



## Nathalie Dubois awarded ERC Synergy Grant

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Topics: Biodiversity | Society | Organisation & Staff | Climate Change & Energy

**The European Research Council is supporting the MEMELAND research project of a European research team with over 13.5 million euros. Nathalie Dubois from Eawag is a member of the group. The aim is to provide a new narrative for European environmental history, offering decisive insights for sustainable agriculture and climate protection in Europe.**

Nathalie Dubois, group leader at the aquatic research institute Eawag and adjunct professor at the Federal Institute of Technology (ETH) Zurich, has been awarded a Synergy Grant from the European Research Council (ERC) for the MEMELAND project, together with three research partners. The objective of the project is to rewrite European environmental history – from Roman times to the present. Using sediment cores from 100 lakes in northern and central Europe, the researchers are investigating where and when agricultural revolutions took place in Europe during the Middle Ages, and how these have shaped our landscapes and biodiversity into the present.

The latest advances in the analysis of ancient DNA from sediments enable completely new analytical methods. The researchers will study pairs of lakes near to each other: one lake close to a high status settlement, such as a castle or monastery, the other largely unaffected by human activity. They can then make deductions from the sediment data about the agricultural methods of the time, concurrently modelling the historical species spread of plants and animals. The researchers want to investigate in detail food sources important to humans, such as grains or livestock. The goal of the project is to understand better the interplay of culture and nature, as well as to provide decisive insights for sustainable agriculture and climate protection in Europe.

The ERC Synergy Grants are awarded for interdisciplinary projects that bring together the knowledge of different specialists. MEMELAND brings together four principal investigators from various disciplines: Tony Brown from the Arctic University of Norway is a specialist in sedimentary ancient DNA. He is also

the project's coordinating principal investigator. Helena Hamerow from the University of Oxford is an archaeologist and archaeobotanist. Andreas Lang from the University of Salzburg is a geomorphologist and geochronologist. Nathalie Dubois from Eawag is a palaeolimnologist and has been brought into the project primarily for her expertise in the analysis and dating of lipid biomarkers – organic fossil molecules.

The EU in Brussels received a total of 548 applications for an ERC Synergy Grant in 2025. 57 projects were successful, receiving a total of 571 million euros in funding. MEMELAND will receive a total of 13.5 million euros over its six-year term. Eawag will receive around 2.2 million francs.

## Background information on the opening of the Horizon Europe tenders for Switzerland

With its four highly coveted and prestigious grants from the European Research Council (ERC) – Starting Grant, Consolidator Grant, Advanced Grant and Synergy Grant – the EU finances pioneering research projects in all areas of science to promote European leadership in top research. The grants target exceptional researchers (principal investigators). The only selection criterion is the scientific excellence of the research project submitted.

Switzerland was excluded from important areas of Horizon Europe in 2021, including from the ERC Grants. A transitional arrangement in March 2024 allowed Swiss researchers to participate in ERC tenders for Advanced Grants in 2024. The EU also decided in July 2024 to allow Swiss researchers access to three tenders in the 2025 programme year, inviting them to participate in the tenders for the ERC Starting Grant, Synergy Grant and Consolidator Grant for 2025.

### Further information

[Press release from the State Secretariat for Education Research and Innovation: Horizon Europe: Extended access for researchers in Switzerland](#)

Cover picture: Nathalie Dubois retrieves sediment cores from the cold storage for further analysis (photo: Alessandro della Bella).

## Cooperations

Eawag Arctic University of Norway Universität Oxford Universität Salzburg

## Related Links

«ERC Synergy Grants for 57 teams tackling major scientific challenges»

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<https://www.eawag.ch/en/info/portal/news/news-detail/nathalie-dubois-awarded-erc-synergy-grant>