2025

LSFRI ‘SILAVA’

# ANNUAL REPORT

*Forestry research, ideas, applied developments*

SILAVA

# LSFRI ‘SILAVA’
# ACTIVITIES

*Year 2025*

## DESCRIPTION OF ACTIVITIES

The Latvian State Forestry Institute ‘Silava’ (hereinafter – Institute) operates within the framework of autonomous competence in accordance with the LSFRI ‘Silava’ medium-term (2022–2026) operational and development strategy – an operational and development planning document, approved by the Scientific Council.

In order to implement the functions specified in the Regulations of LSFRI ‘Silava’, Institute works in four directions:
- science and knowledge transfer,
- forest science support competencies,
- State delegated functions,
- property management.

Science and knowledge transfer at LSFRI ‘Silava’ are carried out in six research areas:
- forest growing,
- forestry and environment interaction,
- non-timber forest and ecosystem services,
- tree plantations outside the forest,
- forest technologies un
- forest fauna and hunting.

## STATE DELEGATED FUNCTIONS

In 2025, National Forest Monitoring activities were carried out in accordance with the delegation of the Forest Law. Maintenance of the Latvian crop gene bank and gene database delegated to the Ministry of Agriculture was ensured. Opinions on the use of forest reproductive material produced in other countries in Latvia were prepared. In accordance with the delegation of the Ministry of Environmental Protection and Regional Development, calculations of direct and indirect greenhouse gas emissions and $CO_2$ sequestration in the land use, land use change and forestry sectors were prepared.

## SCIENTIFIC COUNCIL

During the reporting period, 17 meetings of the Scientific Council of LSFRI ‘Silava’ were held.

On March 7, 2025, the Scientific Council elected leading researcher, Doctor of Biology Jānis Ozoliņš, as its Chairman.

# LSFRI ‘SILAVA’
# SCIENCE

*Year 2025*

## RESEARCH

In 2025, the Institute continued and completed work on three research programs of the Ministry of Economics’ operational program “Competence Centers” – “P10 Development of a carbon forestry planning program prototype and datasets for calculation activities”, “P11 Development of technology for beech planting stock production” and (as a project partner) “Evaluation of Moipu 300 F2 felling head in pre-commercial, commercial and regenerative felling in conifer stand”.

In 2025, work continued on four LIFE programme projects: “Adaptation of Water Framework Directive and Habitats Directive harmonization and integrated actions for freshwater quality improvement in Salaca river sub catchment (LIFE IS SALACA)”, in which the Institute is the leading partner and which will continue until 2028, “Implementation of River Basin Management Plans of Latvia towards good surface water status (LIFE GoodWater IP)”, “Peatland restoration for greenhouse gas emission reduction and carbon sequestration in the Baltic Sea region (LIFE PeatCarbon)” and “Piloting technological solutions for a sustainable and low emission bio-economy model for utilizing biomass from grasslands (LIFE UpcyclingGrass)”.

In 2025, the Institute was involved in six Horizon 2020 research projects: “Wetland restoration for the future (ALFAwetlands)”, “The ForestWard Observatory to Secure Resilience of European Forests (FORWARDS)”, “Monetary valuation of soil ecosystem services and creation of initiatives to invest in soil health: setting a framework for the inclusion of soil health in business and in the policy making (InBestSoil)”, “Linking soil biodiversity and ecosystem functions and services in different land uses: from the identification of drivers, pressures and climate change resilience to their economic valuation (BIOservicES)”, “Co-creating coexistence: Advancing policies, practices, and stakeholder engagement for integrating wildlife and livestock into sustainable multi-functional landscapes in Europe (CoCo)”, as well as the study “Empowering EU Rural Regions to scale-Up and adopt small-scale Bio-based solutions: the transition towards a sustainable, regenerative, inclusive and just circular bioeconomy (RuralBioUp)”, which was completed in August 2025.

