

ROHub

EOSC Research Object management platform

EOSC Aggregators & Integrators Ask Me
Anything webinar

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RELIANCE project coordinator



with



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Join us on Slido

During this webinar we will be collecting questions and feedback via Slido. Join us there via a mobile device to post your own comments or upvote those of others.

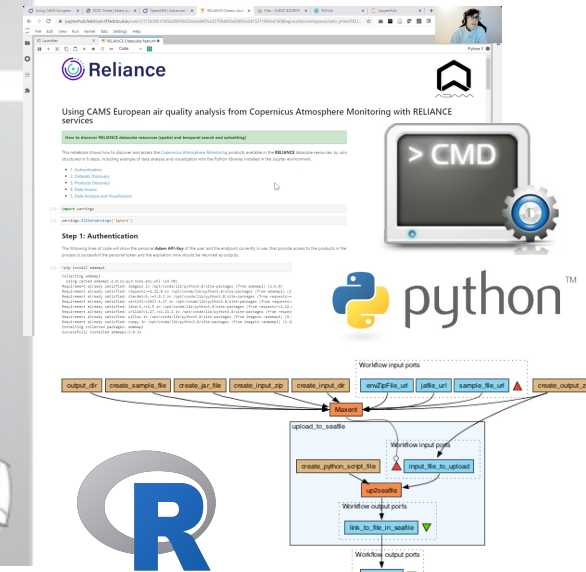
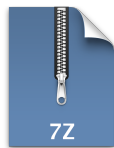
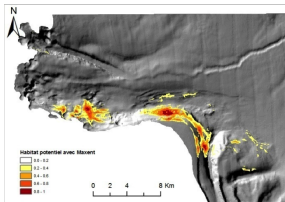
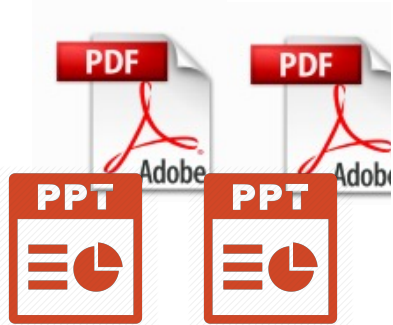


Or

Go to **sli.do**
Enter event code **#682308**
and password **EOSC-AMA**

The Research and Information Lifecycle

A continuous, iterative and dynamic process followed by scientists for conducting, validating and disseminating scientific knowledge



Name	Status	Queued iterations	Iteration
Workflow1	Running	-	-
create_input	Finished	0	1
create_input	Finished	0	1
create_jar	Finished	0	1
create_outpu	Finished	0	1
create_samp	Finished	0	1
Maxent	Running	0	0
output_dir	Finished	0	1
upload_to_s	Pending	0	0



The Research and Information Lifecycle

Need: mechanisms to manage data, methods and other resources which could: i) **enhance visibility** of scientific breakthroughs; ii) **encourage reuse**, and iii) **foster** a broader research **accessibility**

- How to support & capture the lifecycle of scientific investigations ?
- How to provide a unified entry point to all the resources related to an investigation/research work ?
- How to validate and disseminate scientific knowledge receiving proper credit and citation ?
- How to preserve the scientific knowledge to support their reuse?



Research Object overview

Goal: Account, describe and share everything about your research, incl. how those things are related

 Enabling **reproducible**, transparent research.



<http://www.researchobject.org>



everest



with



- **Unique identifier** (PID, e.g., DOI)
- **Aggregation** of resources
 - **Hypotheses**
 - **Data** used and results produced
 - **Methods** employed to produce and analyse data
 - **Notebooks, workflows, scripts, code** implementing such methods
 - **(Web) services** used
 - **People** involved in the investigation
 - ...
- **Annotations** about these resources
 - **Descriptive** metadata
 - **Provenance** of executions
 - **Versioning** information

ROHub overview



2010-2013



2014-2019



2020+

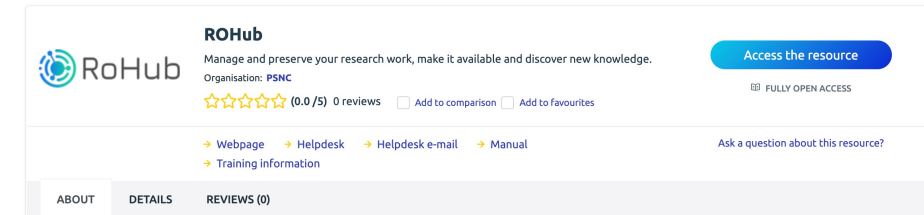
- Holistic solution for RO management, enabling
 - storage, lifecycle mgmt. & preservation of scientific outcomes
 - share and makes these resources available to others
 - publish and release them through a DOI
 - discover and reuse pre-existing scientific knowledge.
- Reference platform
 - implements natively the RO model and paradigm
 - support different stakeholders, with the primary focus on scientists, researchers, students and enthusiasts
 - provides the backbone to a wealth of RO-centric applications and interfaces across different scientific communities



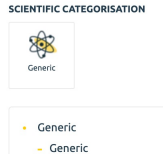
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Onboarded and integrated in



