

**Federal Forestry Agency (Rosleskhoz)
Northern Research Institute of Forestry (SevNIILH)**



Possibilities for forest bioeconomy development

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Prospects for the development of forest bioeconomy on the North-West of Russia



- Expansion of the list of priority projects in the field of forest development,
- Increasing the production of biofuels
- Increasing the responsibility of producers.
- Improving the investment attractiveness of forestry.





In the Northwestern Federal District, an intensive forestry model is being implemented on an area of 44.4 million ha

Arkhangelsk
Region
(10,2 million ha)

Republic Karelia
(14,5 million ha)

Leningrad
Region
(4,7 million ha)

Bologda Region
(6,7 million ha)

Komi Republic
(8,3 million ha)



Forest use intensification mechanisms:

- Use of forest resources, including soft-leaved forests, low-grade wood and waste, and forest development through priority investment projects
- Intensive thinning in young and middle-aged stands
- Construction of forest roads
- Development of rental relations
- Creation of forest plantations based on selection and genetics
- Development of priority investment projects for forest development
- Reduction of illegal timber flow

Expected results of the transition to an intensive forest management model:

- ✓ Improving the species composition and quality of the growing forest.
- ✓ Increased economic return per unit
- ✓ Creation of sustainable raw material support for forestry enterprises
- ✓ Providing conditions for long-term investments in the forest fund.





Pine cultures in Izhma forestry of the Arkhangelsk Region



New technologies are required in the forest sector and these issues are successfully solved by the scientific potential of the forestry industry

- scientific justification for the age of forest cutting in the targeted forestry's;
- development of advanced logging technologies;
- development of scientific bases and principles of forest management;
- development of multi-purpose use and reproduction of forests, cultivation of targeted forest stands,
- increasing the level of forests conservation and protection.



Priority investment projects in the field of forest resources development in the Arkhangelsk Region:

- constructing a modern sawmill in Arkhangelsk,
- creating a new paper production in Koryazhma by the Ilim Group,
- implementing a project for processing of low-grade wood by the Ustyansky Timber Industry Complex group of companies.



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Wood fuel resources (Arkhangelsk Region)



Wood waste: total - about 5 million m³

- About 2 million cubic meters are used by the enterprises themselves in their boilers.
- About 670 local boilers, 430 of them operate on wood fuel.
- 21% of Russian pellet production is in the Arkhangelsk region



Comprehensive biotechnology development program in the Russian Federation for the period until 2020



biopharmaceuticals

biomedicine

agri-food
biotechnology

industrial
biotechnology

forest biotechnology

environmental
biotechnology

Processing wild berries and mushrooms - a promising area of the economy



Centers for wild berries harvesting and processing :

The Republic of Karelia, Vologda and Arkhangelsk Regions

Total harvest of about 37 thousands tons of berries and mushrooms per year





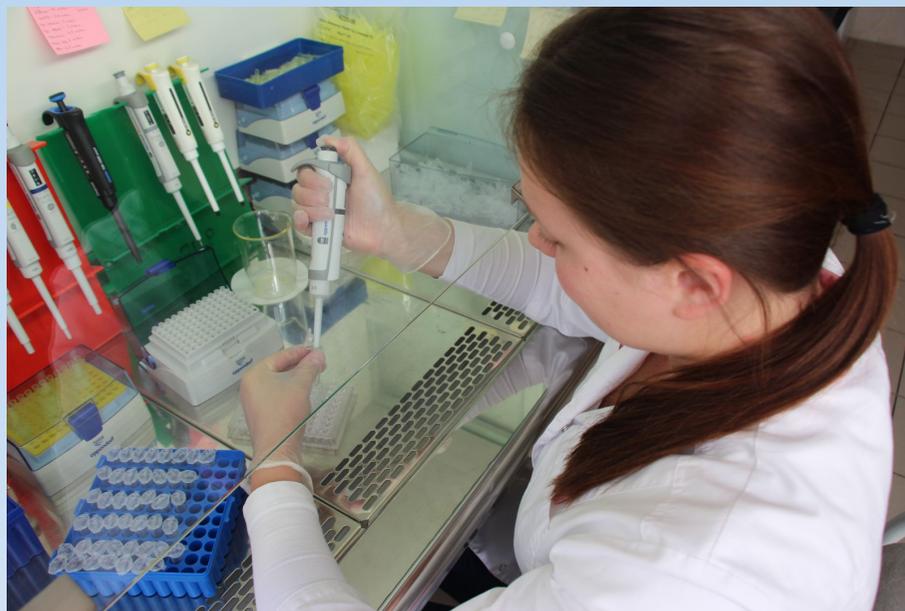
A prerequisite for the development of biotechnology in Russia is the achievement of effective interaction between public and private structures

The most important tasks at present can be considered:

- organization of mixed structures interacting with scientific organizations;
- consessional financing for research and development;
- funding for the activities of innovation centers, support at the regional level for biotechnology companies.

