EuAsiaN-ROOT

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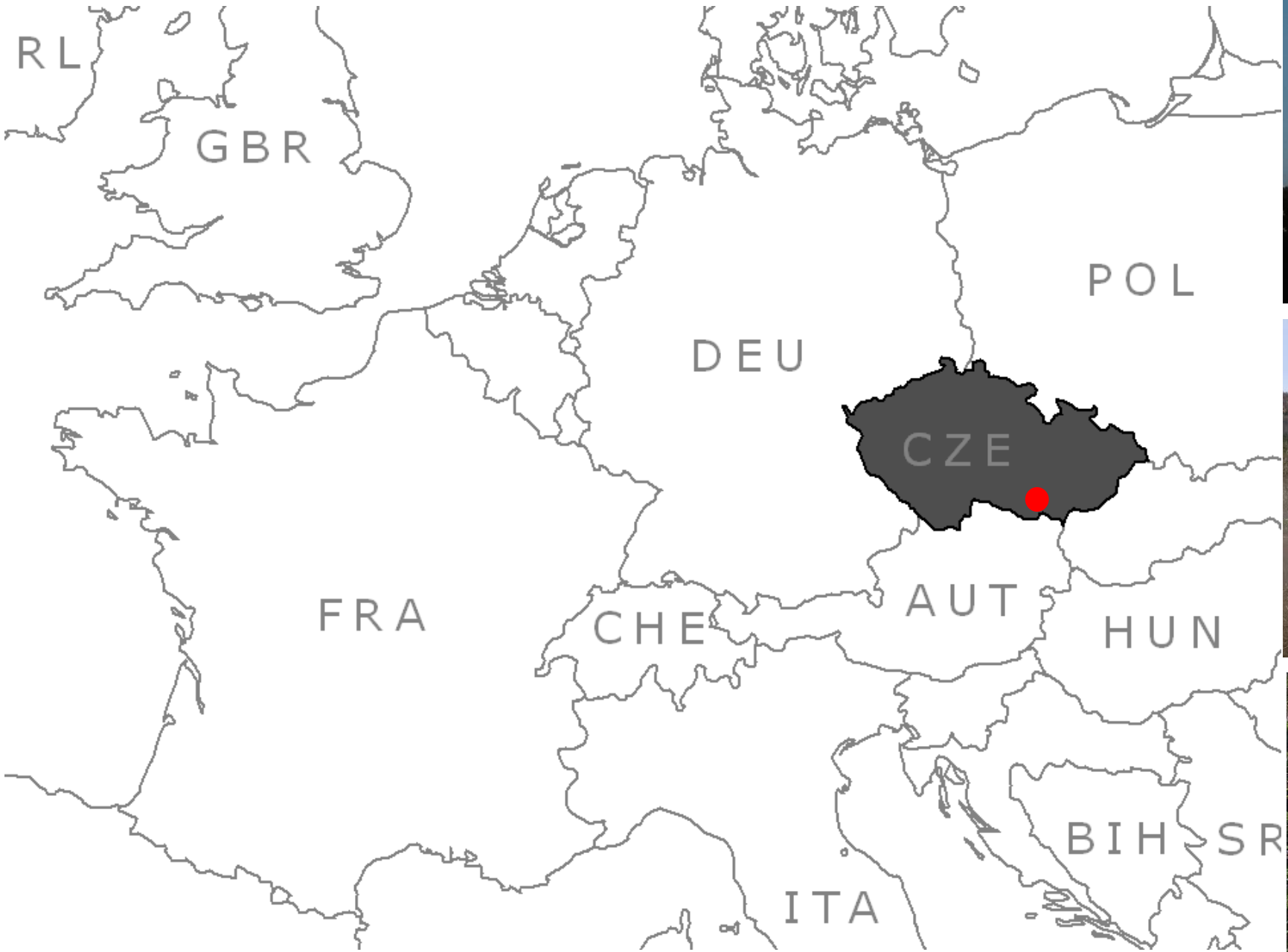
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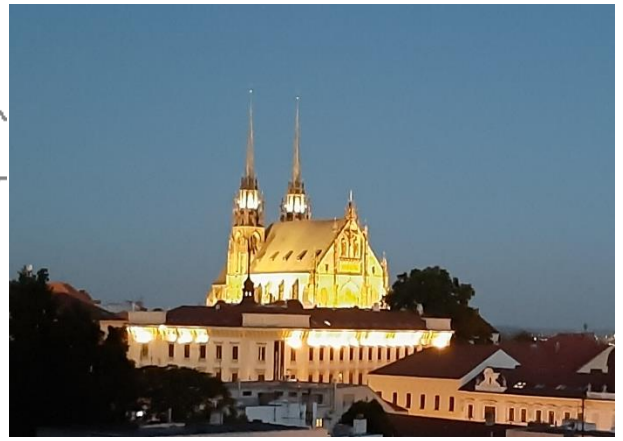

