

swissuniversities

Programme Open Science II

Call for proposals: ORD Explore

List of Approved Projects

Call Deadline: 02.03.2025

Decision by the Delegation Open Science: 23.06.2025

Overview Approved Projects Call ORD Explore

Short title	Full title	Leading institution	Partner institution(s)	Project Manager	Total costs (CHF)	Funds requested (CHF)
BioFAIR	Towards FAIR Practices in Bioimaging	UZH		Virginie Uhlmann	550'500	200'000
ReSED API	Re-Use Standards for Editions Data with Application Programming Interfaces	USI	UniBE, UZH	Elena Chestnova	102'000	51'000
LESSH	Linked Elites – ORD for the SSH	UniBE	UNIL	Tobias Hodel	320'000	160'000
OpenEye	Introducing ORD Best Practices for Eye-Tracking Data	UZH		Lena Jäger	360'938	171'587
ORDIIF	Increasing ORD Interoperability with IIF	UniBE	ETH Zurich, Universität Basel	Martin Stuber	274'636	137'318
ORD-IEA	Exploring ORD practices with the IEA Wind Technology Collaboration Programme	OST	HES-SO Valais-Wallis	Sarah Barber	266'192	133'096

Short Summaries of the Projects

Abstracts by the applicants:

BioFAIR

Towards FAIR Practices in Bioimaging

Modern microscopes capture incredibly detailed images of living systems at all scales, from single molecules to entire organisms. These powerful instruments generate massive amounts of digital image data that could revolutionize our understanding of life - but only if scientists manage to efficiently analyze them. Currently, most of this valuable data remains underutilized because each microscope produces its own kind of images, making it hard to manage all the data together and to create analysis tools that work across different types of microscopes. To address this, the international scientific community has been developing open standards for microscopy data (referred to as bioimages), but Switzerland's involvement in these efforts remains limited despite the country being a leader in microscopy technologies.

The BioFAIR project aims to help Swiss scientists adopt the community-defined open standards for bioimaging data in two ways: by creating free and reusable tools to support the management and analysis of microscopy images in the open file format adopted by the community, and by organizing meetings where re-searchers are invited to contribute to shaping the future of open bioimaging data. Led by the recently-created BioVisionCenter at the University of Zurich, the project will bring together experimentalist and computational researchers working with bioimages to ensure it responds to practical needs. The BioFAIR project will create the resources and promote the interactions needed to bring microscopy data into the open science era, positioning Switzerland to play a key role in defining international open practices for managing and analysing bioimages.

ReSED API

Re-Use Standards for Editions Data with Application Programming Interfaces

Text The ReSED API project aims to enhance the re-use of digital scholarly editions—critical, digital representations of historical, literary, or other significant texts. While scholars have traditionally reused these editions manually for research, teaching, and reference, modern digital formats now enable machine-based reuse. However, technical barriers and a lack of standardization prevent efficient access to this valuable data.

Reusing edition data can lead to many benefits, such as enabling large-scale text analysis, improving historical research, training AI models, and integrating scholarly data into broader digital archives. Despite this potential, the lack of clear guidelines and of accessible digital formats limits reuse. To address these limitations, the ReSED API project seeks to promote best practices and technical standards for exposing edition data in a way that is easily accessible to researchers and digital tools.

The focus of the project is APIs (Application Programming Interfaces), which can provide a standardized way for scholars and software systems to retrieve edition data and interact with it. The project will conduct interviews with key stakeholders, hold workshops to raise awareness, and develop basic technical specifications for an API tailored to scholarly needs.

By fostering a culture of reuse and providing practical solutions, the project aims to make edition data more accessible, improve research efficiency, and support the broader adoption of open research data principles. Ultimately, this initiative will ensure that digital scholarly editions remain discoverable, and reusable for future generations of researchers.

LESSH

Linked Elites – ORD for the SSH

The aim of The Linked Elites – ORD for the SSH (LESSH) project is to explore and strengthen three types of Open Research Data practices, using the Swiss Elite Observatory (OBELIS) database as a blueprint: (a) by mapping existing data to a standardized ontology (SDHSS based on CIDOC-CRM) while enhancing interoperability and importing them into the Geovistory Ecosystem, a virtual research environment for the Humanities and Social Sciences, thus making them available for new research (b) by enriching the Swiss Elites data using Linked Open Data (LOD) from other providers and (c) by innovating the OBELIS repository search functionalities using Large Language Model technologies applied to the enriched Knowledge Graph. These innovations will be elaborated in a collaboration between the Geovistory (<https://www.geovistory.org/>) and OBELIS (<https://www.unil.ch/obelis/fr/home.html>) teams and serve as a prototype for connecting and jointly leveraging the potential of open data practices, which can be rolled out to other open data research infrastructures in the Social Sciences and Humanities.

OpenEye

Introducing ORD Best Practices for Eye-Tracking Data

Humans rely on their vision in almost every scenario, making eye movement data valuable across diverse fields such as psychology, linguistics, economics, human-computer interaction, and machine learning. However, a major challenge of eye movement research is the fragmentation of datasets—many are not publicly available, scarce, domain-specific, and lack interoperability. To address these issues, we propose the development of global open research data (ORD) standards for eye movement datasets to enhance accessibility, reusability, and cross-disciplinary collaboration. To support researchers in applying these standards, we are presenting a pipeline that can be used to work with and create eye movement data in a FAIR way. By establishing common guidelines and implementing the necessary tools for applying these guidelines to eye-tracking data collection, formatting, and sharing, we aim to break down existing barriers and foster innovation across research communities.

ORDIIIF

Increasing ORD Interoperability with IIIF

The ORDIIIF project aims to enhance the interoperability of Open Research Data (ORD) by leveraging the International Image Interoperability Framework (IIIF). Building on the existing specification of a structured exchange format as well as joint competencies available in the project teams, we aim to integrate research data of the hallerNet/RdL platform (University of Bern, Institute of History) with the Swiss platform for digitised journals E-Periodica in a way that allows for the flexible sharing of both digital images and research data.

As digital repositories gain in significance for historical research, the resulting insights and methods will prove valuable to further integrate research projects with various digital collections held by libraries and archives. By developing new methods for data connection and presentation, the project will facilitate a dynamic and collaborative approach that avoids data duplication and ensures persistent discoverability, open access and fruitful use of historical research data.

ORD-IEA

Exploring ORD practices with the IEA Wind Technology Collaboration Programme

In this project, we aim to explore the application of ORD practices within the WeDoWind ecosystem with the International Energy Agency (IEA); in particular, with the IEA Wind Technology Collaboration Programme (TCP), an international organisation fostering collaboration in the wind energy sector. The project is motivated by the strong need in the wind energy sector to improve data maturity and better exploit the value of data to reduce the Levelised Costs of Electricity. We focus on adapting the existing WeDoWind ecosystem, developed in previous work, for the needs of IEA Wind TCP. Specific research questions have already been defined for nine different IEA Wind TCP Tasks, including: “How can WeDoWind be used to build a community of people developing and using semantic artefacts for specific wind energy topics?”, and “How can WeDoWind be used to enhance the efficiency and effectiveness of the benchmarking activities of IEA Wind Tasks?”. The resulting recommendations and methods will not only benefit IEA by improving the communication and dissemination of its projects, but will contribute significantly to the further development of the WeDoWind ecosystem, which in turn benefits the entire wind energy sector. The results will be directly transferable to other sectors via the WeDoData Blueprint, which provides a framework to enable any community, group or organisation to develop, share, publish and test data, data standards, best practices, guidelines and tools for improving data and knowledge sharing collaboratively.