

**THE SWISS EOSC NODE PROTOTYPE PROJECT****SENPro online Update #02****Thursday, 18 December 2025 | 09h30 to 12h30**

<b>PUBLIC PROGRAMME</b>	
09h30 – 09h40	Welcome and introduction public part   Thomas Schulthess SENPro Coordinator
09h40 – 10h00	The EOSC Steering Board and Switzerland   Anna Fill, SERI
10h00 – 10h35	Towards a National Inventory for Research Infrastructure Visibility   Christina Wyttenbach, swissuniversities & Thomas Trüb, UZH
10h35 – 11h15	Galaxy SWISS+. Connecting Disciplines Through Open and Reproducible Science   Rita Gautschy, University of Basel /DaSCH & Severine Duvaud, SIB
11h15 – 12h00	SENPro: State of play and next steps (Pillar I, II and III)
12h05 – 12h30	Research Data Services Explorer: Discover and access research services across the ETH Domain   Chiara Gabella & Angela Montano Garcia, EPFL

<b>SENPro online Update #02</b>
The SENPro Online Update #02 marked an important milestone in Switzerland's journey toward establishing a national EOSC Node Prototype. The event brought together representatives from research institutions, governance bodies, and technical partners to review progress, share insights, and outline next steps. The public session, held until 13:00, focused on governance developments, national initiatives for research infrastructure visibility, community engagement results, and technical solutions supporting open and FAIR science.
<b>Strategic Context</b>
Thomas Schulthess (CSCS / ETH Zurich), SENPro Coordinator, opened the meeting by emphasizing the strategic importance of SENPro for Switzerland's integration into the European Open Science Commons rather than "Cloud". He highlighted that the prototype is not merely a technical exercise but a foundational step toward accelerating innovation and enabling federated, interoperable research services across disciplines and borders.
<b>EOSC Steering Board and Switzerland</b>
Anna Fill (State Secretariat for Education, Research and Innovation – SERI) provided an update on Switzerland's role in EOSC governance. Following Switzerland's full association to Horizon Europe in November 2025, the country now participates actively in EOSC activities as an Associated Country. EOSC governance operates under a tripartite structure involving the

European Commission, the EOSC Association, and the EOSC Steering Board (SB). Current priorities of the EOSC SB include:

- Development of the EOSC Federation as the operational backbone.
- Governance and financing models beyond 2027.
- Alignment with ESFRI and ERA policy actions, particularly “Enabling Open Science.”

Anna Fill outlined possible future scenarios for EOSC, ranging from work programme-based partnerships to joint undertakings or less structured models. She stressed the importance of Swiss engagement in shaping these discussions and confirmed that the EOSC White Paper is expected in spring 2026. Swiss representation in the SB ensures that national interests are considered and supports the vision for an EOSSC Node Switzerland.

### **National Inventory for Research Infrastructure Visibility**

Christina Wyttenbach (swissuniversities) and Thomas Trüb (University of Zurich) introduced the *Swiss Portal for Academic Data and Research Infrastructure (SPADRI)*, an initiative that aims to create a national digital platform that catalogues research infrastructures and data infrastructures, improving visibility and coordination. (Detailed information will be communicated in early 2026).

### **Galaxy SWISS+: Connecting Disciplines Through Open Science**

Rita Gautschy (University of Basel / DaSCH) and Severine Duvaud (SIB) presented Galaxy SWISS+, a platform designed to enable reproducible workflows and cross-disciplinary collaboration. The initiative demonstrates how domain-specific tools can integrate into a federated environment, supporting FAIR principles and fostering interoperability across life sciences and other research fields.

### **SENPro: State of Play and Next Steps**

The SENPro consortium reported on progress across its three pillars.

- A survey conducted during the December 2 workshop gathered input from 64 participants across diverse disciplines. Respondents expressed strong support for EOSC and SENPro, emphasizing the need for interoperability, legal clarity, and practical usefulness. Key challenges identified include lack of time and resources, insufficient incentives, and fragmented standards.
- Ten institutions documented 34 resources for potential onboarding into EOSC. Compatibility assessments were based on the EOSC Federation Handbook, and a roadmap for integration is being developed.
- Long-term sustainability, clear governance, incentives for data sharing, and strong human support through data stewards were highlighted as essential for success.

Looking ahead, SENPro will focus on iterative testing, onboarding resources, and preparing a White Paper that consolidates governance and sustainability models. The goal for 2026 is to successfully close the prototype phase and elevate SENPro to the next level, connecting it nationally and internationally.

### **Research Data Services Explorer**

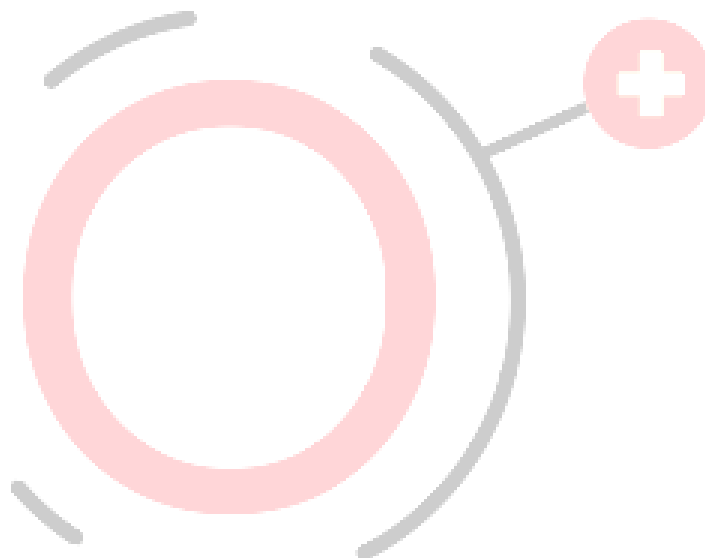
Chiara Gabella and Angela Montano Garcia (EPFL) introduced the Research Data Services (RDS) Explorer, a centralized portal that simplifies access to research data management services across the ETH Domain. Public since October 2025, the platform addresses fragmentation by providing a searchable catalog of infrastructures, tools, and services aligned with open and FAIR practices. Future work will focus on refining user experience, strengthening governance, and ensuring long-term sustainability.

**Key Takeaways and Next Steps**

The public session underscored strong community support for SENPro and Switzerland's active role in EOSC. Participants agreed on the importance of federated, interoperable solutions rather than duplicating existing services. The coming year will be pivotal, with priorities including:

- Completing the prototype phase.
- Expanding connections nationally and internationally.
- Consolidating governance and sustainability through the White Paper.
- Onboarding Swiss resources into the EOSC Federation.

*The SENPro Online Update #02 demonstrated significant progress toward building a Swiss EOSC Node Prototype. By combining technical innovation, governance alignment, and community engagement, SENPro is positioning Switzerland as a key contributor to the European Open Science Cloud. The next phase will focus on operationalizing this vision and ensuring that Swiss researchers benefit from a robust, interoperable, and sustainable open science infrastructure.*



swissuniversities



# SENPro Online Update #02

## Swissness in progress

ETH Zurich, 18 December 2025



# THE SWISS EOSC NODE PROTOTYPE PROJECT: SENPro ONLINE UPDATE #02

## AGENDA

- **Welcome** | Thomas Schulthess, CSCS / ETH Zurich & SENPro Coordinator
- **The EOSC Steering Board and Switzerland** | Anna Fill, SERI
- **Towards a National Inventory for Research Infrastructure Visibility** | Christina Wyttenbach, swissuniversities & Thomas Trüb, UZH
- **Galaxy SWISS+. Connecting Disciplines Through Open and Reproducible Science** | Rita Gautschi, University of Basel /DaSCH & Severine Duvaud, SIB
- **SENPro: State of play and next steps** (Pillar I, II and III) | The SENPro Consortium
- **Research Data Services Explorer: Discover and access research services across the ETH Domain** | Chiara Gabella & Angela Montano Garcia, EPFL

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# The EOSC Steering Board and Switzerland

Anna Fill, State Secretariat for Education, Research  
and Innovation (SERI)

[senpro-project.ch](http://senpro-project.ch)





# Swiss representation in the EOSC Steering Board



Dr Anna Fill  
SENPro Update #02, 18.12.2025



# Agenda

- Status Quo Switzerland
- EOSC Governance
- Status Quo EOSC Steering Board
- Potential future avenues
- Swiss representation in EOSC SB
- Questions?



# Research and Innovation: Switzerland and the EU — Current Situation

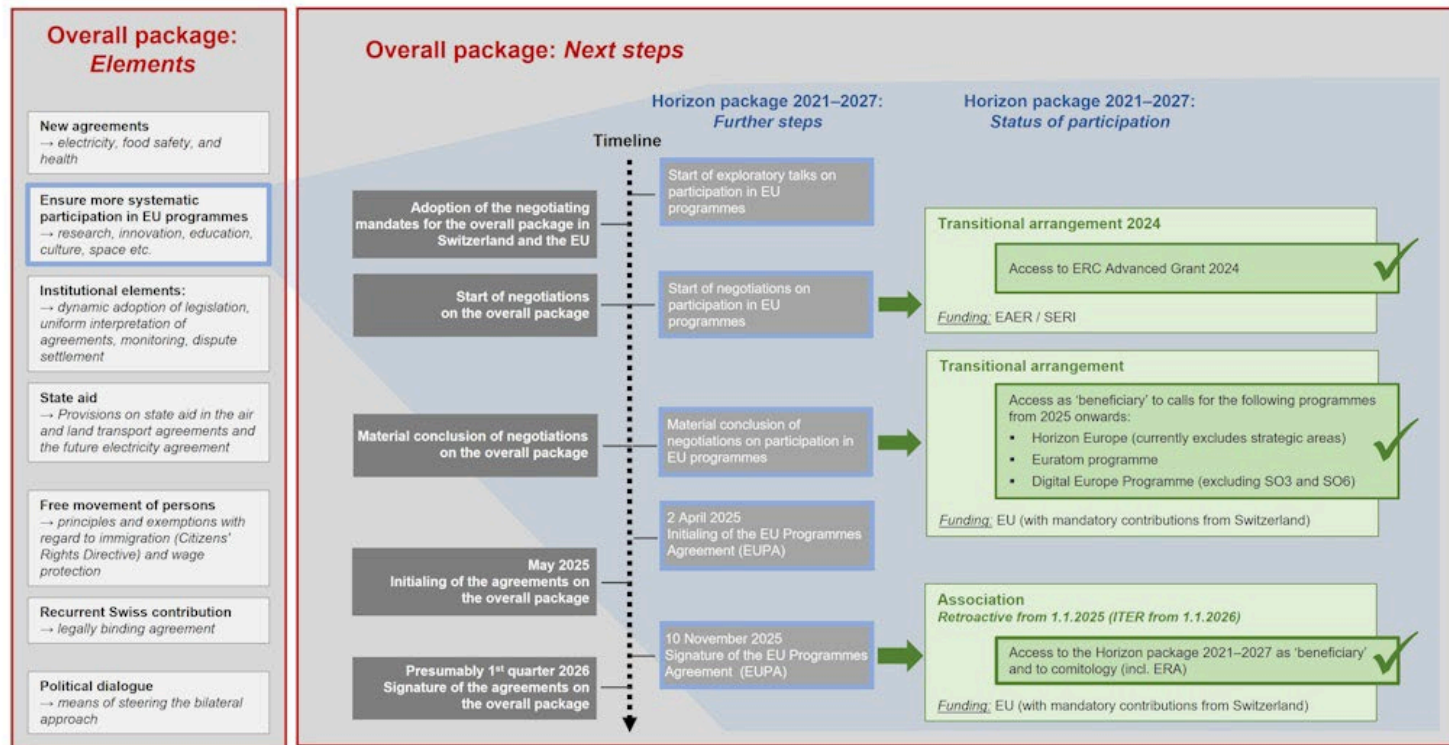




# Happy end at last (for now)

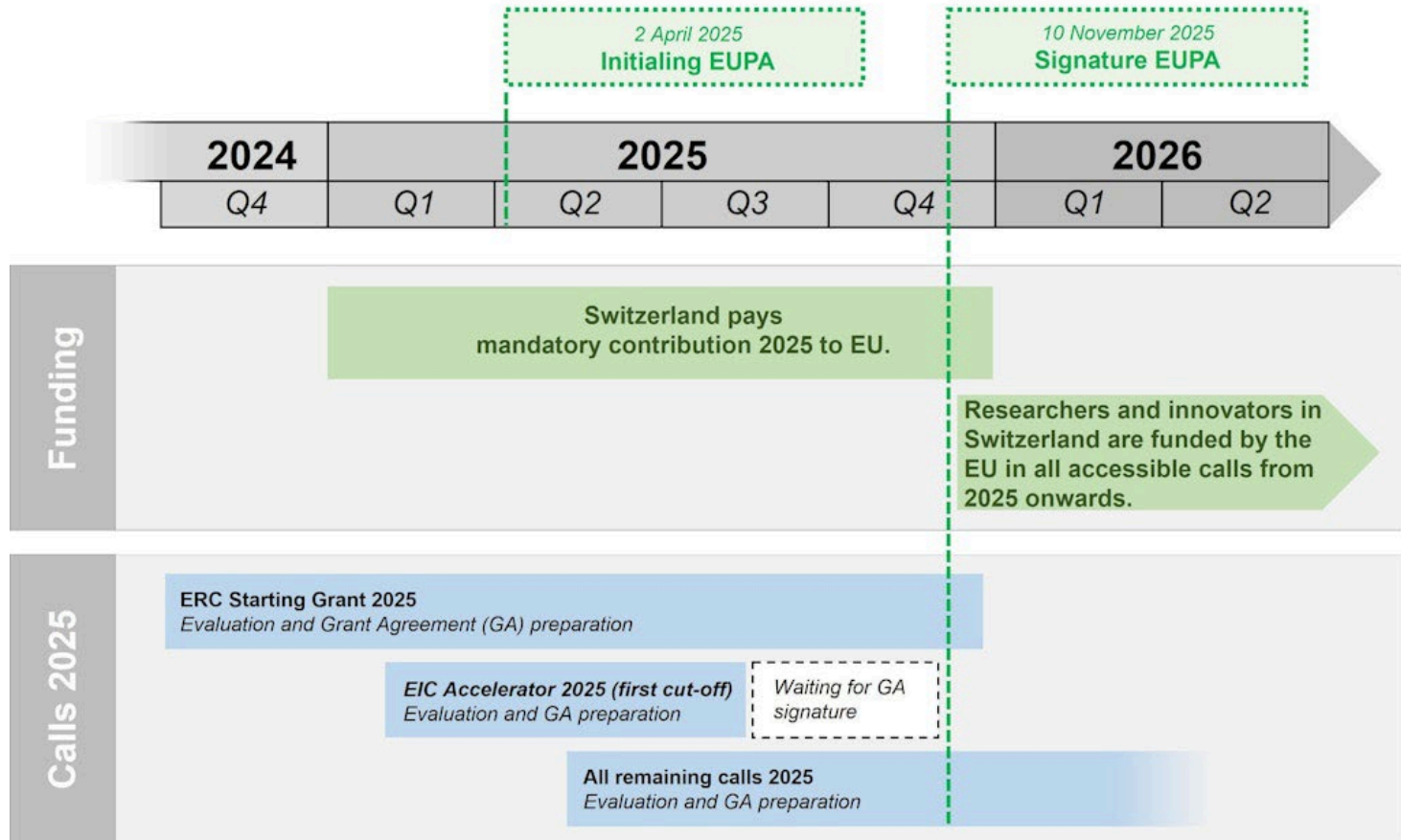


## Association to the 2021–2027 Horizon Package: *Context and next steps*



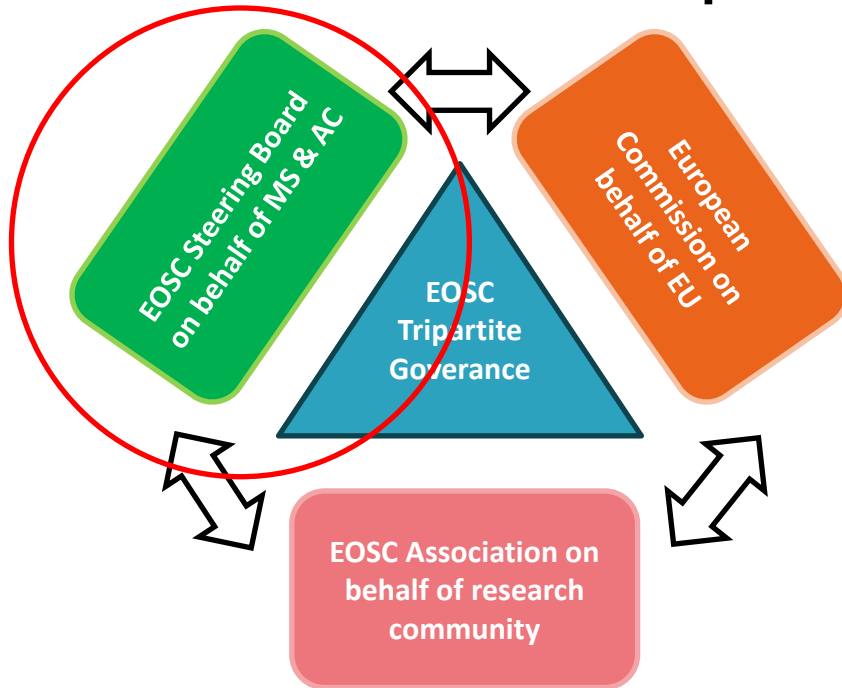


## Funding of calls from 2025 onwards

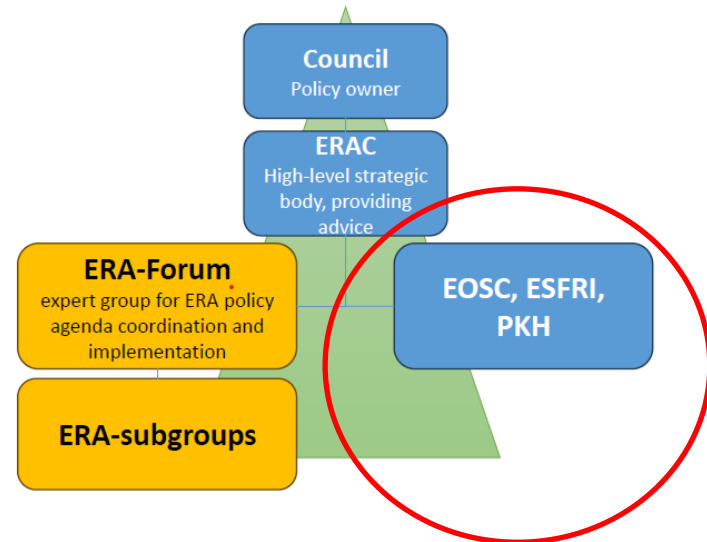




## EOSC Partnership



## ERA Governance



- **Switzerland currently participates fully in EOSC activities and HEU as AC**
- Governance is organised through a tripartite structure:
  - European Commission, representing the EU
  - EOSC Association, representing the research and innovation community
  - **EOSC Steering Board, representing Member States and Associated Countries**
- EOSC is embedded within the broader European Research Area (ERA) governance framework



# EOSC Steering Board: Role and Key Activities

- EOSC SB is a **Commission Expert Group**, representing EU Member States and Associated Countries
- It contributes to implementation of the **ERA Policy Action “Enabling Open Science”**, including the sharing and re-use of research data through EOSC

## Current priorities in the EOSC SB include:

- Development of the **EOSC Federation**
- Reflections on **EOSC governance and financing beyond 2027** (post-Horizon Europe)



- **EOSC Federation** central operational element of the EOSC ecosystem
- Other dimensions of EOSC remain essential, including:
  - Skills development and training
  - FAIRification of research data
  - Monitoring progress in Open Science
- **Broader policy discussions** also influence EOSC, including ongoing debates on data sovereignty; [new paper publication](#)
- Research infrastructures play a key role in the provision of data and services within EOSC; more exchange and alignment
- **ESFRI–EOSC Task Force** supports closer alignment in the European research data landscape and by providing **recommendations to ESFRI, EOSC and the EC**

**Strengthening  
European sovereignty  
in data for research**  
OPINION PAPER  
by the EOSC Steering Board expert group (E03756)



# Post-2027 options for EOSC

## The structure of the new Horizon Europe



**Pillar IV** aims to support the development of a unified ERA with a focus on promoting excellence, inclusiveness and impact. It also supports the development and operation of research and technology infrastructures.



