



UNITE
FOREST-HUMAN-MACHINE INTERPLAY

Good practices and just orchestration for restoring forests and wetlands

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Policy event: Forest bioeconomy and the alignment of multiple policy objectives

Brussels, 5 May 2026



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Photograph: Anu Laakkonen(UEF)



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UNITE: Forest-Human-Machine Interplay

**Building Resilience, Redefining Value Networks and
Enabling Meaningful Experiences**

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GOALS



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- To build climate-smart, resource-efficient, multifunctional, and humane biosociety.
- To simultaneously enhance forest resilience, sustainable provisioning of multiple ecosystem services, adaptation to and mitigation of climate change, and meaningful living for all.
- To support forest sector's transition to biosociety through use of versatile forest bioeconomy expertise, development and applications of digital technologies and solutions, decision support tools and gamified technologies, solutions, and practices.

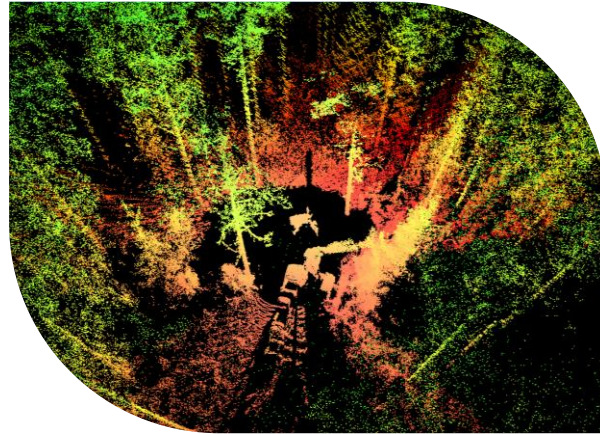
Key collaborators: National and International Research institutes and Universities, Companies from Forest industry and Disruptive technology, Games Companies, Public administration, Civil society and Media





Top-level research for society

Disruptive technologies
(Theme 1)



Agile knowledge creation
(Theme 2)



Gameful forest interaction
(Theme 4)



Smart decision support
(Theme 3)





Justice in sustainability transition

(Based on ForTran project funded by Strategic Research Council of Finland)

FORTTRAN 

 **strategicRESEARCH**

<https://fortran.fi/en/home/>

Expert survey in Finland (n=56), preliminary analysis



Exploring measures to strengthen biodiversity in Finnish forests

Dimensions of justice as a framework (distributive, procedural, recognitive, and intergenerational justice)

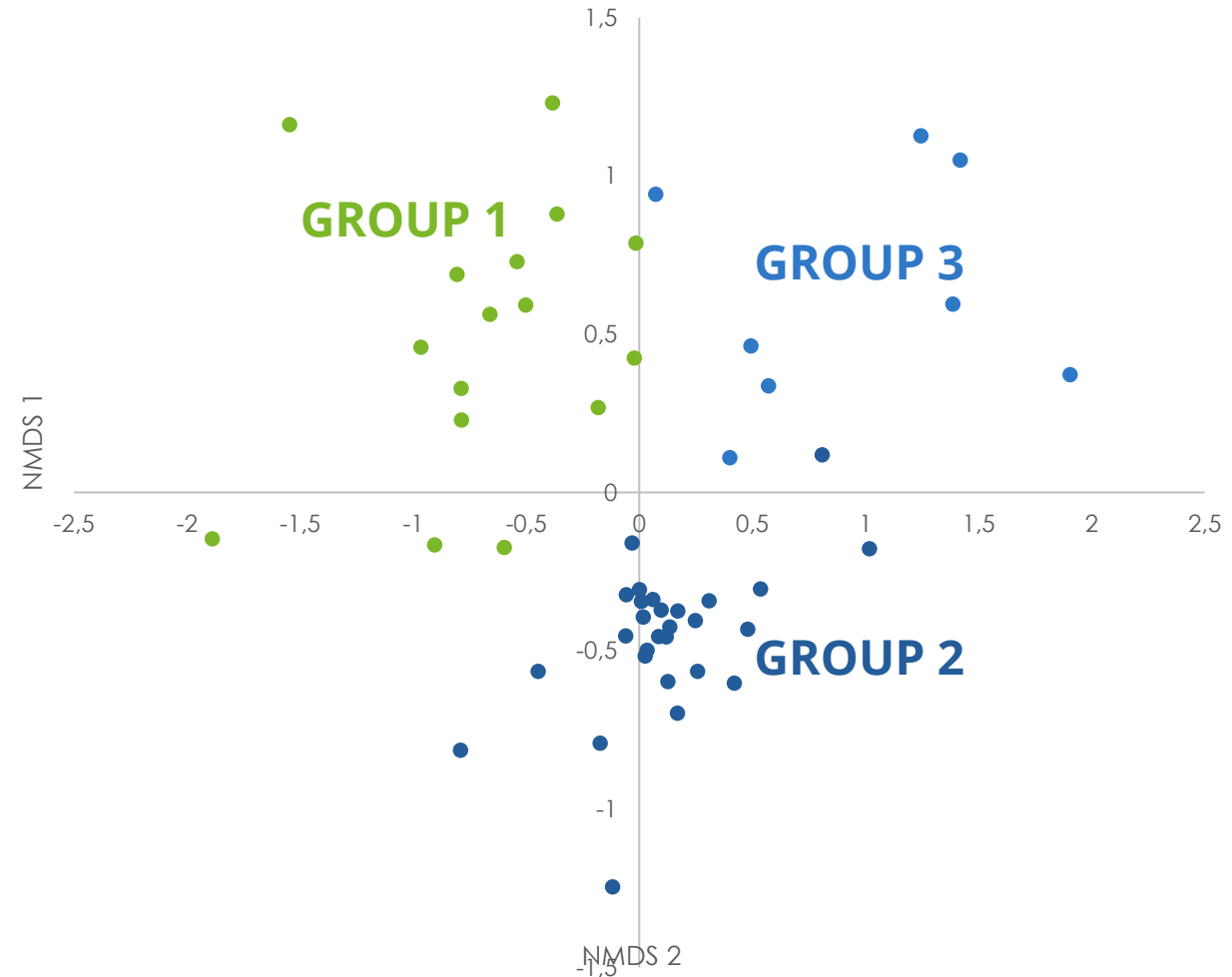
Purposive and targeted sampling, recruiting respondents knowledgeable of forest and environmental sector, biodiversity, and policy instruments

