Climate and Energy Programme 2030

Regional Council of North Karelia

Networked and competent

Climate resilient

Sustainable growth

North Karelia 2030

Resource-efficient

Diverse

North Karelia will be a forerunner in climate sustainability in 2030

1. Full of life and well-being
2. Protects the diversity of nature
3. Low-emission energy in a self-sufficient way
4. Climate resilient construction and housing
5. Uses natural resources sustainably and enables business
6. Expertise and research data put to extensive use. A region that engages
7. 80 % reduction in emissions from 2007 (carbon neutral municipalities, 'Hinku'))

Full of life and well-being

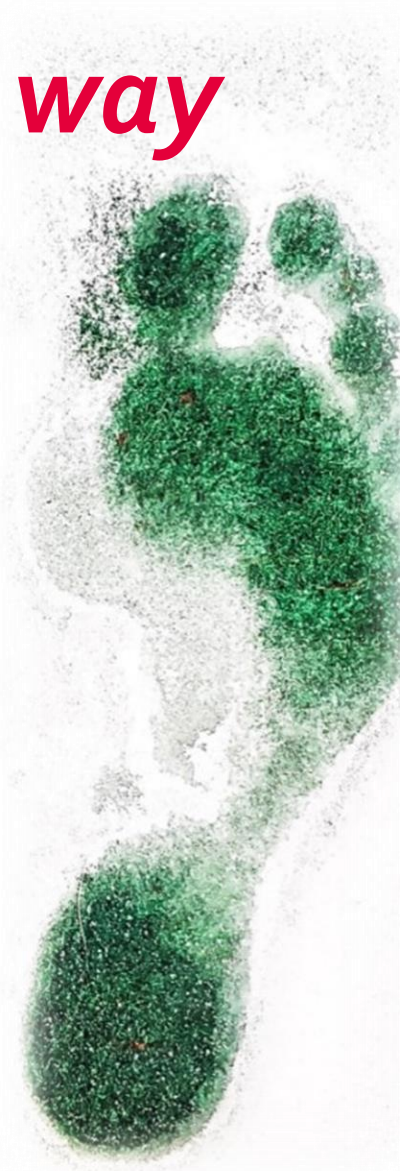
- North Karelia is a region full of life with a population full of well-being.
- It is possible to live and work anywhere in the region.
- Safe and healthy living environment
- Age distribution, prevention of social exclusion ⇔ More services promoting public health are needed. The potential of nature!
- Climate-friendly planning and urban planning
  - Balanced regional structure – climate sustainable transport, housing, etc.
  - Preventing the fragmentation of nature sites
  - Sustainable development perspectives
- Connection to the transport system – climate sustainable transport, logistics

Protects the diversity of nature

- Biodiversity is safeguarded in all activities: conserved areas, valuable habitats and nature sites, water systems
- Suppressing and preventing the loss of species – the most significant factors are the intensification of land use and climate change
- The motto of Finland's National Biodiversity Strategy: 'Pro Nature – for the Benefit of People'
- The biggest concern is the diversity of forests – 89% of the surface area of the country
- Goals recorded: Regional Forest Programme, Finnish Lake District's Rural Environment and Climate Programme, Climate Roadmap for Agriculture

Low-emission energy in a self-sufficient way

- Energy is low-emission, produced in the region and comes from local natural resources
- Transport, heating, electricity
- Sun, wind, geothermal heat, waste recovery, biogas, future hydrogen potential
- Energy efficiency: a kilowatt hour saved is the cleanest and most economical energy
- Developing and supporting decentralised energy production
- Transport fuel solutions – 45 % of emissions came from transport in Finland in 2018



Energy in North Karelia

Energy	**Year 2018**
Total energy consumption	11.8 TWh
Share of renewable energy	67 %
Energy self-sufficiency	64 %
Wood-based bioenergy	5.6 TWh
Other renewable energy	
Biogas	20.6 GWh
Hydropower	765 GWh
Heat pumps	260 GWh
Peat energy	515 GWh

