



# Introducing the Circwaste project

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Circwaste final seminar



[materialitkiertoon.fi](https://materialitkiertoon.fi)

A large graphic on the left side of the slide features a central circular icon with three arrows forming a cycle. This icon is surrounded by a dense pattern of smaller icons representing various aspects of the circular economy, such as recycling, energy, industry, and nature. The background is a solid teal color.

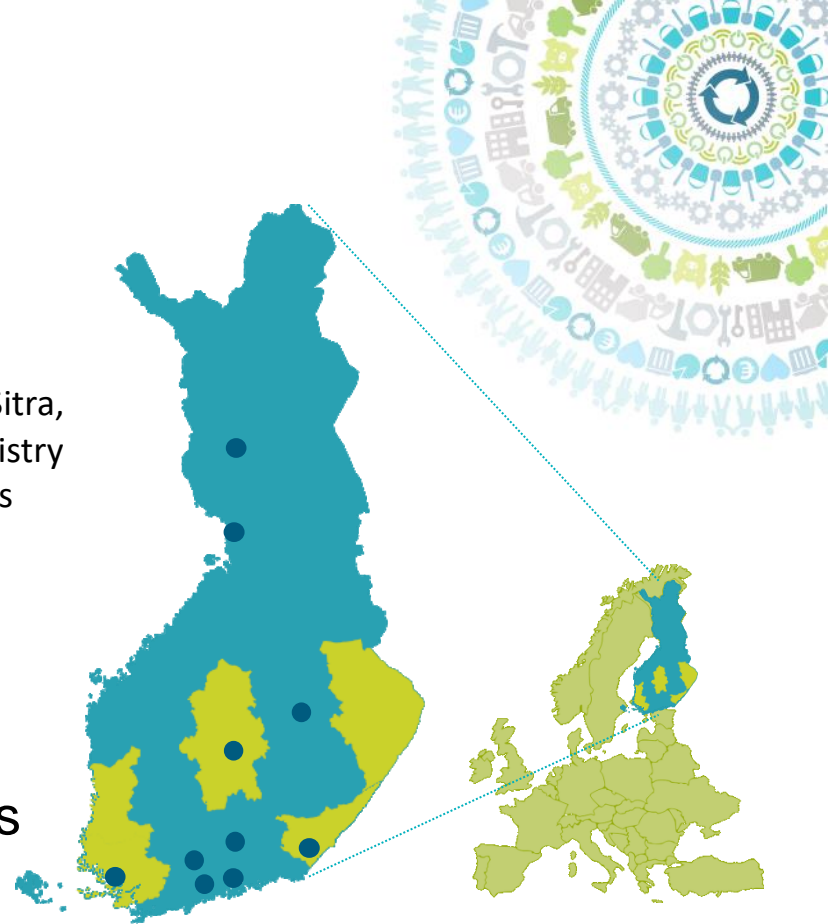
# CIRCWASTE – Designed to assist in making the **system level change** in Finland towards more **circular economy** and implementing the **National Waste Plan**

# To make a Systemic change: The idea of sustainability and everything is connected



# CIRCWASTE key numbers

- Total funding 19 M€ for 2016 – 2023
- EU LIFE IP project funding 11 M€
- **10 co-financers:** Gasum, Finnish Innovation Fund Sitra, Finnish Transport Agency, Ministry of the Environment, Ministry of Agriculture and Forestry, Mustankorkea Ltd., Pirteä Porsas Ltd., Rauman Biovoima Ltd., Sammakkokangas Ltd., Pohjois-Karjalan tulevaisuusrahasto
- 23 partners
- 4 key regions
- Network of 10 forerunner municipalities



# Together throughout the society!

## Circwaste task forces

Research institutes  
and universities (5):



Cities and regional councils (7):

**PORI**

JYVÄSKYLÄ

LAPPEENRANTA

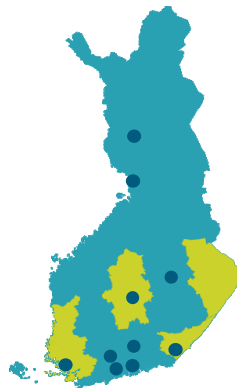
Regional Council of  
Southwest Finland

Regional Council of  
NORTH KARELIA

KESKI-SUOMEN LIITTO  
REGIONAL COUNCIL OF CENTRAL FINLAND

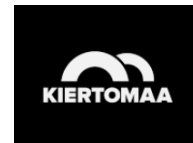
PIRKANMAA  
COUNCIL OF TAMPERE REGION

Co-operation with 10  
municipalities  
forerunner network:



Ii, Jyväskylä, Kuopio,  
Lahti, Lappeenranta,  
Porvoo, Riihimäki,  
Rovaniemi, Turku,  
Vantaa

