



# Circular economy measures in supporting SMEs to become more competitive -examples from Finland

Paula Eskola, Senior Expert, Motiva





Motiva

## Sustainable development company

Owned by the Finnish Government by 100%

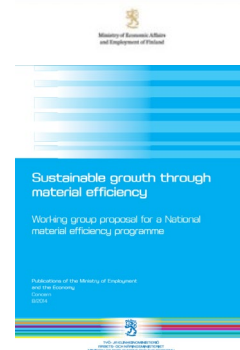
### Service areas

- Energy efficiency
    - Voluntary agreements and audits
    - Consumer guidance and communication
    - Monitoring and impact assessment
  - Circular economy
    - Material efficiency commitments and audits
    - Finnish Industrial Symbiosis System and materials market place
    - Facilitation of networks and ecosystems
- Sustainability
- Competence centre for Sustainable and Innovative Public procurement
  - Plattform for experiments
  - Sustainable mobility
  - Sustainability management in public sector

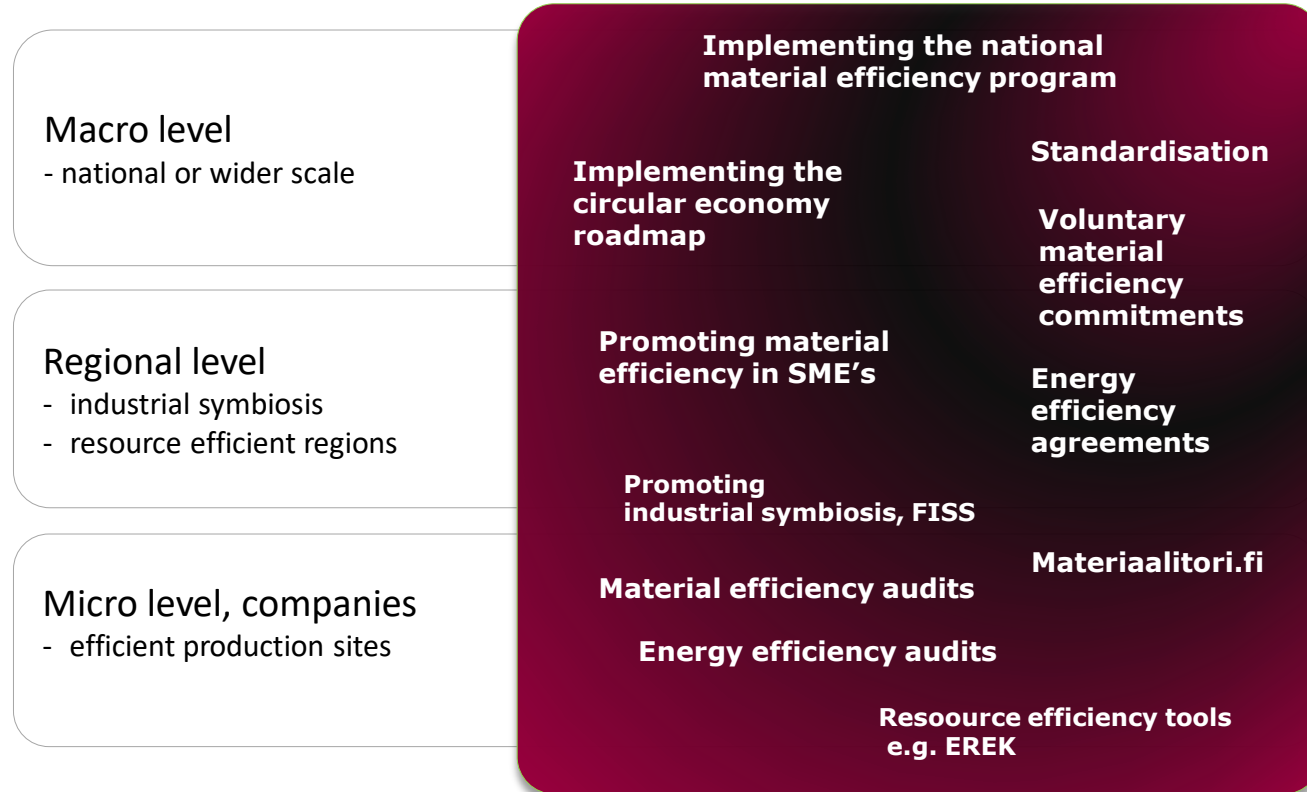


# The policy map

- **Government program:** Inclusive and competent Finland – a socially, economically and ecologically sustainable society
  - *Climate neutral by 2035*
  - *Government Program for Circular Economy to be developed 2020*
  - *Low carbon roadmaps for industry*
  - *Public procurement should be ecologically, socially and economically sustainable*
  - *10 % innovative public procurement*
- Roadmap for Circular Economy (2016) & Updated Roadmap 2.0 (2019)  
<https://bit.ly/35f37dZ>
- Government report on the National Energy and Climate strategy for 2030  
<http://urn.fi/URN:ISBN:978-952-327-199-9>
- Sustainable growth through material efficiency – national program( 2014, updated 2017)  
<https://bit.ly/2PgWQsJ>