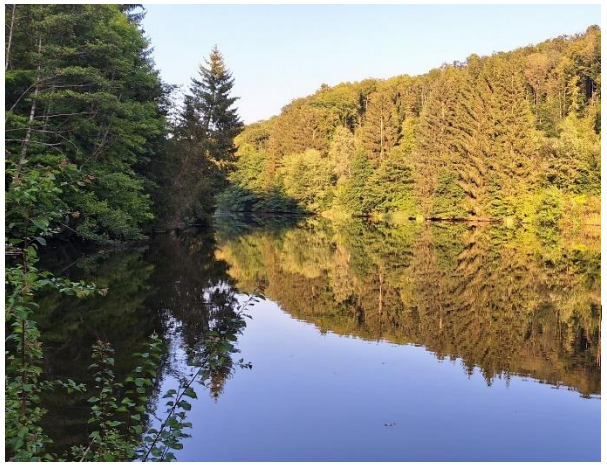

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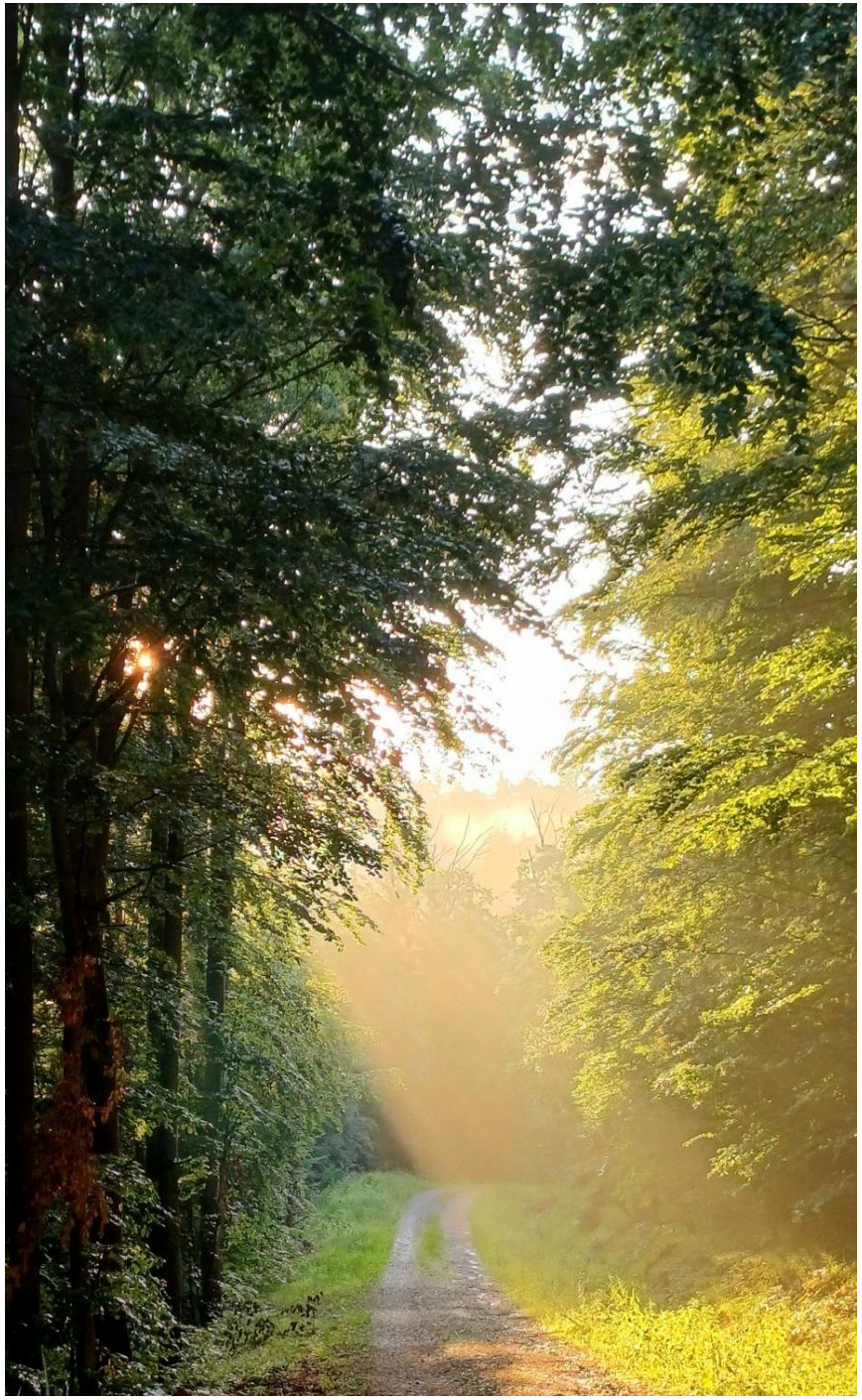
Forests are a source of unique raw materials and essential elements of the landscape.

