and who it takes to get a bottle or can bought from a shop from return location back to the shop shelf.
- Would you take bottles and cans to recycling if there was no deposit? Why or why not?

Thank you for being part of creating a better future!

Read more at https://palpa.fi/english/