Companies and  
public enterprises  
(11):

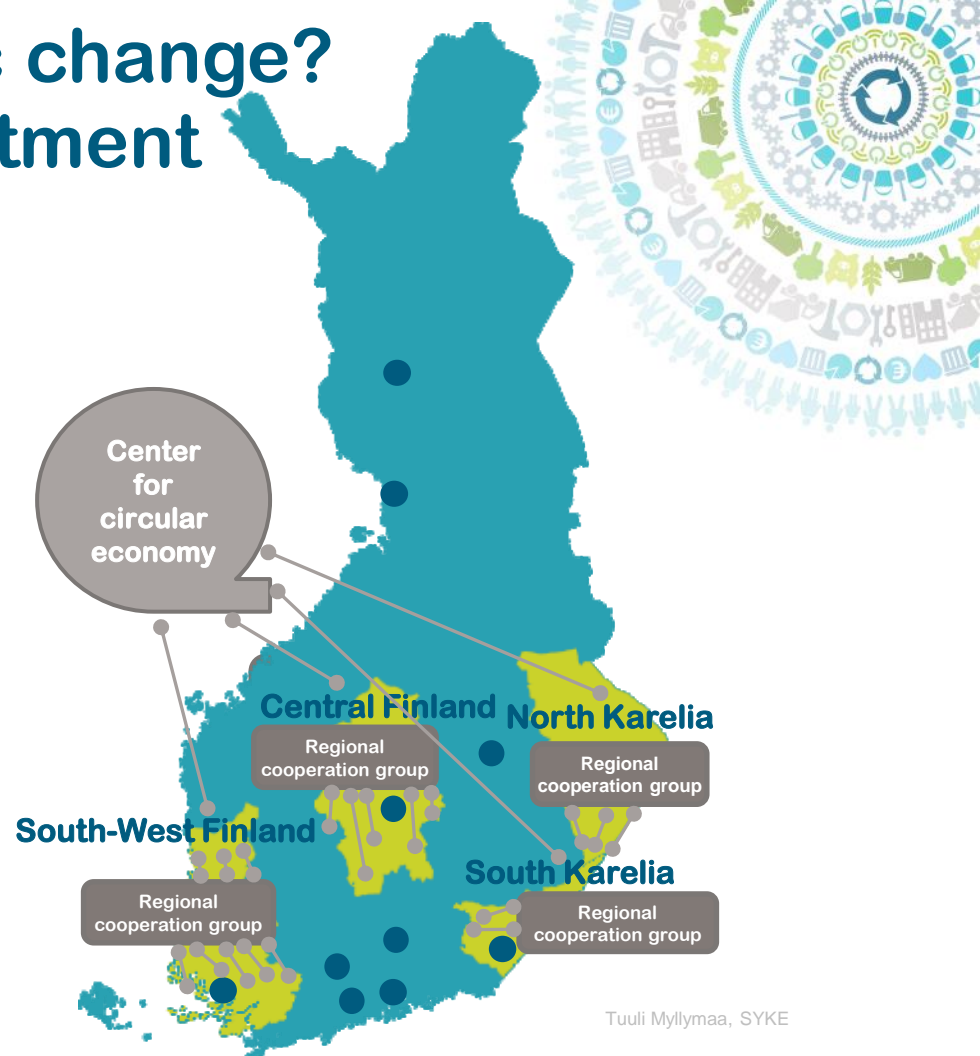



[www.circwaste.fi](http://www.circwaste.fi)

# How to make systematic change?

## Cooperation and commitment

- **Center for circular economy:** Information exchange, dissemination and analysis of results
- Studies and pilots of 23 **partners**
- **Regional cooperation groups:** Regional activation and commitment to circular economy targets with regional roadmaps
- 10 **Forerunner municipalities network:** committed to circular economy targets with municipal roadmaps