# Examples of Motiva's activities related to circular economy and resource efficiency of companies





# Energy Efficiency Agreements 2017-2025

Substantial role in development and implementation

ANNUAL ENERGY SAVINGS  
(2017-2018)

**5,2** TWH

ANNUAL COST SAVINGS  
(2017-2018)

**215** M€

ANNUAL CO<sub>2</sub> REDUCTION  
(2017-2018)

**1,2** MT



DEVELOPMENT  
ADMINISTRATION  
ADVICE  
SUPPORT  
COMMUNICATION  
MONITORING  
IMPACT ASSESSMENTS

PARTICIPANTS  
REGISTERED 2017-2018

**490**  
companies

**6125**  
measures

**82**  
municipalities and  
federations of  
municipalities

[www.energyefficiencyagreements2017-2025.fi](http://www.energyefficiencyagreements2017-2025.fi)



# Energy Audits

## AUDIT IDENTIFIES

- total energy consumption and distribution
- renewable energy potential
- saving measures (operational and investment)
- proposals for further exploration.

## TWO PHASE MODEL

Step 1: quick but comprehensive audit (factory audit)  
Step 2: deeper analyses focusing on the most promising savings opportunities

The maximum subsidy is 30 000 €, which can be used up to 50 % for both steps.



DEVELOPMENT  
TRAINING  
ADVICE  
QUALITY CONTROL  
MONITORING  
IMPACT ASSESSMENTS  
(since 1992)

## BENEFITS

	Savings potential
Heat	29 %
Electricity	10 %
Water	5 %
Energy costs	18 %

- One off investment: 10000 - 15000€
- Average payback time for investments: 2 years

[www.motiva.fi/en/solutions/energy\\_audits](http://www.motiva.fi/en/solutions/energy_audits)

# Material Efficiency Commitments for industry



- Commitment between the Ministries and the sectoral industry associations
- Companies join by making their own commitment
- Food and packaging industries & retail made the first commitment 2019 –2021 encompassing nearly the whole value chain
- Coverage: 90 % grocery stores, 20 % food industry (after 1 year)

## Targets:

- Reduction of food waste -13 %
- Recycling rate 74% → 78 %
- Cost savings
- GHG reduction
- Waste reduction

Companies in commitment form a pioneer network for knowledge sharing and co-development!



Finnish Food and Drink  
Industries' Federation



11.2.2020

[https://www.motiva.fi/yriytokset/materiaalitehokkuuden\\_sitoumus](https://www.motiva.fi/yriytokset/materiaalitehokkuuden_sitoumus)



# MATERIAL AUDIT

## Decreasing waste, increasing sustainability

Material audit is a project to find out

- the volume and value of waste and side-flows (MFCA, ISO 14051)
- the actions to reduce waste and to find new ways for side-flow utilization.

Main benefits:

- Cost savings
- CO2 emission reduction
- Ability to show concrete acts of sustainability.

Suitable for SME's, midcaps and large companies.

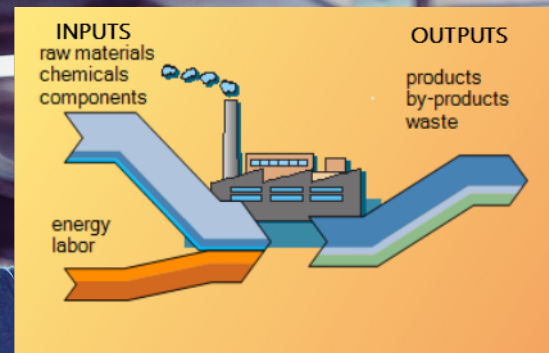
Material audits are performed in companies by approved consultants.

Business Finland grants funding for the material audits (50 %)

More information:

[material\\_efficiency\\_audit\\_tools](#)

BUSINESS  
FINLAND



Concrete measures for improvement

SAVINGS

-costs

-material resources

-environmental impacts





# Materiaalitori.fi

– Digital market place for waste and side-streams

Why?

