

Finland CE roadmap 2025: the process and its results

The EEA webinar on national circular economy policies

Kari Herlevi, Project Director, Sitra

5 key facts about Sitra

1. A gift from Parliament to the 50-year-old Finland.
2. An independent foresight agency: futurologist, researcher, visionary, developer, experimentalist, partner, trainer, networker.
3. Funded by returns on endowment capital and capital investments.
4. Envisages Finland as a successful pioneer in sustainable well-being.
5. Its vision is supported by three themes, six focus areas and dozens of projects.

+1

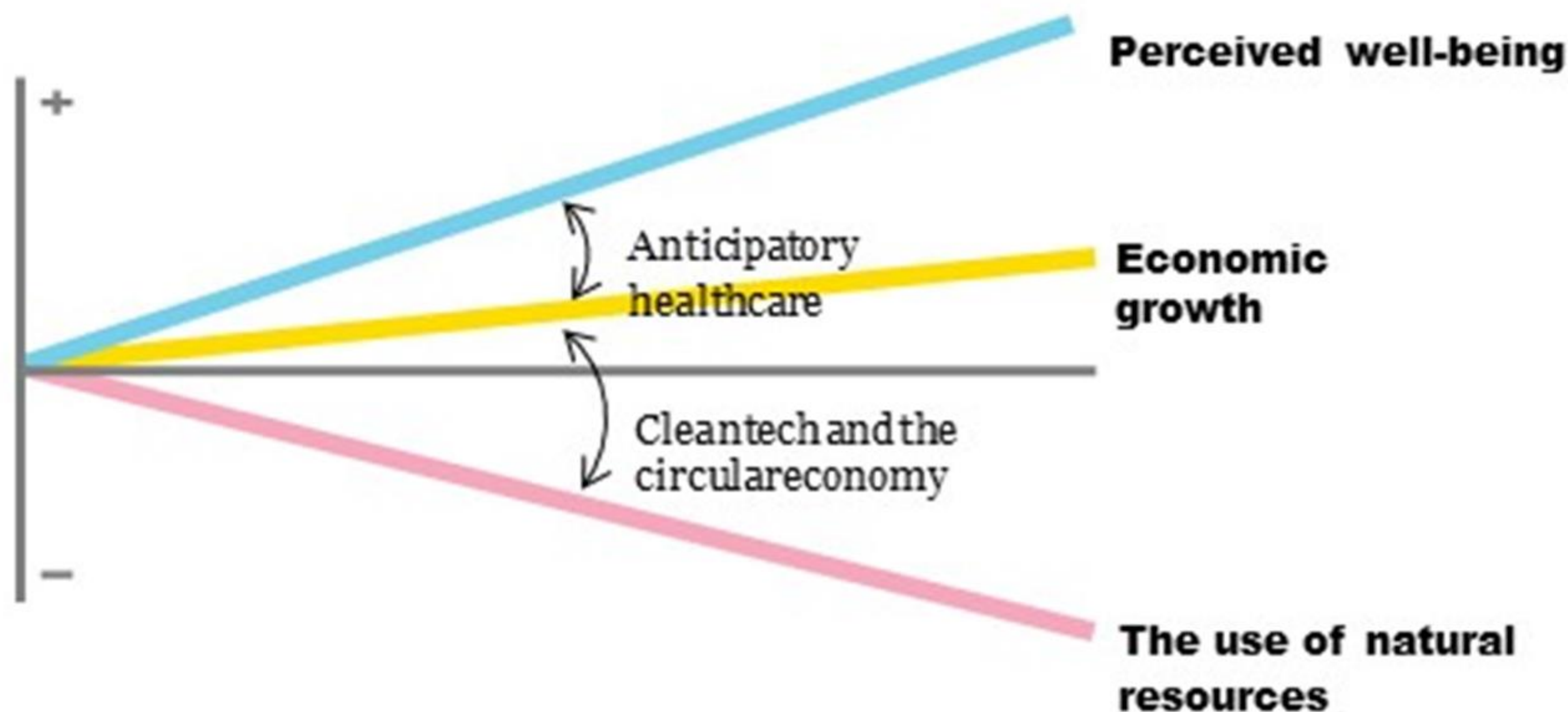
Building our future
together



SITRA

THE BIGGEST CHALLENGE OF OUR TIME

The decoupling of perceived well-being and economic growth from the consumption of natural resources



- Digitisation plays a key role as an enabler of new solutions.
- Finland could play a bigger role than its size merits in finding solutions to the ecological and social problems of the world!