The Interreg Baltic Sea Region Core Project "Early Forecasting and Monitoring System for Genetic Biodiversity Loss in Keystone Forest Tree Species (DIVERSE_GENE_WATCH)" was launched, and three research projects of the Interreg Baltic Sea Region Estonia-Latvia cooperation programme launched in 2024 were continued: "Riparian forest management based on assessment of ecosystem services (RiForMa)", "Climate smart solutions for enhanced biodiversity through increased presence of broadleaved trees in landscape (ForestBand)" and "A unified management system of the moose (Alces alces) population in the EstLat territory (MooseBelt)". One research project was continued within the framework of an initiative supported by the Swedish Institute.

In 2025, the Institute implemented 12 studies under the European Agricultural Fund for Rural Development (EAFRD) within the framework of the Latvian Rural Development Programmes, of which seven were completed and four were initiated during the reporting period. Three studies supported by the European Regional Development Fund and nine studies supported by the European Union Cohesion Policy Programme for 2021–2027 were also initiated. Seven of these nine research projekcts have been funded under the EU Cohesion Policy Programme measure "Postdoctoral Research" and will continue until 2028.

In December 2025, the National Research Program study "Innovation in forest management and value chain for Latvia's growth: New forest services, products and technologies (Forest4LV)" was completed, in which the Institute had been involved as a partner since September 2024.
During the reporting period, seven research projects were implemented within the framework of grants from the Latvian Council of Science, including three projects initiated, one continued and two completed.

Twelve research projects supported by the Ministry of Agriculture were implemented, including seven projects by the Forest Development Fund and one – by the Hunting Development Fund, and two species monitoring programs supported by the Nature Conservation Agency.

The Institute has conducted research together with foreign and Latvian merchants, as well as other clients. Cooperation was implemented with the joint-stock companies 'Latvian State Forests' and 'Latvijas Finieris' and other merchants. Year 2025 was the final year of 11 five-year programs within the framework of the 2021 cooperation agreement between LSFRI 'Silava' and the JSC 'Latvian State Forests'.

*Research results are intended for the needs of practical forestry – to increase forest yield, quality and health, to improve the stability of stands, to rationally use non-wood products, to ensure nature-saving and sustainable forestry, as well as to preserve the biological diversity of species.*

# LSFRI ‘SILAVA’
# STAFF

*Year 2025*

## EMPLOYEES

In 2025, the scientific staff of LSFRI ‘Silava’ consisted of 23 Senior researchers, 38 Researchers and 74 Research assistants, of which 53 were doctors of science and 82 were masters. One visiting researcher also worked at the Institute.

The scientific technical staff consisted of 78, and the scientific service staff (including the Institute’s administration) consisted of 15 employees.

The total number of employees at LSFRI ‘Silava’ in 2025 was 218.

## PHD AND MASTER’S THESES DEFENDED BY EMPLOYEES

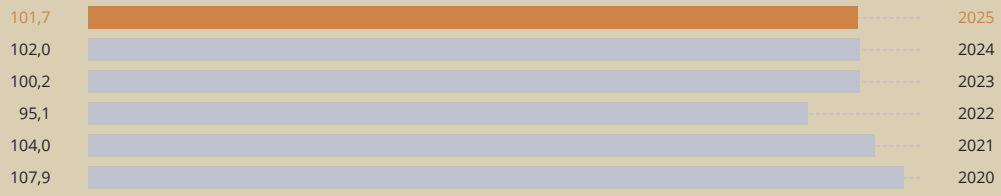
In the reporting year, two forest scientists obtained a doctoral degree in forest science, including one in Estonia:

- Senior researcher Roberts Matisons received a doctorate in forestry for his doctoral thesis “Ecological plasticity of responses of radial increment od Scots pine and its potential for breding”,
- Researcher Pauls Zariņš defended his doctoral thesis “Comparative growth modelling of genetically improved Norway spruce, Scots pine and silver birch forest stands” at the Estonian University of Life Sciences, receiving a Doctor of Science (PhD) degree in forestry.

