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<http://limnc.epfl.ch>

LéXPLORE platform

Call for EPFL Projects

Deadline: 30th November 2022

1. About LéXPLORE

Since mid-February 2019, the LéXPLORE Platform (www.lexplore.ch) is installed on Lake Léman near Pully at a depth of 110 m and at 570 m from the shoreline. The pontoon with a surface of 10 m by 10 m is equipped with electricity and a closed cabin (with toilet). Around the pontoon, a surface of ~15'000 m² is protected from drifting nets by a circle of buoys (70 m radius), and allows to deploy submersible instruments. This infrastructure provides excellent working conditions, also to test new in-situ technologies.

The goal of LéXPLORE is to acquire simultaneously physical, geochemical and biological measurements at high temporal and vertical resolutions, days and nights in any weather conditions. This will allow investigating key processes in stratified aquatic systems in unprecedented detail and resolution. To bring many disciplines together, LéXPLORE is a partnership between EPFL, Universities of Lausanne and Geneva, Eawag and our French colleagues from [CARTEL](#) (INRAE - USMB). In addition, LéXPLORE is open to any international researcher that would like to collaborate and benefit from the infrastructure / data. Currently, more than 40 research projects are collecting data in a large variety of domains.

To provide a background dataset, the following scientific instruments are installed on LéXPLORE, and data are provided openly through the DATALAKES portal (<https://www.datalakes-eawag.ch/>):

- A meteostation with temperature, pressure, solar radiation, rain, wind speed and direction
- Continuous measurements of temperature, oxygen, photosynthetic active radiation (PAR) at different fixed depths
- Current velocities throughout the water column with two Acoustic Doppler Current Profilers
- Vertical profiles of depth, oxygen, chlorophyll-a, pH, temperature and conductivity in the productive zone, taken automatically with an Idronaut probe.
- Deep vertical profiles taken occasionally with a Sea&Sun multiparameter probe
- Vertical profiles of detailed optical properties and usual parameters taken with a Thetis profiler. It is also used to calibrate remote sensing.

You can find detailed information in “Wüest *et al* (2021): LéXPLORE – a floating laboratory on Lake Geneva offering unique lake research opportunities”. <https://doi.org/10.1002/wat2.1544>

LIMNOLOGY CENTER

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2. Call for EPFL Projects - conditions

With this **Call for EPFL Projects**, we encourage research groups from EPFL to apply for seed money up to 40 kCHF on research questions related to the LÉXPLORE Platform.

To be eligible, the principal investigator has to be based at EPFL.

Your project should be finalized by end of 2023. We will not accept extension of current projects.

Even if LÉXPLORE is strongly adapted to aquatic sciences, we would like to see diversification to studying the lake-water interface, atmospheric and climatic sciences, sensors development, big environmental data, and others.

3. Submission

For the proposal, please fill in the application form containing (< 4 pages in total):

1. Description of the applicant (< 1/3 page)
2. Research question and work plan (< 1.5 page)
3. Technical feasibility (< 1/2 page)
4. Timeline
5. Budget (up to 40 kCHF)
6. Additional information.

4. Evaluation

The proposal will be evaluated by the members of the Limnology Center by the following evaluation criteria:

- Scientific merit
- Synergies across different domains and complementarity of the team
- Technological innovation
- Feasibility
- Fit to the overall LÉXPLORE projects (see <https://lexplore.info/current-projects/>).

The evaluation results will be transmitted to applicants latest before 15th December 2022. Successful applicants will receive a grant agreement from Limnology Center and the fund will be paid in 2023. Before any payment, LÉXPLORE application form (appendix 1) will have to be filled-in and approved by the LÉXPLORE Steering Committee.

Be aware, that the Limnology Center can support only a small number of projects, independent of the quality of the proposals.

For any additional information or for the submission, please contact or send to natacha.tofield-pasche@epfl.ch

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Appendix 1:

Application form to submit a project on LÉXPLORE platform

1. Name, function and affiliation of the applicants:
 - 1.1 Principal investigator
 - 1.2 Collaborators
 - 1.3 Email of contact
2. Name of the project:
3. Summary of the proposal (max 1000 characters)
4. Duration and timeline of the project on LÉXPLORE
5. Technical specifications:
 - 5.1 Instruments/systems to be installed on the platform or moored in the protected area:
 - 5.1.1 Describe your instruments/systems
 - 5.1.2 Specify any technical constraints (mooring, power, ...)
 - 5.1.3 Is your instrument sensitive to damage in wave actions? Is your instrument weatherproof?
 - 5.1.4 How and where do you expect to install your equipment? A simple drawing of the set-up will be helpful.
 - 5.1.5 How often do you need to maintain your instrument?
 - 5.2 Sampling or profiling to be conducted on the platform: what do you plan to do?
 - 5.3 How often do you plan to visit the platform?
 - 5.4 Who will be responsible for the installed equipment?
 - 5.5 Is there any potential safety hazard (chemical, gas, mechanical, optical)?
 - 5.6 What are your power requirements?
 - 5.7 Do you require using any chemicals or compressed gas?
6. Data:
 - 6.1. What data will be produced (type, units, frequency) and how do you plan to handle and manage data storage and QA/QC?
 - 6.2 Our data policy is open data. Do you agree with it? When will your data become publically available?
 - 6.3 Is there a need for additional data that are monitored on the platform?

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7. Considered collaborations within LéXPLORE.

8. Project funding

8.1 If you are not part of the partner institutions, please note that the use of the LéXPLORE platform induces a contribution to its maintenance costs. Are you ready to cover the daily fees?

9. Date of the application

To submit your project, please send your completed form to natacha.tofield-pasche@epfl.ch

Information for the website:

If your project is validated, we will describe your project on <https://lexplore.info/current-projects/>

For this, you will need to provide:

- a summary of your project with max 500 characters,
- an image representing your project (width = 2560 px, and height = 1920 px, min 150 dpi),
- a picture of each of your collaborators (200 x 200 px, min 150 dpi) with their name and function.

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General Conditions for a project on LéXPLORE

1. Access to the core dataset

The Steering Committee commits to provide a core dataset with background information during the entire LéXPLORE lifetime. You can download these data through the DATALAKES web portal.

2. Data sharing Policy

Sciences is moving quickly towards open data. We therefore expect that:

- all research data collected on LéXPLORE become openly available as soon as possible, but latest 3 years after data collection.
- you share your data with other researchers, by transferring them on the DATALAKES web portal.
- you deposit your data and metadata onto existing public repositories in formats that anyone can find, access and reuse without restriction.

3. Scientific Publications

All Academic Publications (reports, scientific paper, poster, oral conference, ...) have to be sent to the LéXPLORE Project Manager at the time of its submission to trace them. The Steering Committee will check the publications to ensure that data and colleagues scientists are appropriately acknowledged. We strongly recommend citing the data, using the DOI from the DATALAKES webportal. If necessary, the Steering Committee may require adaptations in the publication during the review process.

4. Acknowledgments in your publication

In your publication, you will add the following acknowledgment: *“We would like to thank the entire team from LéXPLORE platform, for their administrative and technical support and for LéXPLORE core dataset. We also acknowledge LéXPLORE five partner institutions: Eawag, EPFL, University of Geneva, University of Lausanne and CARRTEL (INRAE-USMB).”*

5. Communication

You accept to provide the necessary information and images to present your project on LéXPLORE website. You will provide an annual report (one page) by end of May each year, in order to present the results and achievements of your project.

With my signature, I agree to respect the above-stated general conditions:

Date:

Name:

Signature: