Climate and Energy Programme 2030

Regional Council of North Karelia

Vision:
North Karelia will be a forerunner in climate sustainability in 2030

Aims leading towards the vision

1. We have a region full of life and well-being
2. We protect the diversity of nature
3. We have low-emission energy in a self-sufficient way
4. We support climate resilient construction and housing
5. We use natural resources sustainably and enabling business
6. We put expertise and research data to extensive use, we are a region that engages
7. We aim to 80 % reduction in emissions from 2007 (carbon neutral municipalities, 'Hinku'))

Full of life and well-being

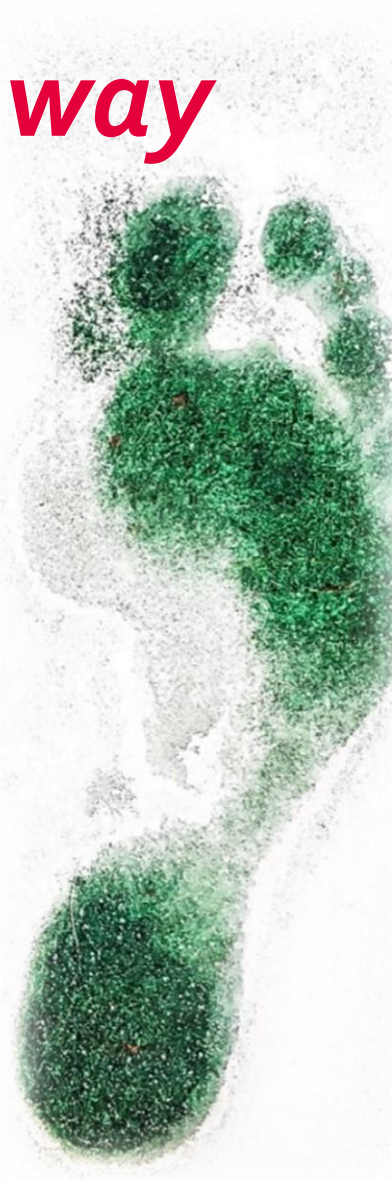
- North Karelia is a region full of life with a population full of well-being.
- It is possible to live and work anywhere in the region.
- Safe and healthy living environment
- Age distribution, prevention of social exclusion ⇔ More services promoting public health are needed. The potential of nature!
- 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

