Forest Knowledge Know-how METLA Well-being

Smart specialization for a forest-based bioeconomy. The example of North Karelia, Finland.

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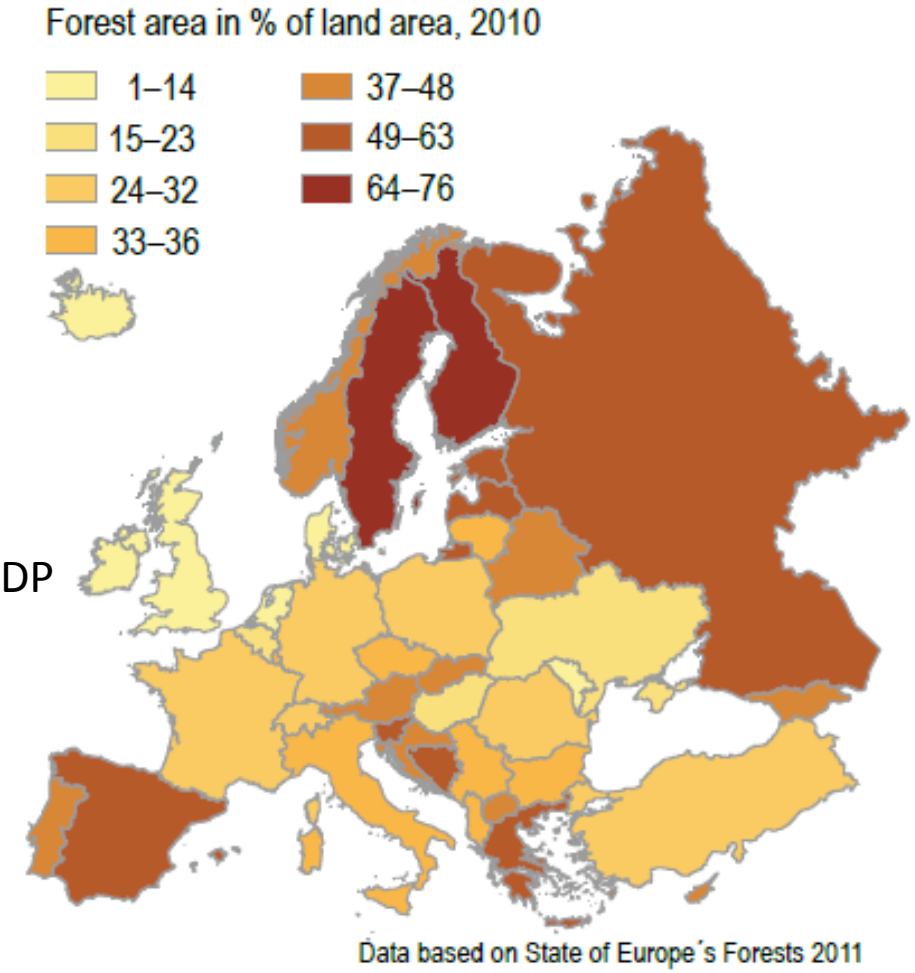
Region of North Karelia

- sparsely populated
- highly forested area
- forest ownership structure
- forest sector workforce and GDP
- high share of renewables as proportion of total consumption



Forest-based bioeconomy North Karelia

- Joensuu - “The forest capital of Europe” - a centre of green growth
- forest-based bioeconomy industry (John Deere, Kesla, Stora Enso, UPM)
- research (EFI, Metla) and education (UEF, Karelia)




Challenges for a forest-based bioeconomy

- demands on forests will increase: wood production, carbon sequestration, biodiversity conservation, water protection, landscape management, soil and nutrient regulation, tourism and recreation

- the competition for land use between traditional agriculture, biomass production, and forestry expected will increase

Sources: European Commission 2014 a. Horizon 2020. The EU Framework Programme for Research and Innovation http://ec.europa.eu/programmes/horizon2020/ Last accessed on 11.03.2014.
European Commission 2014 b. What is green infrastructure? http://ec.europa.eu/environment/nature/ecosystems/ Last accessed on 11.03.2014.
European Commission 2014 c. Commission Staff Working Document Impact Assessment. Accompanying the Communication. A policy framework for climate and energy in the period from 2020 up to 2030.

