**Transition to a** bioeconomy in Northwest Russia – a governance perspective

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### In the next 15 min...

- The background for the study
- Understanding the governance framework in Russia
- Case studies: Murmansk region and the Republic of Karelia
- Challenges and a way forward



#### Institutions, interest groups and governance of natural resources in Russia

- Federalism, a centralised state
- Federal state regulates and decides on the use of natural resources and collects revenues
- Municipalities have no power and scarce resources
- The importance of informal institutions ('personal relations') and rules
- 'Social responsibility of enterprises' business to take on social responsibility, provide municipal services and support the local community

#### **Murmansk and Karelia on the map**



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# Bioeconomy in Murmansk oblast



#### Murmansk oblast – key facts

A militarized area in the Russian Arctic Population 795,409 (201xxx), area 144,900 km2 Mining of apatite and other minerals Ice-free harbour; fishing industry Reliance on nuclear energy; fuel oil (among the last regions in Russia) and coal

Wood chips and biofuels should be the future when it comes to heating in small and remote settlements. Unfortunately, fuel oil is the future (Alexandr Dvorjankin, Priroda DOZ forest enterprise)



# Murmansk – a story of bioenergy production

- Few forest enterprises and small production volumes
- Pilot projects:
  - Mixed fuel boiler in Umba village (peat and coal)
  - Wood chips boiler in Luvenga nearest forest company is 100 km away...
- Wood chips are used for heating of industrial buildings and sold to Finland
- Refurbishment of old boilers is among the priorities

On the one hand, the use of peat for heat is a great thing for us. On the other hand, it is risky as all sources of energy are under a strict control by the state. There are no guarantees that our local peat extracting company will be here tomorrow. And what shall we do with a peat boiler then? (Murmansk Regional **Development** Corporation) 10 Bioeconomy in the Republic of Karelia



#### The Republic of Karelia – key facts

- Population: 622 484; Area:
  180,400 km2
- Main industries: mining (iron ore), pulp and paper, fish farming
- Import of ca 50% of energy needs (mainly gas)



#### Aquaculture in Karelia

- Among the fastest growing industries (due to sanctions ?)
- 58 fish farming companies (9 involved in processing), rainbow trout.
  Fish farming expansion planned from 30 000 to 100 000 tons per year > Environmental hazards!!!
- Large scale investment projects 2018-2025
  - Main priorities: Substitution of imported fish feed, a breeding center and increased utilization of fish waste



#### Forest-based bioeconomy in Karelia

- Local bioenergy: 4 boilers running on chips in remote areas.
- Pilot projects:
  - dried sludge mixed with sawdust for heating in Kostomuksja; peat for heating
- Large forest industries use sawdust and chips for heat; produce pellets/brickets/boards
- Wooden construction is a fast-developing field. A high demand from the local market
- Wild berries
- Biorefining –both forest and marine-based resources



#### Karelian / Masur Birch



### Support framework for bioeconomy in NW Russia (I)

- Focus on attracting investments in the regional companies; creating an enabling framework for businesses
  - main support instruments: low interest loans, tax reductions on profits or favourable lease contract, subsidizing of interest rates for purchasing equipment
- (Karelia) A high interest from the regional authorities in driving bioeconomy:
  - supporting and promoting investments in the biotechnology cluster leading to the commercialisation of innovations and developing of high-tech industries based on biorefining activities
  - thriving CBC with Finland

## Support framework for bioeconomy (II)

- "Territory of advanced socioeconomic development"
- Promoting public-private
  partnerships in attracting
  investments
- A policy for import substitution



### **Overall challenges**

#### Physical

• Long distances, infrastructure and logistics

#### Economic

- Cheap energy
- Lack of funding and investments
- Unstable economic framework
- Lack of stable regulatory support

#### Actors involvement and cooperation

- Lack of trust
- Strong research environment, but poor commercialisation of research and weak linkages with the business sector
- Short-term thinking of businesses / authorities
- Weak civil society

#### Other

• Low environmental awareness

Big industrial companies are driving a transition to bioeconomy

#### How to foster a transition to a bioeconomy in NW Russia in the light of the challenges described?



### Thank you for your attention!