Grouping respondents into three groups based on views of justice (multidimensional scaling and qualitative interpretation of open-ended answers)

Three distinguished groups



- Group 1 emphasises the injustice experienced by the forest sector and forest owners
- Group 2 injustice experienced by environmental actors, children and young people, future generations and nature
- Group 3 does not see any problems of injustice, but emphasises that forest owners must be given special consideration when considering measures



The most identified victims of injustice by group



	All respondents	Group 1 (forest sector)	Group 2 (others)	Group 3 (no problem)
Rank 1	Endangered species in old-growth forests	Private forest owners	Endangered species in old-growth forests	Endangered species in old-growth forests
Rank 2	Endangered species in aquatic and wetland ecosystems	Forest sector workers	Endangered species in aquatic and wetland ecosystems	In general, future generations
Rank 3	Employees and members of nature and environmental organisations	Rural residents	Employees and members of nature and environmental organisations	Children and young people
Rank 4	Private forest owners	Northern Finns	Recreational users of forests and water areas	Endangered species in aquatic and wetland ecosystems
Rank 5	Recreational users of forests and water areas	Employees of interest groups representing forestry and the forestry industry	In general, future generations	Employees and members of nature and environmental organisations

The most supported categories of policy instruments



	All respondents	Group 1 (forest sector)	Group 2 (others)	Group 3 (no problem)
Rank 1	Voluntary protection	Voluntary protection	Reducing wood consumption	Forest ownership, forest professionalism and decision support
Rank 2	Reducing wood consumption	Nature management and restoration of private lands	Nature management and restoration of private lands	Reducing wood consumption
Rank 3	Nature management and restoration of private lands	Reducing wood consumption	Increasing knowledge and awareness	Increasing knowledge and awareness
Rank 4	Steering of the use of state-owned forests	Forest ownership, forest professionalism and decision support	Opportunities for citizens to participate	Voluntary protection



Key questions in restoring forests and peatlands

(Based on H2020 Green Deal WaterLANDS project)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036484 (WaterLANDS). This output reflects the views of the authors and the European Commission is not responsible for any use that may be made of the information contained therein.