Definition smart specialization

- to promote the efficient and effective use of public investment in research
- boost regional innovation in order to achieve economic growth and prosperity
- focusing on a regions strength

Source:http://ec.europa.eu/research/regions/index_en.cfm?pg=smart_specialisation

Pohjois-Karjalan
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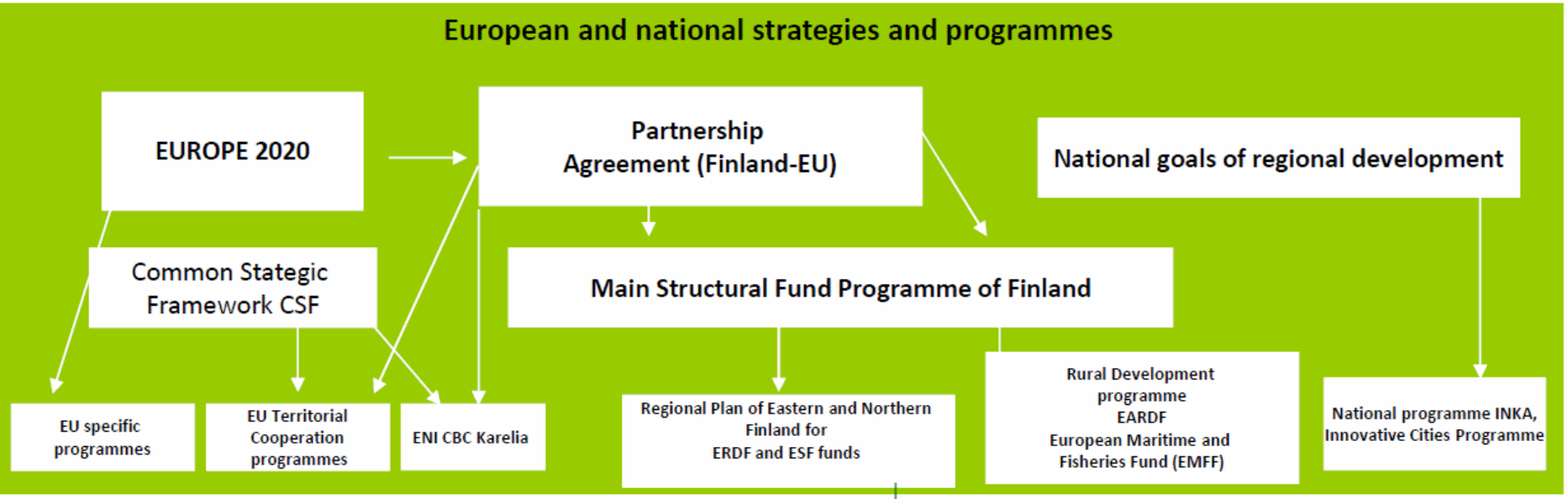
Entirety of Regional Development Tools in North Karelia



Inter-regional strategies and thematic programmes

- Eastern Finland Bioenergy Programme
- Eatern Finland Waste Management Plan
- Water Management Plan of Vuoksi 2015

Regional strategies and thematic programmes

- North Karelian Rural Programme
- North Karelian Village Programme
- North Karelian Business-related political Russia-strategy 2015
- North Karelian Forestry Programme 2015

North Karelian Technological Industry Development Programme 2015
Mining Strategy of North Karelian Development 2014
North Karelian Food Industry Development Programme 2014
North Karelian Well-being Programme 2015
North Karelian Education and Culture Strategy 2014
North Karelian Internationalization Action Plan 2015
Culture in North Karelian Regional Development – Strategic Choices 2007-2013
North Karelian Tourism Strategy
North Karelian Climate and Energy Programme
North Karelian Transport System Plan

Smart specialization strategy

- **part of the regional development programme** POKAT 2017 and defined by the regional development law
- approved in June 2014
- all funding decisions have to be in line with the regional development programme POKAT 2017
- three focus areas: forest-based bioeconomy, technology and materials, and Russia

Smart specialization strategy

Focus areas forest-based bioeconomy :

innovative, productive and competitive whilst using fewer resources and reducing environmental impact

Source: European Commission 2014 a. Horizon 2020. The EU Framework Programme for Research and Innovation http://ec.europa.eu/programmes/horizon2020/ Last accessed on 11.03.2014.

- Forest-based energy
- New materials

> replace non-renewable materials with renewables > as a source for many products (fibres to biocomposites, biofibrilis, biochemicals, bioethanol, bioenergy)

- Forest technology and logistics
- New forest inventory methodology and data management
- Sustainable use of forests

Opportunities for a forest-based bioeconomy in North Karelia

- non-wood forest products, forests and human well-being, services based on management, research and development, consulting and education
- public private partnerships for forest-based industry (e.g. H2020) > focuses on development and actual realisation of integrated bio-based value chains

Future of the forest sector

Positive trend on forest sector investments in Finland:

Metsä Group (a new pulp mill by 2017 in Äänekoski, EUR 1 billion, 6 million m3/a used, 160 employees (2500 around the pulp mill))

UPM (EUR 160 million investment in Kymi pulp mill)

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Photos: Metla/ Erkki Oksanen