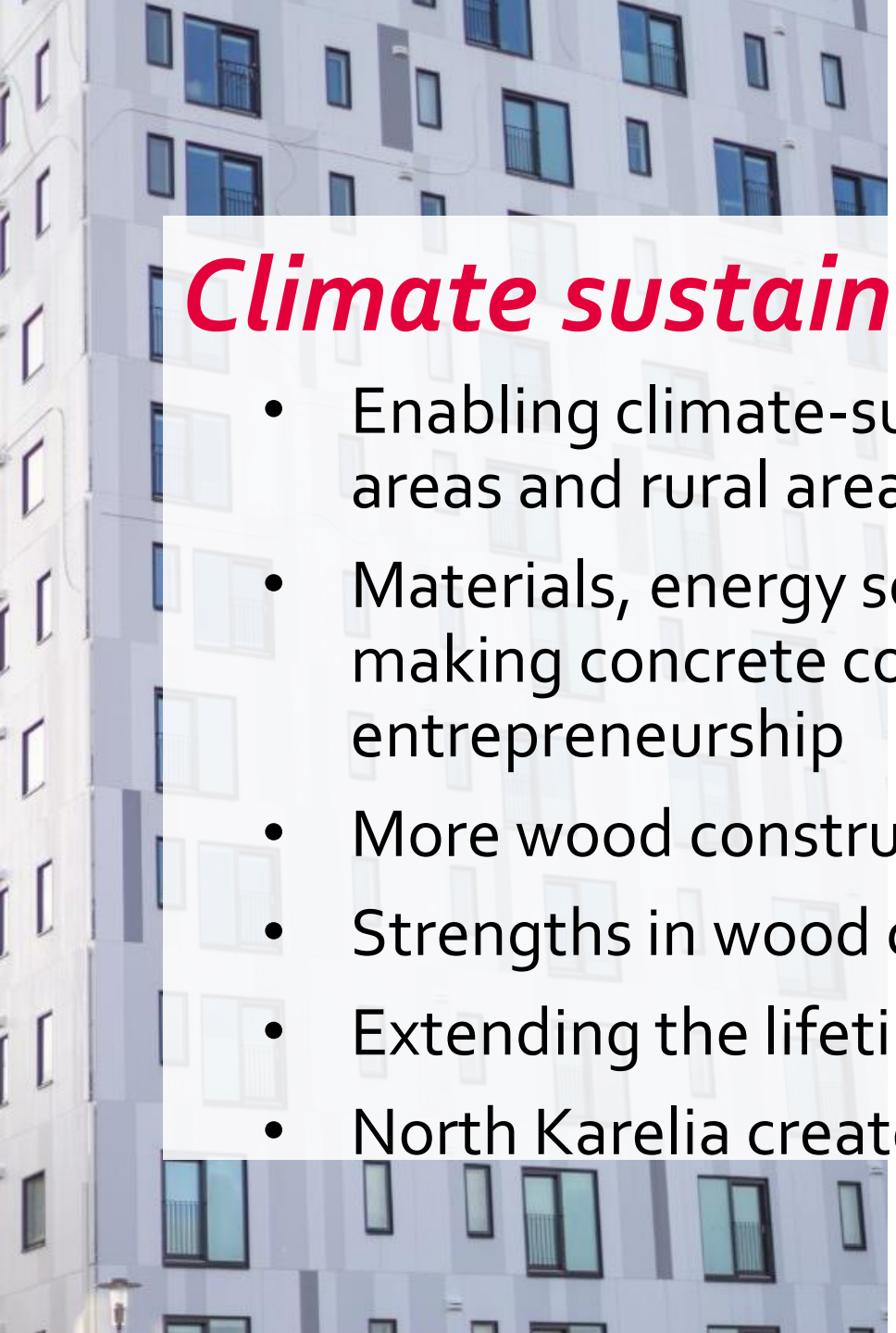


Energy in North Karelia

Energy	2018	2020	2022
Total energy consumption	11, 8 TWh	11,3 TWh	11 TWh
Share of renewable energy	67 %	71 %	72 %
Energy self-sufficiency	64 %	66 %	69 %
Wood-based bioenergy	5,6 TWh	5,7 TWh	5,3 TWh
Other renewable energy			
Biogas	20,6 GWh	20,6 GWh	29,5 GWh
Hydropower*	765 GWh	924 GWh	723 GWH
Heat pumps	260 GWh	351 GWh	489 GWh
Peat	515 GWh	344 GWh	350 GWh
Solar power			17,8 GWh

*Include both wind and hydro power

POHJOIS-KARJALA
Maakuntaliitto



Climate sustainable construction and housing

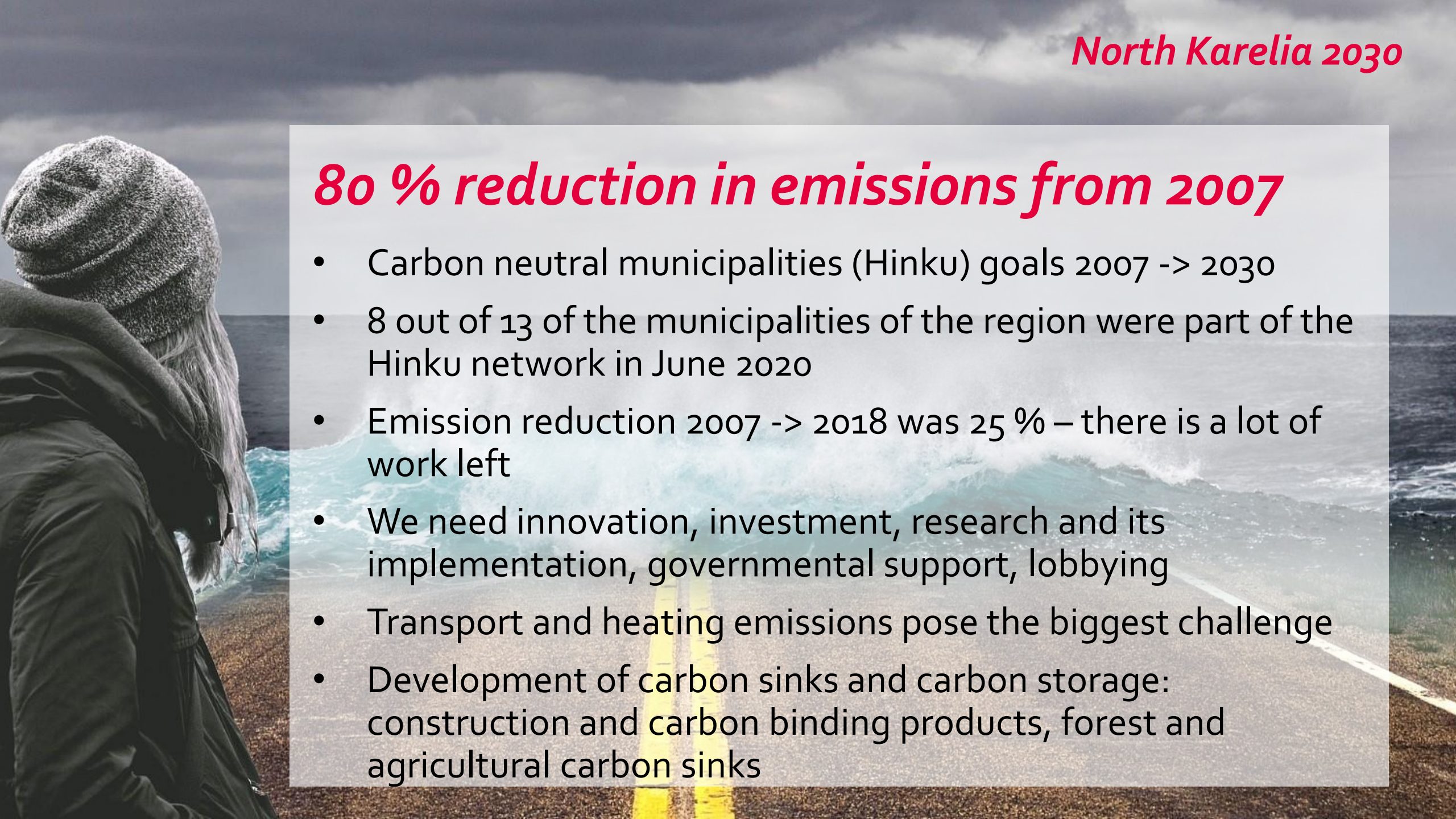
- Enabling climate-sustainable construction and housing in both urban areas and rural areas
- Materials, energy solutions, mobility conditions, efforts toward making concrete construction carbon neutral, employment and entrepreneurship
- More wood construction, especially public
- Strengths in wood construction 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 2007 - 2022

Emission source	Emission 2007, kt CO2-equivalent	Emission 2020, kt CO2-equivalent	Emission 2022, kt CO2-equivalent	Change 2007–2022, %
Consumption electricity	195,9	56,9	54,7	-72,1 %
Electricity (heating)	119,4	36,1	36,3	-69,6 %
District heating	194,0	102,0	80,8	-58,3 %
Oil heating	91,1	36,0	30,8	-66,2 %
Other heating	47,4	44,5	44,5	-6,1 %
Industry	61,4	28,2	32,5	-47,1 %
Work machinery	121,8	122,6	112,7	-7,5 %
Transport (roads)	382,4	294,6	266,7	-30,3 %
Transport (railways)	15,4	5,6	6,8	-55,9 %
Transport (water)	10,1	8,1	7,1	-29,5 %
Agriculture	314,2	286,4	263,0	-16,3 %
Waste treatment	86,1	62,2	56,3	-34,7 %
F-gases	48,2	30,8	25,5	-47,1 %
Wind energy	0,0	0,0	0,0	0,0
Total amount	1687,3	1114,1	1017,7	-39,7 %

Regional Council of
NORTH KARELIA

Thank you!

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