<https://waterlands.eu/>

Project Network

- Building a Legacy across
 - **15** Knowledge Sites
 - **6** Action Sites
 - **14** Partner Countries

ACTION SITES

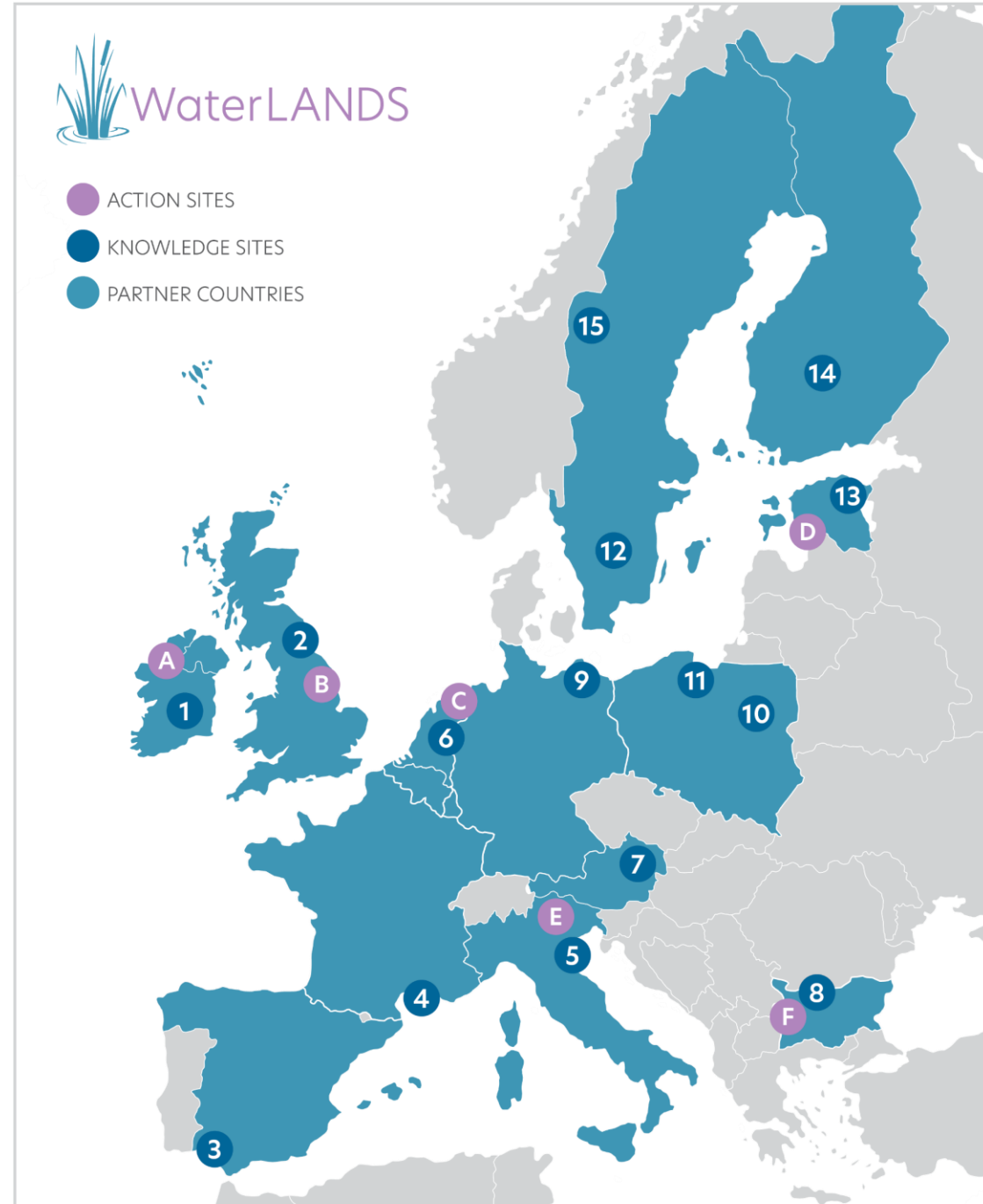
- A** LIFE-IP Wild Atlantic Nature (Ireland)
- B** Yorkshire iCASP (The United Kingdom)
- C** Eems-Dollard Estuary (The Netherlands)
- D** Pärnu Catchment (Estonia)
- E** Venice Lagoon (Italy)
- F** Dragoman Marsh (Bulgaria)

KNOWLEDGE SITES

- 1** Abbeyleix Bog (Ireland)
- 2** Water@Leeds (The United Kingdom)
- 3** Doñana Wetland (Spain)
- 4** Camargue (France)
- 5** Venice Lagoon (Italy)
- 6** Engbertsdijkvenen (The Netherlands)
- 7** Landscape Finance Lab (Austria)
- 8** Belene Island (Bulgaria)
- 9** M. Succow Foundation (Germany)
- 10** Wetlands around Warsaw (Poland)
- 11** Mazury Forest Mire (Poland)
- 12** Store Mosse (Sweden)
- 13** Sirtsu and Tudusoo Mires (Estonia)
- 14** Siikaneva (Finland)
- 15** Jämtland Mountains (Sweden)