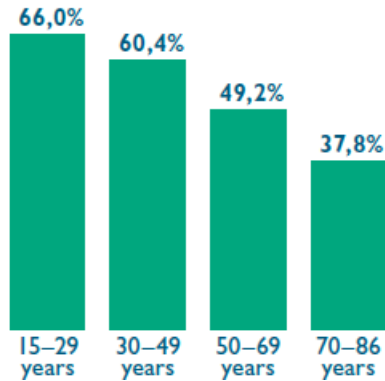


# Mainstreaming circular economy and achieving national waste plan as targets – How about the results?

# Engaging people to use less natural resources



## Second-hand buyers within different age groups



Source: Finnish Environment Institute, Circular economy barometer 2023

## Lessons learned:

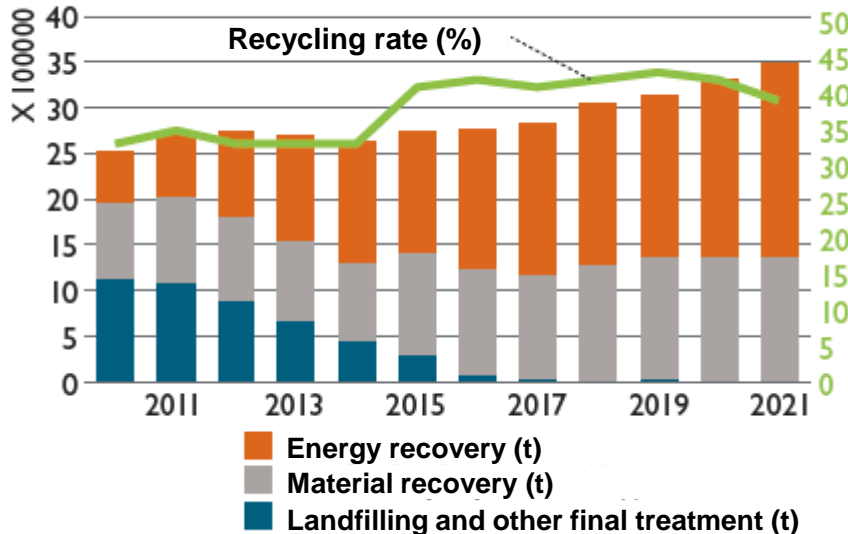
- When developing services for citizens, ask citizens what they need
  - **Idea hunting** of service ideas from residents increased **awareness** and gave companies testing opportunities
  - Different age groups **might want different things** – young people are the biggest users of second-hand items



# MSW recycling: still a painful national challenge



## Municipal waste treatment and recycling in 2010 – 2021



Source: Statistics Finland. Picture: Syke

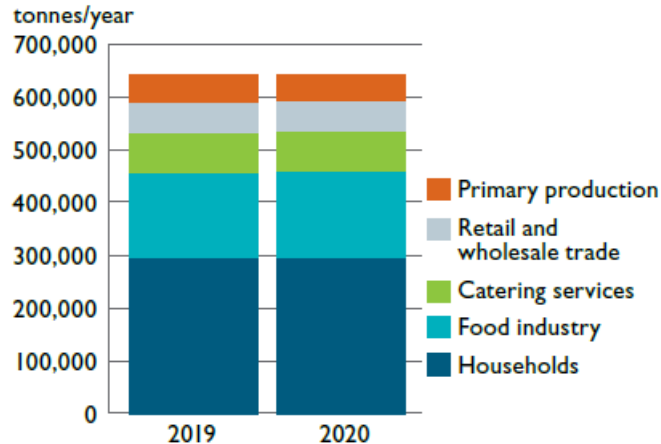
## Lessons learned:

- **Regional committing brings results; the road map process is valuable!**
  - **Forerunner municipalities are managing better** in waste amounts and recycling rate than Finland on average
- **Need for education on separate collection of biowaste and plastics**
  - Waste **composition** studies in households, trade and service sector

# Halving food waste



## Amount of food waste by production chain\*



\* Amount does not include crop remaining in the field.

Source: Natural Resources Institute.

© Finnish Environment Institute.

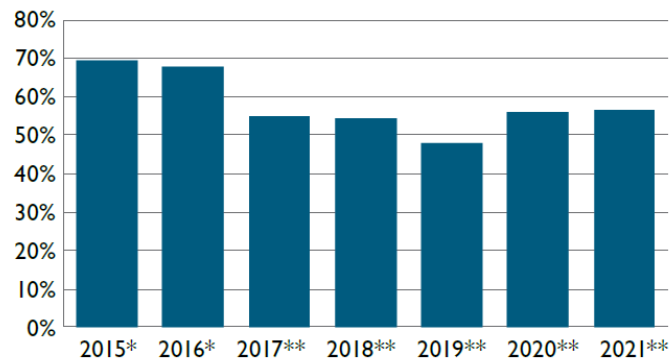
Significant part of food waste is generated in households.

## Lessons learned:

- **Measuring, monitoring and education can help in halving food waste**
  - **Information and food waste weighing campaign in school decreased food plate waste 35 %**

# Material recycling in construction sector

Material recovery of construction and demolition waste, %



\* Material recovery includes preparation for reuse.

\*\* Preparation for reuse, material recovery, backfilling and other material recovery total.

Source: Statistics Finland. © Finnish Environment Institute.

