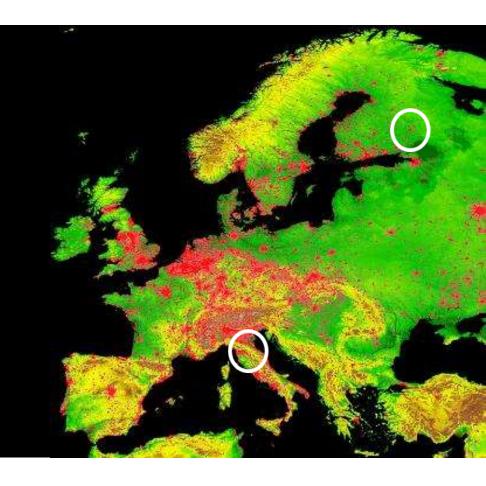


North Karelia: status quo and bioeconomy strategy drafting process

Firenze 28.3.2019

Risto Poutiainen Region Mayor Regional Council of North Karelia





Forest resources and world-class expertise

89% of total land area covered by forests

Annual growth of forests

9.3 MIL M³

Annual usage of forests

5.9 MIL M³









Our circular forest bioeconomy cluster

Forest technology
Industrial symbioses
Distributed biorefining
Wood construction

Renewable energy production

Forests & Photonics
Advanced wood products
New biobased products
Natural products
Forest information solutions

SUSTAINABLE FOREST MANAGEMENT



Long-term strategic work



Our strategic work on renewable energy began 25 years ago

- The follow-up of of the region's energy sector has been a part of our strategic programmes
- A social contract on sustainable development 2015, North Karelia the first region to take part
- Towards Low Carbon Municipalities -> Roadmap for oil free and low carbon North Karelia 2040



Visionary and ambitious goals

Our forest bioeconomy targets are a vital part of these goals. Smart
Specialisation
– Smart Growth

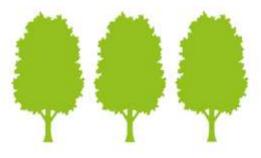
North Karelia invests in selected productive sectors to increase the international competitiveness of the region

Oil Free Region — Sustainable Growth

Emerging bioeconomy
and climate change
considerations provide
opportunities for
resource efficient
activities in North Karelia
to help it to become an
oil-free region

Sustainable targets for 2030

100% fossil oil free





Share of renewable energy in total consumption

100%

Net reduction of greenhouse gases

80%

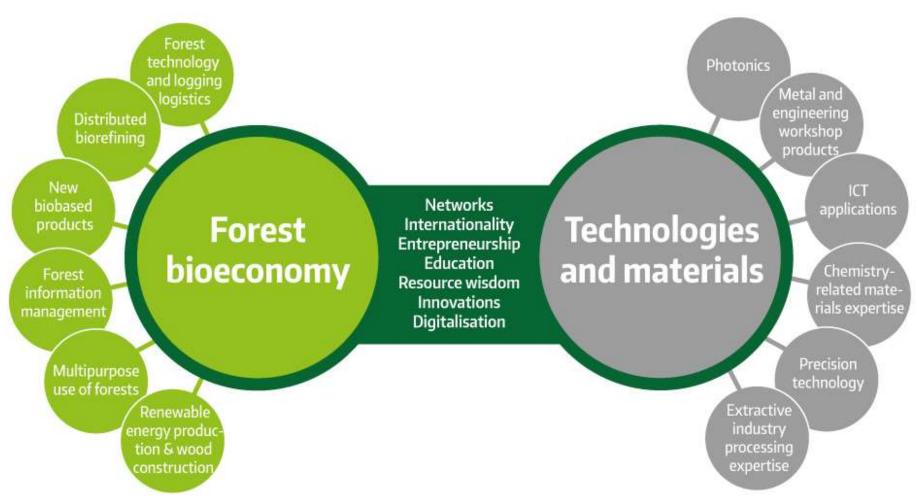
Bioeconomy investments turnover

2.7 BILLION €





Smart specilisation in North Karelia





Within bioeconomy, our aims are:

- Oil-free, low-carbon and resource-efficient region
- Fossil fuels and materials replaced with renewable ones
- Forerunner in wood construction
- Wide range of value-added bioproducts and natural products
- Service sector with a key role
- Creating jobs for the entire bioeconomy value chain

- Ensuring ecosystem services
- Efficient use of by-products of the forest industry, reduction of negative environmental impacts
- Open and secure environment for industrial piloting
- Smart silviculture, maintaining healthy and diverse forests
- Knowledge and research applied for the needs of business life
- Innovative use of digital forest data
- Education of forestry experts at all levels





Bioeconomy investments in North Karelia 2013-

Bio-Coal plant (project), Nurmes

Fortum Ltd (CHP and bio-oil plant, Green Parc), Joensuu

R&D&I environment LUKE, UEF, EFI, SYKE

Stora Enso Ltd – (pellet) + other investments in Puhos, Kitee

GREEN FUEL Numes Juuka Outokumpu

Bio-Oil plant, Lieksa

Stora Enso Ltd – (Enocel pulp mill new investments)

Eno Energy Co-operative

Vapo Ltd (pellet, active coal - plant), llomantsi

Biokymppi Ltd (biogas), Kitee

Wood construction - exaples





Metla-house



Joensuun Arena





ENO Environment network

- A global network of schools and communities for sustainable development in over 150 countries
- Campaigns planting trees
- Climate change agreement- schools at age 14-17 years



















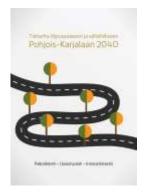


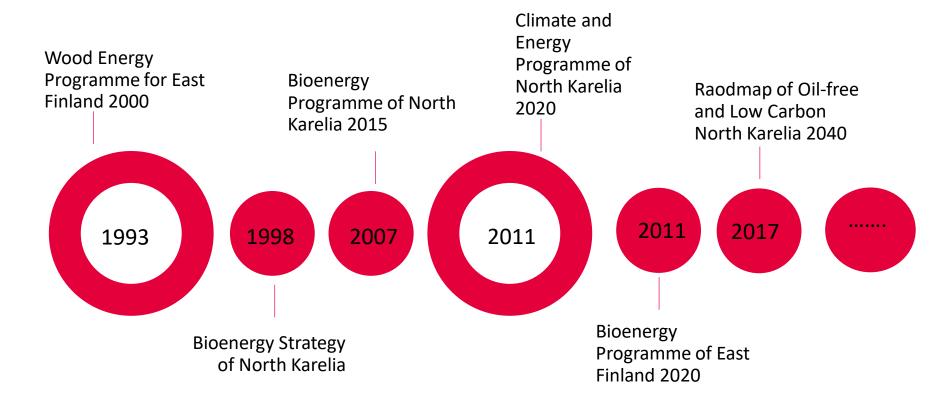


Timeline of our strategic work











Unique collaboration and expertise

- European Forest Institute EFI HQ
- Natural Resources Institute Finland (Luke)
- Finnish Forest Centre
- University of Eastern Finland UEF
- Karelia University of Applied Sciences
- Riveria Vocational Education & Training
- Finnish Environment Institute (SYKE)
- Business development: Joensuu Science Park, regional business development organisations

= the GreenHUB Team



Photo: Luke, Jussi Tiainei



Drafting Process

- Role: Strategy, Programme, Action plan, Road Map...
- Responsible: Regional Council political level
- Strategic Working Groups: quadrupole helix-based cluster groups
- Parcipatory process
- Implementation follow up



CASE North Karelia

- ▶ POKAT 2021 Regional Development Plan - includes all bioecomy elements
- Bioeconomy strategy/action plan – updating process starting
- Green, Yellow, Blue bioecomy different roles
- Structural Fund/ CAP 2021 2027programmes timing

