



Fostering European Lakes Restoration by Nutrient Removal, Recovery and Reuse: Integrated Catchment and In-lake Scale Approach

OBJECTIVES AND ACTIONS

Use in-situ and remote sensing data to classify and monitor lakes, accurately assessing their vulnerability to eutrophication.

Restore lakes with sustainable, circular-based methods that focus on nutrient recovery for agricultural reuse, enhancing ecological health and promoting a circular economy.

Replicate and transfer these restoration solutions across Europe to extend environmental and socio-economic benefits.

SUMMARY

FERRO's goal is to integrate nutrient recovery and reuse into European lake restoration. We aim to combat nutrient enrichment by implementing innovative, resilient, adaptable, and widely applicable restoration solutions that promote nutrient recovery and reuse.

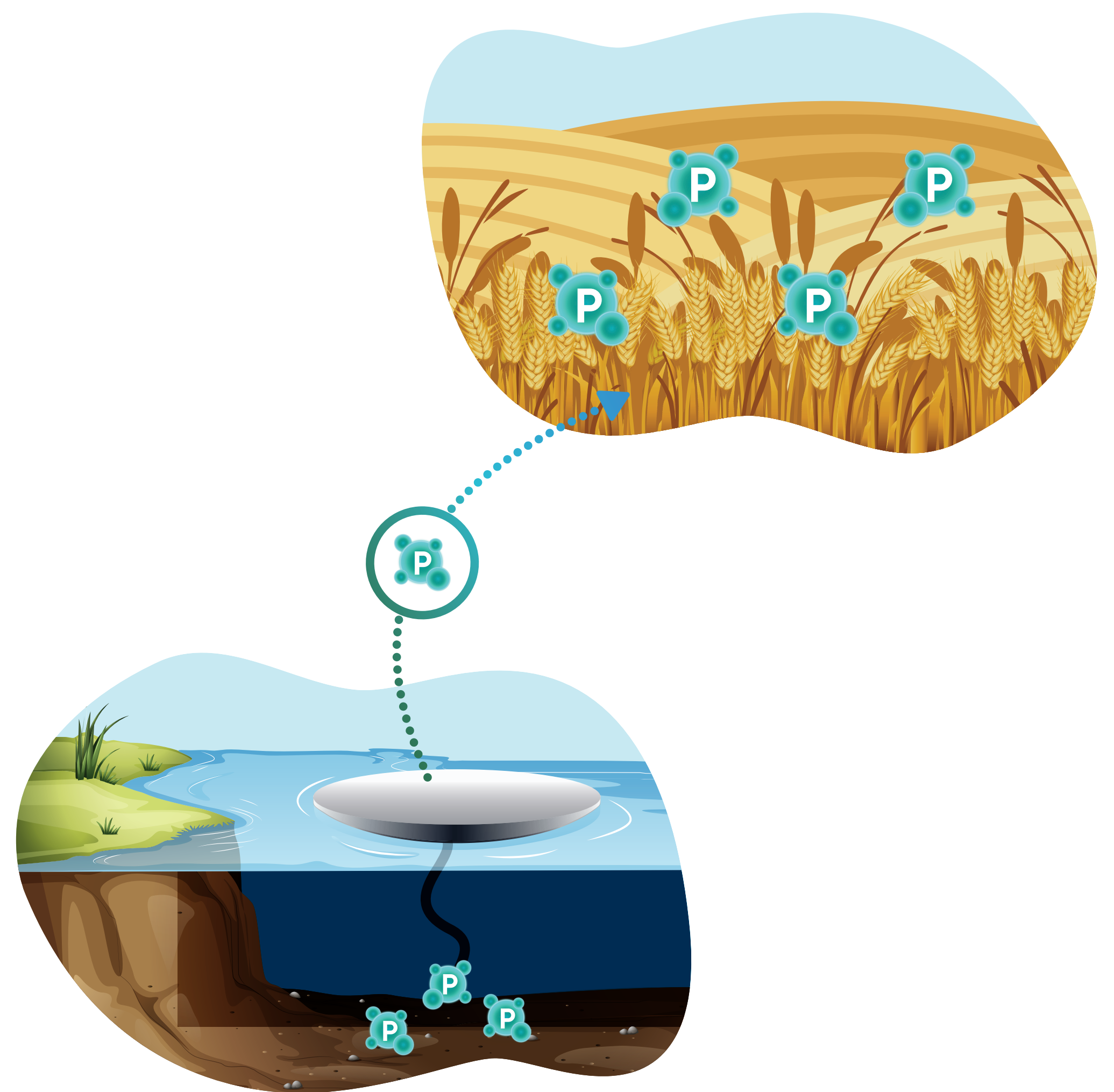
OUR SOLUTIONS

Catchment Solutions:

- Use phosphorus-solubilizing microorganisms to boost plant P-uptake and reduce phosphorus leaching into water bodies.
- Apply flocculants at lake inflows to prevent eutrophication.

In-Lake Solutions:

- Trap hypolimnetic phosphorus with novel filters, enabling nutrient recycling for agriculture.
- Excavate nutrient-rich lake sediments for reuse as agricultural fertiliser.



PARTNERS

- Helmholtz Centre for Environmental Research (UFZ)
- University of Southern Denmark (SDU)
- University of Helsinki (UH)
- Biology Centre, Academy of Sciences of the Czech Republic (BC CAS)
- Brockmann Geomatics (BG)
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