

PROTECTION AND RESTORATION OF NATURAL LAKES IN THE SPIRIT OF EUROPEAN LIFE HERITAGE SUPPORT ProCleanLakes

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<https://procleanlakes.eu>



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Programme: Horizon Europe Framework Programme (HORIZON)

Call: Actions for the implementation of the Mission Restore our ocean and waters by 2030 (HORIZON-MISS-2023-OCEAN-01)

Type of action: HORIZON-IA HORIZON Innovation Actions

European natural lakes: demonstration of integrated approaches for protection and restoration of natural lake ecosystems and their biodiversity



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ProCleanLakes is an Innovation Action!

Focus on delivering solutions ready to be used by society

- Less research
- More innovation activities
- TRL ~ 7 at the end (= system prototype demonstration in operational environment)



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ProCleanLakes in numbers....



Project time: June 1st 2024 – May 31st 2028

Consortium: 18 Partners/11 Countries

Budget Maximum grant amount (award decision):
3,968,226.00 €



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ProCleanLakes Consortium

18 Partners/11 Countries;

8 universities, 4 RTOs, 4 SMEs,
1 NGO, 1 Public

**Austria, Croatia, Cyprus,
Czechia, Germany, Greece,
France, Italy, Norway,
Romania, Spain**



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The Horizon European Project ProCleanLakes aims to develop **an Action Plan and a Guidelines** for long-term restoration and protection of **European Natural Lakes (ENL)** ecosystems and biodiversity's. **This plan aims to:**

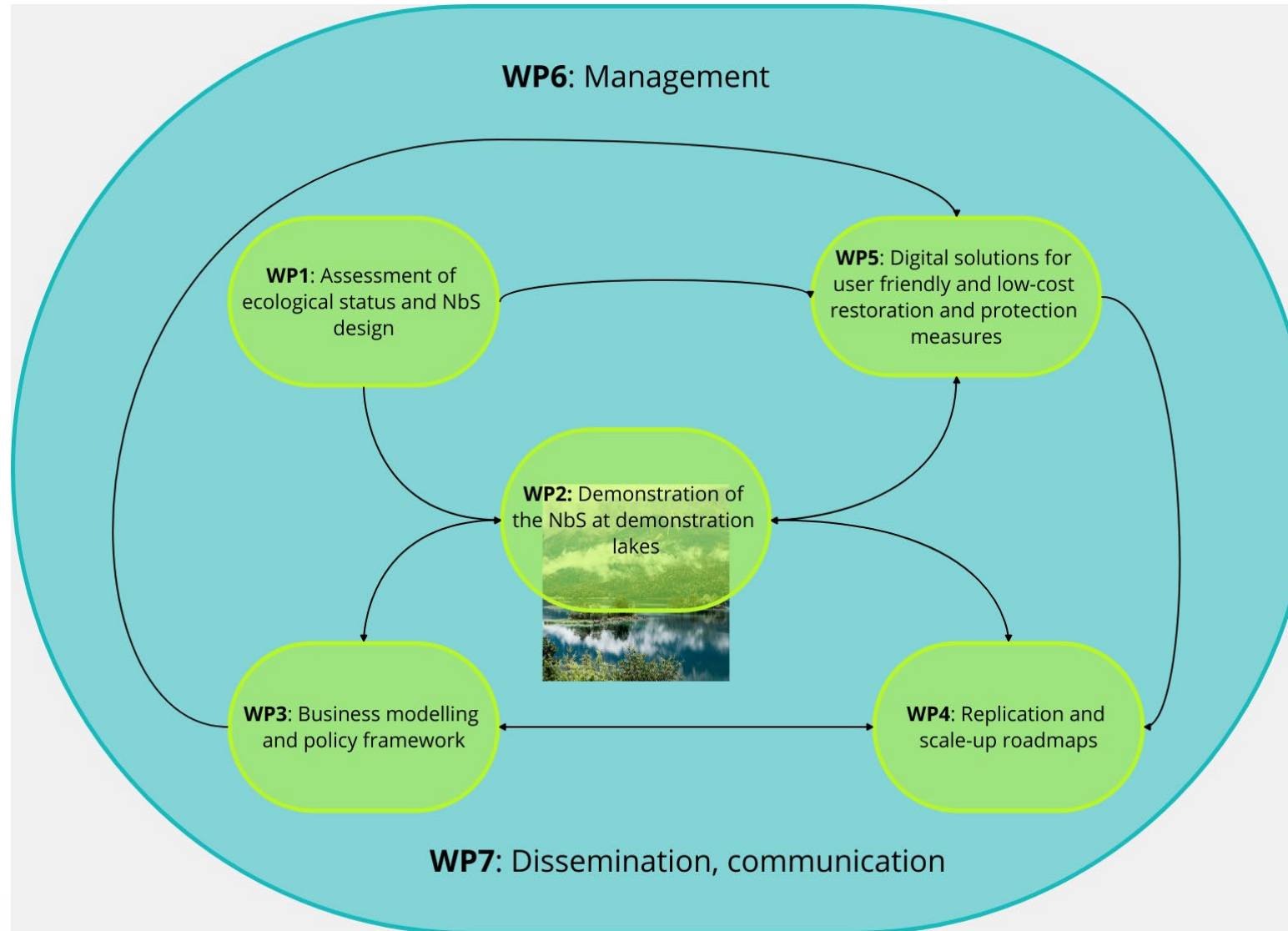
Enhance the ecological and chemical status of ENL, including biodiversity, through the use of innovative integrative Nature-based Solutions (NbS).