Indicative budget: **EUR 16.2 billion**, of which  
•EUR 5.4 billion for 'Widening Participation and Spreading Excellence'



# EOSC Beyond 2027: Partnership Options (Under Discussion)

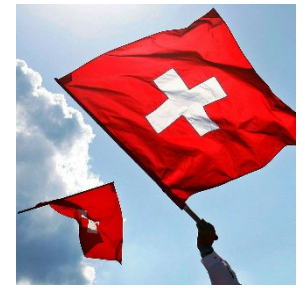
Several options for the future organisation and financing of EOSC are currently being discussed, including:

- 1. Work Programme–based partnership**, involving co-funding (potentially national fund. Agencies and implementation through EU programmes & governance)
- 2. Joint Undertaking–type model**, with shared governance and co-funding
- 3. No dedicated partnership**, implying limited or no structured EU-level funding

*Broad recognition between **EC, MS & AC**:*

- **Tripartite governance, some investment necessary (?)**
- Clarification of the future role of the **EOSC Association**
- Further reflection on **management** of the EOSC Federation





# Swiss representation in EOSC-SB

- Represents interests of **Swiss community ( AC perspective)**
- Given possible future scenarios, including a situation in which Switzerland may no longer be associated, also promote cooperation between aligned partners (EOSC Federation)
- Support for an EOSC Node Switzerland
- Final approval and publication of **EOSC White Paper** in spring 2026
- EOSC-related discussions are ongoing and not closed
- Engagement from institutions and the research community is important, as community interest plays a role in these processes



# Thank you.

**Anna Fill, Dr.**

Scientific Advisor, International research and innovation programmes

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[www.sbf.admin.ch](http://www.sbf.admin.ch)



## Some links:

- Monitoring: all dimensions of Open Science — providing a complete picture through the [EOSC Open Science Observatory](#)
- [EOSC Policy](#) (e. g. The European Open Science Cloud as a cornerstone of a “Fifth Freedom” in Research and Innovation)
- [ERA policy Agenda](#)
- [ESFRI - EOSC task force](#): strong link to research infrastructures >>> recommendations and actions
- Opinion Paper EOSC: [Data Sovereignty](#)

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senpro<sup>+</sup>

**Galaxy SWISS+**

**Connecting Disciplines Through  
Open and Reproducible Science**

Séverine Duvaud | SIB

Rita Gautschi, University of Basel / DaSCH

[senpro-project.ch](https://senpro-project.ch)



# Galaxy SWISS+

Connecting Disciplines Through Open and Reproducible Science

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**Prof. Dr. Rita Gautschy, Director, DaSCH**

**Severine Duvaud, Team Lead, SIB**

*SenPRO Online Update #02 - 18 December 2025*

# What is Galaxy?

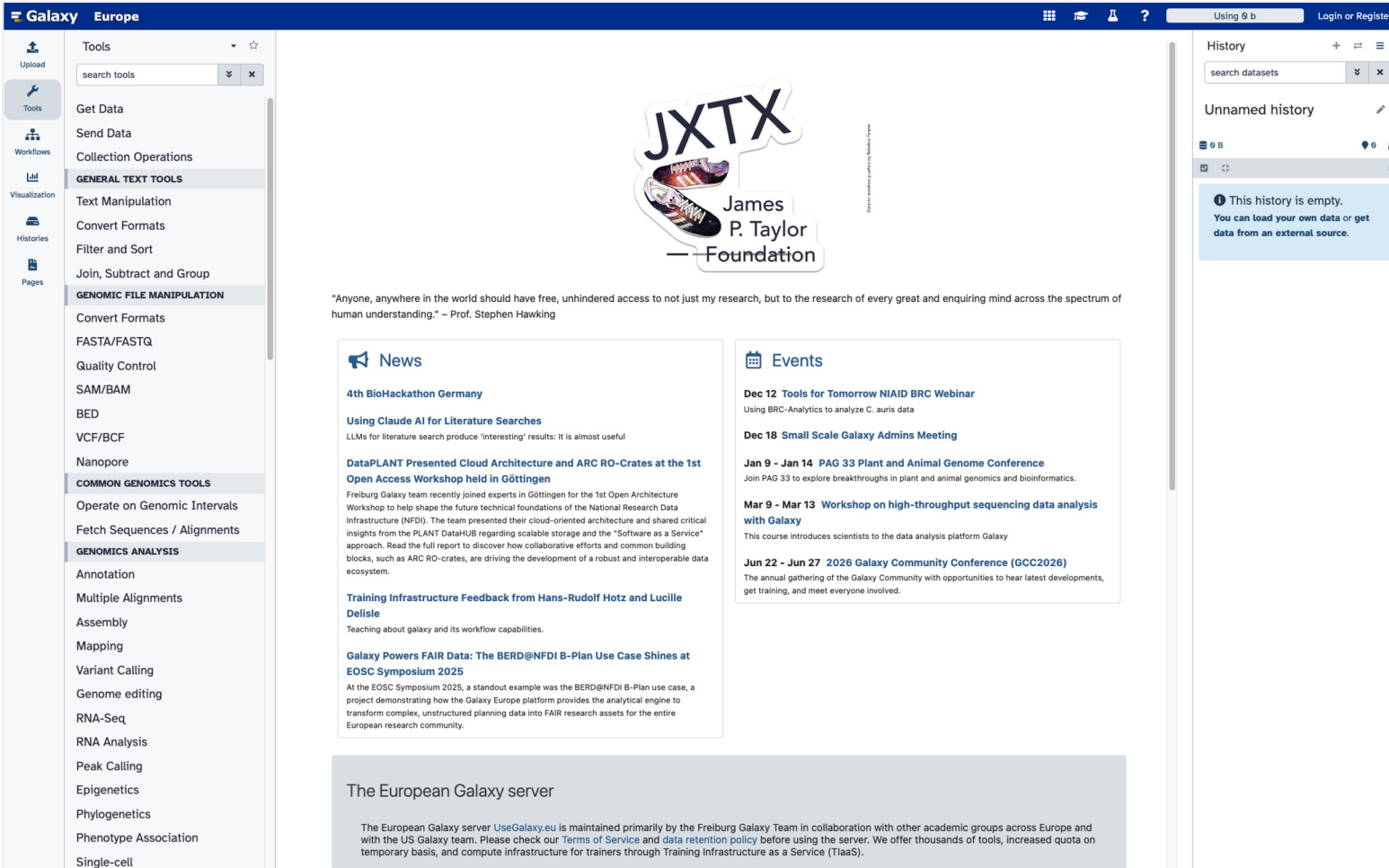
# Data Analysis Platform

- Web-based, free and easy-to-use
- Mature project (~20 years)
  - ~250 contributors per year
- Running public instances: 135+
- Popular
  - 13,000+ publications
  - 500,000 registered users
- Cross-domain: bioinformatics, chemistry, ecology, climate science, digital humanities, etc.

EU Galaxy instances?



# Data Analysis Platform



The screenshot displays the Galaxy Europe web interface. The top navigation bar includes the 'Galaxy Europe' logo, a grid icon, a user icon, a help icon, and a search bar showing 'Using 0 b'. On the right of the top bar are links for 'Login or Register'.

The left sidebar contains a 'Tools' section with a search bar and a list of tool categories: 'Get Data', 'Send Data', 'Collection Operations', 'GENERAL TEXT TOOLS' (including Text Manipulation, Convert Formats, Filter and Sort, Join, Subtract and Group), 'GENOMIC FILE MANIPULATION' (including Convert Formats, FASTA/FASTQ, Quality Control, SAM/BAM, BED, VCF/BCF, Nanopore), 'COMMON GENOMICS TOOLS' (including Operate on Genomic Intervals, Fetch Sequences / Alignments), and 'GENOMICS ANALYSIS' (including Annotation, Multiple Alignments, Assembly, Mapping, Variant Calling, Genome editing, RNA-Seq, RNA Analysis, Peak Calling, Epigenetics, Phylogenetics, Phenotype Association, and Single-cell).

The main content area features a large graphic for 'JXTX James P. Taylor Foundation' with a quote from Prof. Stephen Hawking: "Anyone, anywhere in the world should have free, unhindered access to not just my research, but to the research of every great and enquiring mind across the spectrum of human understanding." Below this are two columns of 'News' and 'Events'. The 'News' column includes articles about a BioHackathon, Claude AI for literature searches, DataPLANT cloud architecture, and training infrastructure feedback. The 'Events' column lists webinars and meetings, including a NIAID BRC Webinar, a Small Scale Galaxy Admins Meeting, a PAG 33 Plant and Animal Genome Conference, a Workshop on high-throughput sequencing data analysis with Galaxy, and the 2026 Galaxy Community Conference (GCC2026).

At the bottom of the main content area is a section titled 'The European Galaxy server' which states: 'The European Galaxy server UseGalaxy.eu is maintained primarily by the Freiburg Galaxy Team in collaboration with other academic groups across Europe and with the US Galaxy team. Please check our Terms of Service and data retention policy before using the server. We offer thousands of tools, increased quota on temporary basis, and compute infrastructure for trainers through Training Infrastructure as a Service (Tlaas).'

The right sidebar contains a 'History' section with a search bar and a message: 'This history is empty. You can load your own data or get data from an external source.'



## Vibrant Community

- Robust governance
- Special Interest Groups and Working Groups for bottom-up approach
- Events
  - European Galaxy Days
  - Galaxy Community Conference
  - Monthly Small Scale Galaxy Admin meetings
  - Dozens of events around the world.

[Galaxy Community Hub](#)



# Training Network



- Collection of free, FAIR, open-source, reusable
- Community-reviewed
- GTN website = 28,000+ visits per month in average.

**496**

Tutorials

**35**

Topics

**28**

Learning Paths

**483**

FAQs

**343**

Workflows

**214**

Videos (147.5h)

**122**

News Posts

**10.5**

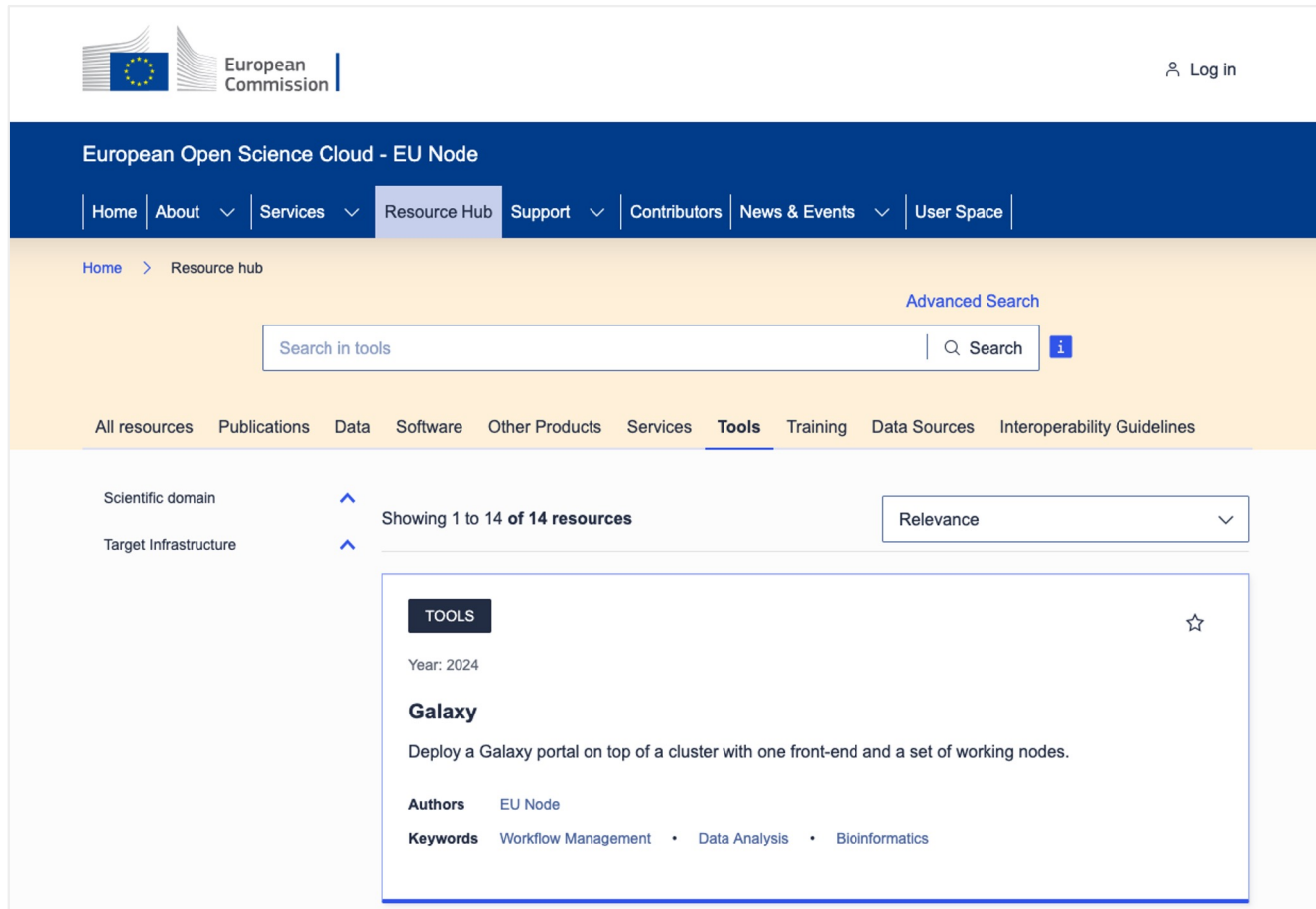
Years

Galaxy Training!



# Galaxy & EOSC

# Galaxy & EOSC EU Node



The screenshot displays the European Open Science Cloud - EU Node website. At the top, the European Commission logo is visible on the left, and a 'Log in' link is on the right. Below this is a dark blue navigation bar with the title 'European Open Science Cloud - EU Node' and a menu containing 'Home', 'About', 'Services', 'Resource Hub' (highlighted), 'Support', 'Contributors', 'News & Events', and 'User Space'. Under the 'Resource Hub' tab, a breadcrumb trail shows 'Home > Resource hub'. A search bar with the placeholder 'Search in tools' and a 'Search' button is present, along with a link to 'Advanced Search'. Below the search bar is a horizontal menu with categories: 'All resources', 'Publications', 'Data', 'Software', 'Other Products', 'Services', 'Tools' (underlined), 'Training', 'Data Sources', and 'Interoperability Guidelines'. The main content area shows filters for 'Scientific domain' and 'Target Infrastructure', both with upward arrows. It indicates 'Showing 1 to 14 of 14 resources' and a 'Relevance' dropdown menu. A search result for 'Galaxy' is highlighted with a blue border. This result includes a 'TOOLS' label, a star icon, the year '2024', the title 'Galaxy', a description 'Deploy a Galaxy portal on top of a cluster with one front-end and a set of working nodes.', the author 'EU Node', and keywords 'Workflow Management', 'Data Analysis', and 'Bioinformatics'.