The World is full of waste, yet the demand for raw materials is increasing globally

Why do we throw away about 80 % of consumer products and their materials?

On average, materials in Europe are used **only once.**

10-15 %
of building materials goes to waste during construction.

The average occupancy rate of cars is about **8 %**

31 % of produced food goes to waste in value chain. In Finland it makes **300-400 million kilos** per year.

Offices' occupancy rate is about **40 %**

The global demand for raw materials will increase during the next 20 years

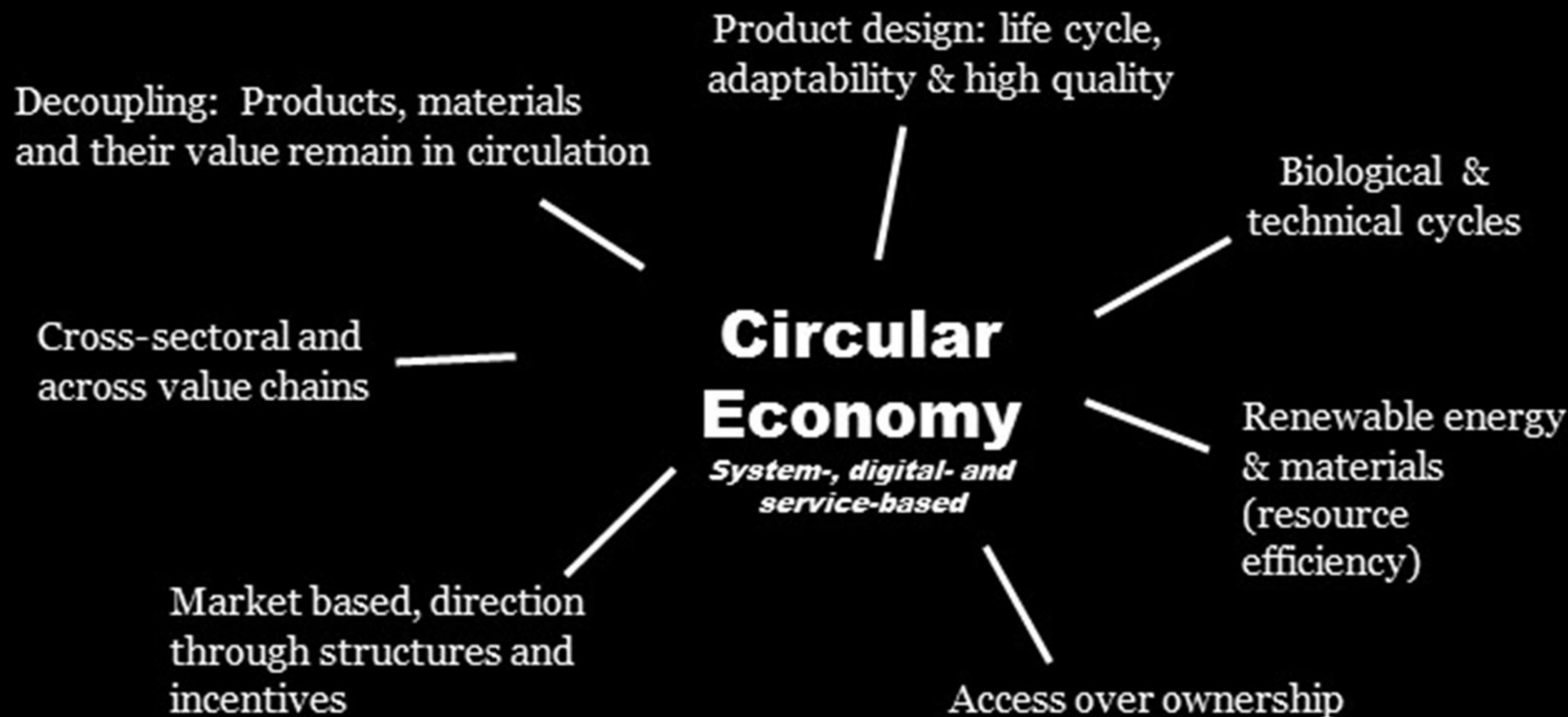
Farmland, over + 200

**Water⁰
+ 137 %**

**Steel
+ 57 %**