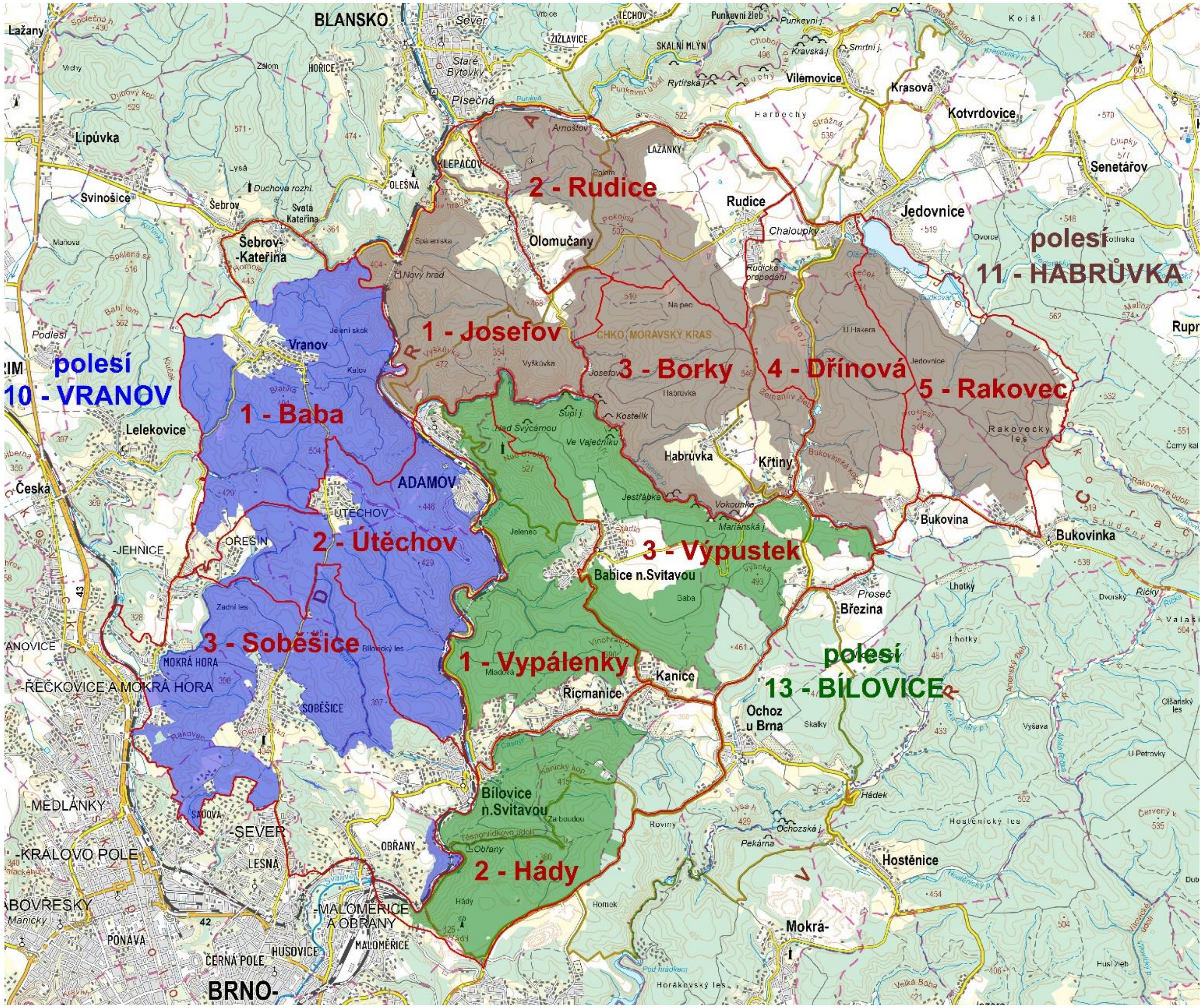
- education and research in **forestry** (established in 1919), **wood science** and technology, wood-based **constructions and furniture** (since 1990), **landscaping** (since 1997), **urban forestry** and arboriculture (since 2003), **biomaterials** and **tree breeding** (since 2024)

- to conduct research in the fields focusing on the **production and stability of forest ecosystems**, processing and use of **wood and wood-based materials** as renewable natural resources



University Forest Enterprise

- 10 200 ha of forest area (10 400 ha total area)
- Mainly mixed stands - conifers (40%), broadleaved (60%)
- Average rotation: 112 years
- Average regeneration period: 32 years
- Standing volume: 233 $m^3.ha^{-1}$
- Harvesting volume: 74,900 m^3/year
- Volume increment : 9 m^3/ha 1 year



Adaption strategies in forestry under global climate change impact

- Strengthen research excellence in the critical field of global climate change.
- Build a robust research team that covers the entire value chain.
- Collaborate on analysing changes within the forest-wood value chain, focusing on increasing the presence and use of lesser-used tree and wood species (luWS).

- Contact: Petr Čermák, petr.cermak.und@mendelu.cz

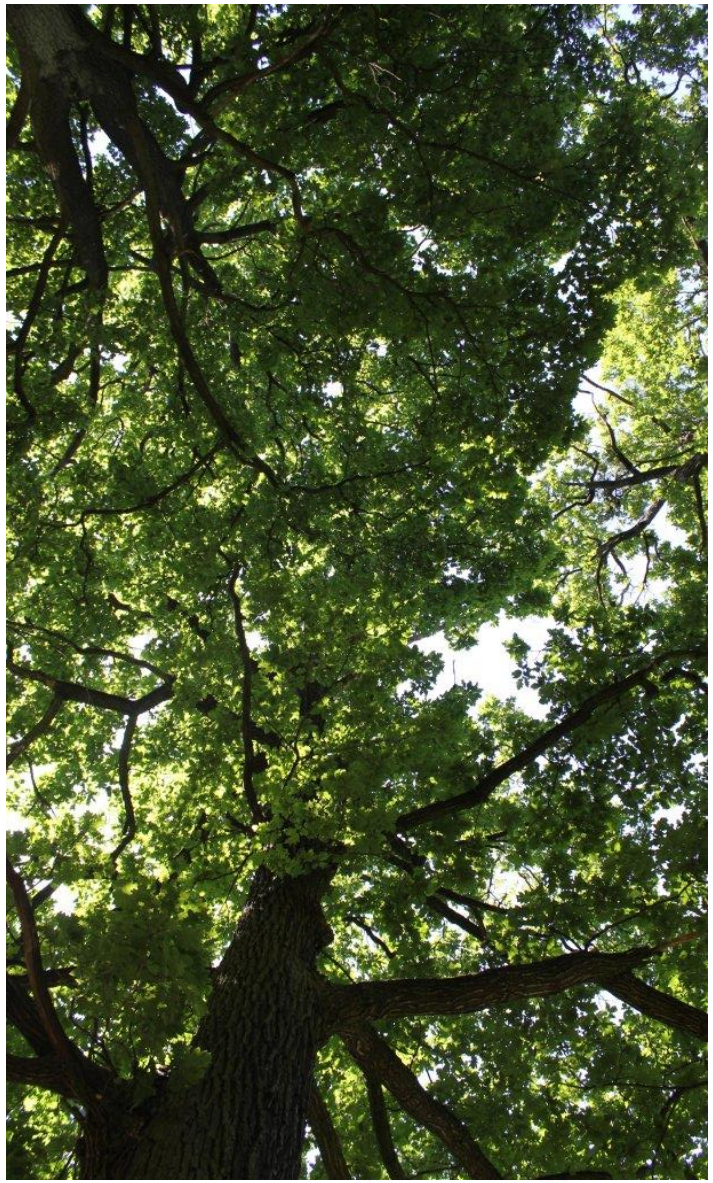
- https://asforclic.ldf.mendelu.cz/

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°952314.