## Lessons learned:

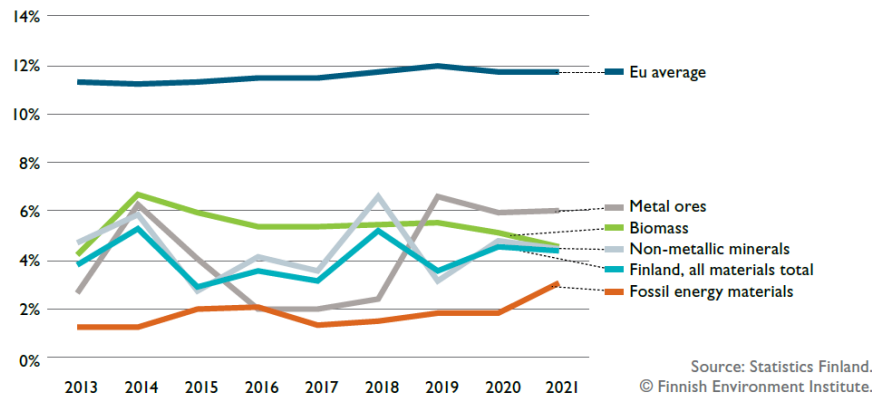
- **Good quality construction waste materials can be produced by investing in education and using ambitious client requirements**
  - 99% of construction waste could be sorted into materials with intensive on site worker **education**
  - **Public procurements** with circular economy criteria fits well to construction sector, which is a huge user of natural resources



# Saving natural resources by using recycled materials

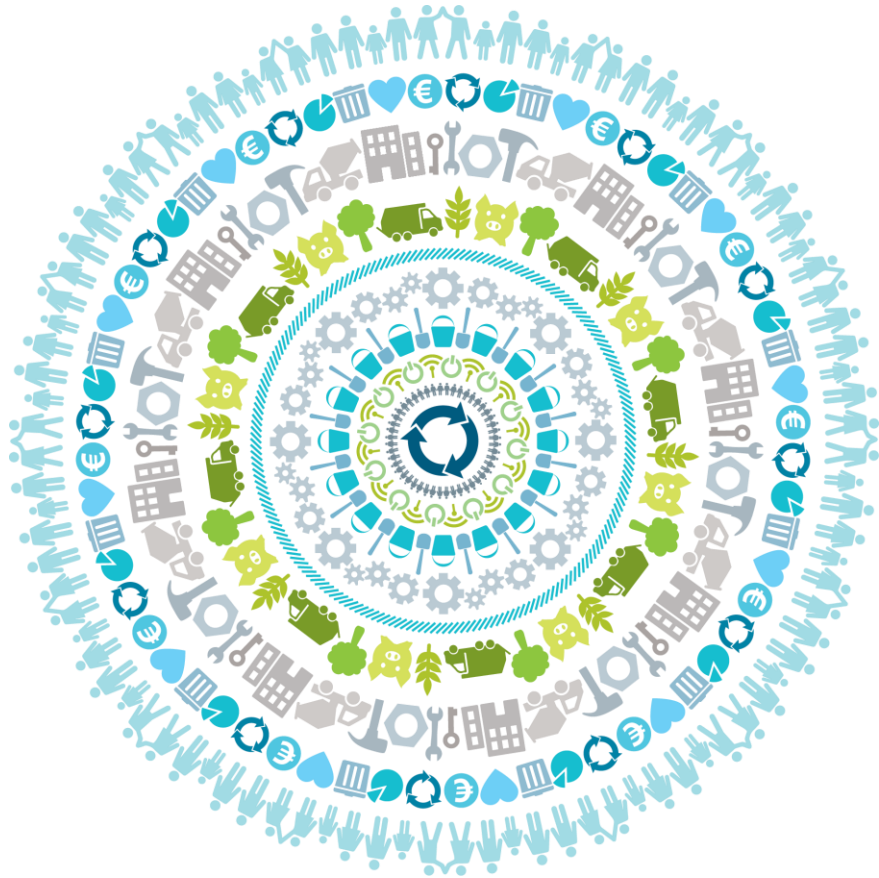


Circular material use rate by material and in total in 2013 to 2021, and EU average



## Lessons learned:

- Companies should be encouraged to use regional circular raw material sources with for example industrial symbiosis concept
  - Magnetic properties of **recycled magnets** reached 98% of the level of virgin magnets
  - Hard-to-recycle construction and demolition waste can be used as a raw material for **composite** products.
  - Virgin **construction materials and binding agents can be replaced** by industrial side streams and these choices save money, emissions and natural resources.



**Thank you for being interested!**

**More information:**

[circwaste.fi](https://www.circwaste.fi)

<https://www.circwaste.fi/en-US/Current/Publications>

[sustainabilityleap.fi/en](https://www.sustainabilityleap.fi/en)