The Institute’s employees defended three master’s theses at the University of Latvia and the Latvian University of Life Sciences and Technologies:

- Research assistant Katrīna Eglīte received a Master of Science degree in Biology for her study “Rhizogenesis of evergreen rhododendron cuttings under the influence of uronic acids”,
- Research assistant Kristīne Riekstiņa received a Master of Forest Science degree for her study “Occurrence of lammas shoots for Scots pine (*Pinus sylvestris* L.) and persistence of stem defects they create”,
- Forestry engineer Anna Zadiņa received a Master of Forest Science degree for her study “Factors influencing the initial dynamics of ground fire in middle-aged Scots pine (*Pinus sylvestris* L.), Norway spruce (*Picea abies* (L.) H.Karst.) and birch (*Betula* spp.) stands”.

## SCIENTIFIC STAFF WORKLOAD (2020–2025, FTE)



# LSFRI ‘SILAVA’
# ACHIEVEMENTS

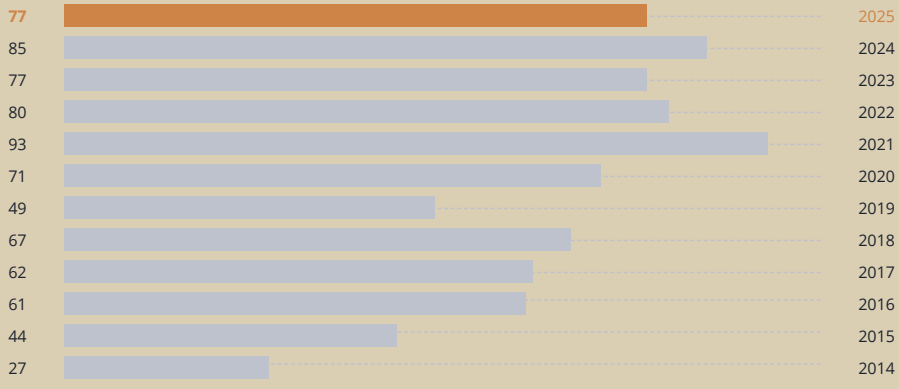
*2025. gads*

## SCIENTIFIC PUBLICITY

In 2025, scientific publications were published in international databases, as well as in other forest sector publications and the press. In total, 77 scientific works by Institute scientists were published in journals indexed in SCOPUS and Web of Science databases in 2025, of which 54 were published in journals with impact factor (JIF) above 1, and 15 articles were published in conference proceedings indexed in the aforementioned databases.

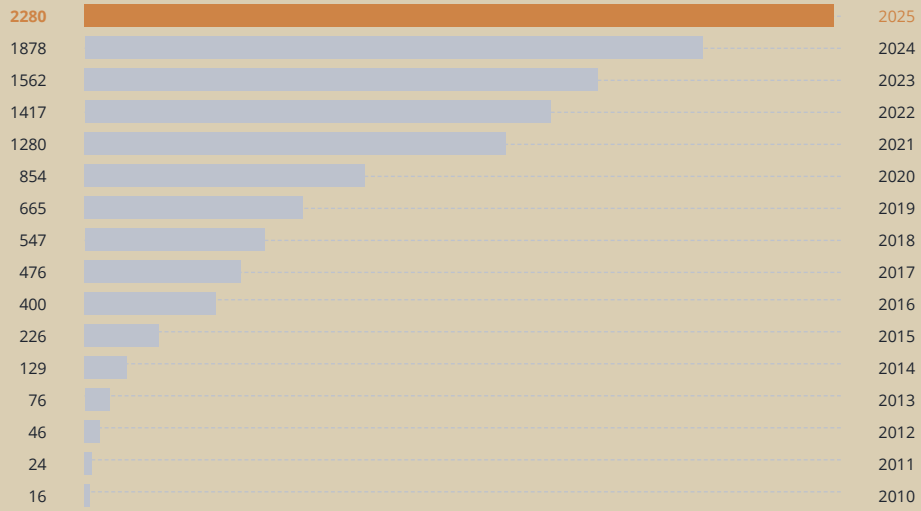
## TYPES AND NUMBER OF SCIENTIFIC PUBLICATIONS


