



**REMIX**  
Interreg Europe



European Union  
European Regional  
Development Fund

***Regional SMEs as drivers in the development  
of the Industrial Circular Economy***

**Tuomas Pussila**

**Programme Manager, Industrial Circular Economy**

**Cluster Manager, Arctic Industry and Circular Economy Cluster**

**Digipolis, Kemi, Lapland**

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# Lapland - POLICY INSTRUMENT



***Sustainable growth and jobs 2014-2020. Finland's structural funds programme,***

***Priority axis 2: Producing and using the latest knowledge and skills (ERDF) Specific***

***Objective 4.1: Developing research, competence and innovation clusters that draw from regional strengths***

## **Lapland –what was the starting point**

- one of the most prominent regions for the mining industries at global level including the Critical Raw Materials
- pioneer to development industrial circular economy throughout the value chain
- ecosystem enabling the industrial service SMEs and technological solutions development –innovation platforms at place

## **Lapland - What was needed?**

- the practices improving the translation of the industrial needs into the regional planning, policy and decision making and vice versa - to promote the improvement of the operational environment for the mining industry
- better use of the RDI capacity in the development of the SMEs capacity and services
- facilitated co-creation to support the development of the emerging industries in the management of the industrial symposia processes

# Lapland action plan

## Objectives

- innovation and research action for mining and metallurgy - Boosting research and innovation based industrial circular economy in Lapland through interregional learning - **SMEs as a driver for sustainable growth**
- **Arctic Circular Economy Innovation Concept** – Research and innovation based circular economy products, services and business models for SMEs in Lapland

## Realisation

- Industrial Circular Economy in Lapland 2.0 - Reinforcement of circular economy activities
- strengthens the regional competitiveness of the industrial circular economy in Lapland
- supports the operations of the ***Circular Economy and Bioeconomy Centre*** - established in Kemi in 2017
- paves way for new investments and business models in the field of circular economy
- strengthens the R&D, knowledge and innovation infrastructure, cooperation and networking  
→ operations in practise - through The Circular and Bioeconomy Centre →

# Circular Economy Centre

**ecovin**  
SUCCESS. RECYCLED.

**ANDRITZ**

**Valmet**

**metso**

**AngloAmerican**

**BOLIDEN**  
**SPINVERSE**

**Manga Lng**

**ENGEMMA**

**Etteplan**

**econsulting**

**AGNICO EAGLE**  
FINLAND

**COMPASS**

**storaenso**

**REPOLAR**

**sma mineral**

**KEMIN SATAMA**  
Part of Kemi

**OUTOKUMPU**

**MetsäFibre**  
outokumpu

**Caverion**

**ASES**  
Insinööritoimisto ASES Oy

**TOIVANEN**

**KORRAL**

**akkoy**

**JÄKÄLÄ**  
Edistyksestä jätteenkäsittelyä  
**Esa ja Pojat**  
Pohjanmaan Hyötykäyttö Oy

**TAPOJÄRVI**

**Hannukainen Mining**

**NORR HYDRO**

**CH CHEMEC**

**CRISOLTEQ**

**euromins**

**KEITELE**  
group

**SANGEN**

**BOREAL BIOREF**  
BIOJALOSTAMO

**Kemi Shipping**

**PALSATECH**

**SOIL FOOD**

**SAVATERRA**  
SAVA GROUP

**fortum**

**KEMIJOKI**

**Solid Liner Oy**

**arQmtech**  
SCIENCE OF NATURAL VITALITY

**AHMA**

**elker**

**HAVATORGO**  
MINING AND CONSTRUCTION SOLUTIONS SINCE 1988

**eventum**

**DEKRA**

**BIO SQ4**

**NTH service**  
NAPAPIIRIN TEOLLISUUSHUOLTO OY

**STYRUD**

**KAIVOSVASTUU**

**SITRA**

**Teknologiatoimisto**

**Motiva**

**S Y K E**

**metsäkeskus**

**SYMBIOSIS CENTER DENMARK**  
DANSK SYMBIOSIS CENTER

**Nordic Council of Ministers**

**InSITE BAVARIA**

**NORDREGIO**  
Nordic Centre for Spatial Development

**OECD**  
BETTER POLICIES FOR BETTER LIVES

**RUC** Roskilde University

**SINTEF**

**GDANSK UNIVERSITY OF TECHNOLOGY**

**HWWI**

**UUC**

**nobs**

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**KALLINGSBORG SYMBIOSIS**

**I.U.**

**Junta de Castilla y León**

**LITBIOMA**

**ICAMCYL**

**GTK**

**Luke**  
LUONNONVARAKESKUS

**MINISTRY OF INDUSTRY AND TRADE**

**FUNDACIA INICIATIVY INNOWACYJNYCH**

**Trendelag County Authority**

**Greenovate!**

**Swedish Agency for Economic and Regional Growth**

**UNIVERSITY OF LAPLAND LAPIN YLIOPISTO**

**LAPIN AMK**  
Lapland University of Applied Sciences

**PAPER PROVINCE**

**DRAXIS**  
INDUSTRIAL TECHNOLOGIES

**TUMint**

**European Commission**

**European Committee of the Regions**

**LAPIN AMMATTIOPISTO**

**LUC**  
LAPIN YLIOPISTON

**igroc**  
INDUSTRIAL GREEN CLUSTER

**European Commission**

**European Committee of the Regions**

**DIGIPOLIS**

**KEMI**

**TEAM BOTNIA OY**

**REGIONAL COUNCIL OF LAPLAND**

**Tervola**

**Rovaniemen Kehitys**

**KEMIJÄRVI**

**YLITORNIO**

**LAPLAND CHAMBER OF COMMERCE**

**Ympäristöministeriö**

**Maa- ja metsätalousministeriö**  
Jord- och skogsbruksministeriet  
Ministry of Agriculture and Forestry

**Ympäristöministeriö**  
Miljöministeriet  
Ministry of the Environment

**A"**

**SITRA**

**Teknologiatoimisto**

**Motiva**

**PRO Agria Lappi**

**European Union**  
European Regional Development Fund

**SILVER**  
**Cluster Management Excellence**  
DEDICATED TO CLUSTER EXCELLENCE

# Circular Economy and Bioeconomy Centre- practical way

- **It is not only policy!**
- **Couple very practical examples of Centre's work in co-operation with local SME's**
  - Dust binders made of region's side streams for roads in mines
  - Region's side streams usage as cover material for waste rock pile
  - Geopolymer made of region's slag as cover material for waste rock pile
  - Fertilizers made of region's side streams to boost growth on waste rock pile
- **SME's as a driver**
- **For them there is a potential to grow bigger and get more business also abroad**

**A MESSAGE FOR THE FUTURE**

**CLEAR NEED FOR  
STRONG SUPPORT TO GET  
RESULTS!**

**THINK BIG!**



# REMIX

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# THANK YOU

[www.interregeurope.eu/remix](http://www.interregeurope.eu/remix)



*Project smedia*

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