European Commission

Log in

European Open Science Cloud - EU Node

Home About Services Resource Hub Support Contributors News & Events User Space

Home > Resource hub

Advanced Search

Search in tools Search

All resources Publications Data Software Other Products Services **Tools** Training Data Sources Interoperability Guidelines

Scientific domain

Target Infrastructure

Showing 1 to 14 of 14 resources

Relevance

**TOOLS**

Year: 2024

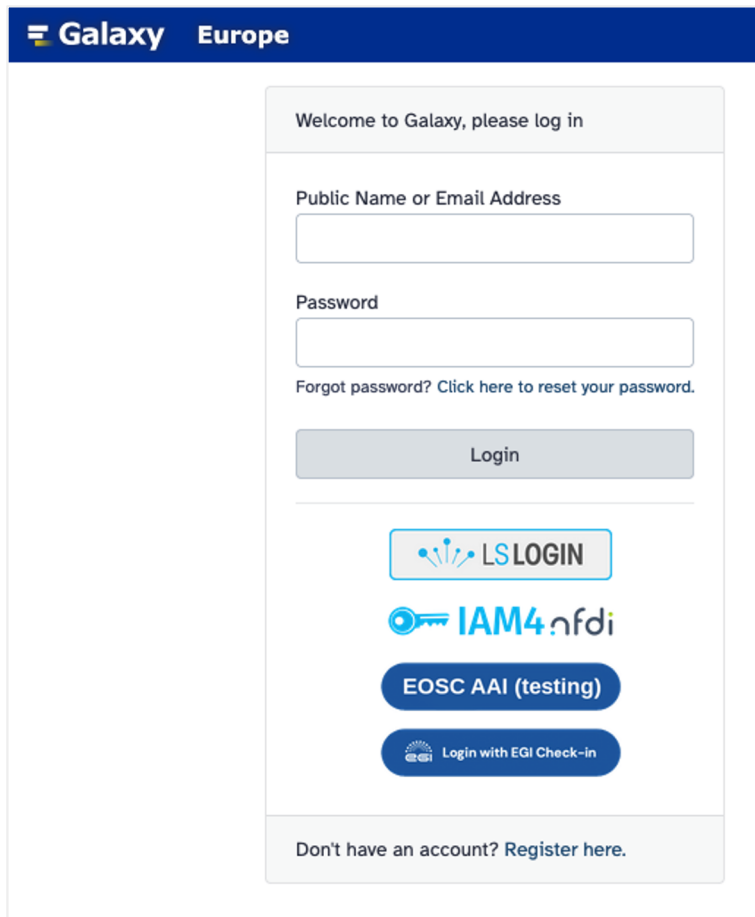
**Galaxy**

Deploy a Galaxy portal on top of a cluster with one front-end and a set of working nodes.

**Authors** EU Node

**Keywords** Workflow Management • Data Analysis • Bioinformatics

# Galaxy EU & Cross-node workflow



The image shows the Galaxy Europe login interface. At the top is a dark blue header with the 'Galaxy Europe' logo. Below this is a light gray box containing the login form. The form starts with the text 'Welcome to Galaxy, please log in'. It has two input fields: 'Public Name or Email Address' and 'Password'. Below the password field is a link: 'Forgot password? Click here to reset your password.' A 'Login' button is positioned below the link. Further down, there are four alternative login options, each in a blue button: 'LS LOGIN' (with a logo), 'IAM4nfdi' (with a key logo), 'EOSC AAI (testing)', and 'Login with EGI Check-in' (with the EGI logo). At the bottom of the form is a link: 'Don't have an account? Register here.'

How to count and segment objects  
in images from different  
communities

Watch demo



## Galaxy & EOSC Poland Node

Predict harmful cyanobacterial blooms in the Baltic Sea using the Galaxy environment and resources provided by EOSC-PL and other European nodes (EMODnet, Copernicus Marine Service, EEA WISE, and eCUDO)

Watch demo



## Galaxy & EOSC Earth Science Thematic Node

On January 15, 2022 took place an explosive eruption of Hunga Tonga Hunga Ha'apai volcano (later called Hunga Tonga HT) which represents one of the most explosive eruption since the eruption of Mt. Pinatubo in 1991.

Some studies suggest that a phytoplankton bloom followed the eruption, others disagree, and additional biogeochemical findings add new perspectives on the impact of the HT eruption on the ocean chemistry.

Watch demo



# Galaxy for Open Reproducible Science

# ORD and FAIR promotion

- Galaxy enables FAIR-aligned data handling and publishing
- Supports sharing of datasets, histories, workflows, and metadata
- Supports open, collaborative, interdisciplinary research
- Lowers barriers:
  - no local installation required
  - provides facilities such as HPC or LLMs not necessarily easily accessible for researchers in all disciplines
- Acts as a key infrastructure for modern data-driven science

# Shareable workflows

- Graphical workflow builder – no coding skills are required
- Workflows and histories are exportable and shareable
- Promotes standardization and collaborative research
- Galaxy Training Network supports reuse and education
- No need to change the platform for use of different tools (e.g. for data visualization)

See [https://workflowhub.eu/workflows?filter%5Bworkflow\\_type%5D=galaxy](https://workflowhub.eu/workflows?filter%5Bworkflow_type%5D=galaxy)

# Reproducibility of science

- Full provenance captured: data, parameters, tools, outputs
- Standardized, containerized tool environments
- Public Galaxy servers provide stable compute & reference data
- Enables rerunning and verifying complex analyses
- Strengthens transparency and trust in scientific workflows

# The Galaxy SWISS+ project



*Leading house:*

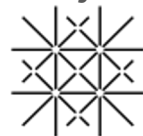
**ETH** zürich

*Funded by:*

**swissuniversities**

*Programme Open Science II ORD A1 (CHORD)*

*Project partners:*



**Universität  
Basel**



**UNIVERSITÉ  
DE GENÈVE**



**DaSCH**  
Swiss National Data and  
Service Center for the  
Humanities



Swiss Institute of  
Bioinformatics

**Switch**

# Building on a solid ground: Galaxy in Switzerland

- Existing Galaxy instances in Switzerland:
  - FMI since 2007
  - ETH Zurich since 2016 [galaxy.ratschlab.org](https://galaxy.ratschlab.org) (public instance since 2009)
  - University of Geneva – test instance
  - University hospital Zurich
- 958 users registered with \*.ch email addresses on EU Galaxy (Dec 2025)
- Galaxy Switzerland SIG to connect Swiss Galaxy users:  
<https://galaxyproject.org/community/sig/switzerland/>
- Teaching (e.g., Galaxy introduction for life scientists in November 2025) and tool development (e.g., pyGenomeTrack)

# Vision

**01**

Swiss-hosted, unified  
platform

**03**

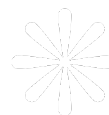
Swiss made  
tools

**02**

Interdisciplinary  
by design

**04**

Community  
Hub



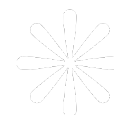
# Target users

**01**

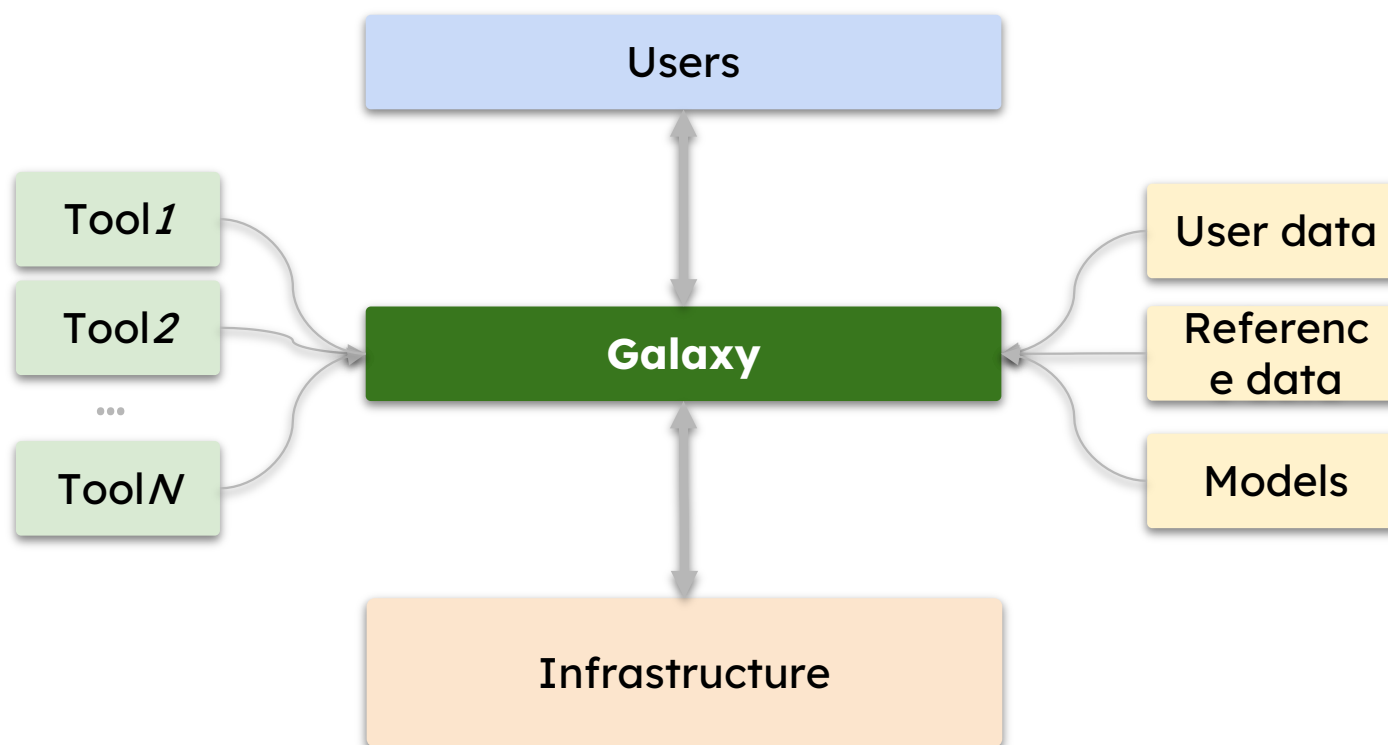
Researchers from  
various disciplines

**02**

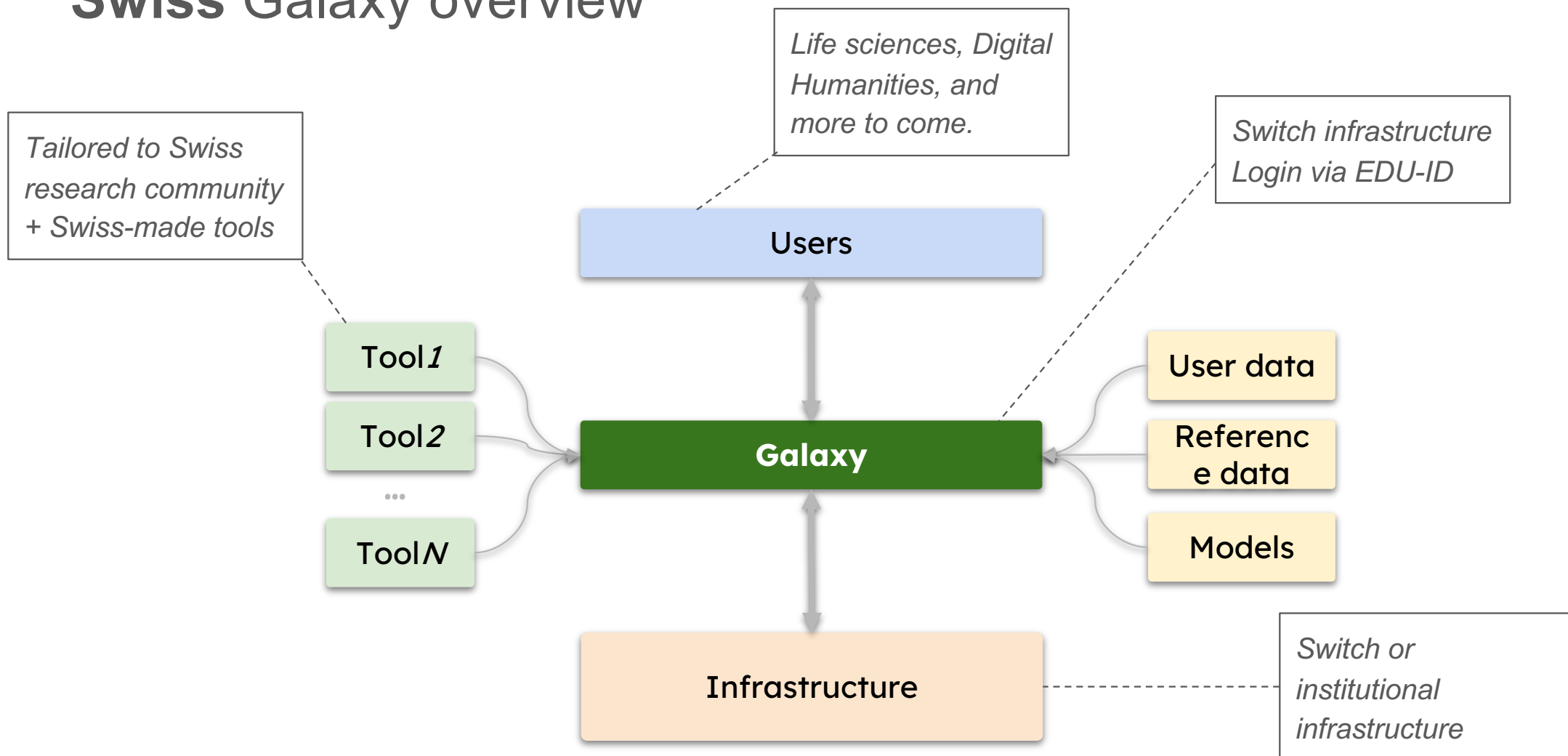
Tool developers



## Galaxy overview



# Swiss Galaxy overview



# Objectives

**01**

Expand Galaxy's offerings with Swiss open data analysis tools

**02**

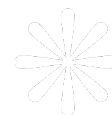
Define and develop domain-specific and transdisciplinary workflows