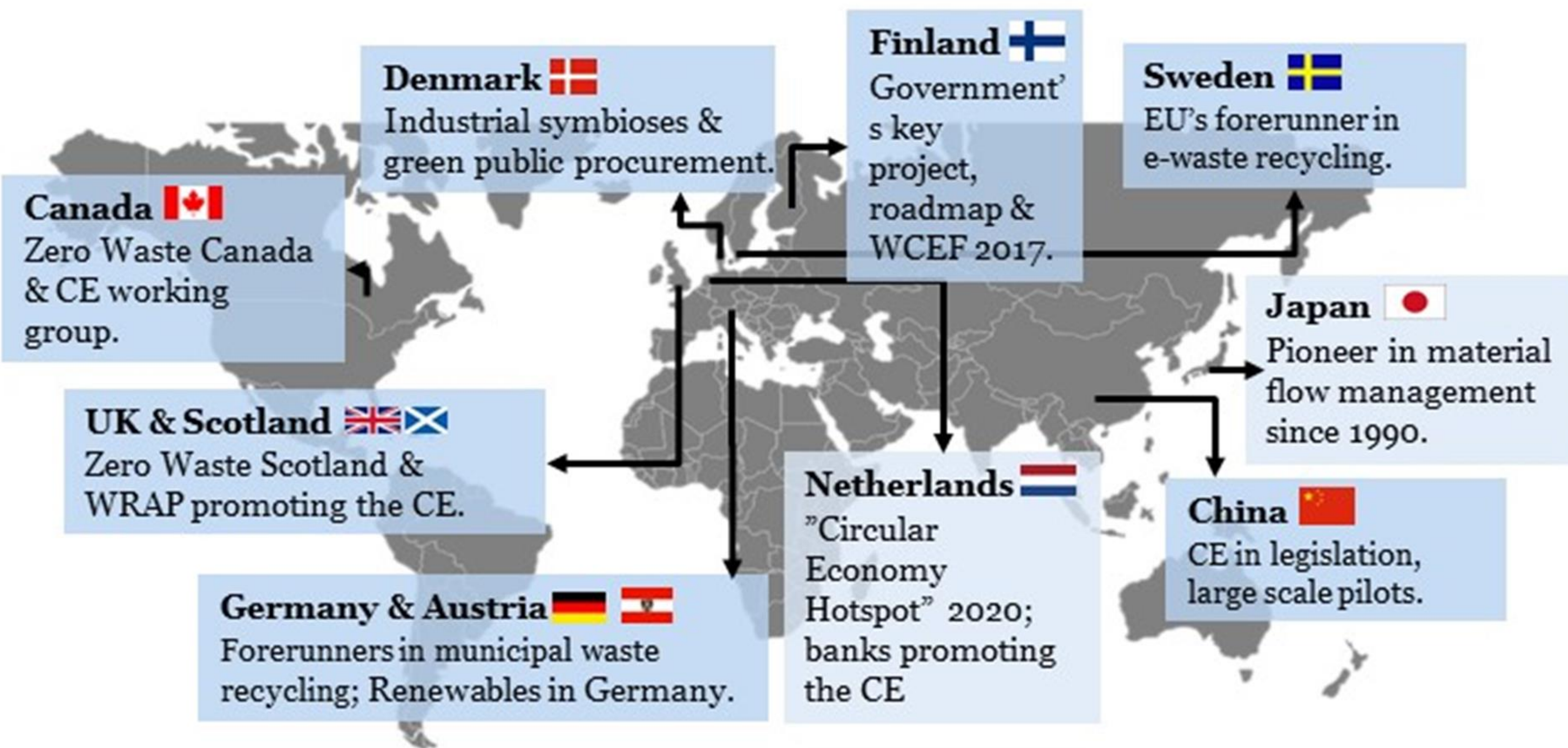
**Energy
+ 32 %**

Sources: EEA, GSA, UNFAO, EU, McKinsey, Luke



Sources: Ellen MacArthur Foundation, Sitra

Circular Economy advances across the globe



The potential of a Circular Economy in Finland

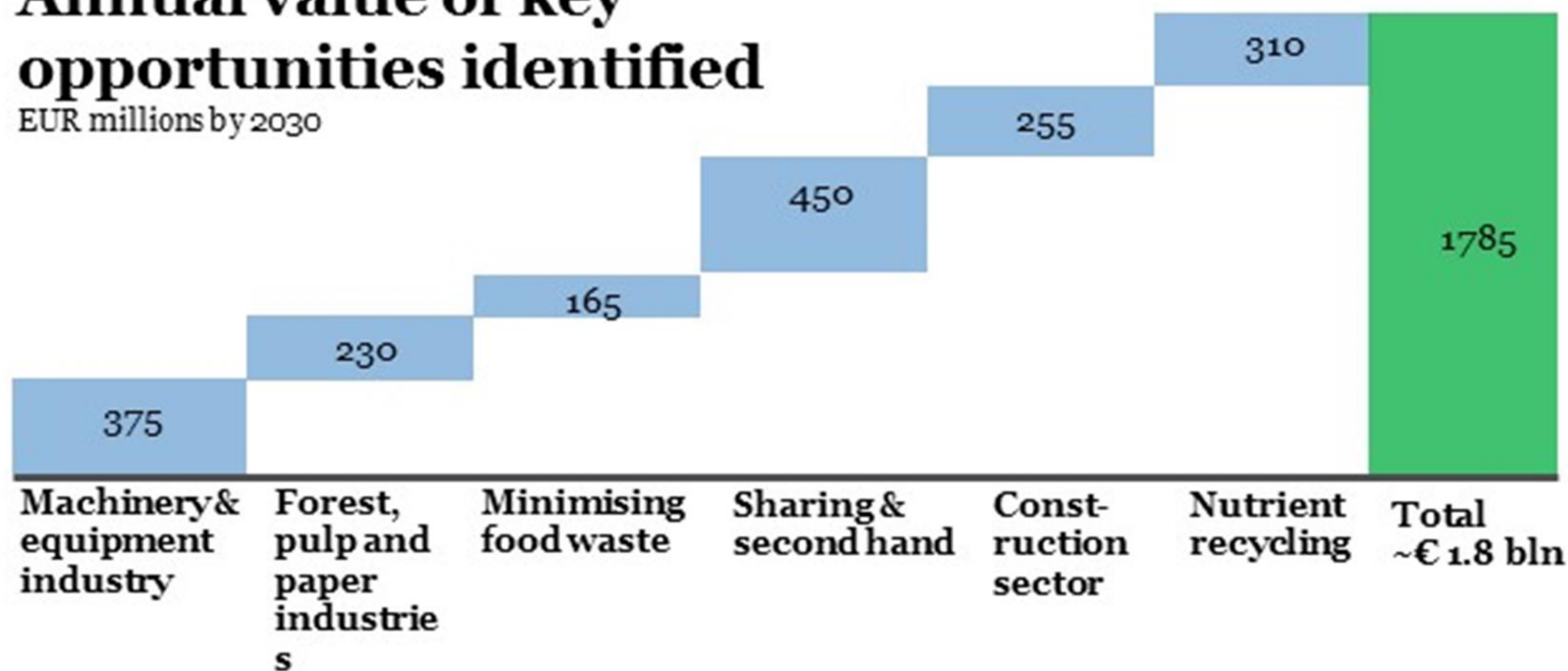
2-3 billion euro
potential annually,
by 2030
(Sitra, McKinsey & Gaia)