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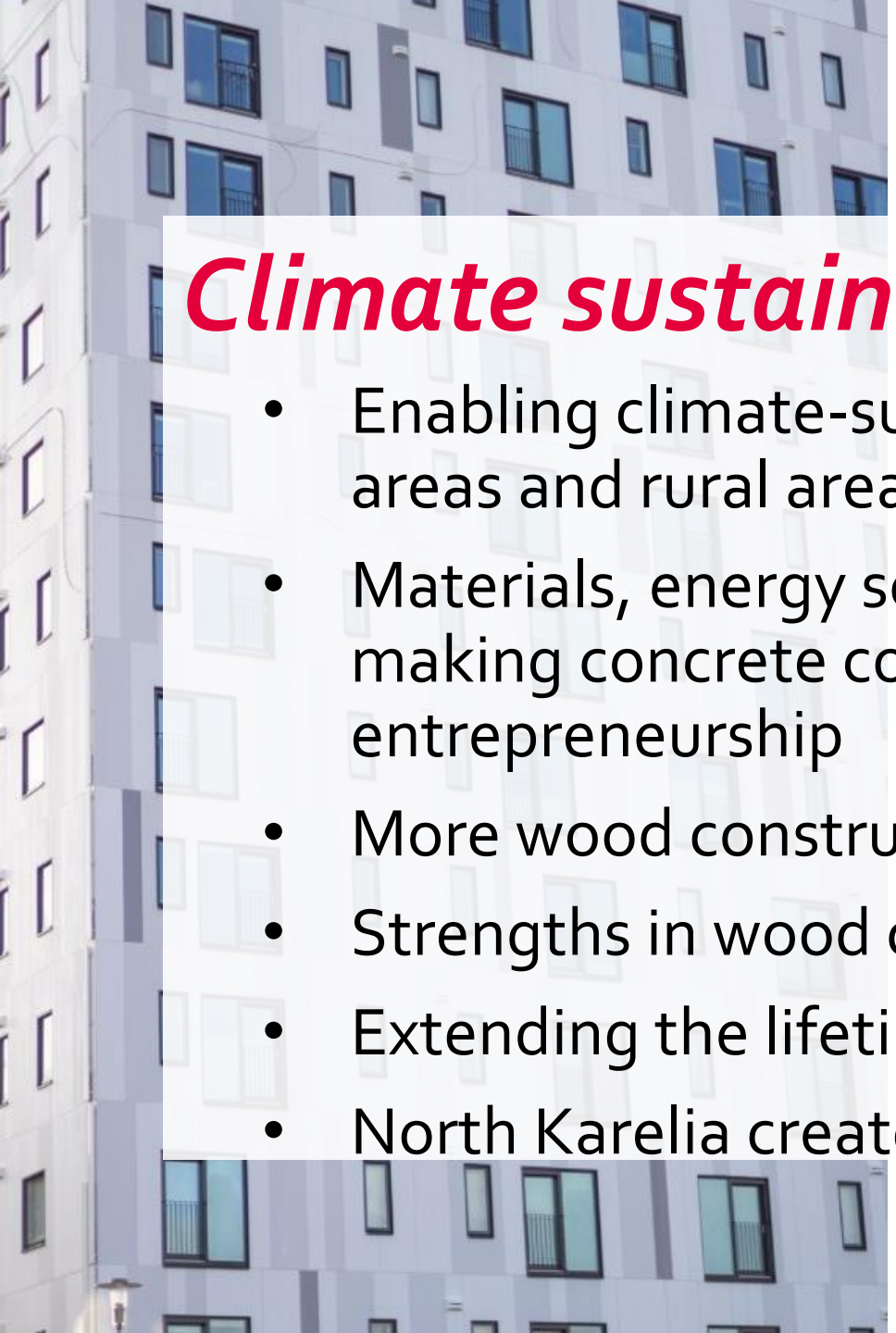