- ACTION SITES**
- KNOWLEDGE SITES**
- PARTNER COUNTRIES**



Challenge bundle

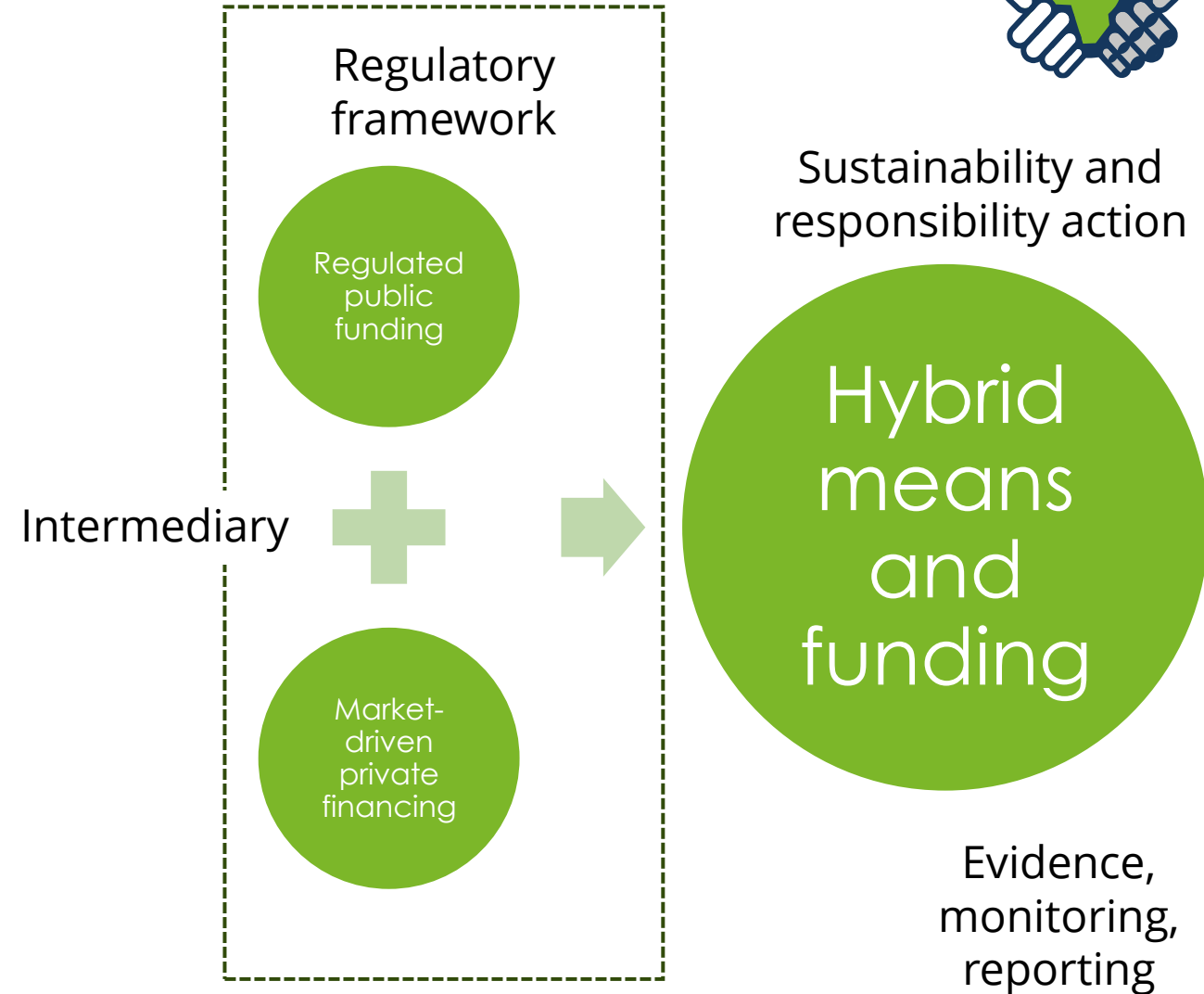


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Towards synergies with policy instruments

- Integration of public policies into market-based mechanisms
- Public-private partnerships, intermediary organisations
- Hybrid financing and combined allocation of funding
- Verifiable results
- Link to sustainable corporate value creation and social responsibility



Policy messages for improving the state of nature



We need wider understanding of justice

- Instruments that (concurrently) address multiple injustices

Hybrid funding mechanisms need to take off to meet ambition levels

- Regulatory frame and experiments to learn and share

Integration of restoration in economic activity is an important key

- Cost-effective solutions for e.g., combined projects

Changing practices requires empowering communities

- Resources and facilitation to co-create solutions



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Thank you!

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