Some Circular Economy opportunities for Finland

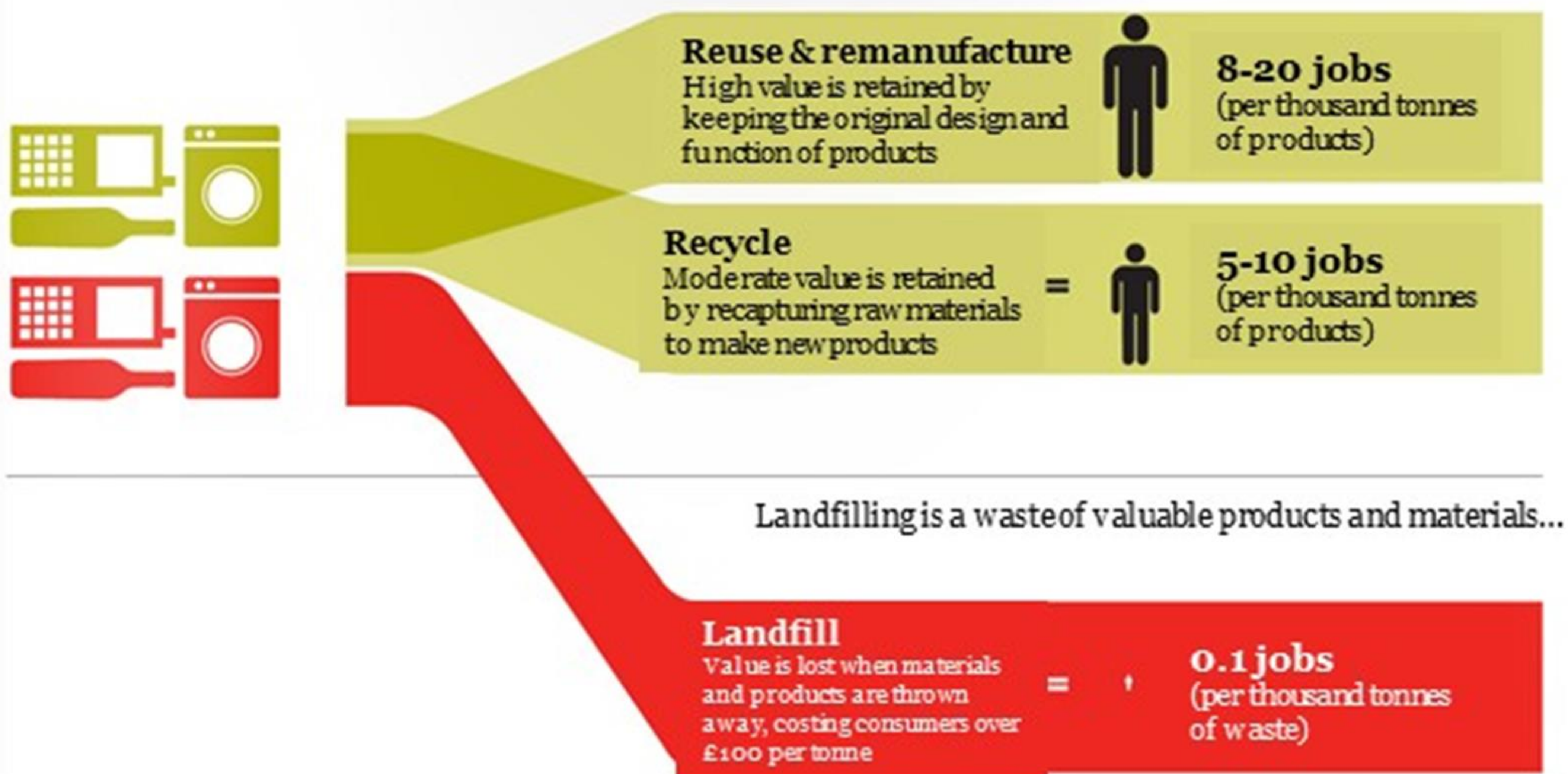
Annual value of key opportunities identified

EUR millions by 2030



Sources: McKinsey, Gaia Consulting

The sale of products for reuse and remanufacture supports more jobs



Source: [Green Alliance](#)

LEADING THE CYCLE – FINNISH ROADMAP TO A CIRCULAR ECONOMY 2016-2025

Globally unique road map

Government:
Finland becomes a
global leader in
the circular
economy

**Added value potential of
3 billion euros for the
economy of Finland**

*“The number of additional jobs
would exceed 75,000 in
Finland...” (Club of Rome)*

Finland becomes a world leader in the circular economy by 2025

Road map's ambition:



Increased exports and growth for companies from scalable and comprehensive circular economy solutions.



Functional **domestic market**.



Circular economy into the mainstream through **actions** and **concrete pilots**.

Economy, environment & society:



Circular economy as a new cornerstone for the Finnish economy.



Finland as a model country for the challenge of scarcity.



From adapter to pioneer.



1000

**participants in
the
stakeholder
events**



250

**action
ideas
and
comments**



66

**actions in the
first wave**

THIS IS HOW WE CREATE A
Circular economy
IN FINLAND



Use

The product should be used for as long as possible, it must be serviced and repaired and parts changed when necessary.



Consumer

Consumer demand creates a supply of sustainable products and commodities.



From company to company

Companies will procure and require their subcontractors to provide parts that can be easily repaired – instead of single-use parts.

Retail

Retailers will sell services instead of goods and inform customers about maintenance and repair services, environmental impacts, materials and further use in the final phase of the life cycle.

Distribution

Transport co-ordinated between different sectors, renewable fuels and jointly owned transport equipment will be used in distribution.

Manufacturing industry

Long-term products that can be repaired and maintained will be brought onto the market. Materials will be separated at the end of the product's life cycle.

Material processing

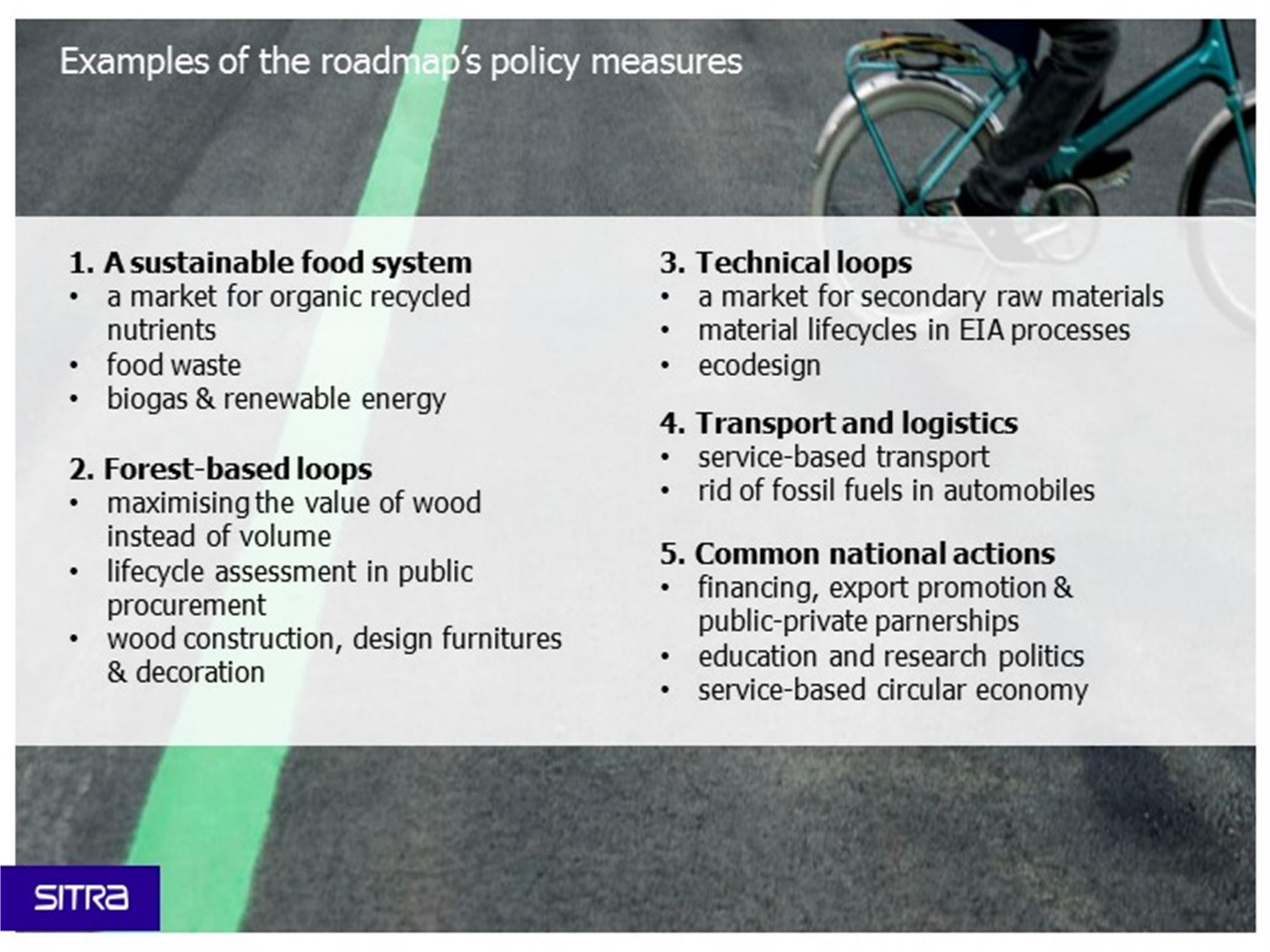
Process planning will reduce the energy needed to refine huge amounts of raw materials. The use of side streams will be taken into consideration.