Climate sustainable construction and housing

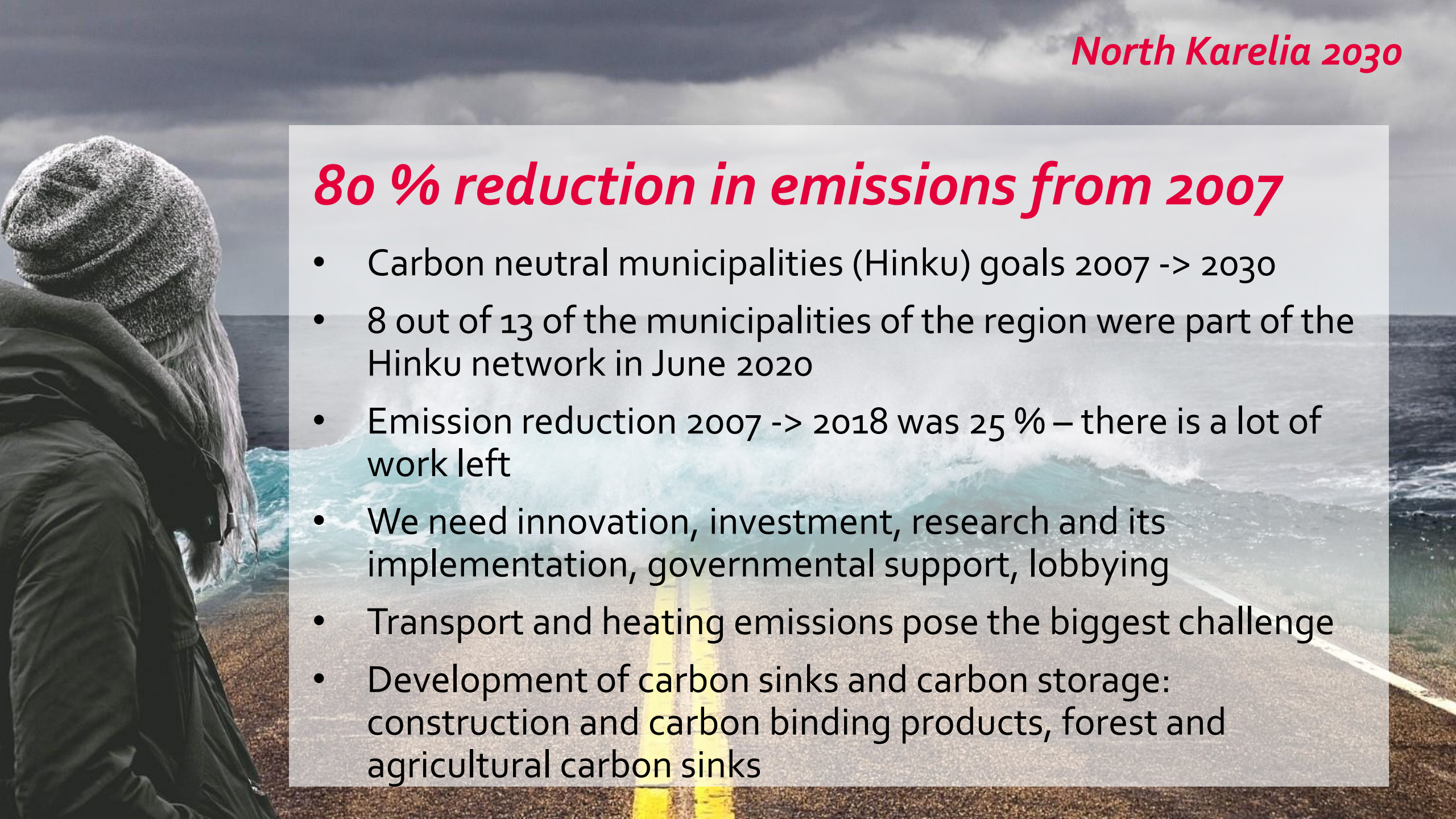
- Enabling climate-sustainable construction and housing in both urban areas and rural areas
- Materials, energy solutions, mobility conditions, efforts toward making concrete construction carbon neutral, employment and entrepreneurship
- More wood construction, especially public
- Strengths in wood construction in the region
- Extending the lifetime of buildings
- North Karelia creates climate-wise solutions for construction

Uses natural resources sustainably and enables business

- The region's natural resources are used in a sustainable and climate-wise manner, enabling diverse business operations
- Resource efficiency, circular economy, side streams, secondary raw materials
- Products with a high degree of processing and a higher added value
- Smart and clean solutions
- Reducing consumption
- Objectives of the national waste plan: amount of waste, waste management as part of the circular economy, recycling and reusing

Expertise and research data put to extensive use. A region that engages

- Transferring competence and research data in the region to operators in a flexible way. An inclusive local society
- Utilising strengths: educational and research organisations and actors, links with business life and challenges in the field – innovations and ecosystems
- Culture of experimentation, sustainability and renewability of solutions
- Increasing climate awareness and transferring it to everyday activities, practical approach
- Including residents, villages and communities



80 % reduction in emissions from 2007

- Carbon neutral municipalities (Hinku) goals 2007 -> 2030
- 8 out of 13 of the municipalities of the region were part of the Hinku network in June 2020
- Emission reduction 2007 -> 2018 was 25 % – there is a lot of work left
- We need innovation, investment, research and its implementation, governmental support, lobbying
- Transport and heating emissions pose the biggest challenge
- Development of carbon sinks and carbon storage: construction and carbon binding products, forest and agricultural carbon sinks

Greenhouse gas emissions of North Karelia

Emission source	Emission 2018, kt, CO2-equivalent	Change 2007–2018
Consumption energy	247	-43 %
Electricity (heating)	65	-51 %
District heating	145	-31 %
Oil heating	51	-48 %
Other heating	73	6 %
Industry	64	-11 %
Machinery	107	-7 %
Transport (roads)	362	-14 %
Transport (railways)	7	-55 %
Transport (water)	7	-24 %
Agriculture	294	-7 %
Waste treatment	57	-29 %
F-gases	37	-22 %
Wind energy		
Total amount	1516	-25 %

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Thank you!

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