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

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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*


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

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<th>Macro level</th>
<th>Regional level</th>
<th>Micro level, companies</th>
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<td>- national or wider scale</td>
<td>- industrial symbiosis</td>
<td>- efficient production sites</td>
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<td>- resource efficient regions</td>
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### Macro level
- Implementing the national material efficiency program
- Voluntary material efficiency commitments
- Energy efficiency agreements
- Standardisation
- Implementing the circular economy roadmap
- Promoting material efficiency in SME’s
- Promoting industrial symbiosis, FISS
- Materiaalitori.fi

### Resource efficiency tools
- EREK

### Implementing the national material efficiency program
- Energy efficiency audits
- Material efficiency audits
- Resoource efficiency tools
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 CO₂ REDUCTION (2017-2018)

1,2 MT

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.

BENEFITS

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

www.motiva.fi/en/solutions/energy_audits

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

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

https://www.motiva.fi/yritykset/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
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.
FISS – Finnish Industrial Symbiosis System

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.
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

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

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

http://www.kasvuakiertotaloudesta.fi/
Project examples

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.


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/

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

BEST ECOSYSTEMS IN THE WORLD
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!

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