## DYNAMICS OF THE NUMBER OF ARTICLES PUBLISHED IN WOS AND SCOPUS JOURNALS (2014–2025)



*In 2025, LSFRI 'Silava' publications will have the **highest** citation rate in a **25-year period**: according to Web of Science data, LSFRI 'Silava' publications have been cited 2,280 times.*

## CITATIONS OF PUBLICATIONS (WOS, 2010–2025)




## PUBLISHING

In 2025, two editions of the international journal 'Baltic Forestry' and two issues of the scientific journal 'Latvian Vegetation' (Latvijas Veģetācija) were published.

## EVENTS FOR SCIENCE

In 2025, the Institute organized three international scientific conferences:

- 12th Baltic Teriological conference "Baltic Mammals in the Turbulence of Anthropogenic Tensions",
- Dendrochronology conference "EuroDendro 2025",
- for the fifth year already – the annual conference"Old-Growth Forests: Policy and Practice".

The Institute also participates in the organization of international scientific events organized by other institutions, including the international "Conference on Life-Long Learning for sustainable forestry", the online conference "Modern Challenges and Actual Problems of Forestry Education, Science and Production" (leading organizer – the Ministry of Education and Science of Ukraine), etc.

The Institute is visited by foreign scientists and specialists as part of its scientific activities and experience exchange: in 2025, representatives of the Portuguese National Genetics Center and the Netherlands Genetics Center, Finnish peat soil management specialists, a delegation from the Finnish Society of Forest Science, etc. visited the Institute.

## TO THE PUBLIC

During the reporting period, active work in the field of public information and communication continued. The Institute organized and participated in events organized by other institutions. The largest of them are the annual European Researchers' Night activity "Forest Science Afternoon", Vidzeme Innovation Week, LSF Bioeconomics School, "Forest Days 2025" in the nature park 'Ogres Zilie kalni', forest knowledge event "Forest ABC", "Latvian Forest Days 2025" in Tērvete, the LAMPA conversation festival, JSC "Latvijas Finieris" Green Class, "Forest Knowledge in the Blue Mountains", etc.

The Institute publishes actual information on its website (www.silava.lv) and social media profile pages.

In 2025, 13 episodes of the LSFRI 'Silava' broadcast were prepared.

Cooperation with the National Encyclopedia was activated – several sections about Latvian forest scientists were prepared and published. The opinions of the Institute's scientists on the progress and results of scientific research and various topical issues regarding forest management are regularly presented in local mass media.

## AWARDS AND ACHIEVEMENTS

The following were nominated for the annual awards of the Latvian Academy of Sciences: the Kaspars Bušs' Award in Forest Ecology and Silviculture – to the Institute's Researcher, Doctor of Biology Baiba Bambe for her contribution to the preservation of Kaspars Bušs' scientific heritage and the studies of Latvian forest and bog ecosystems, and the Young Scientist Award of Latvian Council of Science "Young Forest Scientists Award" to the Researcher, Doctor of Forest Sciences Aldis Butlers for his scientific work in improving greenhouse gas accounting and forecasting methods, and to the Research assistant, Master of Biology Gundega Done for her scientific work in researching the impact of cervids on forest regeneration.

In November 2025, the Ministry of Agriculture's medal "For Commitment" was received by Senior researcher Andis Lazdiņš for his long-term, purposeful and significant contribution to forestry and the development of Latvian forestry.
In December 2025, the annual forest industry award "Golden Cone" in the nomination "For Public Education" was received by the Institute's Senior researcher Agnis Šmits – for his excellent work during the spruce bark beetle epidemic, when he became one of the leading specialists in informing and explaining to the society.