EXCELLENTIA - ERA-Chair: Striving for excellence in forest ecosystem research

- Excellent interdisciplinary research group engaged in Forest Ecosystem Research under Professor Douglas L. Godbold of BOKU
- Research focus on
  - climate-driven change in European forests
  - sustainability of their functions
  - methods to ensure forest stability in the following decades
  - tree predisposition to death.
  - effects of predicted future climatic scenario
- Use the enormous potential of the University Forest Enterprise in Křtiny

- Contact: Douglas L. Godbold douglas.godbold@mendelu.cz
- https://excellentia.ldf.mendelu.cz/

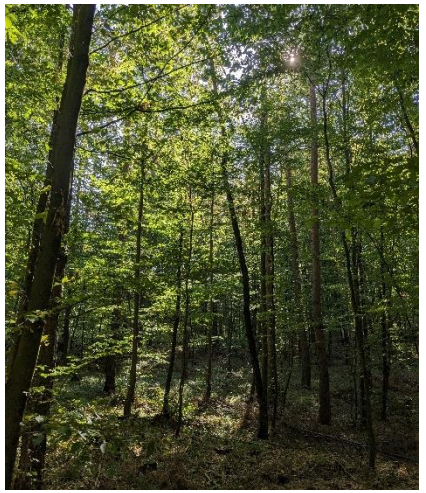


Funded by the European Union

EuAsiaN-ROOT - Eurasian Network for Collaborative Research on Tree-Root-Mycorrhizal-Pathogen Interactions in Forest Soils

- Establish a unique research platform spanning a tropical-continental-temperate forest gradient
- Enable direct comparisons between Eurasian forest biomes
- Gain functional insights into tree fine roots and mycorrhizal fungi in forest ecosystems
- Investigate the relationship between functional microbial communities in forest soils and fine root traits
- Explore global gradients and regional patterns in arbuscular mycorrhiza (AM) and ectomycorrhiza (EM)-dominated stands
- Analyze abiotic and biotic factors influencing ecosystem service

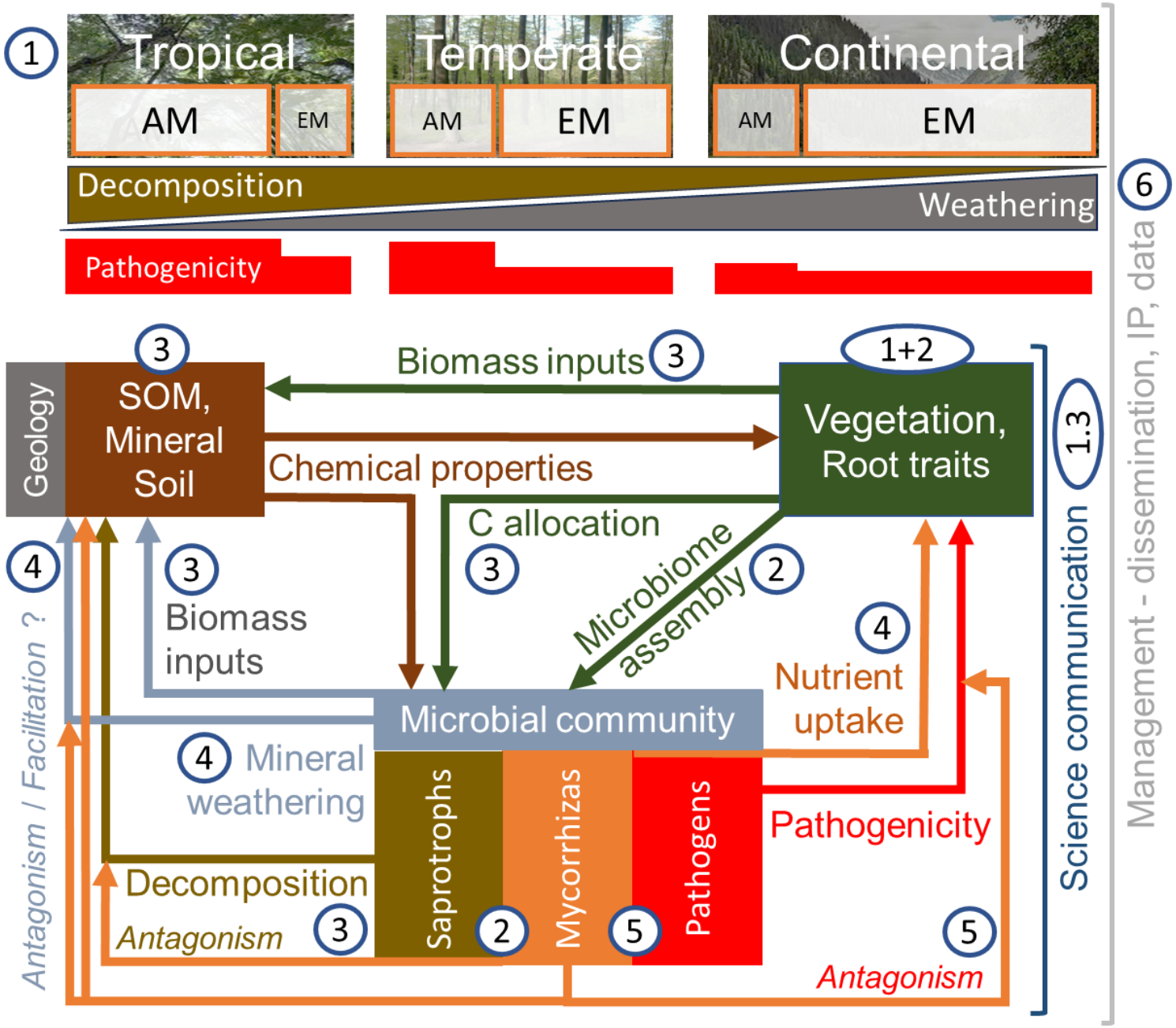


EuAsiaN-ROOT - Eurasian Network for Collaborative Research on Tree-Root-Mycorrhizal-Pathogen Interactions in Forest Soils