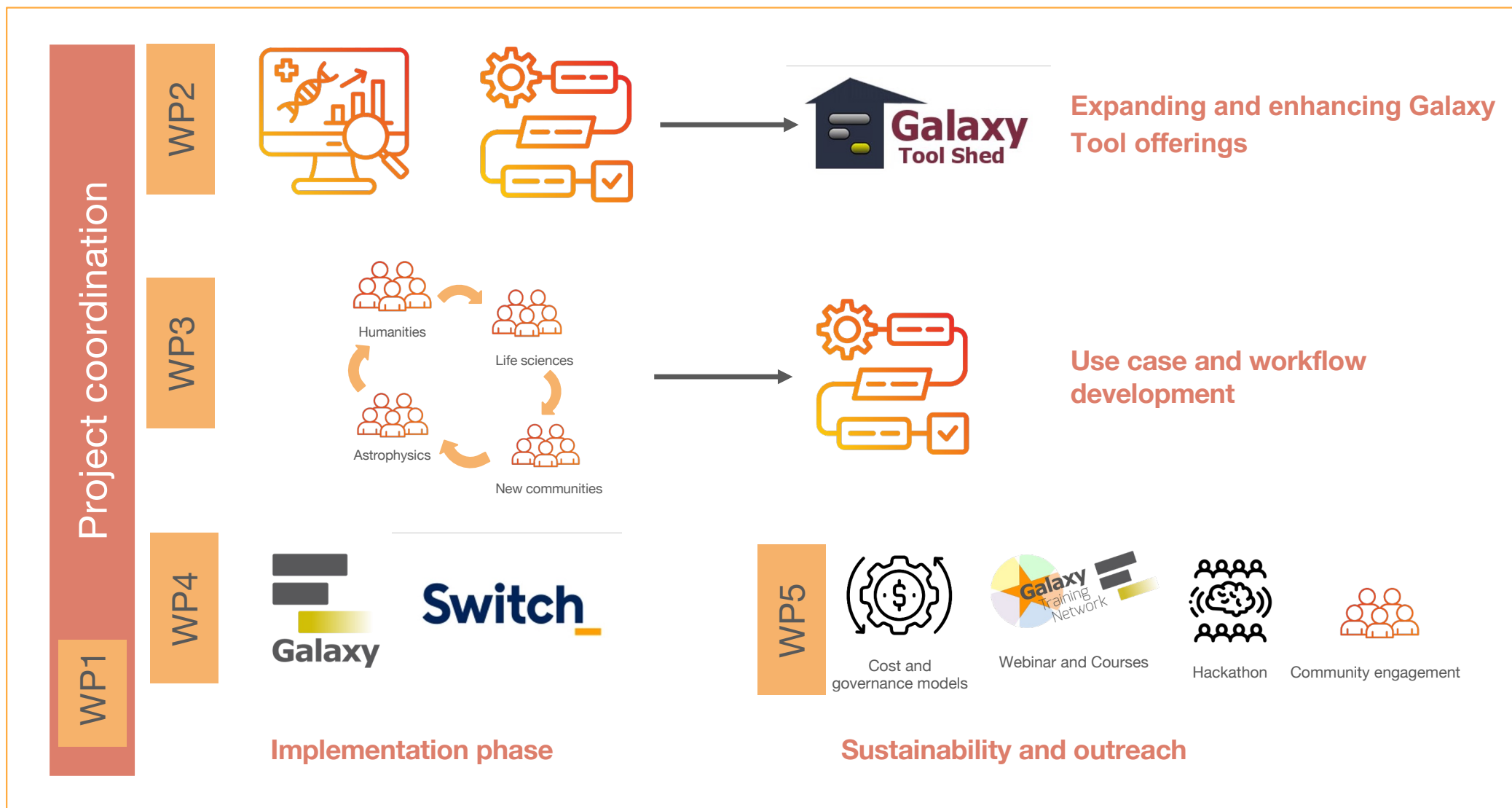
**03**

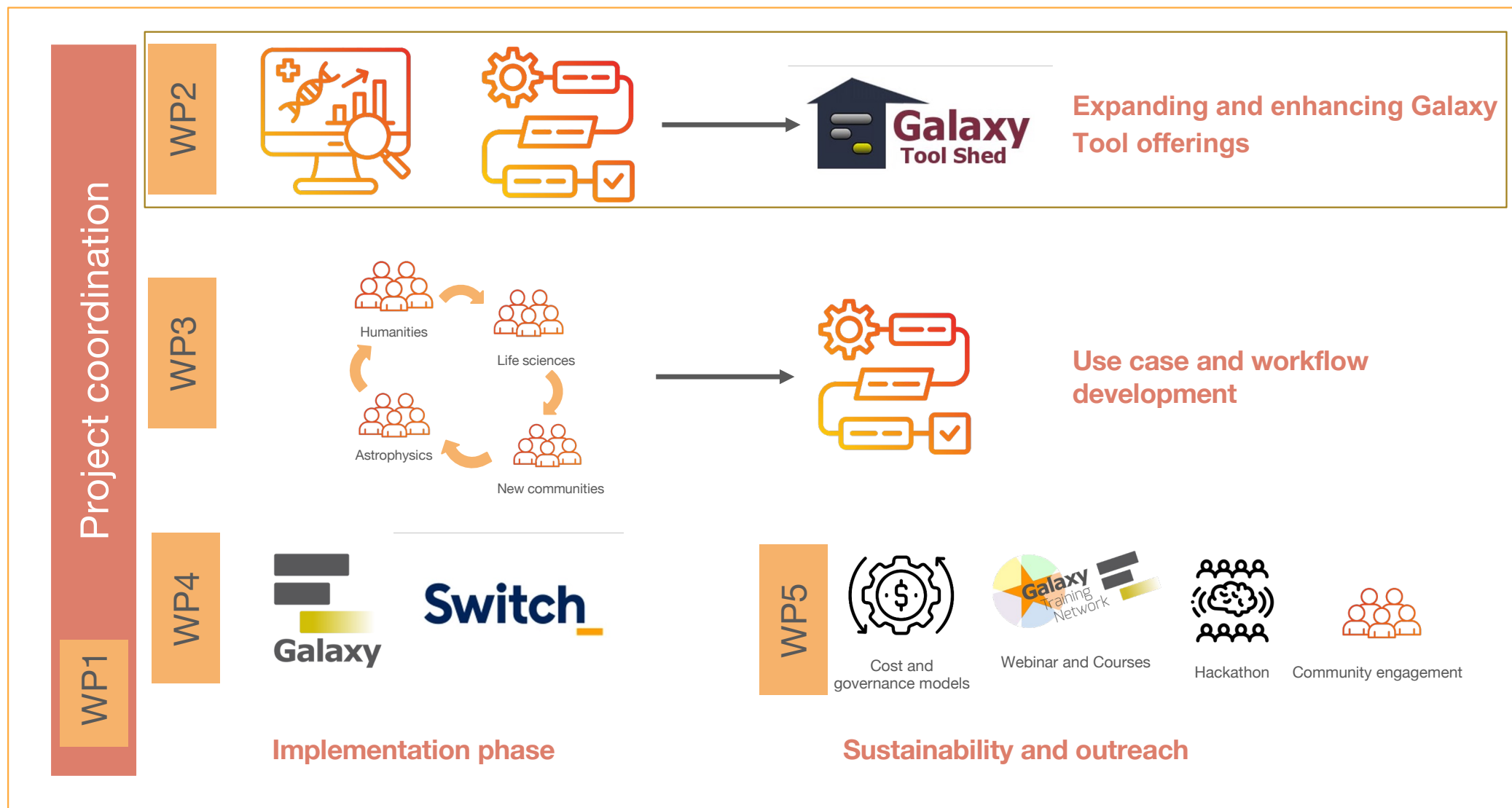
Establish a sustainable Swiss Galaxy instance

**04**

Strengthen the Swiss Galaxy community

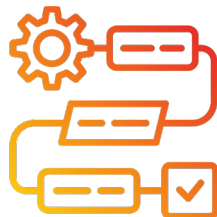






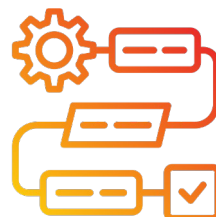
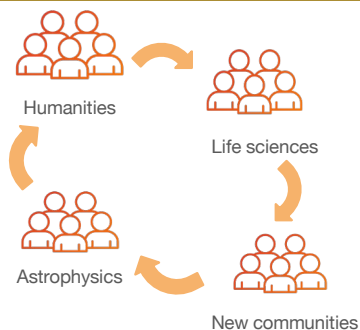
Project coordination

WP2



Expanding and enhancing Galaxy Tool offerings

WP3



Use case and workflow development

WP4



Implementation phase

WP5



Cost and governance models



Webinar and Courses

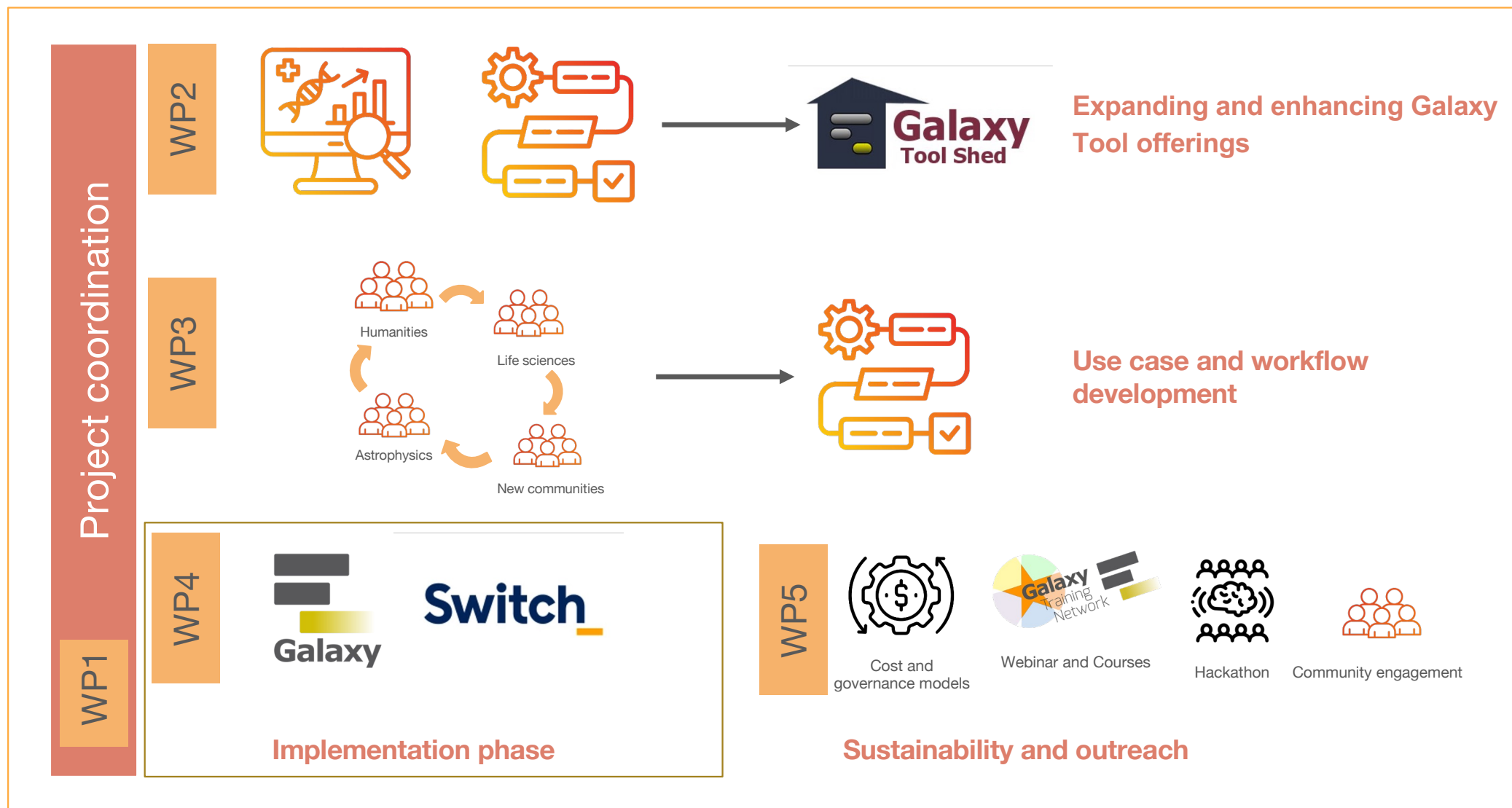


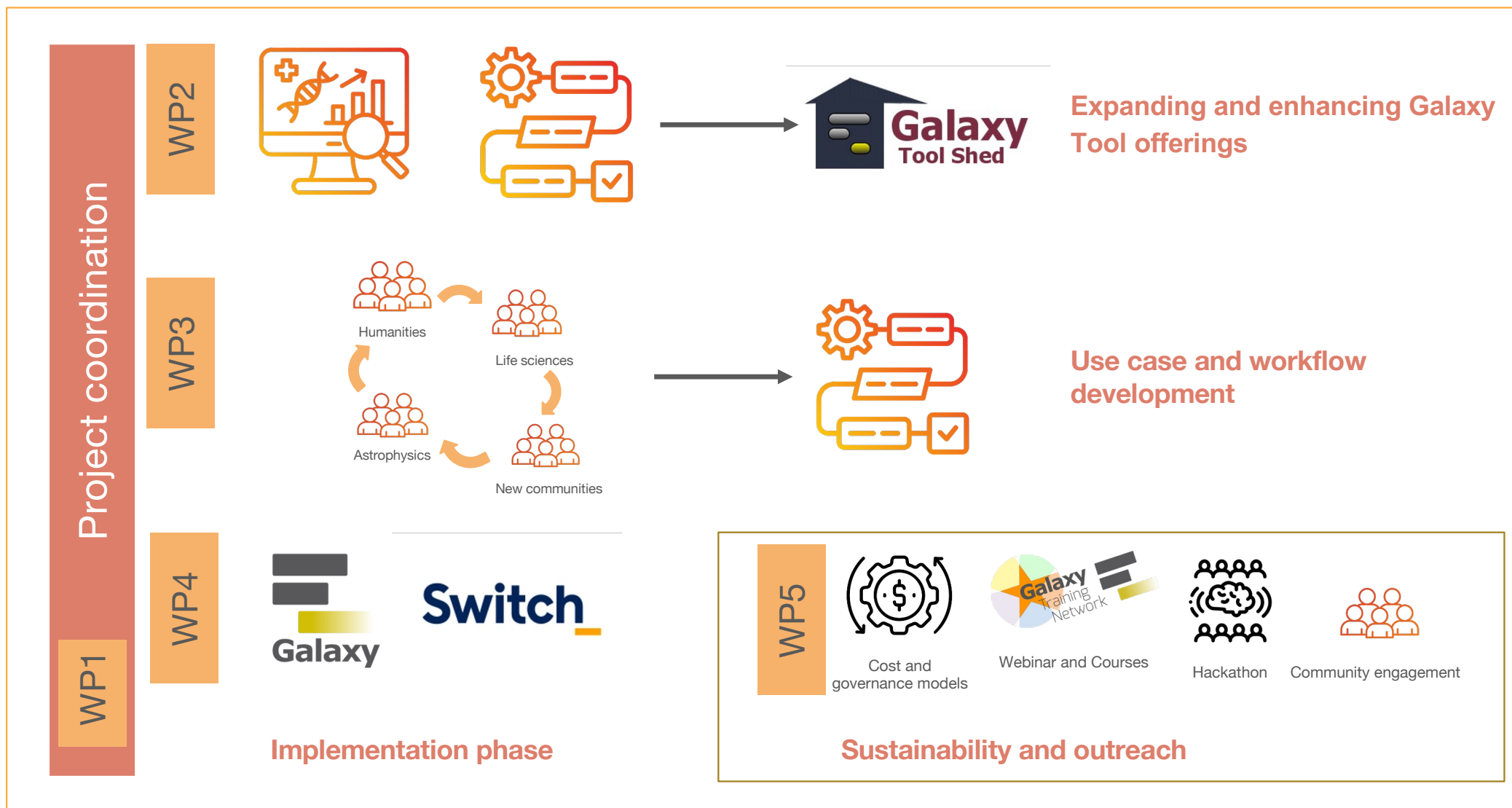
Hackathon



Community engagement

Sustainability and outreach





## Project achievements

### **Tool developer hackathon on September 24, 2025 in Bern**

- Introduction to Galaxy
- Overview of tool integration in Galaxy
- Workflow training session
- Full use-case walkthrough
- Hands-on session

Since then:

- *Continuous support of WP4 members to onboard Swiss tools of project members*

# Project achievements

## Integration of Swiss tools (ongoing)

- First Swiss tools already onboarded on the Galaxy EU instance
  - Biology/Bioinformatics: [OMArk](#), [BUSCO](#)
  - Digital Humanities: [file format identification and converter](#)
- Further Swiss tools intended to be onboarded (examples)
  - SWISS-MODEL, ModelArchive
  - OrthoDB-API, OrthoLogger, FastOMA
  - Read2Tree, FoldTree
  - Bgee, TopAnat
  - MetaGraph

## Project achievements

### **Workflows workshop on November 6, 2025 online**

- General introduction to Galaxy
- Introduction to workflows (Digital Humanities)
- Introduction to workflows (Biology / Bioinformatics)
- Small selection of tools for the Humanities on Galaxy
- Tools for Biology / Bioinformatics on Galaxy
- Brainstorming and designing interdisciplinary workflows with Galaxy

*Further workshops will follow when the Swiss Galaxy instance is ready*

# Project achievements

## Test instance ready since December 2025

- Visit our website: <http://usegalaxy.ch/>
- You may try our test instance: <http://galaxy-ch.inf.ethz.ch/>
- It contains several useful tools from the [Galaxy toolshed](#) so far – in total 10820 valid tools available on the Galaxy toolshed (07.12.2025)
- Access to Galaxy Training material / tutorials
- Access to workflows

**Activity Bar**

- Upload
- Tools**
- Workflows
- Workflow Invocations
- Interactive Tools
- Visualization
- History
- More

**Tools**

search tools

- Get Data
- Send Data
- Collection Operations
- Lift-Over
- Text Manipulation
- Convert Formats
- Filter and Sort
- Join, Subtract and Group
- Fetch
- Alignments/Sequences
- Operate on Genomic Intervals
- Statistics

**Tools**

**Help and Support**

**Support**

**Community Hub**

Join our community and explore tutorials on using Galaxy and enhance your skills.

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**Center panel**

**History**

search datasets

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Upload



Tools



Workflows

Workflow  
InvocationsInteractive  
Tools

Visualization



Histories



More

Tools

search tools

Get Data

Send Data

Collection Operations

Lift-Over

Text Manipulation

Convert Formats

Filter and Sort

Join, Subtract and Group

Fetch

Alignments/Sequences

Operate on Genomic  
Intervals

Statistics

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Galaxy  
Training  
Materials

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Workflows

Workflow  
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Tools

Visualization





Histories















# Digital Humanities

“Contemporary research in the humanities has expanded beyond anything that could be considered traditional. Historians are building interactive digital maps, literary scholars are using computers to look for patterns across millions of books, and scholars in all disciplines are taking advantage of the internet to make their work more dynamic and visually engaging. Digital humanities (DH) is the umbrella term that describes much of this work. It is neither a field, a discipline, nor a methodology. It is not simply the humanities done with computers, nor is it computer science performed on topics of interest to the humanities. DH is the result of a dynamic dialogue between emerging technology and humanistic inquiry.” – Taken from [Stewart Varner's Special Report](#)

## Material

You can view the tutorial materials in different languages by clicking the dropdown icon next to the slides () and tutorial () buttons below.

Lesson	Slides	Hands-on	Recordings	Input dataset	Workflows
<a href="#">Introduction to Digital Humanities in Galaxy</a>    <span>text mining</span>		 ▾			
<a href="#">OpenRefine Tutorial for researching cultural data</a>   		 ▾			

Technical Details

Click to run unavailable.



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Tools



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Workflow  
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## Help and Support

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### Technical Details

#### **Release Notes**

### History




search datasets



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Basis-Brief	1946	
Bild von Dokument	5766	
Brief	1946	
Einleitung	2	
Eintrag in einem Manuskript	320	
Endnote	2036	
Faksimile	1	
Figur	108	
Kommentar zu Manuskripteintrag	1248	
Location	719	
Manuskript	262	
Person	3054	
schriftliche Quelle	2208	
Seite	5765	

## Seite

*Eine Seite ist ein Teil eines Konvoluts*

Anzeigen  
1 - 25  
von 5765



1

von

231



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## PAGE



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Ressource des Projekts [beol](#), erstellt von Tobias Schweizer am Oct 30, 2019



Galaxy SWISS +

Using 0 b gautschr

Upload

Tools

Workflows

Workflow Invocations

Interactive Tools

Visualization

Histories

### Import workflow

Archived Workflows

If the workflow is archived, you can still import it.

Archived Workflows

No file chosen

If the workflow is archived, you can still import it.

Import workflow

#### Upload from Disk or Web to Images workflow

Regular Composite Collection Rule-based

Image.jpg 90 b Auto-detect unspecified (?) 100% ✓

Download data from the web by entering URLs (one per line) or directly paste content.

https://iiif.dasch.swiss:443/0801/G5LArrtuBwZ-CK0X17iPQkx.jpj/full/2865,3509/0/default.jpg

Type (set all): Auto-detect Reference (set all): unspecified (?)

Choose local file Choose remote files Paste/Fetch data Start Pause Reset Close

Import image (IIIF URL) from DaSCH Service Platform (repository) to Galaxy

Galaxy SWISS +

Using 0 b

gautschr

Upload

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Operate on Genomic Intervals

Statistics

4: Image.jpg

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Preview

Visualize

Details

Edit

History

search datasets

Images workflow

1.29 MB 1 3

4: Image.jpg

Add Tags

1.2 MB

format jpg, database ?

uploaded jpg file

Image in jpg format

Image in Galaxy (Latin text with few Greek words)

**Galaxy Europe** Using 0% of 250.0 GB gautschr

**Tools**

- Interactive Tools
- Upload
- Tools**
- Workflows
- Workflow Invocations
- Visualization
- Notifications
- More

**llm**

Show Sections

**LLM Hub** Call any LLM

**Generate MD topologies for small molecules** using acpype

**sixgill merge** metapeptide databases

**sixgill makefasta** from a metapeptide database

**Remove small molecules** from a library of compounds

**Compute Motif Frequencies For All Motifs** motif by motif

**FixMateInformation** ensure that all mate-pair information is in sync between each read and it's mate pair

**Samtools fixmate** fill mate

**LLM Hub** Call any LLM (Galaxy Version 1.101.0+galaxy2)

**Run Tool**

**Tool Parameters**

**Choose the model**

Multimodal models

Multimodal models are capable to have image and text as input.

