

Conference Abstract

Mobilizing legacy data to eLTER: Mapping data resources and identifying community needs and preferences

Allan T. Souza[‡], Holger Villwock[§], James Kurén Weldon[§], Theresa Lumpi[§], Katarina Sladakovic^I, Alessandro Oggioni^{II}, Martin Abbrent[#], Tom Rebok^{II}, Johannes Peterseil^K

- ‡ Institute for Atmospheric and Earth System Research (INAR), Forest Sciences, Faculty of Agriculture and Forestry, University of Helsinki, P.O. Box 27, 00014, Helsinki, Finland
- § Department of Aquatic Sciences and Assessment, Division of Geochemistry and Hydrology, Swedish University of Agricultural Sciences, Lennart Hjelms väg 9, Uppsala, Sweden
- | University of Helsinki, Helsinki, Finland
- ¶ CNR-IREA, Milan, Italy
- # Helmholtz Centre for Environmental Research (UFZ), Leipzig, Germany
- m Masaryk University, Institute of Computer Science, Šumavská 525/33, Veveří, Brno, Czech Republic
- « Umweltbundesamt GmbH, Vienna, Austria

Corresponding author: Allan T. Souza (allan.souza@helsinki.fi)

Received: 26 Feb 2025 | Published: 28 May 2025

Citation: Souza AT, Villwock H, Kurén Weldon J, Lumpi T, Sladakovic K, Oggioni A, Abbrent M, Rebok T, Peterseil J (2025) Mobilizing legacy data to eLTER: Mapping data resources and identifying community needs and preferences. ARPHA Conference Abstracts 8: e151474. https://doi.org/10.3897/aca.8.e151474

Abstract

The legacy data mobilization for eLTER standard observations (SOs) initiative was launched in November 2024. This initiative aimed to map and ingest untapped data resources of six selected SOs across the continent into the eLTER Digital Asset Registry (eLTER DAR). The data mobilization also focused on profiling the data providers, their preferences, skills, and experiences when dealing with heterogeneous environmental data. To do so, all data providers had to fill out an Expression of Interest Form (EIF) detailing the data to be mobilized as well as their preferred practices and tools when managing datasets, and the current solutions employed for data storage. A total of 54 unique applications were received, with data providers from 13 different countries. Data providers were willing to mobilize data mostly from SOs related to meteorology, vegetation composition, and soil inventory geological characterization, which were present in more than 65% of the applications, while the SOs related to the aquatic

2 Souza A et al

habitats were offered less often, with surface water algae (20% of the applications), and the physical chemical characteristics standing waters (27% of the applications). Analysis of the collected responses revealed that data contributors have a diverse range of experience levels, indicating a mixture of novice and seasoned contributors within the community. Most of the applicants do not have experience providing data to Research Infrastructures, with a few having experience with other RIs (e.g., ICOS and ICP Integrated Monitoring). The preferred tools for data management did not vary much among applicants, with most of the data providers relying on tabular data processing on Excel. Our findings highlight the necessity for tailored support to data providers and the need to develop flexible data ingestion tools to ingest eLTER data. The findings emphasize the importance of understanding the diverse experiences of data contributors and the necessity of developing user-friendly tools and resources that take account of their needs and provide training across the eLTER community. The insights gained from this study can serve as a foundation for future initiatives aimed at improving data management practices and enhancing the overall quality of ecosystem research across European Rls.

Keywords

data stewardship; data management; Europe; long-term; environment

Presenting author

Allan T. Souza

Presented at

td {border: 1px solid #cccccc;}br {mso-data-placement:same-cell;}ORAL

Conflicts of interest

The authors have declared that no competing interests exist.