



LIGNO
SILVA

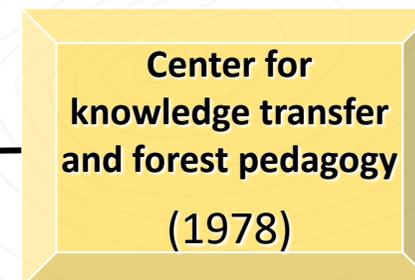
CENTRE
OF EXCELLENCE
OF FOREST-BASED
INDUSTRY

HORIZON EUROPE project: Upgrade of the Centre of excellence LignoSilva (# 101059552)

Igor Vízslai, Tomáš Bucha, Tomáš Gergel'



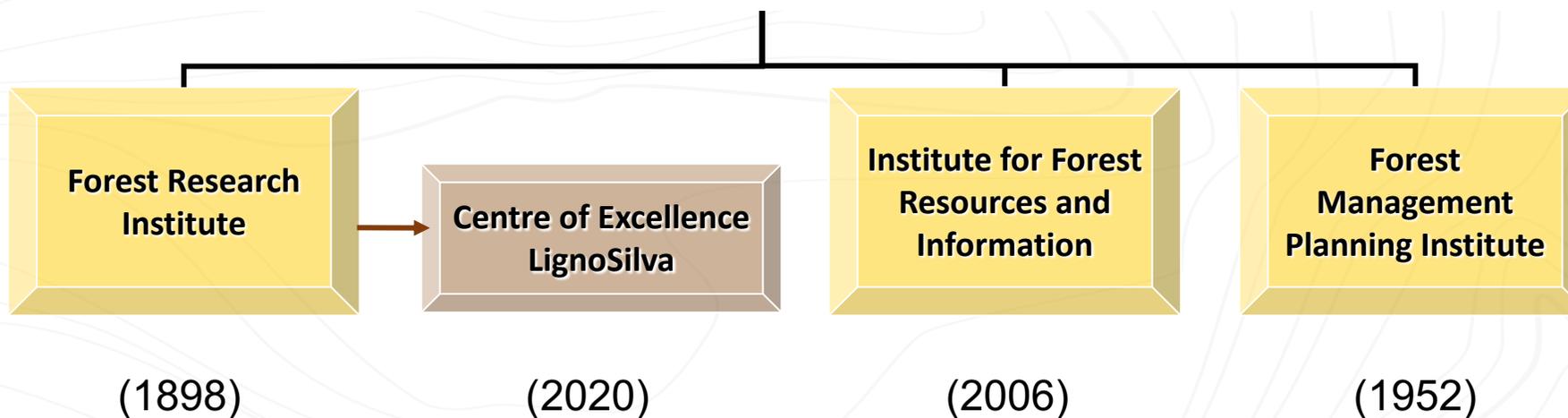
Fraunhofer
WKI



**NFC is a semi-budgetary forestry organisation established by the Ministry of
Agriculture on 1st January 2006**

Staff: 247 employers (70 researchers)

BUDGET (2023): 15.8 mil. € (53 % contract with Ministry of Agriculture, 47 % NFC activities)



CoE LignoSilva is joint research hub of the **National Forest Centre (Zvolen)** and **Pulp and Paper Research Institute (Bratislava)** since 1st January 2024 mentored by **Fraunhofer Institute for Wood Research WKI, Braunschweig, Germany**).

CoE milestones:

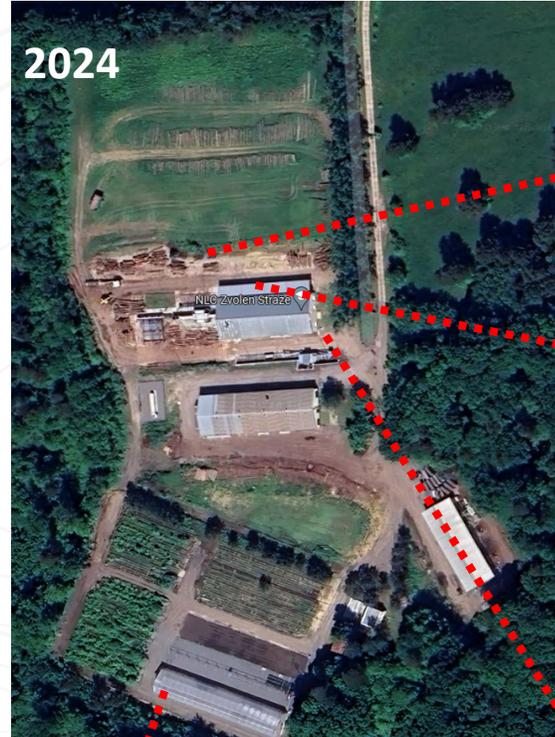
2014 - 2016	2018 - 2023	2020	2021 ->	2024 - 2029
Horizon 2020 CSA project Seal of Excellence Business plan	SK Research Agency Infrastructure project	CoE institutional anchoring - NFC charter issued by Ministry of Agriculture - NFC Organisational rules	SK Research Agency Research Projects	REA – Horizon Europe: CSA project Ministry of Education: Complementary project
0.5 mil. €	9.88 mil. €		0.9 mil. €	2 x 14.7 mil. €

The Lignosilva Centre of Excellence is supported by the of European-unique infrastructure: an experimental line with a **3D CT scanner** of round timber, and **Universal pilot plant paper machine** for research of special papers and biodegradable and compostable packaging.

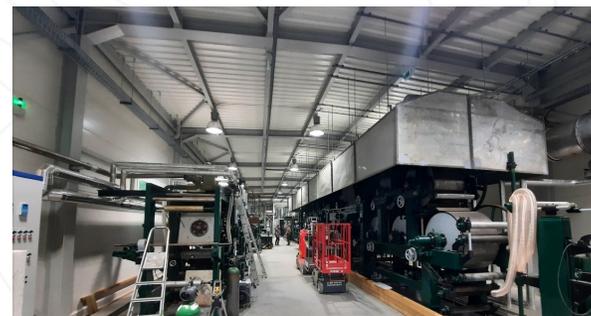
CoE operates **Biotechnology park** Stráže, Zvolen and **Research station** in Gabčíkovo.



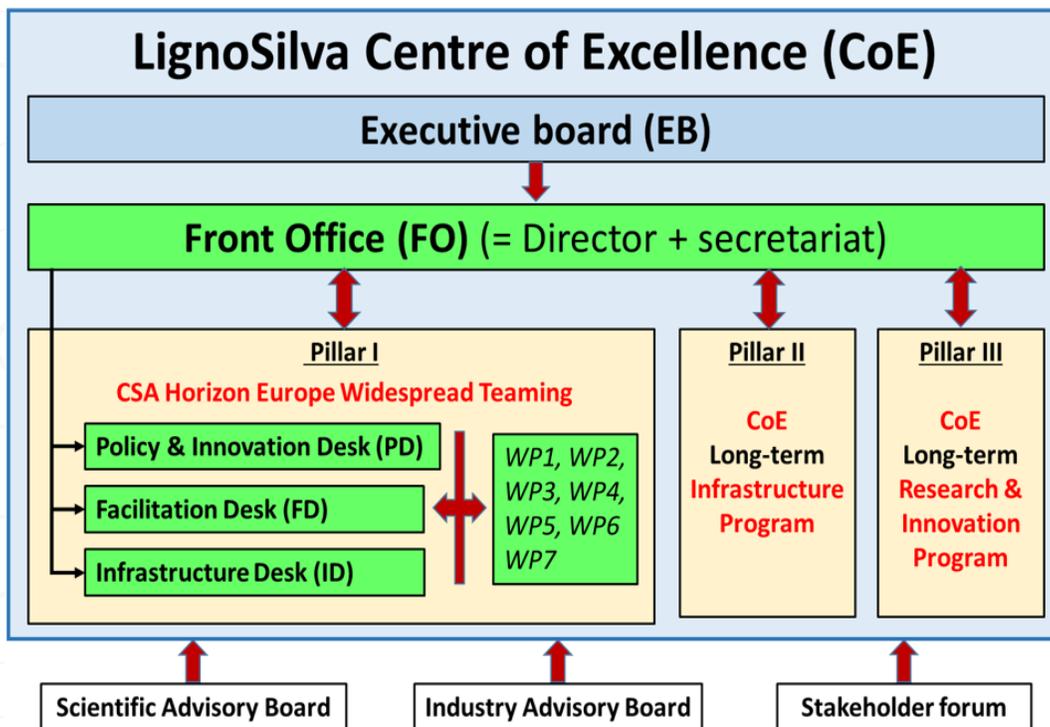
Biotechnology park Stráže (5.6 ha) – reconstructed 2019-2023: Semi-operational line for the research of internal wood defects, with a 3D CT scanner, a conveyor system, a transverse saw and laser burning of cutting plans; The fully automated greenhouse – testing the production of seedlings using pulp and paper sludge and wood ash; A semi-operational line for research of the energy use of wood with a chip dryer; 3D airborne and mobile terrestrial scanning research object.