**Model \***

Handles text + images, great for describing photos, diagrams, or screenshots (Gemma-3-12B-IT)

Select the model you want to use.

**Text Context** - optional

accepted formats switch to column select

**Image Context** - optional

Nothing selected

**History**

search datasets

**Transcription**

1.29 MB

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1

Okay, I'll do my best to transcribe the Lat  
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\*\*Transcription:\*\*

**2: jpg**

Add Tags

1.2 MB

format jpg, database ?

uploaded jpg file

Image in jpg format

Choose LLM Hub tool and set parameters in Galaxy

Galaxy Europe

Using 0% of 250.0 GB

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Home

Interactive Tools

Upload

Tools

Workflows

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Visualization

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Tools

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Show Sections

LLM Hub Call any LLM

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Samtools fixmate fill mate coordinates, ISIZE and mate

3: LLM Hub(gemma-3-12b-llmlb) on data 2

ok

19 lines

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Preview Visualize Details Edit

\*\*Transcription:\*\*

Ms H 346

7

\*Viro Clarissimo et eruditissimo Johanni Scheincki Zoro amico meo plur. colendo S.P.D.\*

\*Nicolaus Bernoulli.\* 1. 1684. \*gbl.\* 1759. \*f.li\*

\*29 Jun.\*

\*Accipio tuo tempore litteras tuas gravissimas et gratibus imbutas; tibi salutens et optime dispositus. sed in scriptis tuis nullo unquam dato salutations contentus. Et quod numerare voleo. Gratas tibi ago maximas pro proximo tuo scriptophylakico qui litteris annuis recessu... ille quippe meo christiano fiducia

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3: LLM Hub(gemma-3-12b-llmlb) on data 2

Add Tags

19 lines

format markdown, database ?

Okay, I'll do my best to transcribe the Lat  
Here's the transcription, followed by some  
\*\*Transcription:\*\*

2: jpg

Add Tags

Transcription in Galaxy

## Next steps

- Galaxy Swiss+ online by **beginning of 2026**
- More tool developers hackathons and workflows workshops
- **Integration of Galaxy Swiss to SenPRO**
- National community engagement via participation in events
  - Presentation at the Love data week 2026
  - Tutorial at ECCB 2026
  - Workshop at Swiss Reproducibility Network, and more
- Engagement with Galaxy community to build international partnerships
  - ELIXIR Galaxy Community
  - Presentation at Galaxy Community Conference 2026
  - Workshop target for Imaging community (probably later)

Want to know more? Want to be part of the journey?



Subscribe to our mailing list!

<https://sympa.ethz.ch/sympa/subscribe/galaxy-ch>



**Thank you!**

swissuniversities



## State of Play & Next Steps (Pillar, I, II and III)

The SENPro Consortium

[senpro-project.ch](http://senpro-project.ch)





## WP2: Assessment of status quo

WP co-leaders: Cristina Grisot (CLARIN-CH) and Birgit Schaffhauser (CHUV)

**Objectives:** **1.** Assess the status quo and the anticipated requirements of Swiss SENPro community of practice and the participating research infrastructures operating nationally as well as internationally in terms of resources, needed services and training. **2.** Reach out to the **long tail of research** to have a comprehensive understanding of the landscape. **3.** Build SENPro community of practice.

**Resource providers**

**Method:** survey



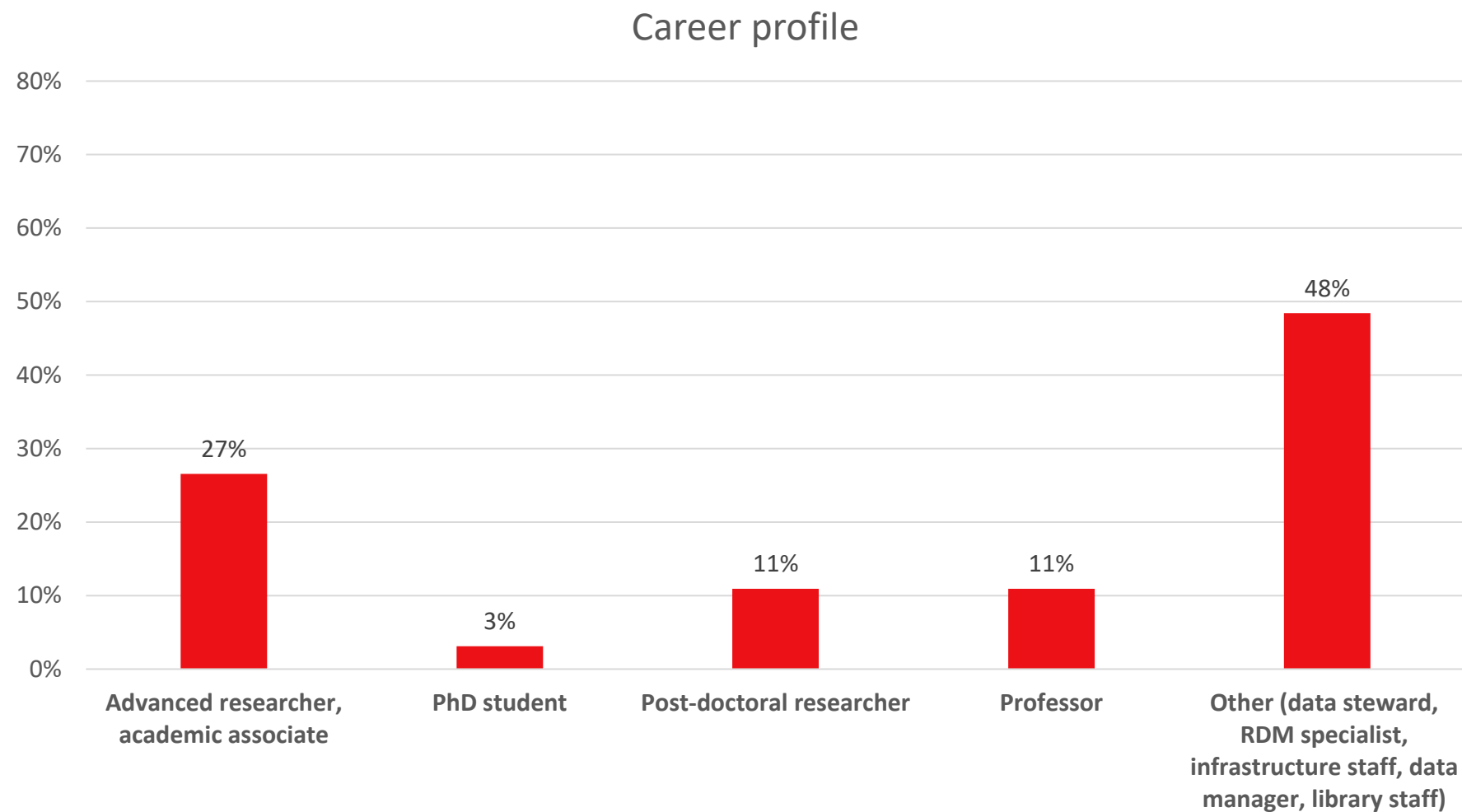
**Users/Researchers**

**Method:** online workshop and survey

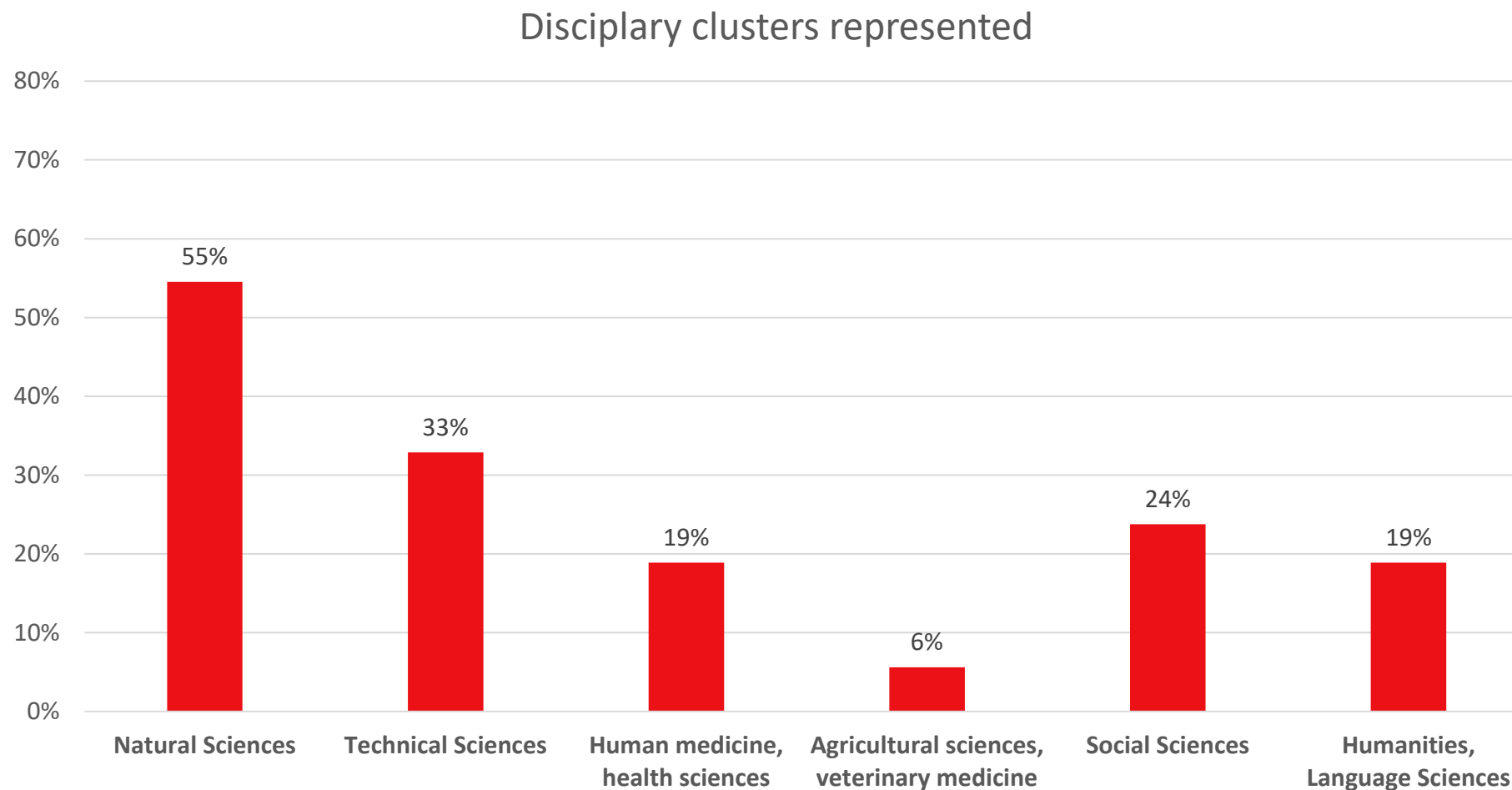
# Community survey

- Carried out during the Community Workshop from December 2, 2025
- Aim of the workshop
  - Make sure that Swiss researchers and other relevant stakeholders gain a clear understanding of EOSC's vision, its long-term strategy for Europe, and how SENPro supports Switzerland's integration.
  - Share researchers and stakeholders expectations, needs, and priorities for how a Swiss EOSC Node should function — across disciplines, institutions, and infrastructure types
  - Ensure that all scientific fields are represented in shaping the future of Swiss contributions to European Open Science.
- 64 participants filled in the survey