- Influence of soil pathogens on nutrient acquisition and carbon sequestration processes
- Contribution of belowground biomass inputs to soil carbon (C) sequestration across different biomes
- Impact of saprotroph-mycorrhizal interactions on decomposition
- Patterns of mineral weathering driven by soil fungi
- Role of soil fungi in supplying mineral nutrients across various forest ecosystems



WP No.	Work Package title
1	Collation, transfer of information needed for the establishment of a Eurasian forest gradient
2	Functional microbiomes and root traits
3	Carbon transfer and stabilisation
4	Mineral weathering and nutrient acquisition
5	Pathogen-host-ecosystem relationships
6	Management and impact
7	Ethics requirements

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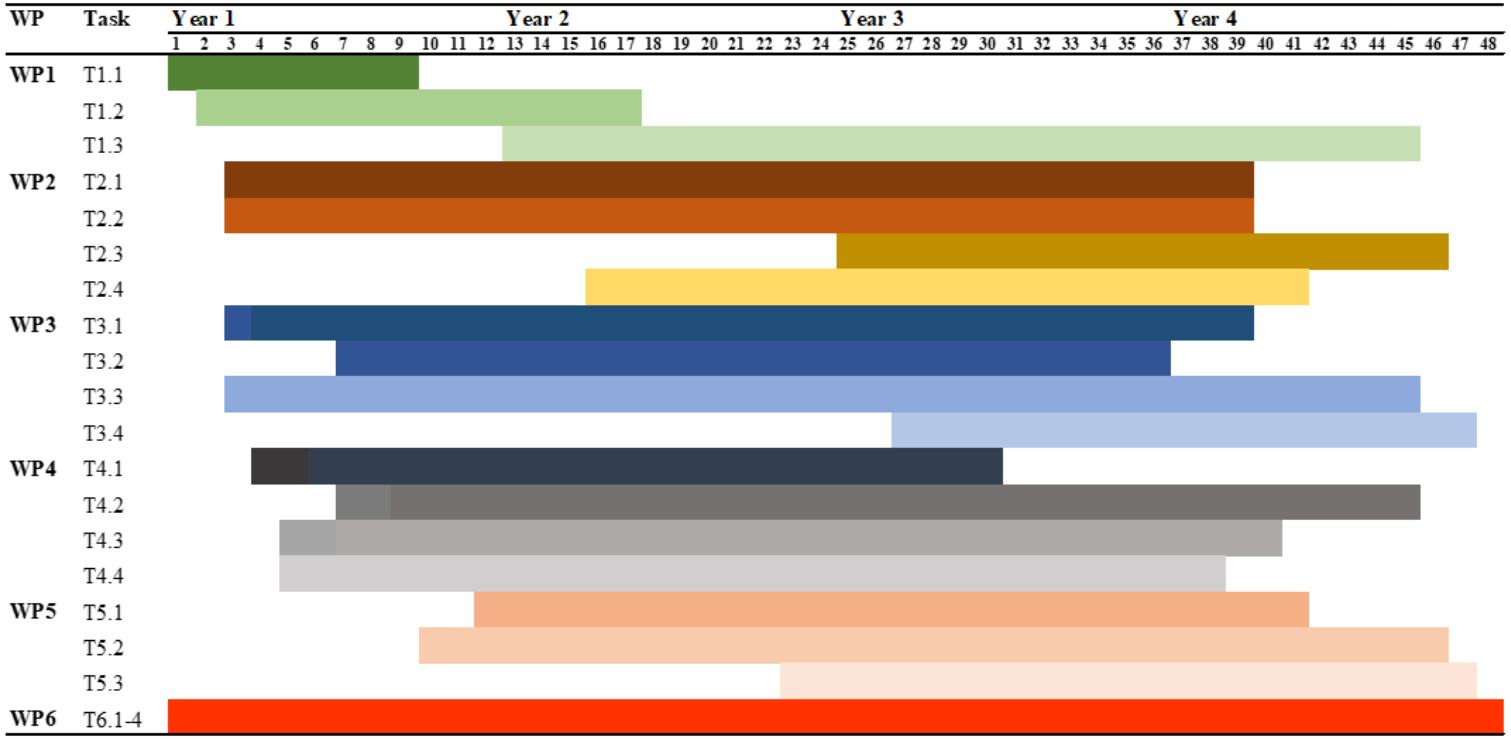
Timeline