Using **new 4.0 Digital solutions** for supporting ecosystem monitoring, restoration, protection, and knowledge transfer to other regions

Promote business activities grounded in the circular economy concept, facilitating the shift from a Blue to a Green Economy.

Increase awareness, empower communities, build capacities, and collaboratively develop solutions with citizens and stakeholders to address challenges related to the restoration and protection of ENL.

Work Packages (WPs)



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Case studies

Demonstration sites (DS)

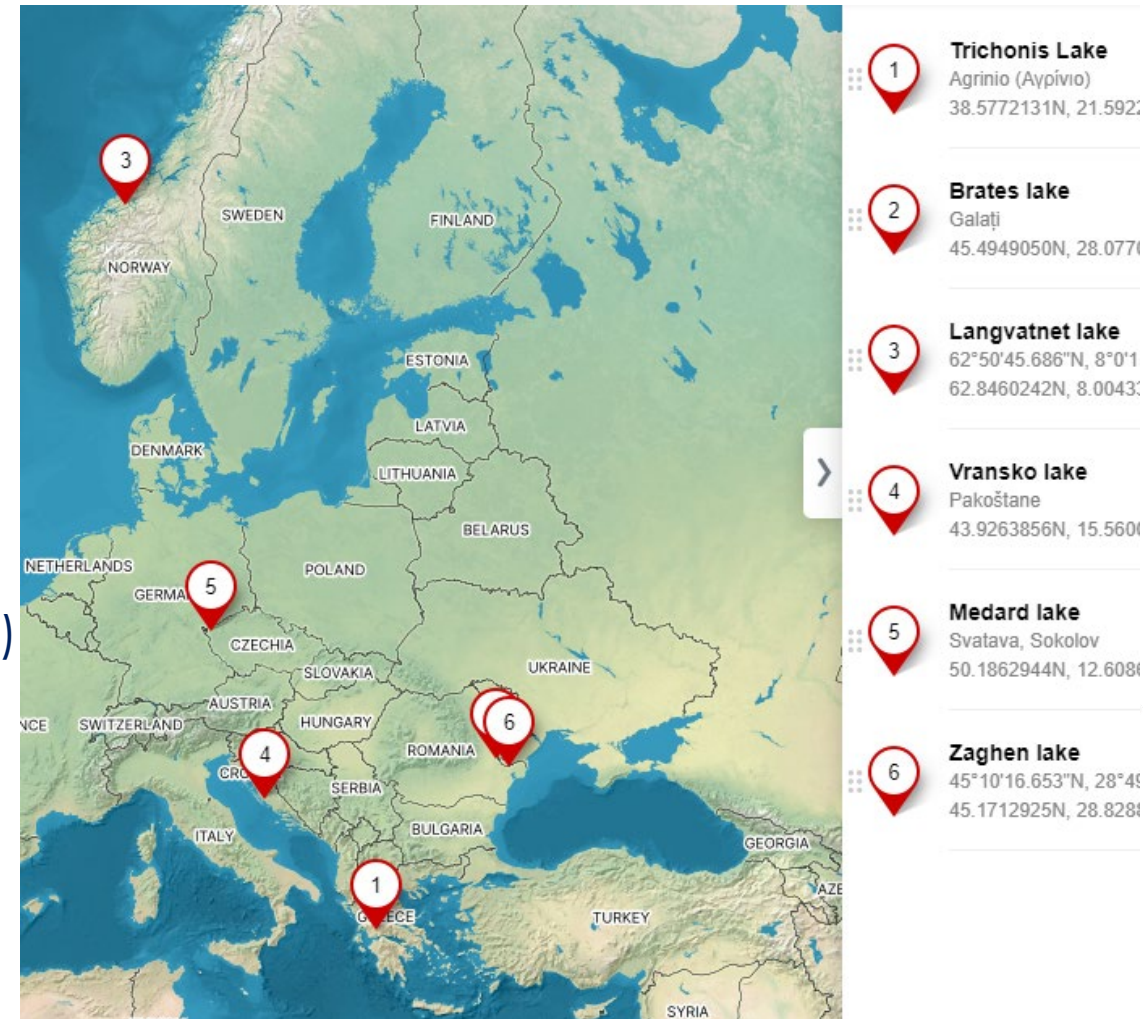
- Demonstration site 1 (DS1)- Trichonis Lake (Greece)
- Demonstration site 2 (DS2) - Brates Lake (Romania)
- Demonstration site 3 (DS3)-Langvatnet lake (Norway)