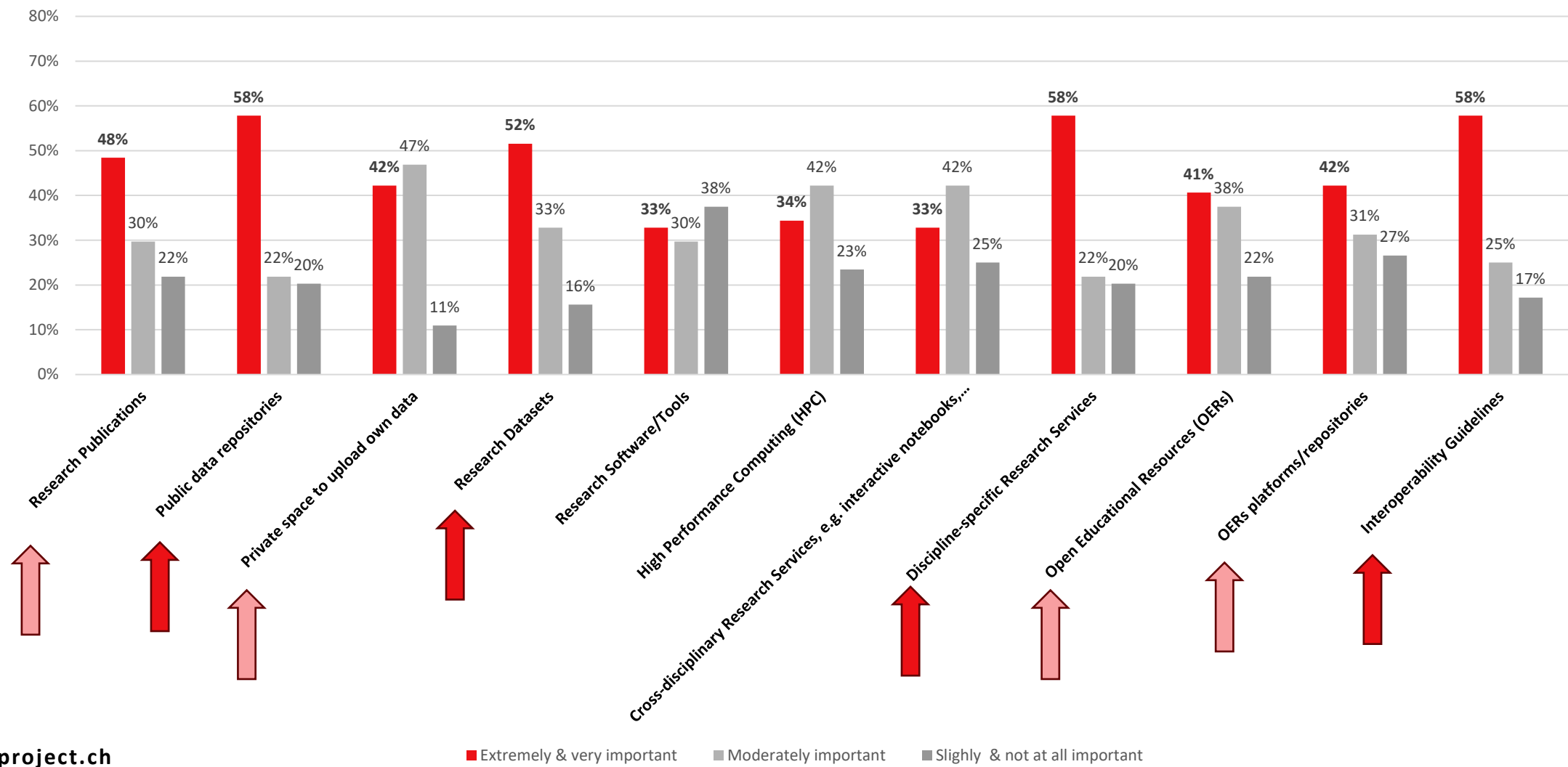
# Participants



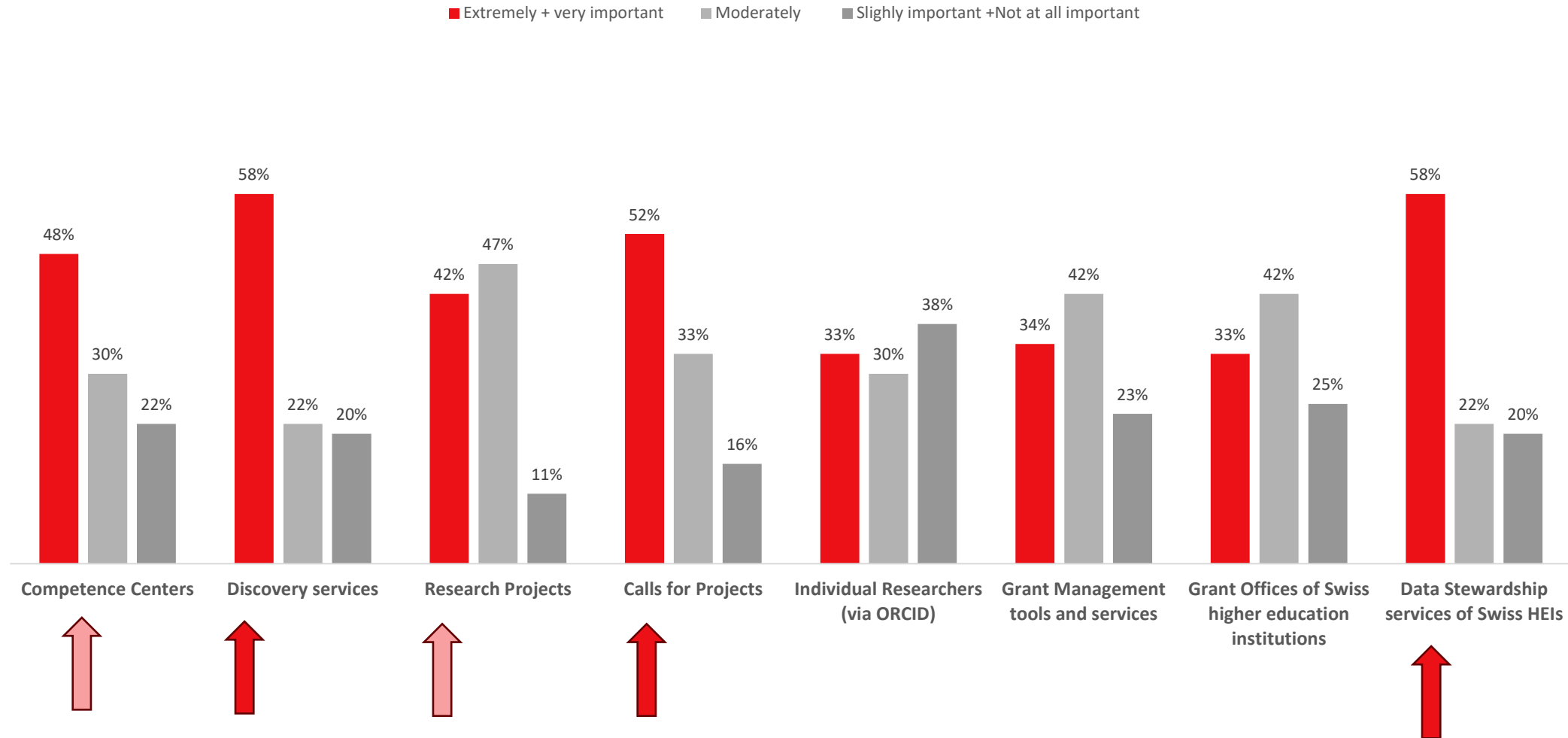
# Participants



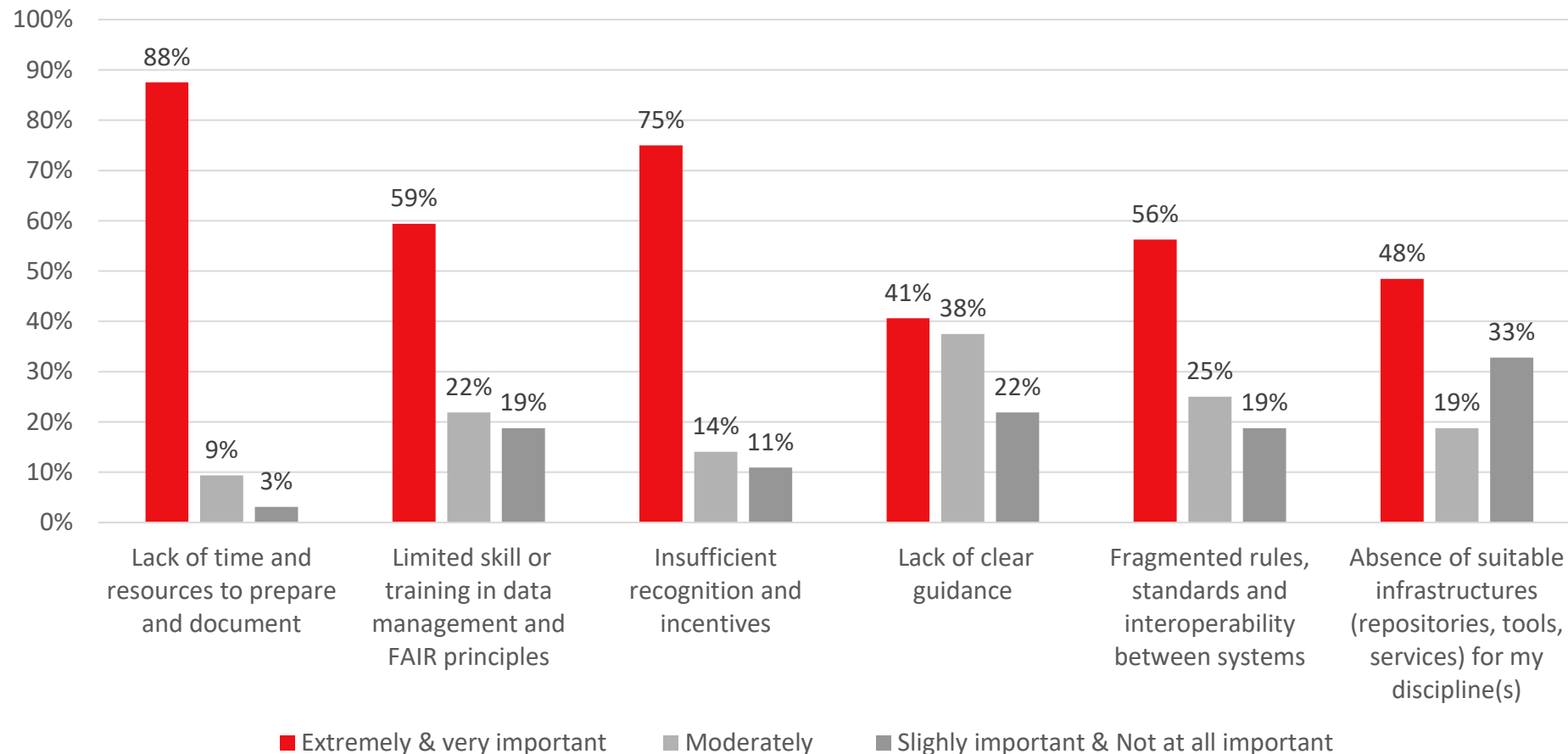
Which main types of services or resources would be most valuable for your research/your activity if integrated into a future Swiss Node of EOSC?



*Which other types of services or resources would be most valuable for your research/your activity if integrated into a future Swiss Node of EOSC?*



# What do you consider to be the main hurdles to following management rules for FAIR digital research objects (*data, software, workflows, etc.*) in Switzerland?



# Key expectations

## Usefulness on a practical level

Practical, everyday usefulness for researchers across all disciplines and institution types, including small labs.

## Interoperability

A federated, interoperable approach that connects existing Swiss and European services rather than duplicating them.



## Governance

Clear governance that is inclusive, neutral, and representative of the diversity of the Swiss research landscape.

## Guidance

Clear legal, ethical, and policy guidance on data sharing, reuse, and sensitive or copyrighted data.

# Main challenges identified

## Duplication

Risk of duplication, fragmentation, and unsustainable short-term platforms

## Lack of incentives

Lack of incentives for data sharing and reuse within current funding and evaluation systems

## Legal and ethical concerns

Legal and ethical uncertainty regarding what data can be shared through EOSC

## Limited capacity

Limited time and capacity of researchers to engage with complex infrastructures without tailored support



# Opportunities

01

## Open Science

Strong belief in the value of Open Science, data sharing, and reuse.

02

## Early consultation

High appreciation for being consulted early in the design of the Swiss EOSC Node

03

## Connections

Enthusiasm for using SENPro to connect and strengthen existing initiatives across Switzerland

04

## Right timing

Recognition of SENPro as a timely and important national effort



# Key **takeaways** for SENPro

## ▪ Support of the community

- Participants express strong support for EOSC and for Switzerland's participation through SENPro.
- The feedback is constructive and engaged, reflecting a shared interest in making the Swiss EOSC Node useful, sustainable, inclusive, and well aligned with existing infrastructures and practices.

## ▪ Federating efforts

- Future users expect SENPro to act as a federating and enabling layer rather than a centralised replacement of existing services.

## ▪ Critical success factors

- Long-term sustainability, interoperability, clear incentives, legal clarity, and strong human support through data stewards are seen as critical success factors for the Swiss EOSC Node



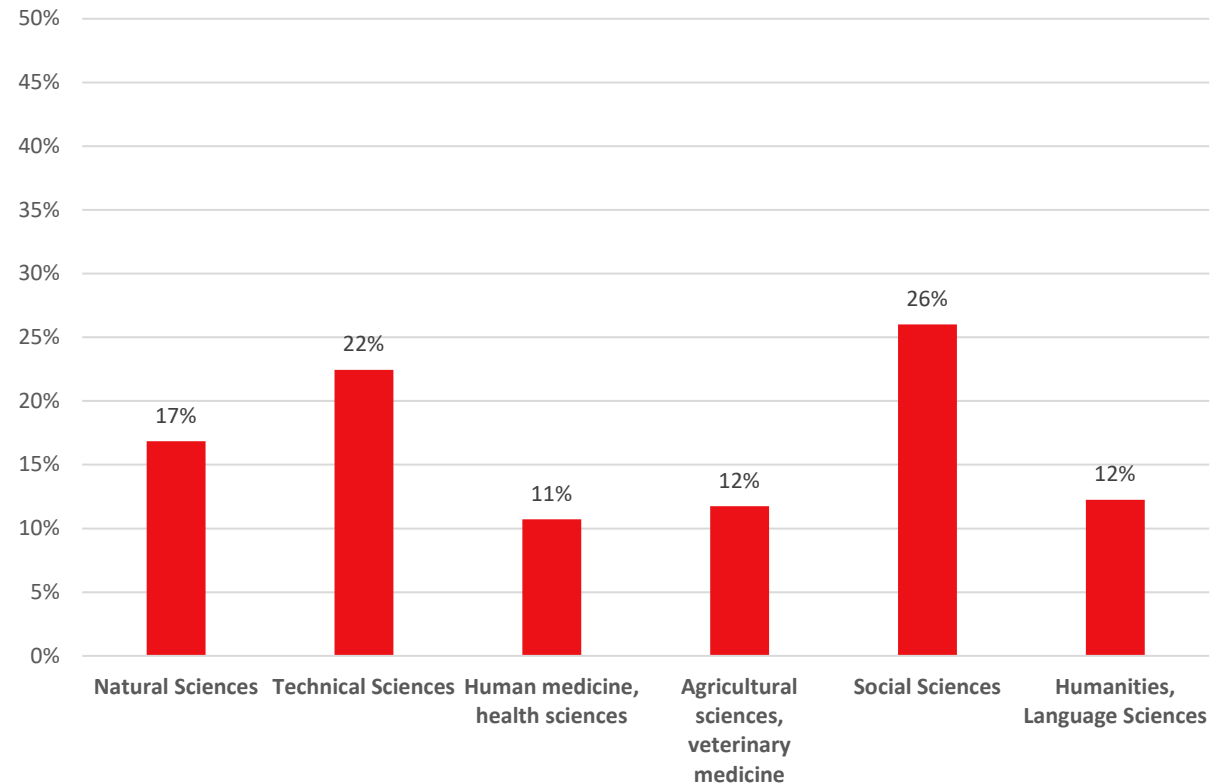
# Resource providers survey

- Carried out with SENPro project partners during November and December 2025
- Based on the EOSC Federation Handbook
- Aim of the survey
  - Assess EOSC compatibility requirements across Swiss resources and services coming from SENPro partners
  - Document current progress toward meeting these requirements
  - Identify which resources are ready to be onboarded in SENPro (WP3 & WP4)
  - Build the roadmap for onboarding Swiss resources into EOSC
- 10 institutions/research infrastructures are represented in the survey
- A version of the survey for external institutions has been circulated, with deadline for January 19, 2026

# Participating institutions & RIs

- FORS (SWISSUbase)
- DaSCH
- SIB
- ETH, CSCS
- UZH (LiRI)
- CHUV
- SNSF
- Switch (NREN)
- ZHAW
- CLARIN-CH

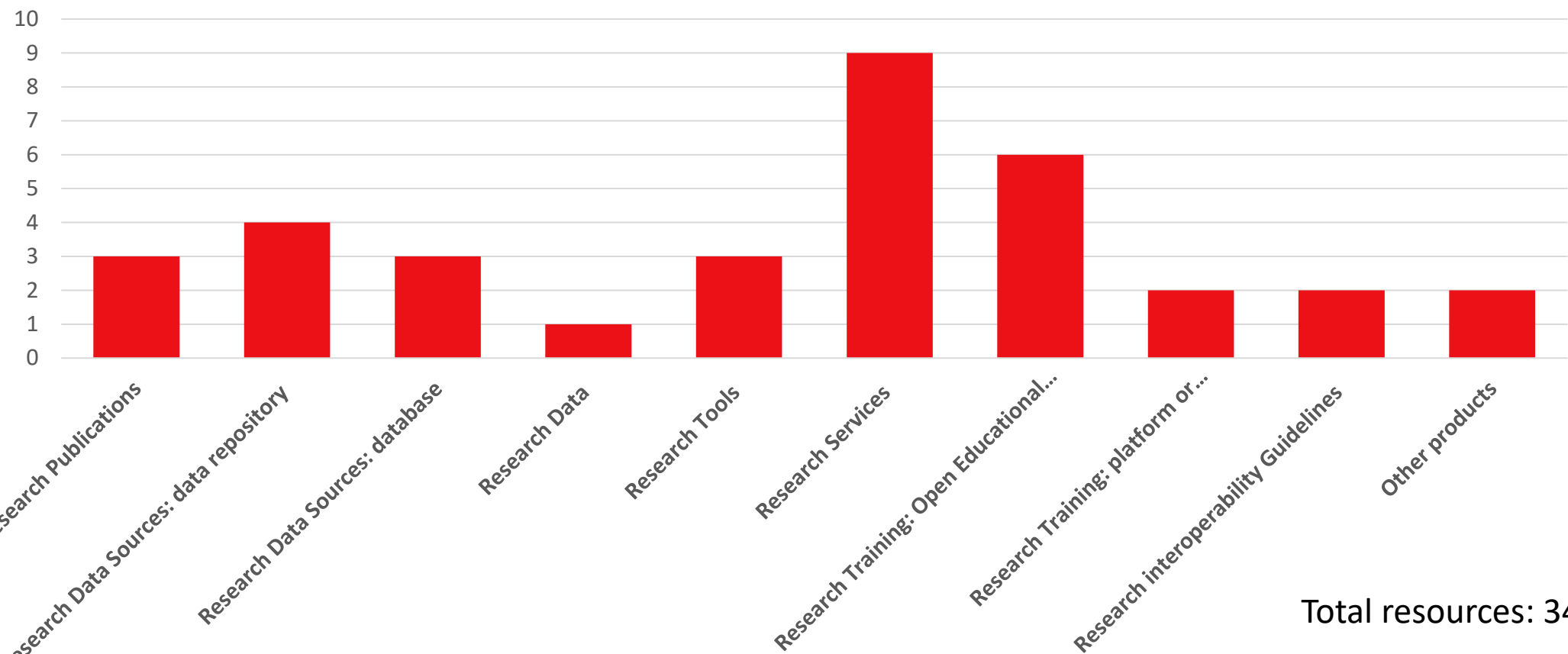
# Disciplinary clusters represented



*Below are listed resource types relevant for the EOSC Federation. Please, select all those that you want to document for onboarding in SENPro. Both core/generic and discipline-specific resources can be documented. Priority should be given to resources that: have a high reuse potential could be compatible with similar resources shared by other EOSC nodes.*



Number and type of reported resources



Total resources: 34

1. SWISSUbase Data Service Units
2. CHORUS Trusted Research Environment
3. Leonhard Med Trusted Research Environment
4. Data Stewardship Wizard
5. Switch Cloud
6. LiRI Corpus Platform
7. Medical Informatics Platform MIP
8. Reproducible Research Platform
9. Switch Drive

### Examples of questions to assess compatibility with EOSC Federation

What type of **authentication or login method** is used to access the service?

- Switch edu-ID, No login is required, Institutional Identity only

What are the **user access conditions**?

- Open Access, Registered Access, Restricted Access, Controlled Access, Embargoed Access, Fee-Based Access, API Access, License Agreement Required

What are the **licensing conditions / terms of use for your service**?

- Open Access / Public Domain, We have different Terms of Use for the service and individually assigned licenses for use per item inside the repository, Custom License, Restricted Access, etc.

**For how long can you guarantee the availability of your service?**

- Less than 5, 5-10 years, more than 10 years

What **level of availability** of your service can you provide?

- 24/7 availability with high reliability, 24/7 best-effort availability, High availability during working hours, Partial availability

Do you have **Service Level Agreements (SLA)** for the service? If yes, what type?

E.g. Level 1 – Best-effort (no formal SLA) - The system is maintained and monitored on a best-effort basis. Downtime is minimized, but no guaranteed uptime or response time. Typical for research tools and prototype infrastructures.

1. ETH Data Management Campus
2. DaSCH Knowledge Hub
3. OER material for Swiss-AL
4. CLARIN-CH Training Sessions 2025: Exploring Swiss Language Resources and Tools
5. CLARIN-CH Webinars on legal aspects of data sharing: Data protection & Copyright
6. SNSF internal materials

Examples of questions	Answer: Yes	Answer: No
Is your OER designed according to the FAIR-by-design methodology, that is, it specifies the learning outcomes, resource type (e.g. recorded lesson, textbook, activity plan, etc.), content resource type (e.g. video, slides, audio, etc.), and estimated duration.	3	3
Does your OER incorporate information about the expected level of training and expertise to be achieved (beginner, intermediate, advanced, all) and required qualifications to access the training resource?	1	5
Is the OER available in at least one European language, excluding the metadata information, which must be provided in English?	6	0

## WP2: Expected outputs (February 2026)



### Descriptions of Resources and Services & Community survey report

A detailed document outlining the descriptions of resources and services to be integrated into SENPro, and the user expectations.