## 1. Promoting Circular Economy

- Companies and organisations can use materiaalitori.fi to offer and find sidestreams and waste materials and services in waste management and the circular economy.

## 2. Transparency to using supplementary municipal waste management (TSV) services

- Materiaalitori can be used to demonstrate the lack of commercial service providers in the case that a company wants to use municipal waste management services, which is their statutory right stated in waste legislation

The screenshot displays the Materiaalitori.fi website, a digital marketplace for waste and side-streams. The header includes the site name and navigation links. A prominent banner reads "Materiaalit kiertoon!" (Materials into circulation!) with a sub-header "Materiaalitori on kohtauspaikka jätteen ja sivuvirtojen tuottajille ja hyödyntäjille. Ilmoita materiaaleista ja palveluista maksuttomasti!" (Materiaalitori is a meeting place for waste and side-streams producers and users. Advertise materials and services for free!).

Below the banner, there are sections for "Uusimmat ilmoitukset" (Latest advertisements) categorized into "Etsityt materiaalit (9)" (Searched materials), "Tarjotut materiaalit (16)" (Offered materials), and "Tarjotut palvelut (13)" (Offered services). Each category lists specific items or services with details like location and date.

Further down, there are informational sections: "Vauhtia kiertotalouteen" (Momentum to the circular economy), "Läpikäytyä kunnan jätteenhoitopalveluun (TSV)" (Passed through municipal waste management service (TSV)), "Pilottikäyttöä alooi" (Started pilot use), "Kysymyksiä ja vastauksia - FAQ" (Questions and answers - FAQ), "Ohjeet - näin käyttää Materiaalitoria" (Instructions - how to use Materiaalitori), and "Rekisteröidy ja aloita Materiaalitorin käyttö heti" (Register and start using Materiaalitori right now).

A statistics section titled "Materiaalitorissa nyt" (Currently in Materiaalitori) shows three large numbers: 395 "REKISTERÖITYNYT KÄYTTÄJÄ" (Registered users), 104 "ILMOITUSTA" (Advertisements), and 300 "TAVUTUSTA - ORGANISAATIO" (Sought - organization).

The footer contains contact information, a list of partner organizations, and logos for the Ministry of the Environment and Motiva.

# Higher value with less natural resources

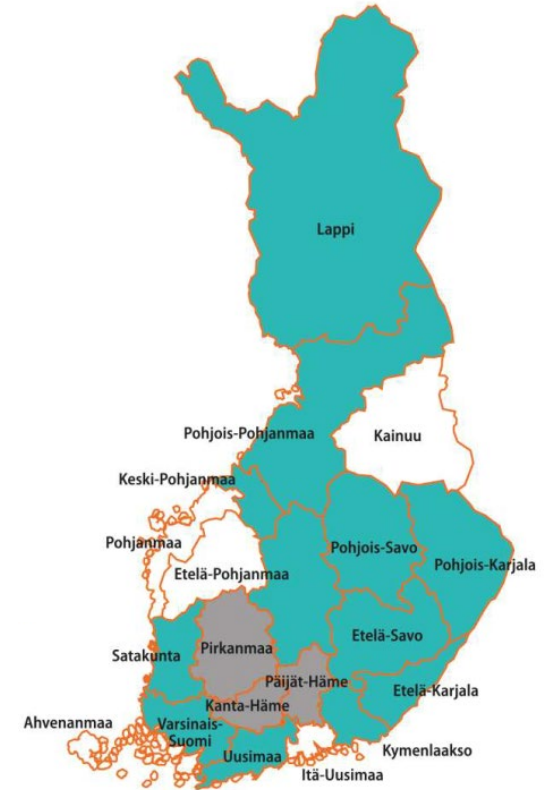


- **Practical tool for promoting Circular Economy**, bioeconomy and regional development
- Provides a systematic way to help companies and other organisations to **create partnerships and new business opportunities** through more efficient use of raw materials, technology, services and energy.
- Aims in **competitive higher value** products and services
- 14 regions, more than 700 companies
- More information about FISS:  
[www.teollisetsymbioosit.fi](http://www.teollisetsymbioosit.fi)



# FISS boosts utilisation of Materiaalitori

- Companies have motivation for better management for sidestreams, but since it is not their core business, they need support in this.
- FISS regional operators can help in finding the right partners and facilitating the symbiosis.
- The regional operators can also help in using Materiaalitori or even make notifications on behalf of businesses
- The statutory use of the platform is also expected to increase the awareness and visibility of the platform as well as increase the user volumes.