Monitoring sites (MS)

- Monitoring site 1 (MS1) - Vransko Lake (Croatia)
- Monitoring site 2 (MS2) – Medard Lake (Czech Republic)
- Monitoring site 3 (MS3) – Zaghen Lake (Romania)

Replication sites (RS)

- 3 Replication sites in Associated Regions



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Demonstration sites (DS)



DS 1 – Trichonis Lake (Greece)

chemical pollution partly from agriculture (wastes of olive oil mills), water abstraction, climate change, biodiversity loss



DS 2 – Brates Lake (Romania)

anthropogenic pollution, nutrient enrichment, pollution by pesticides, heavy metals, and possible emerging pollutants



DS 3 – Langvatnet Lake (Norway)

runoff of acidic waters (acid mine drainage, AMD) and metal pollution



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Monitoring sites (MS)



MS 1 – Vransko Lake (Croatia)

decreasing lake water levels, accelerated the eutrophication and sedimentation processes, excess of nutrients due to agricultural land fertilization, salinity is increased by decreasing inflows



MS 2 – Medard Lake (Czech Republic)

eutrophication and trophic web structure, decreased of biomass, longer periods with high temperatures favoring blue-green algae blooms and decreased water level



MS 3 – Zaghen Lake (Romania)

sediment accumulation, zootechnical residues, households waste, nutrients enrichments, algae blooms



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Focal point – Demonstration lakes

- Data collection
- Testing and implementing NbS
- Market analysis
- Business coaching
- Round tables with stakeholders
- 3 on-site workshops on NbS



Co-development and **co-creation** is the central approach to deliver solutions!