A



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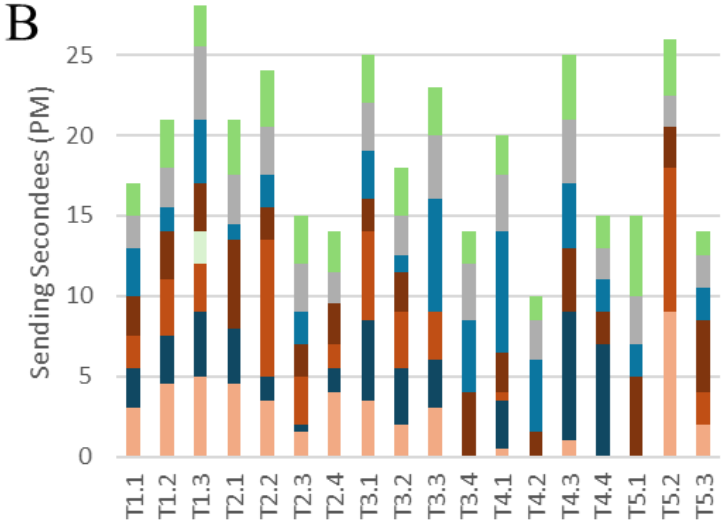
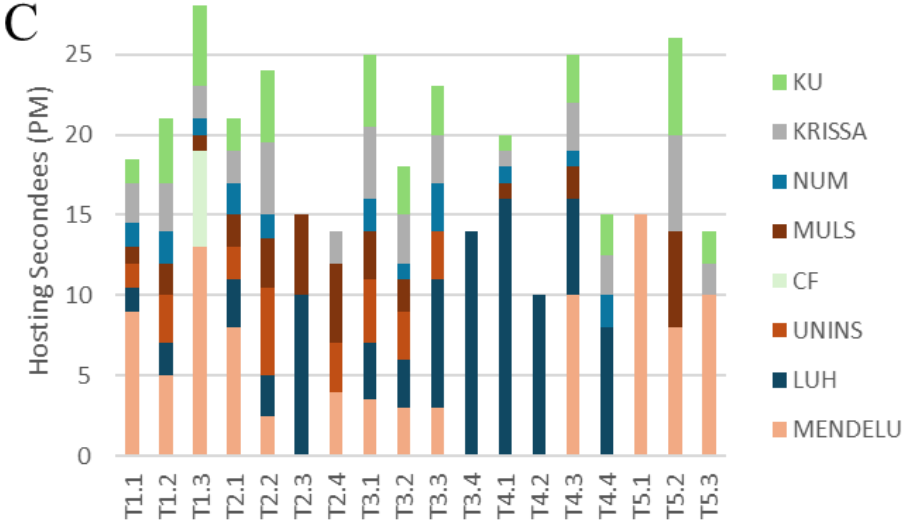


C



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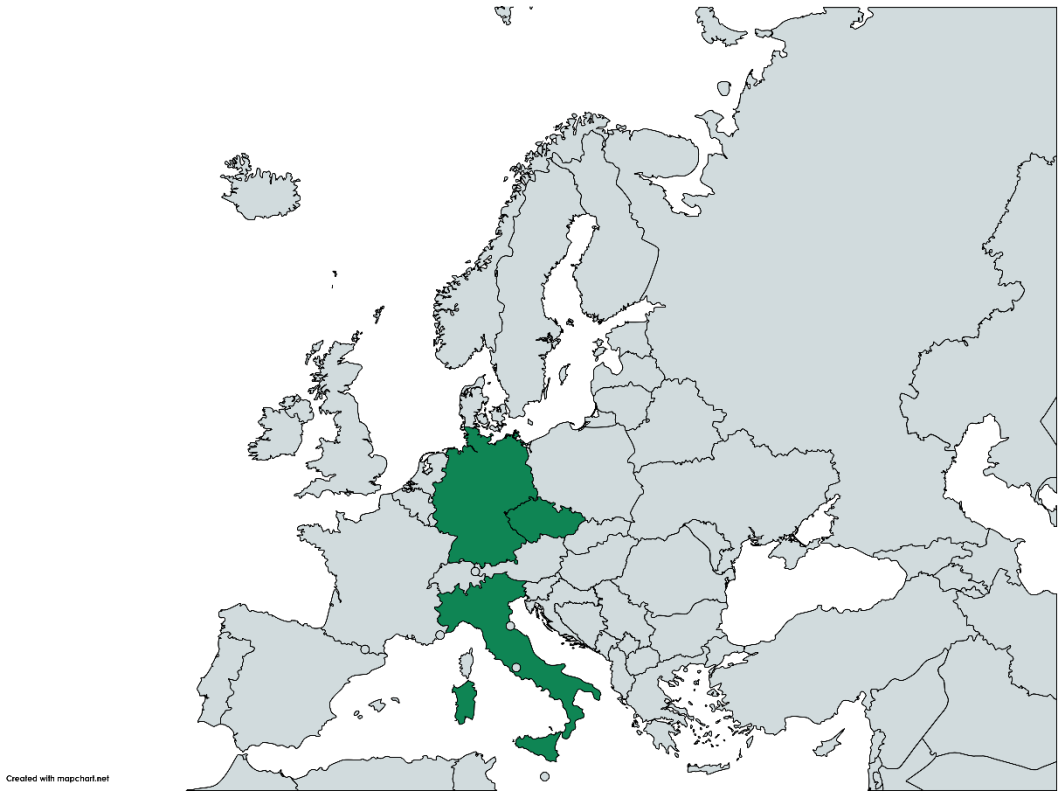
Consortium



Mendel University in Brno, MENDELU, academic
Gottfried Wilhelm Leibniz Universität Hannover, LUH, academic
Parco Regionale Campo dei Fiori, CF, non-academic
Università degli studi dell'Insubria, UNINS, academic

Kasetsart University, KU, TH
Mongolian University of Life Sciences, MULS, MN
National University of Mongolia, NUM, MN
U.U. Uspanov Kazakh Research Institute of Soil Science and Agrochemistry, KRRISA, KZ