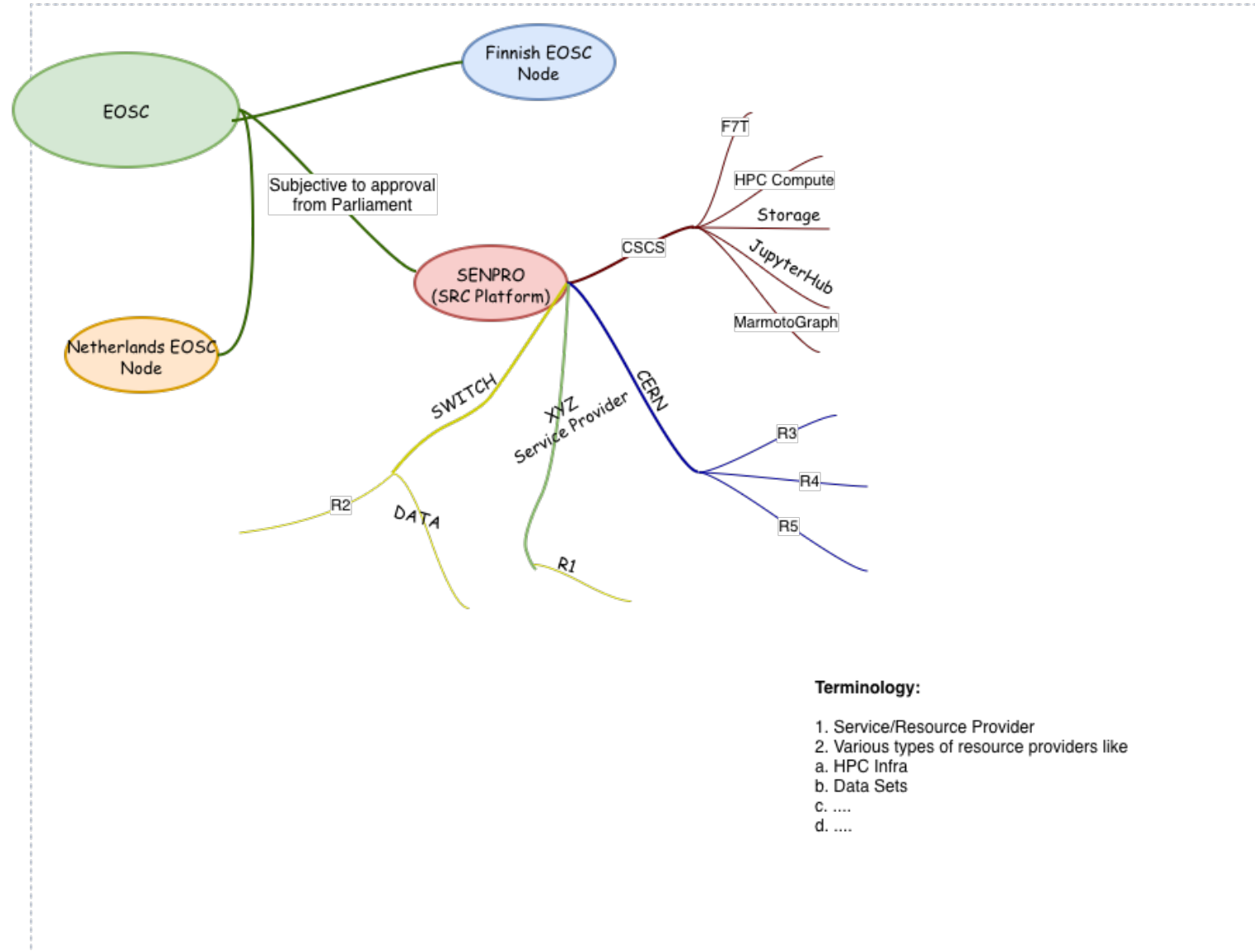


### List of Requirements for Prototype

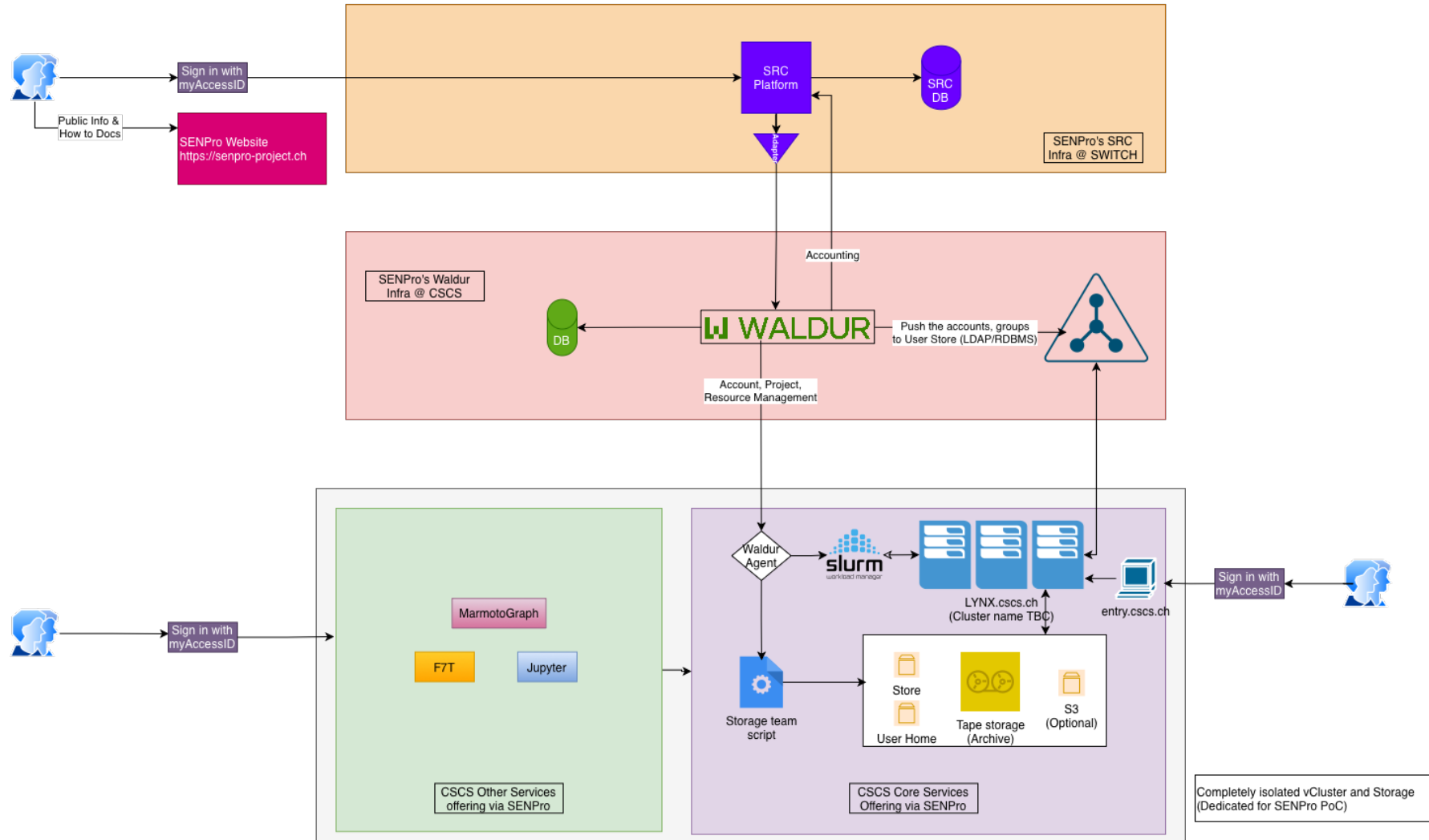
A comprehensive list of requirements to be implemented for the prototype platform and inputs for WP3-5. This will guide the development procedure of the future Swiss Resource Hub & Registry Services.



# Pillar 2 insight



# Pillar 2 insight



# WP5: Community Engagement

Ensures the practical implementation and governance of SENPro by engaging the research community in testing, validation, and reiterative development. This guarantees that the prototype aligns with Swiss and EOSC standards and ensures the basis for its long-term sustainability.





## WP5: Community Engagement

**Objective:** To validate and improve SENPro prototype through community-driven testing and feedback, and to consolidate the results into a White Paper that supports sustainable governance.



### Iterative Testing

Run beta-tests of prototypes with **researchers & research infrastructures**.



### Pathways & Onboarding

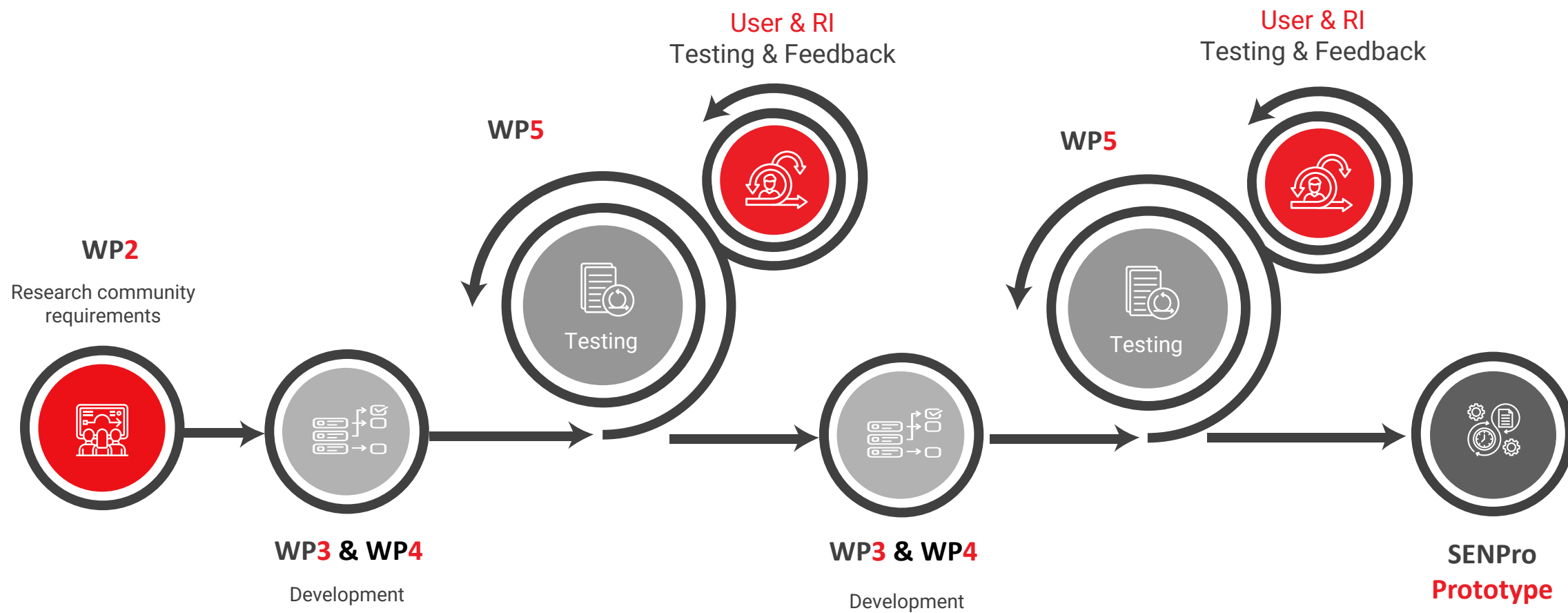
Design researcher journeys and RI onboarding models.



### White Paper

Consolidate requirements into a roadmap for sustainability and **WP6**.

# WP5: Iterative Testing



# WP5:

## Community Engagement



### Pathways & Onboarding

Review and compile research community and RI pathways for engaging with the SENPro Resource Hub and develop onboarding processes that enable the inclusion of new resources and future partners.



### White Paper

Identify the technical, service, and governance requirements necessary to transition the prototype into a sustainable, production-ready national hub through joint decisions by participating stakeholders.





## WP6: PROTOTYPE FOR RULES & REGULATIONS

**Objective:** Evaluate governance models of existing EOSC Nodes & prepare a sustainable (business) model for a Swiss Node adapted to Swiss needs.



### Assess

Take into account different scenarios (e.g. association & non-association with EU's Horizon Europe programme)



### White Paper

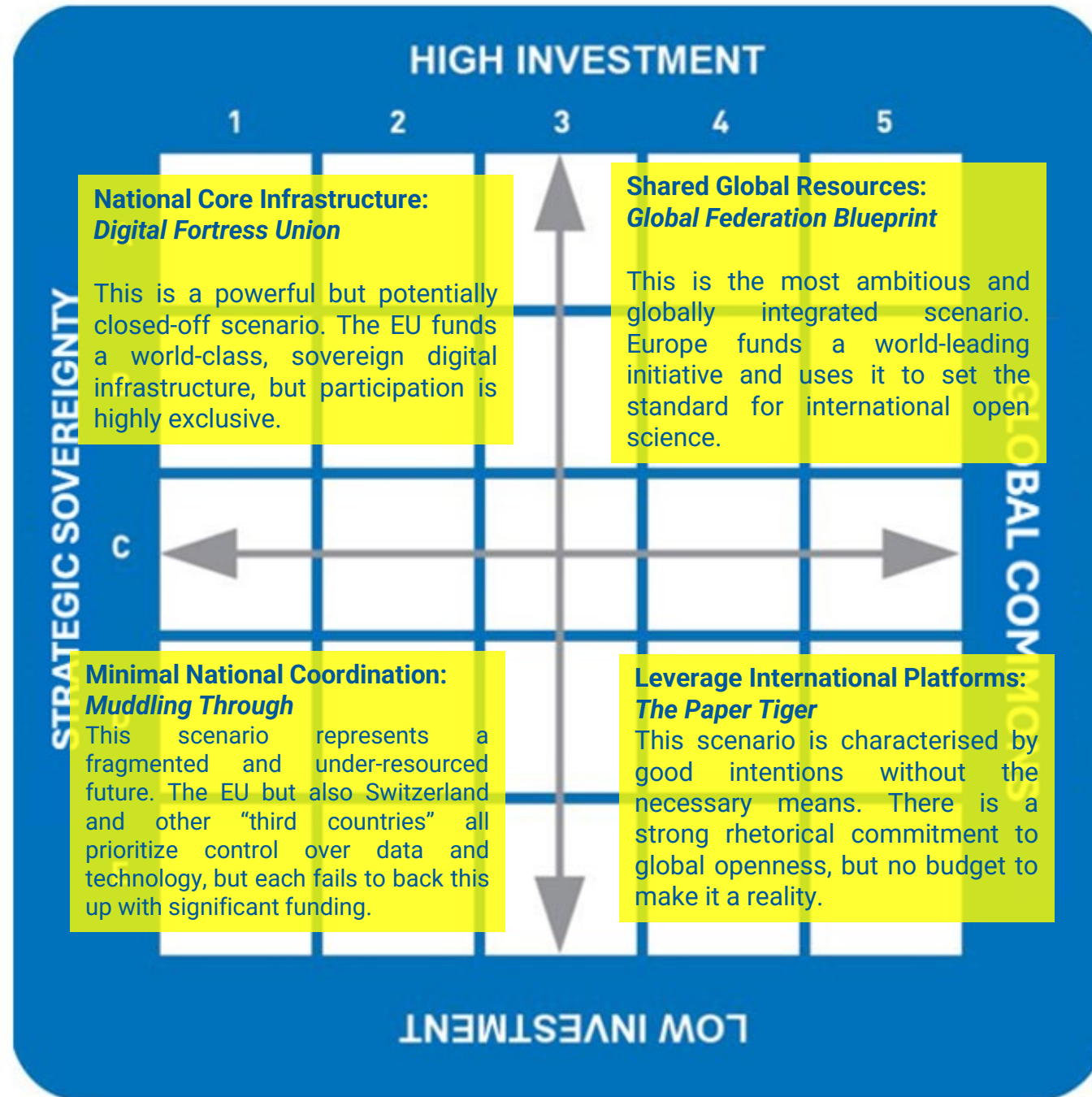
Outline transparent roles & responsibilities with stakeholders & propose a prototype model for the Swiss Node



### Business Model

Identify and assess business model elements to ensure long-term viability

# Brainstorming Model: Investment & Ordering Logics





# Thank You!

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**Research Data Services**  
**Explorer:** Discover and access  
research services across the  
ETH Domain

Chiara Gabella & Angela Montano Garcia, EPFL

[senpro-project.ch](https://senpro-project.ch)



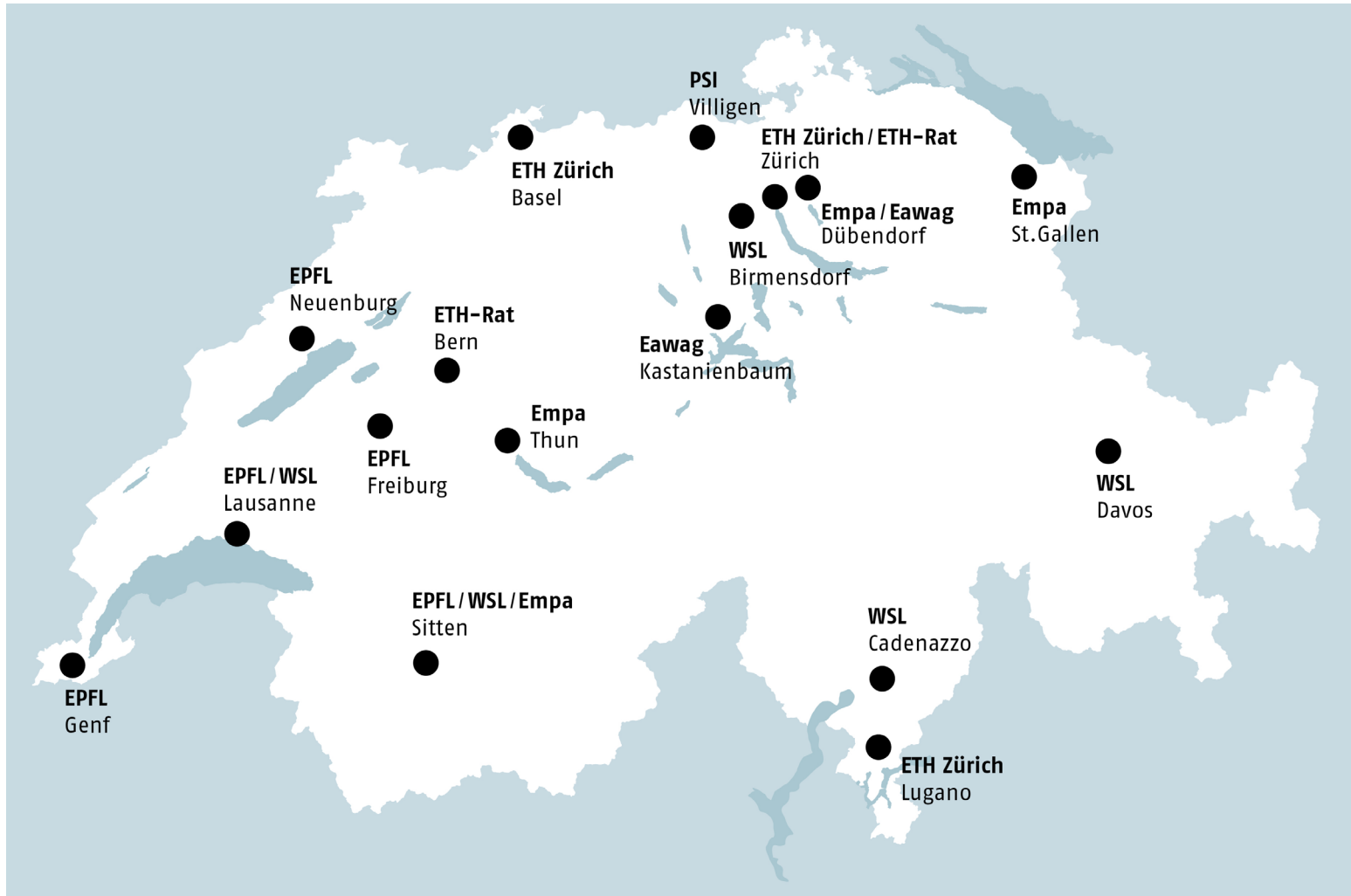


# RESEARCH DATA SERVICES EXPLORER

---

Swiss National Open Research Data Strategy | ETH Domain  
@ Swiss EOSC Node Prototype Project (SenPro) Meeting – 18 Dec 2025

