



**1,9 Billion environmental  
acts in a year**



# Suomen Palautuspakkaus (Palpa) in brief

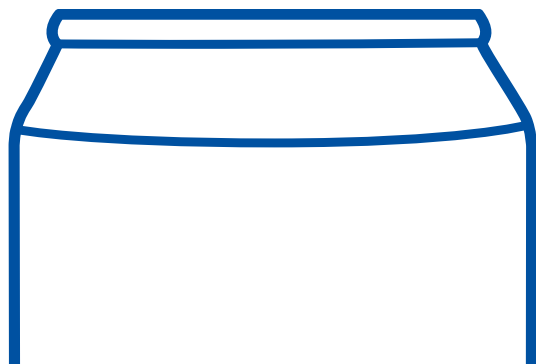
- Established in 1996
- Deposit refund systems for cans, PET bottles and one way glass bottles
- Private, non-profit company
- Ownership
  - 50 % Beverage industry
  - 50 % Retailers
  - Owners are treated equally with other members, no financial benefits
- Turnover ~80 M€
  - Deposits not included
- 14 employees
- Palpa's strategy is run the return systems by network of companies and outsource all operations

# Recycling is part of our nature

On average each Finnish citizen returns Palpa packages in a year:

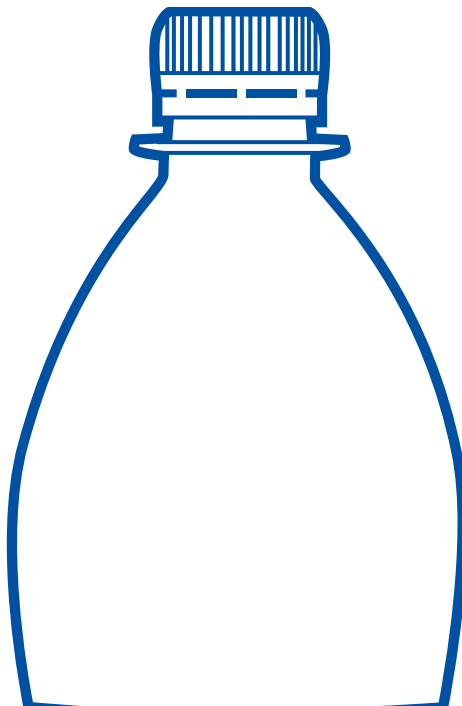
**234**

Beverage cans



**89**

Plastic bottles



**25**

Glass bottles



**348**

Total packages  
in a year

# Palpa return systems 2019



	Aluminium can	PET bottle	One Way Glass bottle	Total
Return rate	95 %	90 %	87 %	93 %
Deposit value	0,15 €	0,10 € (0 – 0,35 l) 0,20 € (0,36 – 0,99 l) 0,40 € (> 1 l)	0,10 €	
Return volume	1.3 Bn	490 M	138 M	1.928 Bn
Materials recycled	18.500 tn	14.200 tn	54.500 tn	87.200 tn
Deposit products	2.453	2.968	17.343	22.764
Memberships	91	122	187	Nbr of companies: 263

# Other data 2019

- 350 M€ worth deposits managed
- 4.600 retail and 9.500 horeca collection locations
- 2.347 new products registered
- ~4.000 RVMs in ~3.000 retail locations
  - Can returns: 99,5% RVM
  - PET returns: 98,5% RVM
  - Glass returns: 74% RVM (26 % horeca)

# Package recognition and material recycling

- Package recognized based on barcode and package dimensions/shape
  - To secure correct payment to consumer
  - To support early sorting of material
  - To make sure that system costs are correctly allocated to different return systems and companies
- Material requirements agreed together with material recycling companies
  - Container body
  - Label
  - Glue
  - Ink

# Transportation and operators

## Collecting transportation

- Backhaul (mostly producers and retailers)
- From retail stores/horeca to transporters'/retailers' terminals (150)

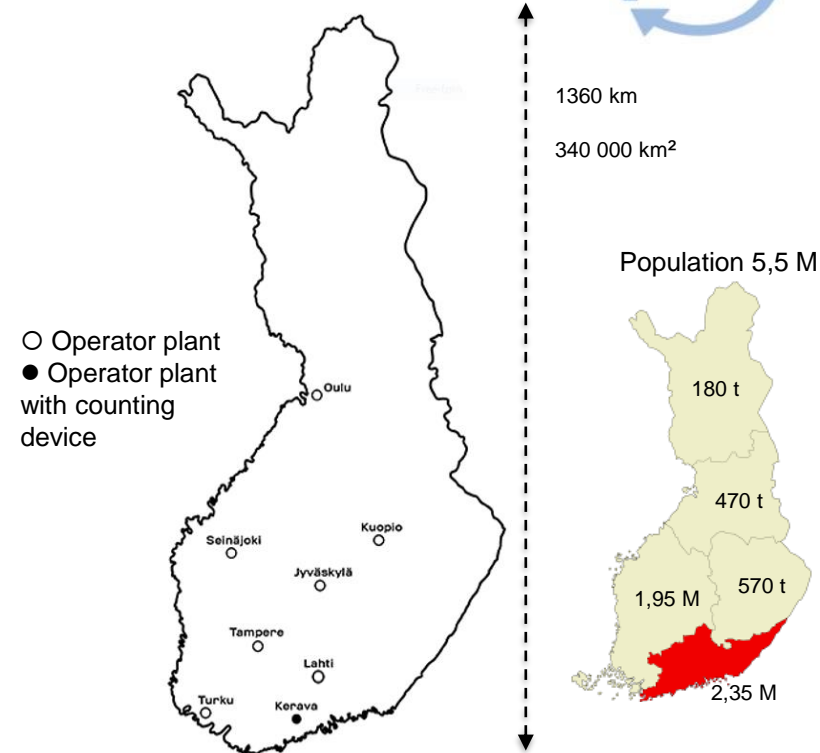
## Frame transport

- From transporters' terminals to operators' plants (8)

## Can/PET baling at operator plants

## Emptying service (glass)

- Directly from retail stores (1400) and horeca points (1000) to operators' plants (aluminium/pet/glass) or to glass recycler in Finland



Material delivery to recyclers directly from the operators

- Aluminum cans (18.500 tn)
- PET bottles (14.200 tn)
- Glass bottles (54.500 tn)



# Based on governmental steering

- Packaging tax for certain beverages
  - Importers and producers have to pay packaging tax of 0.51 € / ltr for packages in customs tariff group CN 22 (e.g. waters, soft drinks, all alcohols)
  - Importer or producer is tax exempt if the company and the products are registered in deposit return system
    - 97 % of liters sold are in deposit system
  - Joining in return system is not mandatory
- Waste law
  - Retailer selling products belonging to deposit system is obliged to receive empty deposit containers from consumers





# Financing the recycling systems

- Revenues come from material sales, unredeemed deposits and recycling fees
  - Recycling fees are paid by beverage producers and importers
- Costs are collection logistics, material handling, handling fees to retail, fixed costs
- All the fees are based on real costs

# Other materials

## Palpa video

- <https://www.youtube.com/watch?v=rNwAm01Dm-g>

## Waste law

- <https://www.finlex.fi/en/laki/kaannokset/2011/en20110646.pdf>
- Chapter 7, page 28

## Government Decree on a return system for beverage containers

- <https://www.finlex.fi/en/laki/kaannokset/2013/en20130526.pdf>
  - E.g. minimum deposit values, recycling targets

## Return system for refillable glass bottles

- <https://www.ekopullo.fi/en/>



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