Communities of practice
at each DS

Replication sites (RS)

- Relevance to the **ProCleanLakes** specific objectives - Upscaling the developed and demonstrated solutions in associated regions through three case studies
- Expected impacts for the **Associated Regions** and contribution to the **Mission 'Restore our Ocean and Waters by 2030'**.
- Quality of implementation and capacity to implement the project effectively



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Replication sites (RS) - Activities

- Developing replicable and scalable **guidelines for ecosystem services upscaling** – using information provided after implementation of the solutions developed in the DS
- Provide training and knowledge transfer to stakeholders (citizens, interested businesses, policy makers, authorities, experts in water quality and biodiversity) from the associated regions by organizing **workshops in each replication site for knowledge transfer, exchange and capacity building**
- **Round tables** with citizens and other stakeholders (discussions and interviews)
- Develop **customized implementation roadmaps** based on the solutions demonstrated within WP2 and **post-monitoring activities** (WP2), as well **mapping business opportunities** on DS and RS and **exchange of knowledge and practices with stakeholders**.



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Which countries are eligible

- **Local and/or regional authorities** from an 'Associated Region'.
- Only legal entities, established in an **EU Member State** or in an **Associated Countries other than those that are part of the project consortium can apply.**
- Third parties from the following **countries are therefore excluded** (as part of the project consortium): Austria, Croatia, Cyprus, Czechia, Greece, Germany, France, Italy, Norway, Romania and Spain.
- **Third parties can apply as a single entity or build up a partnership of more partners.** Other entities, such as academia, business etc., could be eventually a subcontractor under the leadership of a Lead partner.
- Each **"Associated Region"** shall benefit only once from the Financial Support to Third Parties provided under this topic (HORIZON-MISS-2023-OCEAN-01-04) within the duration of the project.
- **'Associated regions'** are understood as **areas with similar ecosystems problems** that can benefit from the demonstration activities **and/or less-developed regions**, with the view to build capacity to implement the innovative solutions proposed for restoration and protection of ENL.

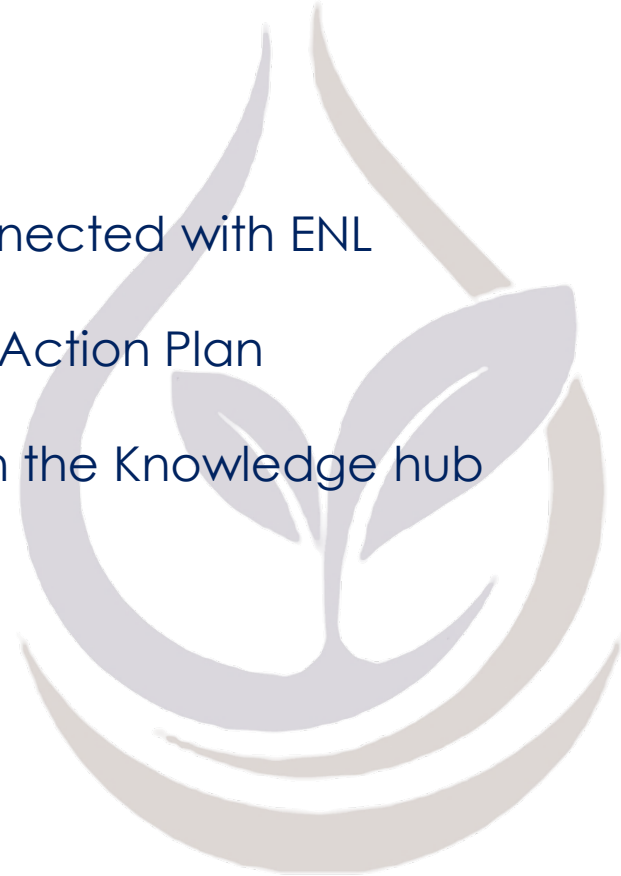


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Main Outputs

- Integrated ENL Action Plan including guidelines for the use of NbS
- Demonstration of the developed NbS at Demonstration lakes (3x)
- Roadmaps for implementation of NbS at Replication lakes (3x)
- Virtual Business incubator for nascent entrepreneurs and businesses connected with ENL
- Web-based Knowledge hub integrating all developed knowledge and Action Plan
- Mobile-based app for citizen science (collection of data) - published on the Knowledge hub
- E-learning modules (published on the Knowledge hub)
- Final conference
- Pan-European virtual workshop



Co-creation approach will be strongly followed throughout the whole project



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