# ETH DOMAIN



2 Swiss Federal Institutes of Technology (ETH)

4 Research Institutes(4RI)

- ☐ **PSI – Paul Scherrer Institute**  
(natural and engineering sciences)
- ☐ **WSL – Swiss Federal Research Institute for Forest, Snow and Landscape Research**
- ☐ **Empa – Swiss Federal Laboratories for Materials Science and Technology**
- ☐ **Eawag – Swiss Federal Institute of Aquatic Science and Technology**

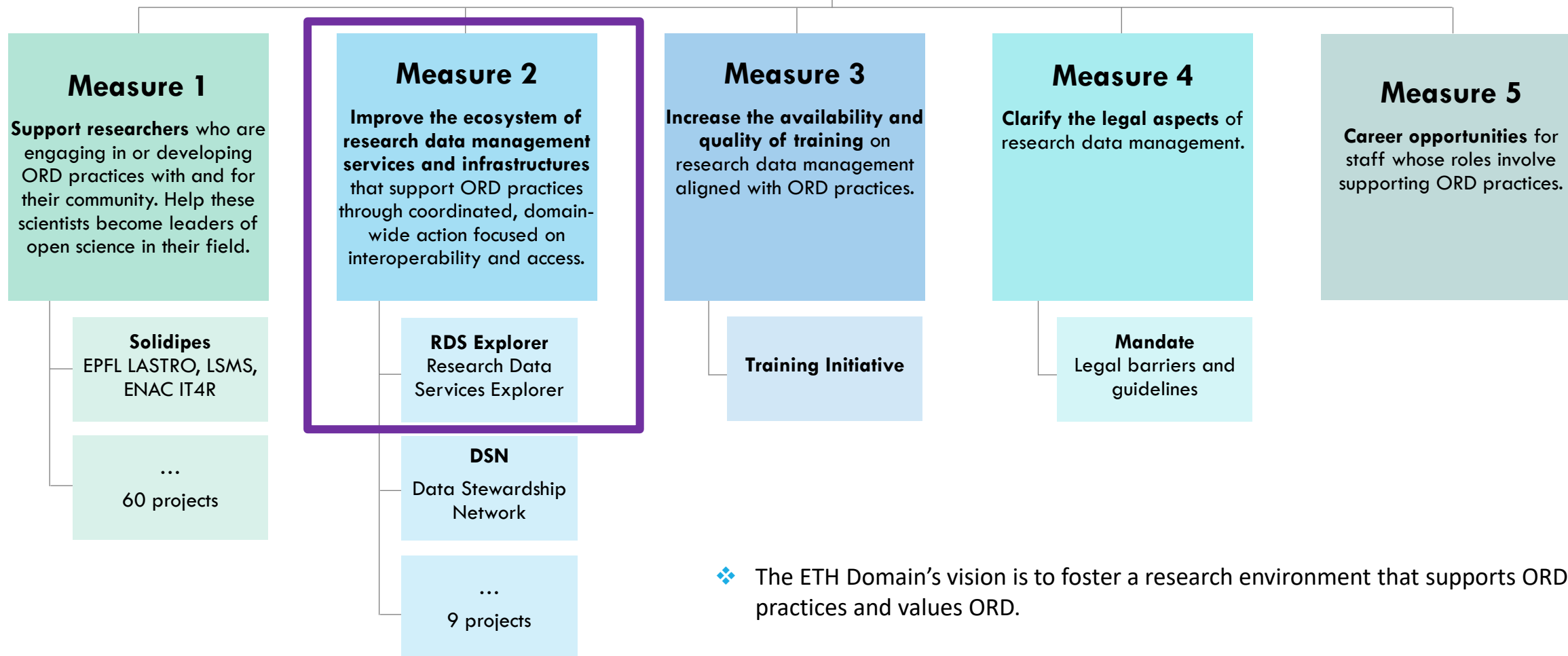
Action Plan: <https://ethrat.ch/en/swiss-scientific-institutions-adopt-the-open-research-data-strategy->

# 5 ORD MEASURES OF THE ETH DOMAIN



<https://open-research-data-portal.ch/>

## ACTION PLAN JAN. 2022



❖ The ETH Domain's vision is to foster a research environment that supports ORD practices and values ORD.

# MEASURE 2 RDS EXPLORER – FRAMEWORK



## Why?

Need identified by the 2023 EG-SI report:

→ Lack of visibility, fragmented landscape, and difficulty navigating available services and infrastructures (S&I)



## Objective

→ Simplify access for researchers to RDM and ORD S&I across the ETH Domain.



## How?

A centralized, intuitive, and scalable portal that:

- Helps researchers find infrastructures, tools, platforms and services across the data lifecycle
- Supports open and FAIR-aligned practices
- Evolves with continuous institutional contributions
- Refers to S&I without hosting them



## Duration

1 Oct 2024 – 30 Mar 2026



## Stakeholders

- **Coordination** → EPFL Library
- **Sounding Board** → representatives and researchers from ETH Zurich, EPFL, Eawag, EMPA, PSI, WSL
- **Expert Groups** → EG-SI (Services & Infrastructure), EG-R (Research)
- **ORD Steering Committee**



## Work Axes

- Governance & sustainability
- Standardized content
- Website development & user experience
- Communication & visibility

# MEASURE 2 RDS EXPLORER — DEVELOPMENT



## Development (2024–2026)

- Defined characteristics and criteria for the inclusion of S&I, and ensured practicality for different profiles (researchers, PIs, support staff)
- Identified key features to filter information through a search engine, and to describe service details in dedicated pages
- Worked closely with UX/UI designer and developer to design and integrate the catalogue into the existing ORD Portal (<https://open-research-data-portal.ch/rds-explorer/>)
- Developed form for automatic (curated) inclusion of S&I
- Tested platform with selected S&I for refinement
- Launched and initiated communication for its progressive adoption



## Key Features

- Search & filter by:
  - Research domain
  - Type of service
  - Data lifecycle stage
  - Access & cost conditions
- Service detail pages include:
  - Description
  - Institution
  - Access
  - Contact information
  - Direct link to official service websites (**no local hosting**)

# MEASURE 2 RDS EXPLORER — DEMO

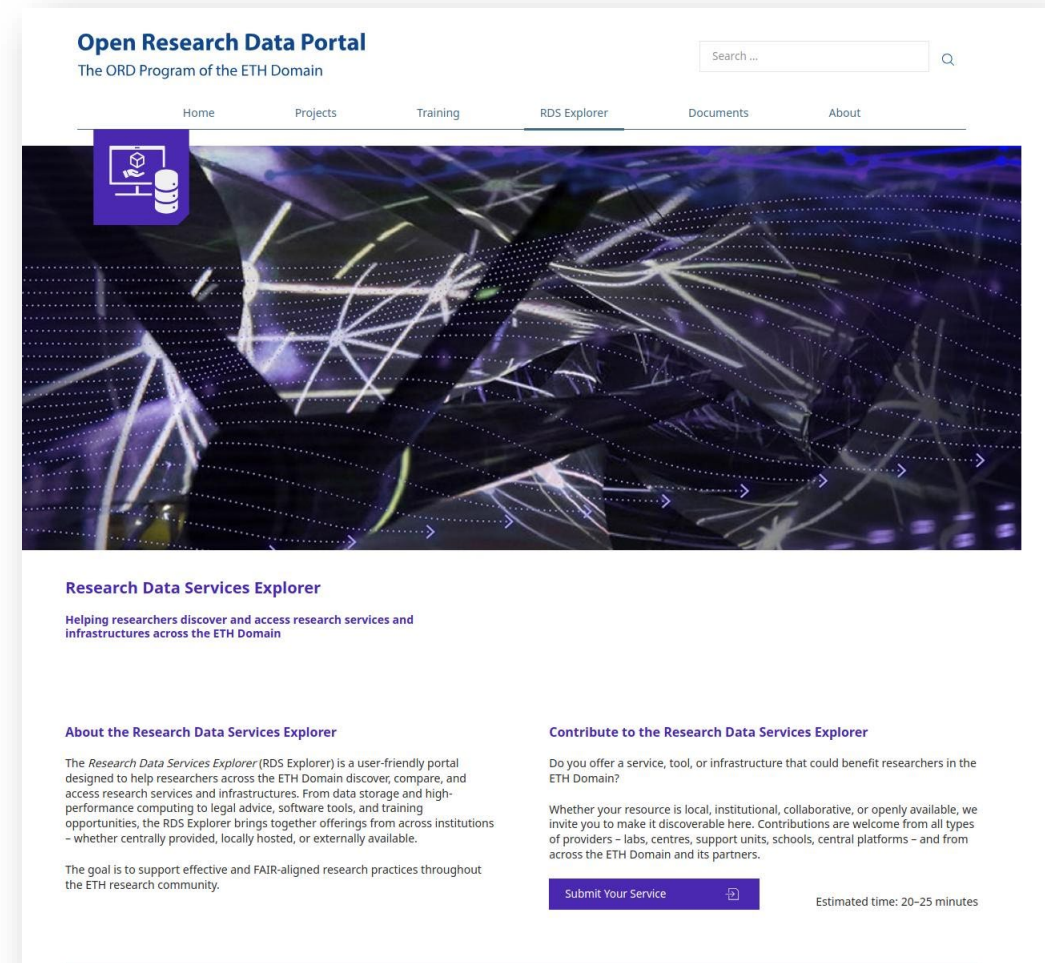


## Go-live

- Public since 1 Oct 2025
- 17 beta testers S&I included



→ <https://open-research-data-portal.ch/rds-explorer/>



# MEASURE 2 RDS EXPLORER — NEXT STEPS



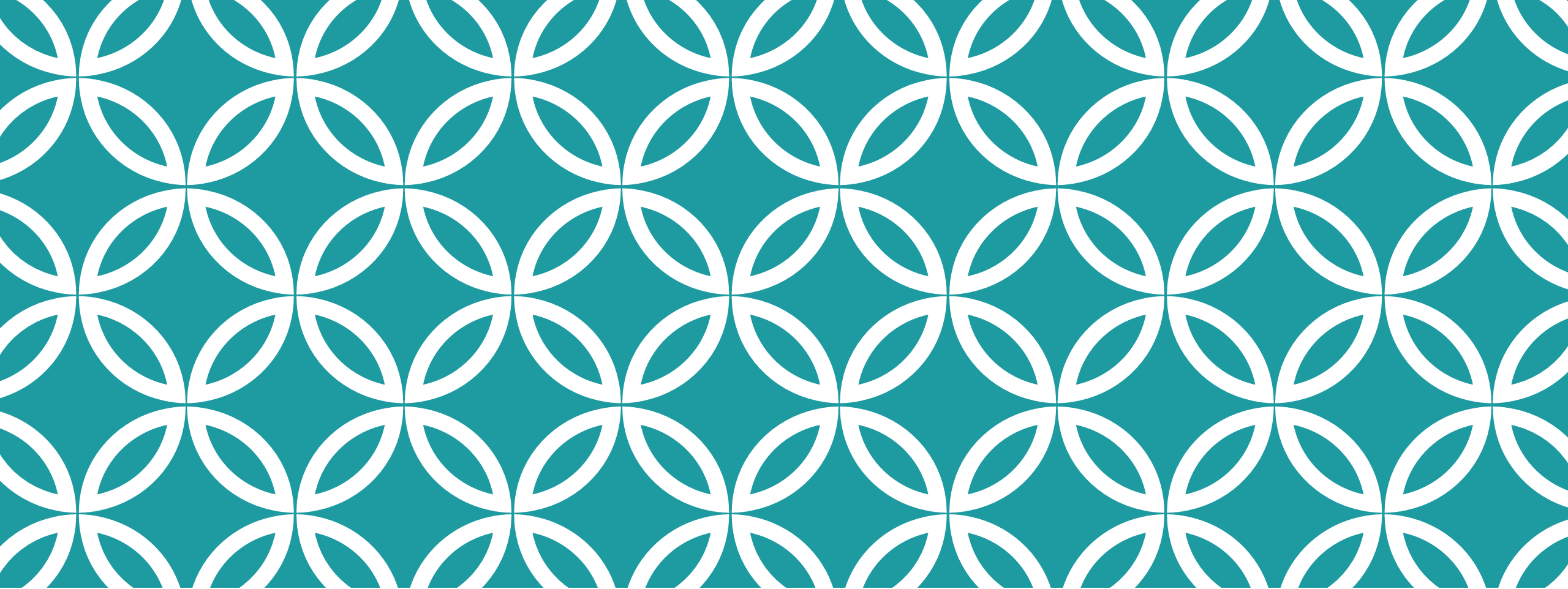
## Next Steps

- Continue collecting and integrating user feedback
- Refine categories, filters, and workflows
- Improve visual design and navigation to enhance user-friendliness
- Strengthen communication and internal training
- Consolidate governance and long-term sustainability



## Communication Strategy

- Targeted email outreach
- Share information during events (e.g., EPFL RDSN Meeting)



**STAY TUNED**

Thank You!

# Let's Get In Touch

## The SENPro Consortium

The SENPro Project | Defining, Building and Implementing a Swiss EOSC Node Prototype  
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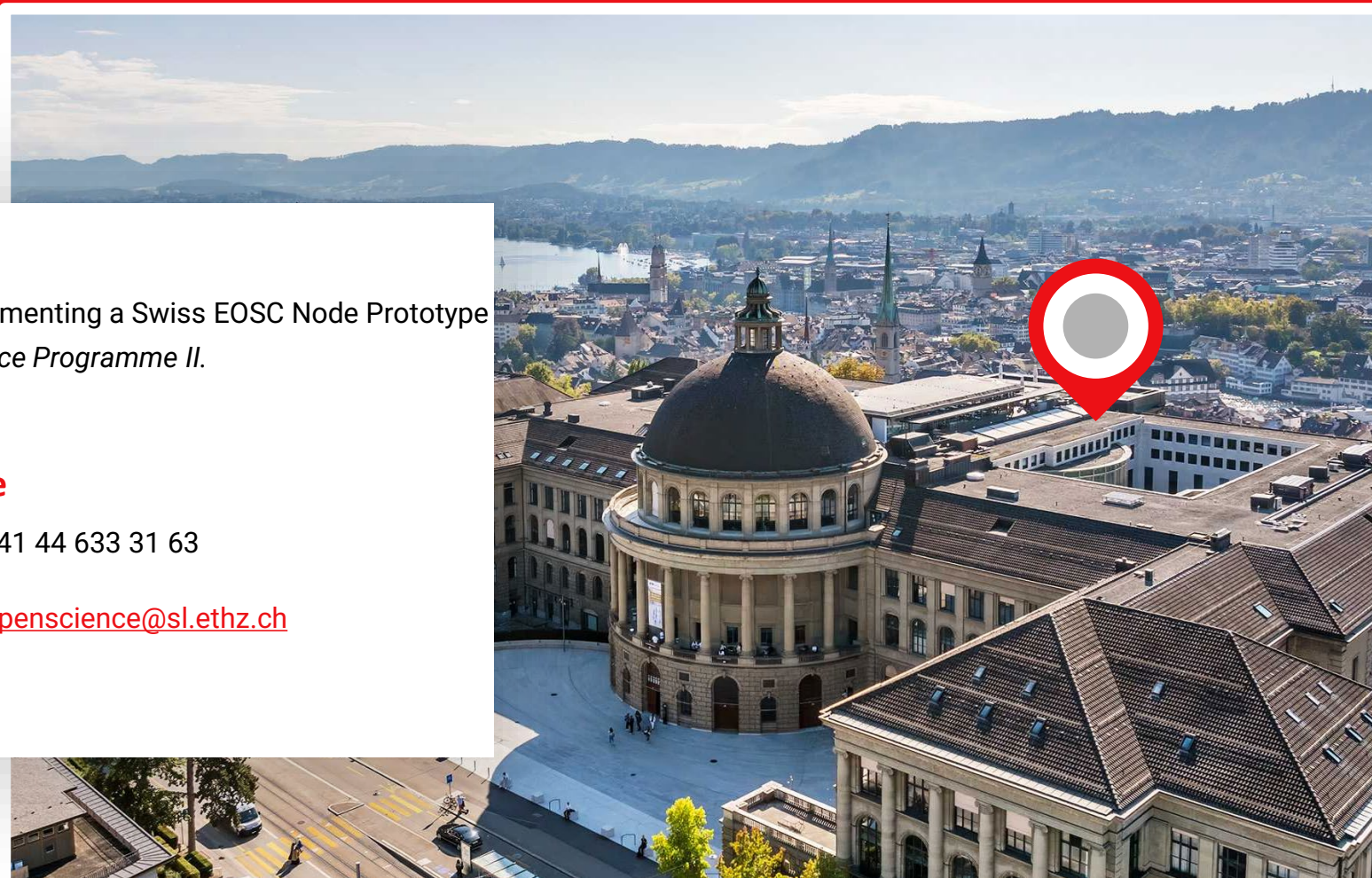
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# Season Greetings.



**Happy Holidays!**

**We look forward to continuing our inspiring  
conversations in 2026!**

**THANK YOU.**