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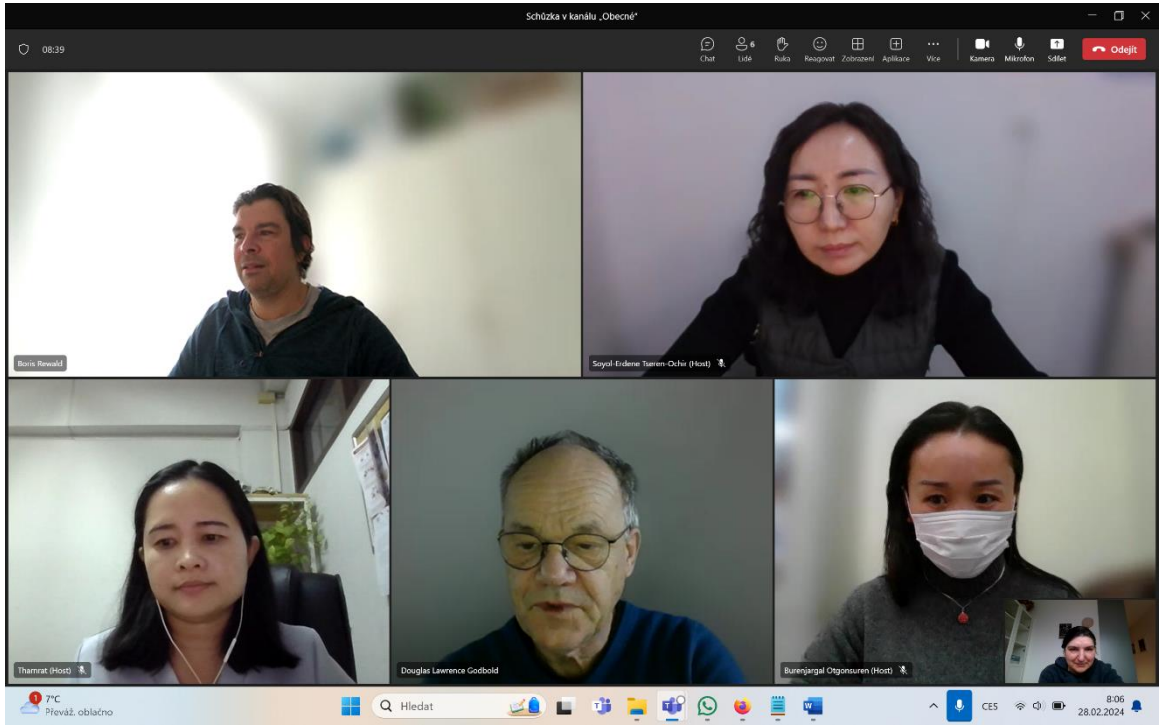
Timeline

- July/August 2023 – Initial discussions
- September 2023 – Collecting insights from successful applicants
- September 2023 – Consortium formation
- October 2023–February 2024 – Ongoing consultations with CZ NCP for additional queries
- October–December 2023 – Start of bi-weekly meetings
- January 2024 – Transition to weekly meetings
- 19–27 February 2024 – Move to daily meetings
- 28 February 2024 – Submission deadline



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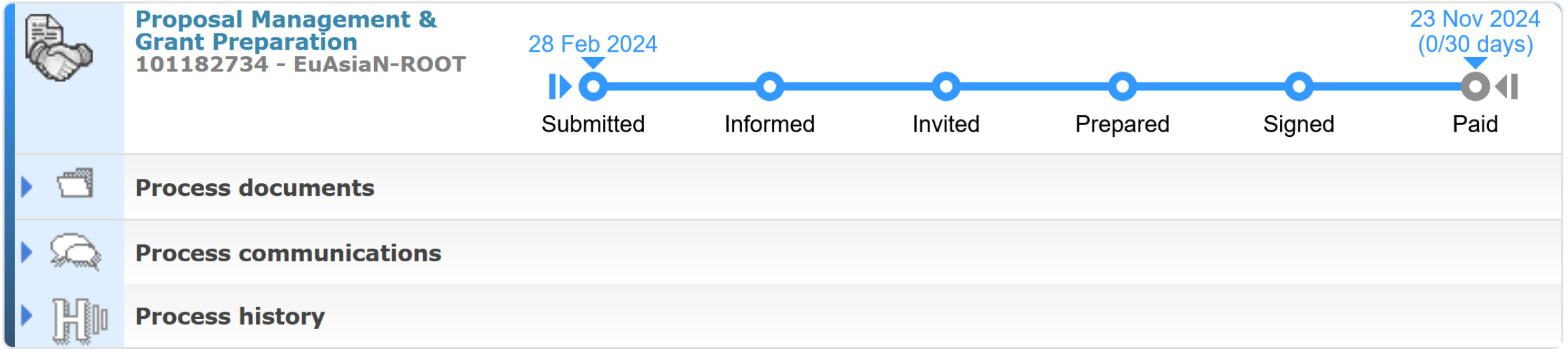
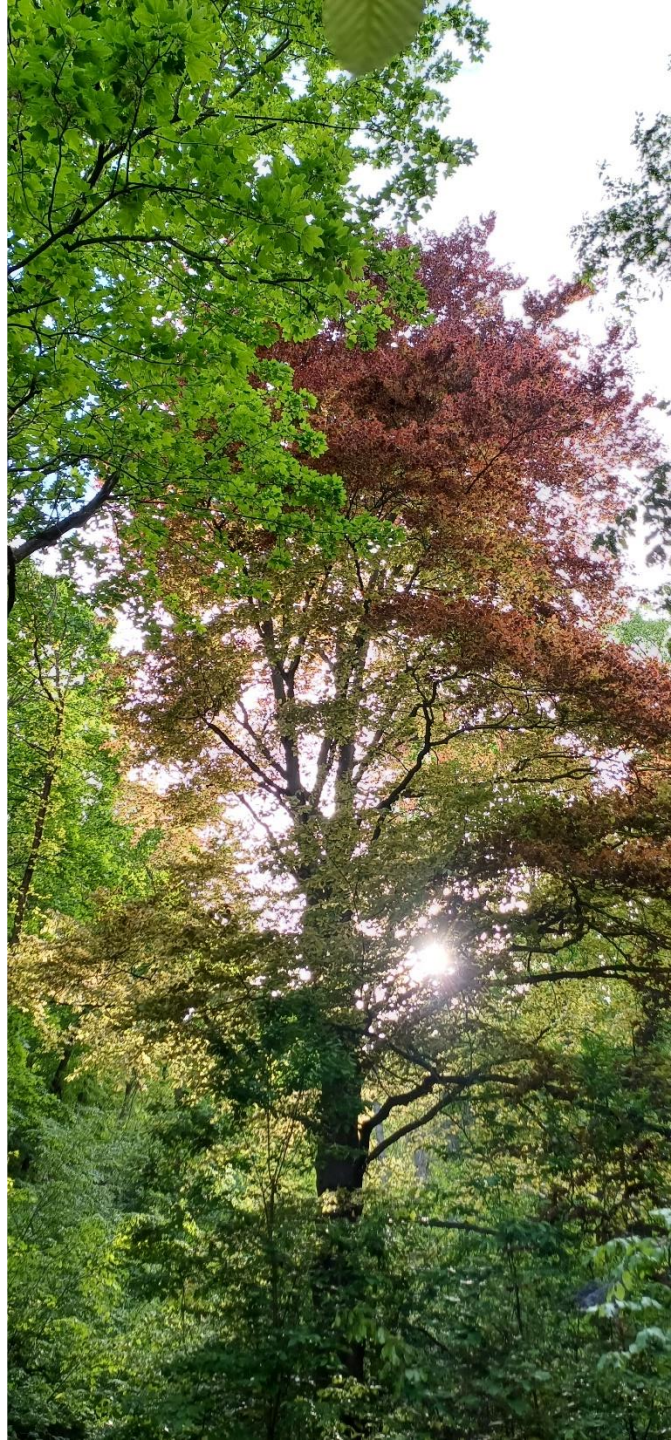
- Submitted: 28/2/2024
- Informed: 27/5/2024
- DoH signed: 2/7/2024
- GA signed: 10/9/2024
- Start date: 1/1/2025
- End data: 31/12/2028
- Size: 346PM
- Reporting periods: 1 – 24M, 25 – 48M



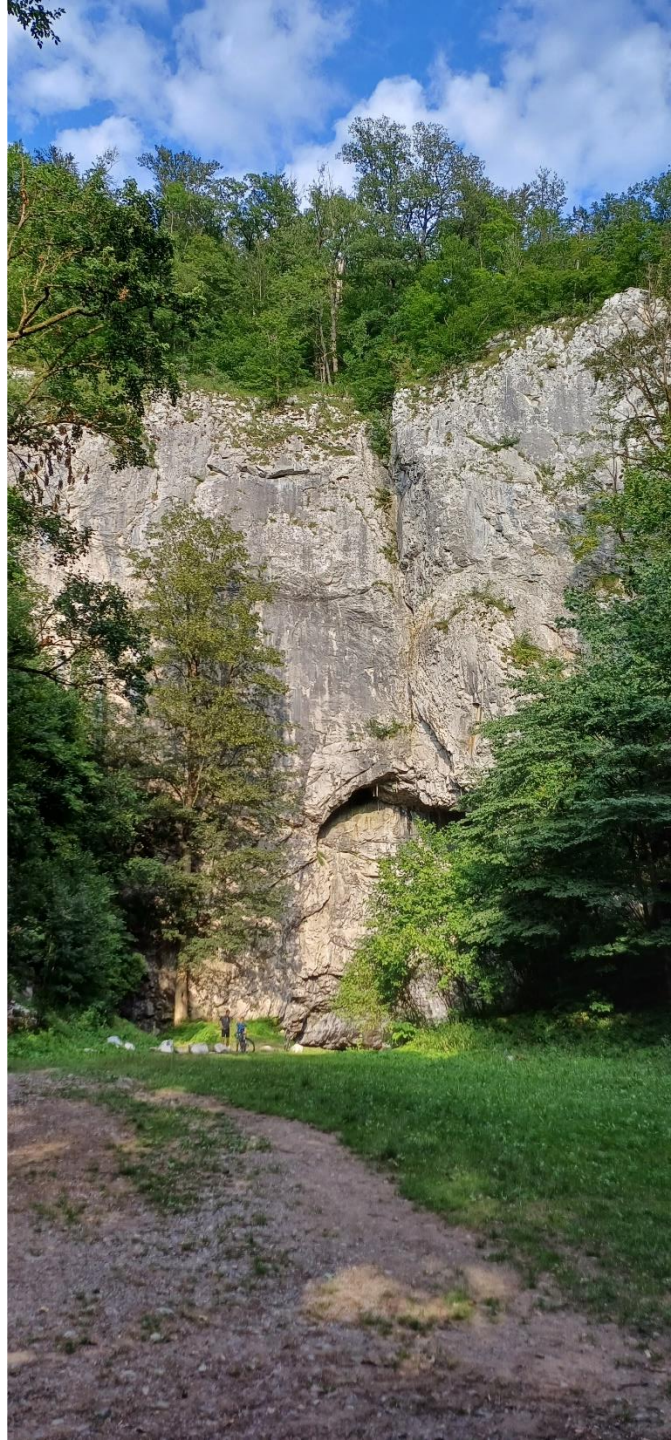
The do‘s

- Set ambitious yet realistically achievable objectives with a high level of detail
- Conduct research that advances beyond the state-of-the-art, supported by comprehensive references
- Employ a highly detailed methodology that incorporates novel approaches
- Ensure the project has a vital interdisciplinary component
- Distribute secondments evenly across all scientific work packages (WPs)
- Involve various profiles in secondments, from early-career researchers to full professors
- Link secondments directly to specific scientific objectives
- Develop a detailed work plan with clear interaction points between tasks and teams
- Provide a comprehensive list of scientific and other deliverables that are both relevant and feasible to monitor



The do‘s

- Involve partners with specific, complementary expertise
- Ensure access to the necessary research infrastructure to meet project goals effectively
- Present compelling KPIs for communication and dissemination activities
- Identify and provide convincing contingency measures for scientific and non-scientific risks
- Offer detailed information on open science (OS) practices.
- Showcase a strong track record in OS achievements, including data stewardship
- Prioritize the enhancement of the project’s innovation potential
- Thoroughly describe all levels of impact: scientific, economic/technological, and societal
- Hold regular meetings with partners
- Distribute tasks and responsibilities effectively among partners



Lesson learned

- Science is the core foundation of the project; prioritise it in all aspects.
- Always round secondment durations to the nearest whole month.
- PIC validation is often complex—anticipate challenges and take proactive steps.
- Even with early preparation, expect the final days to be hectic and stressful.

Thank you for your attention!

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