There are seven forestry clusters in the North-west of Russia:

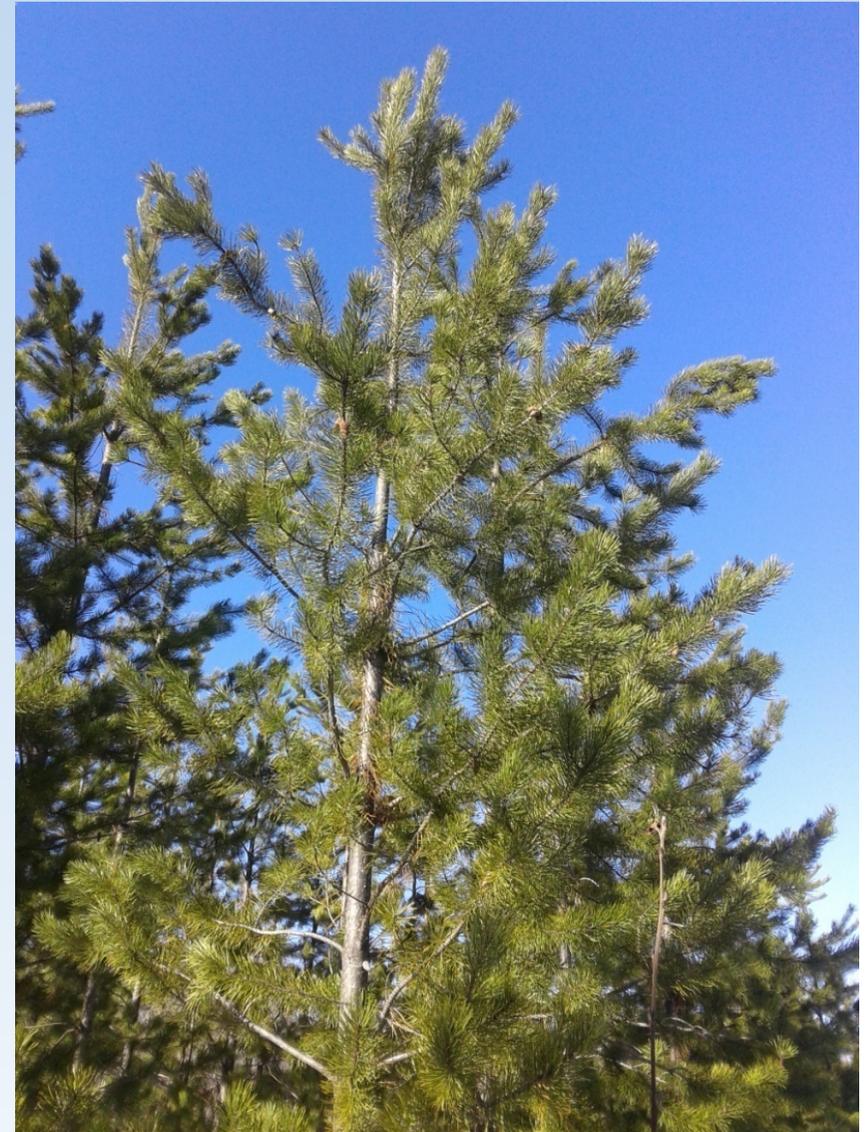
- Vologda Region
- Arkhangelsk Region (PomorInnovaLes)
- Saha Republic
- Novgorod Region
- Tyumen Region
- Republic of Karelia
- Komi Republic



Plantation cultivation of fast-growing species



- SevNIILH created 53 hectares of lodgepole pine plantations (Arkhangelsk, Vologda regions, Komi Republic).
- The Republic of Karelia - 23 hectares, including 6 ha - forest seed orchard.
- Komi Republic - 9 ha.
At the age of 15-20 years it overtakes Scotch pine:
1.3-1.4 times in height
1.6-1.9 times in diameter
2.3 times in trunk volume





One of the priority areas for the development of the timber industry complex in Russia is improving technologies for deep non-waste processing of wood raw materials and the maximum use of forest biomass.



Wood bark and other wood waste can be used as raw materials for unconventional fertilizers for poor or contaminated soils improvement.



Таск!
**Thanks for your
attention!**
Спасибо за внимание!