In December 2025, the Institute received awards in two LIFE research program award nominations: as "The most active implementer of LIFE research in the public sector" and as "The most significant LIFE contribution to addressing climate change" – for the LIFE OrgBalt project, as well as as a collaboration partner in the LIFE GoodWater IP project, which received the award "The most nationally significant LIFE study".

## PARTICIPATION

In 2025, the Institute's employees participated in the work of Latvian forest sector and scientific institutions – the Latvian Forest Advisory Council, the Advisory Councils of the Forest Development and Hunting Development Funds, the Promotion Councils of the University of Latvia and the Latvian Technical University, the Supervisory Council of the Forest Research Station, the Scientific Advisory Council of the JCC 'Latvian State Forests', the Council of Ogre Technical School, and the Latvian Council of Science in the status of experts.

# LSFRI ‘SILAVA’
# FINANCES

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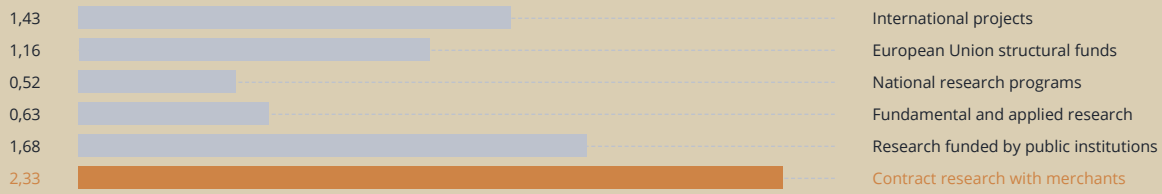
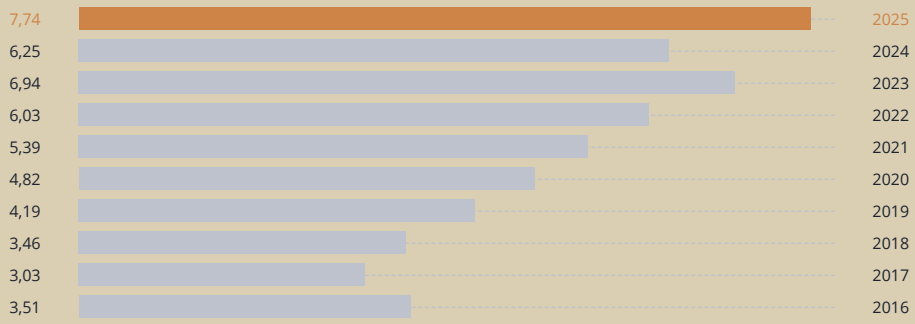
## INCOME

The income of LSFRI ‘Silava’ revenue in 2025 was 10.85 million EUR, including 7.74 million EUR (71.4%) – direct income for financing scientific projects. The amount of base funding in the reporting period – 2.91 million EUR.

## FINANCE AND FUNDING SOURCES FOR SCIENTIFIC PROJECTS (MLN EUR)




## SCIENTIFIC PROJECTS FINANCE (2020–2025, MLN EUR)



## FUTURE PLANS AND DEVELOPMENT

In 2026, it is planned to continue Latvia's representation in the framework of INTERREG, COST, LIFE, etc. international programs, as well as in regional activities within the framework of the SNS initiative. In 2026, participation in national-level activities to solve problems relevant to the forest sector will continue, including the popularization of scientific knowledge in the forest sector in the form of lectures and seminars. The implementation of National Forest Monitoring and other functions delegated by the state will continue.

Within the framework of the ERDF-funded project "Development of research and innovation capacity at LSFRI 'Silava'", launched in 2025, the capacity of LSFRI 'Silava' will continue to be strengthened in creating high-quality scientific research and innovation, promoting the competitiveness of the institute both nationally and internationally: by 2029, it is planned to develop the material and technical base, improve the research infrastructure, as well as support the development of human resources.