Kuvalähde: Motiva, Teolliset symbioosit Suomessa – FISS (Finnish Industrial Symbiosis System).



# Other tools and projects in Finland









# Circular Economy Playbook for SMEs

## Circular economy business models for the manufacturing industry

Circular Economy Playbook for Finnish SMEs

- A practical guide and toolbox for company specific opportunities to turn business circular

The playbook consists of 6 chapters and supporting tools for identifying company specific circular opportunities

	1. Why circular economy?	2. What opportunities exist?	3. Which capabilities are required?	4. Which technologies can support?	5. How to design the transformation journey?	6. Industry deep dives
						
Content	<p>Burning platform for circular economy</p> <ul style="list-style-type: none"><li>Inefficiencies of the linear value chain</li><li>Drivers of circular economy</li><li>Leading examples</li></ul>	<p>Circular opportunities for manufacturing industry</p> <ul style="list-style-type: none"><li>Current state analysis</li><li>Circular business models</li><li>Value benefits</li></ul>	<p>9 circular capabilities</p> <ul style="list-style-type: none"><li>Detailed description</li><li>Required know-how</li><li>Recommended approach</li><li>Leading practices</li></ul>	<p>19 technologies enabling circular business models</p> <ul style="list-style-type: none"><li>Detailed descriptions</li><li>Circular relevance</li><li>Assessment parameters</li><li>Risk assessment</li></ul>	<p>Circular transformation journey and roadmap</p> <ul style="list-style-type: none"><li>Envision and plan</li><li>Deliver and adapt</li><li>Barriers incl. culture, ecosystem collaboration, finance</li></ul>	<p>Current state analysis and circular opportunities for</p> <ul style="list-style-type: none"><li>Machinery &amp; Equipment</li><li>Marine</li><li>Energy</li><li>Transportation</li></ul>

+ Supporting tools, including for example value case tool, business model canvas, capability gap assessment tool, etc

# Project examples



## CircHubs – Future circular economy centres 2017-2019

6 largest cities in Finland were co-operating to develop their recycling centers into circular economy centers. The CE centers served as testbeds enabling development of new business and solutions.

<https://circhubs.fi/en/>



## Circwaste - towards circular economy in Finland 2016-2021

LIFE IP project that promotes efficient use of material flows, waste prevention and new waste and resource management concepts. All actions contribute to implementing the national waste management plan and directing Finland towards a circular economy.

<http://www.materiaalitkiertoon.fi/en-US/Circwaste>



## Circular Economy Catalysts: From Innovation to Business Ecosystems (CICAT2025)

The project will work to identify measures hampering and supporting circular economy and search solutions for companies and regulators to support the transition to a circular economy.

<https://cicat2025.turkuamk.fi/en/>

# BUSINESS FINLAND MISSION IS GROWTH, RENEWAL AND SUCCESS SERVICES

- Research and innovation **funding**
- Developing capabilities e.g. **coaching**
- Enabling building **networks and ecosystems**
- Help in identifying and testing **new market opportunities**
- Help in **entering new markets**

## BIO AND CIRCULAR FINLAND PROGRAM 2019-2021

**Projects funded over 50 M€ and 126 projects during last 12 months.**

- **Develop competitive Finnish bio and circular based solutions and ecosystems** which solve grand challenges and have huge potential to known global markets
- **Enhance the export growth** of Finnish bio and circular solutions and ecosystems.
- **Promote Finnish bio and circular excellency for investors** and actors in global networks



# Conclusions



- Circular Economy brings new opportunities for companies
- New business models and value chains create added value
- Systematic tools/ operation models can be utilised in all levels of operation
- Sharing knowledge of tools, good practices and research is "a must"! → "Together we can be more!"
- Networks and ecosystems are needed for co-development and knowledge sharing
- Voluntary agreements/ commitments have been successfully used instead of legislation
- Barriers for SMEs to start CE/RE improvement projects:
  - Limited time of staff
  - Not realising the potential, looking at single processes, not the whole system
  - Lack of suitable network partners
  - Resistance to change
- Drivers for SMEs:
  - Cost benefits most important
  - Customer need/ demand
  - Sustainability and climate actions getting stronger on agenda
  - Image





# THANK YOU!

Paula Eskola  
Senior Expert  
Motiva

[paula.eskola@motiva.fi](mailto:paula.eskola@motiva.fi)  
phone: +358 40 555 2961