Primary sector (raw materials sector)

The raw materials are capital for the primary sector. Sustainable solutions are based on the wise use of raw materials.

- ① Sustainable food system
- ② Forest-based loops
- ③ Technical loops
- ④ Transport and logistics
- ⑤ Common action

The life cycle continues in a new loop



Examples of the roadmap's policy measures

1. A sustainable food system

- a market for organic recycled nutrients
- food waste
- biogas & renewable energy

2. Forest-based loops

- maximising the value of wood instead of volume
- lifecycle assessment in public procurement
- wood construction, design furnitures & decoration

3. Technical loops

- a market for secondary raw materials
- material lifecycles in EIA processes
- ecodesign

4. Transport and logistics

- service-based transport
- rid of fossil fuels in automobiles

5. Common national actions

- financing, export promotion & public-private partnerships
- education and research politics
- service-based circular economy

Five focus areas of the Finnish road map

- | | | | |
|---|--------------------------------|---|---|
| 1 | Sustainable food system | Consumers choose food that has been produced through the wiser use of raw materials that starts in primary agricultural production. Nutrients are recycled. |  |
| 2 | Forest-based loops | The forest industry's global competitiveness will increase with new commercial products, services, co-operation models and digital technology. |  |
| 3 | Technical loops | Minimising the use of virgin raw materials and maximising the length of material and product life cycles create a competitive edge. |  |
| 4 | Transport and logistics | Transport will develop into a seamless, smart system that uses fossil-free fuels. |  |
| 5 | Common action | Legislators, companies, universities and research institutes, consumers and citizens, and vibrant regions are all needed to achieve systemic change. |  |



The most interesting companies in the circular economy in Finland

A list of companies to inspire economic change.

Five business models for the circular economy



Product-life extension

Products are used according to their original purpose for as long as possible or repaired and refurbished for multiple re-uses, thus reducing the need for purchasing and manufacturing new products.



Product as a service

The customer pays for certain functions or performance and avoids the risks of ownership. The total costs of ownership remain with the service provider, with revenue being earned by means of, for example, a leasing or rental agreement.



Sharing platforms

Digital-based platforms are used to promote the increased use of goods and resources and the extension of their life cycle, such as by renting, selling, sharing and re-use.



Renewability

Renewable, recyclable and biodegradable materials, as well as the principles of eco-design, are preferred for products and their design. Fossil fuels are replaced by renewable energy.



Resource efficiency and recycling

Technological development enhances resource efficiency in value chains, processes and products, and allows for more effective recycling. Side-streams are valuable raw materials for recycled products and materials.

Example companies on the list

**3 Step IT**

IT equipment
life-cycle management

Lassila & Tikanoja

Re-use
of pallets

Valtra

Remanufacturing
of gearboxes

**EkoRent**

Shared electric
vehicle service

Enevo

Optimisation
of waste collection

Lindström

Work uniforms
as a service

RePack

Reusable
delivery packaging

Valtavalo

LED lighting
as a service

**Shareit Blox Car**

Peer-to-peer car
sharing service

Sharetribe

Service for creating
a marketplace website

Swap.com

Innovative online
consignment and thrift store

**Kotkamills**

Easily recyclable
consumer paperboard cups

Neste

Renewable diesel
made from waste and residues

**Grano and TouchPoint**

New uses for advertising
banners in business gifts
through company co-operation

Eko-Expert

Recycled blow-in
insulation made
from surplus
mineral wool

Ekokem

Used plastic
as a recycled raw
material

Rec Alkaline

Recycled nutrients from
alkaline batteries

Remake

Designer clothing
collection made from used
clothes



Presenting the world's best circular economy solutions

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Ministry of Economic Affairs
and Employment of Finland



Ympäristöministeriö
Miljöministeriet
Ministry of the Environment



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