Gabčíkovo research station (2 ha) – reconstruction of the administrative building, new hall for the Universal pilot plant paper machine, plant coating and laminating machine. The paper machine is equipped with three headboxes and an online size press, developed for testing and optimisation of any papermaking technologies. Greenhouse and foil plant with fully controlled environment.



Organisational structure of CoE – gradually build since 1st January 2024



EB: General directors of NFC, PPRI and Fraunhofer WKI

Front office:

- Tomáš Gergel – head of CoE
- Tomáš Bucha – project coordinator
- Igor Vizlai – coordinator assistant
- Eva Havlíková – financial manager
- Daniela Majerčáková - financial manager (PPRI)

Desks:

- Policy and innovation: Lukáš Halm
- Facilitation desk: Igor Vizlai
- Infrastructure desk: Tomáš Gergel

SAB

- Prof. Dr. Andreja Kutnar
- Assoc. Prof. Msc. Mgr. Gabriela Czanner, PhD.
- Assoc. Prof. Dr. Géza Király, PhD.
- Ing. Pavol Harmaniak
- Prof. Ing. Dušan Bakoš, DrSc.

Country

- Slovenia
- Great Britain - Slovakia
- Hungary
- Slovakia
- Slovakia

IAB

- Ing. Mgr. Lucia Malová
- Ing. Marianna Matajová
- Mgr. Ivan Ďuďák
- Ing. Ľuboš Lopatka, PhD.

Country

- Slovakia
- Slovakia
- Slovakia
- Slovakia



CoE Research & Innovation Program and Demonstration Cases

Priority areas	Research & Innovation programs (R&I)	
Technologies and systems for the higher valorisation of wood Tomáš Gergel'	ForScan: Smart forest inventory and surveys based on 3D scanning (laser, lidar). WoodScan: 3D CT log scanning, enhanced grading, sorting and sawmill processing. WoodFlow: Digital gapless traceability, wood flow management and customisation. WoodPests: E-based systems for identification and technologies for eradication of pests and diseases developed in stand/tree/log/lumber/wood chips.	Ivan Sačkov Tomáš Gergel' Maroš Sedliak Milan Zúbrik
Technologies for Special Papers and Biodegradable Packaging Štefan Boháček	SpecPaper: Special papers with multifunctional properties BioPack: Biodegradable packaging SmartPack: Smart packaging	PPRI
Recycle technologies of wood, cellulose sludge, wood ash Slávka Tóthová	WoodRec: Wood mass utilises from products after end-of-life.	PPRI
	WasteUse: Recycling of cellulose sludge and wood ash, using it as fertilizers in forest nurseries, forest soils, impact on seed, seedling, plant growth and environmental safety.	Slávka Tóthová

Demonstration cases are linked to research programs. The objective is to implement a **workflow of coordination and support actions (CSA – Pillar I)** to facilitate knowledge transfer to stakeholders as:

- *Testing and demonstrations of new technologies, methodologies, software solutions.*
- *Organisation of conferences, practical training, excursions, public events, supervision of doctoral fellows.*
- *Drafting and publishing of articles, educational guides, promotion materials.*



Reporting, controlling and monitoring of the project

project monitors [European Research Executive Agency - European Commission](#) mainly through:

- 4 implementation reports
- 38 Key performance indicators
- 33 Deliverables
- 11 Milestones

and other indicators (such as Risks, Results, Communication activities, Impact ...) reported through [EU Funding & Tenders Portal - SyGMA](#)

SyGMA - System for Grant Management - Work - Microsoft Edge
<https://ec.europa.eu/research/participants/grants-app/reporting/DLV-101059552>

Grant Management Project Continuous Report

101059552 (LignoSilva) HORIZON-..

Call: HORIZON-WIDERA-2022-ACCESS-01-two-st
 Topic: HORIZON-WIDERA-2022-ACCESS-01-01-tv

Project Summary: Researchers involved in the project: Deliverables: Milestones: Critical Risks: Publications: Results: Disseminat... activities: Communic... Activities: Standards: Intellectual property rights (IPR): Datasets: Impact: Impact Continuation: Other Results:

Milestones

Milestone	Milestone Name	Work Package No	Lead Benefici	Means of Verification	Delivery Date
1	CoE structure adjusted	WP2	NLC	Documented incorporation into the NFC organisational rule.	30 Sep 2024
6	Preparatory research project - open internal call	WP4	NLC	The description of the call proposal approved by the Scientific advisory body and Executive Board.	30 Sep 2024
7	Demonstration Cases implemented	WP5	NLC	The demonstration cases topic, detailed description and plan of activities accepted by the Executive Board.	31 Dec 2024
2	Guide of Joint Success (GJS) implemented	WP2	NLC	Guide accepted by Executive Board and by management of partners organisations	28 Feb 2025
8	Stakeholder forum held	WP4,WP6	NLC	Stakeholder forum - Resolution submitted to Executive board. There will be three forums, organised in mont	28 Feb 2025
4	Recruitment of staff completed	WP2	NLC	Signed contracts.	30 Jun 2025
5	Complementary project submitted	WP3	NLC	Confirmation of the project submission from the Research agency which will issue the call for complementar	30 Jun 2025

Internally: [Executive board](#) - quarterly, based on the submitted summary of activities according to research programs



CoE Deliverables - selection related to current tasks (submission date M04-M18)

Deliverable Number	Deliverable name	Type	Delivery months
D1.1	Updated CoE business plan	R	4
D1.2	Data management plan	DMP	6 a 36
D1.3	Manual of management + Management document of the LignoSilva unit	R	8
D1.4	Implementation reports	R	18
D2.1	Plan of SAB and IAB activities	R	6
D2.2	Guide of premises & marketing brand manual	R	9
D2.3	Job catalogue, Mobility & Exchange Program	R	11
D2.4	Guide for Joint Success	R	14
D3.1	Project procurement management plan	R	15
D3.2	Infrastructure operation plan + Costing and pricing framework for services	R	9 a 40
D4.1	CoE grant scheme and plan of calls (the call open)	OTHER	12 (24,36,48)
D4.2	Workshops & Round tables with stakeholders	R	7-28-57
D7.2	Dissemination and exploitation plan	R	6 a 70
D7.3	CoE Open day	DEC	16-40-64





Funded by
the European Union



LIGNO
SILVA

CENTRE
OF EXCELLENCE
OF FOREST-BASED
INDUSTRY

Thank you for attention



National Forest Centre
T.G.Masaryka 2175/22, 960 01 Zvolen
phone: +421 45 532 0316
email: nlc@nlcsk.org
www.nlcsk.org



Pulp and paper Research Institute
Dúbravská cesta 14, 841 04, Bratislava 4
phone: +421 911 728 611
email: sekretariat@vupc.sk
www.vupc.sk



**Fraunhofer Institute for Wood Research,
Wilhelm-Klauditz-Institut, WKI**
Riedenkamp 3, 38108 Braunschweig
phone: +495 31 21 550
email: info@wki.fraunhofer.de
www.wki.fraunhofer.de