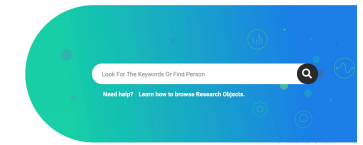
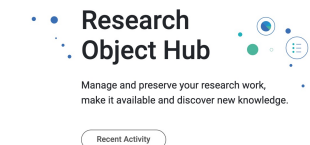
ROHub enables the management, sharing and preservation of research artefacts related to a particular investigation/research challenge as a single information unit through the Research Object (RO) concept and model. ROHub supports scientists and related stakeholders (e.g., companies R&D department directors) throughout the research lifecycle to create and maintain high-quality research objects that can be interpreted and potentially reproduced. It allows users to manage and keep track of their evolution, to collaborate along this process, and to search and discover pre-existing scientific knowledge. ROHub provides access control and different collaboration features (quality management, evolution and version control), release and publication of research objects including assignment of DOIs to investigation snapshots, as well monitoring and preservation of research objects to ensure that they will remain accessible and re-usable.



<https://reliance.rohub.org>



ABOUT ACTIVITY EXPLORE MY ROS PEOPLE SUPPORT Sign in Sign up



2912



Research Objects

63



Users

11434



Resources

45935



Annotations



High-level features

ROHUB enables:

- to **create** and **manage high-quality ROs** that can be interpreted and reproduced in the future
- to **reference, share** and **preserve** scientific studies, campaigns, and observations related resources, including **internal** ones, links to **external** ones as well as other ROs (**nested ROs**)
- to **collaborate** with colleagues and to **discover new knowledge** via advanced exploratory search interfaces that exploit **RO metadata** (both explicitly provided and **automatically extracted** from its content), as well as via an standard search API **OpenSearch with Geo extensions**
- to **manage** the **RO evolution** including the ability to generate **snapshots and releases** and to allow others to **fork** the RO to **reuse** it and extend it.
- to **publish** the associated work and assign it a **DOI** to allow its **citation** in scholarly communications
- to **monitor and follow** a particular RO, getting **notifications** about its progress or quality changes
- researchers to **build reputation** by enabling users to **rate** and **favorite** ROs created by others
- to **find related works or researchers** in a a domain, e.g., for possible collaborations or reviews



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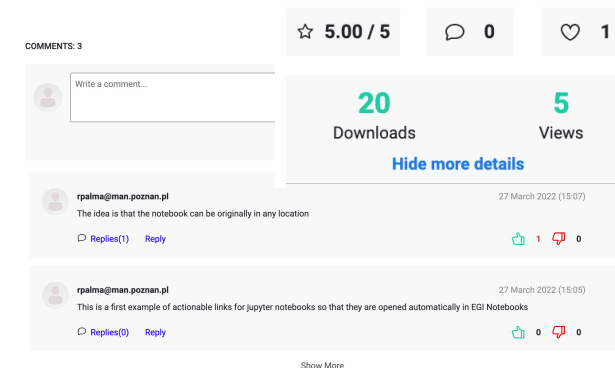
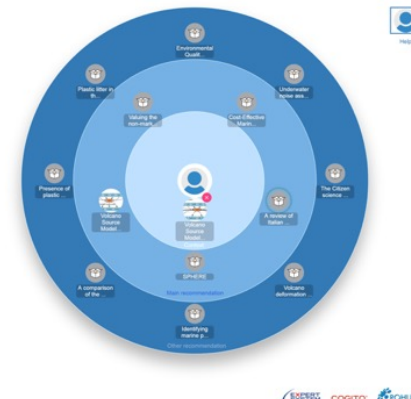
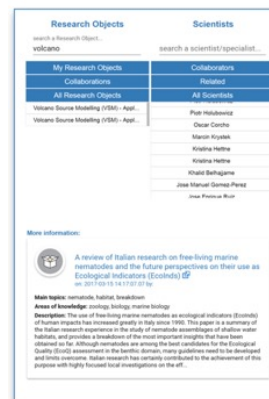
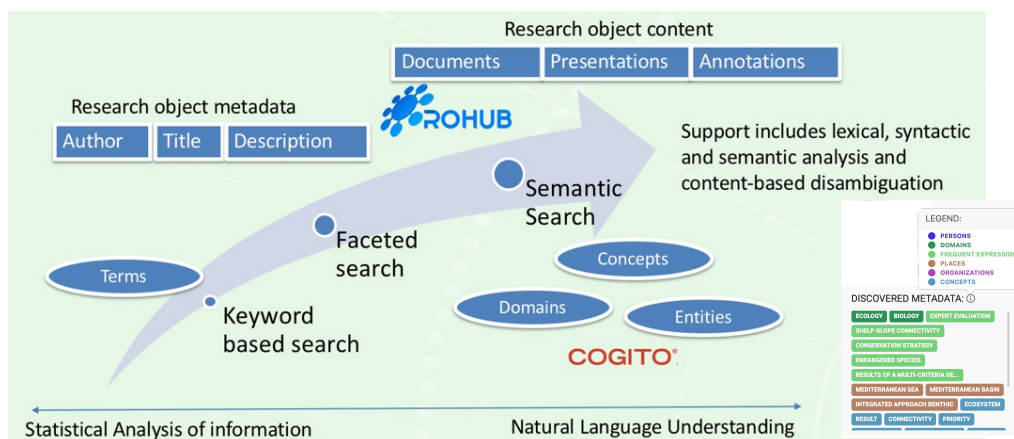


ROHub and added value services

Semantic enrichment
readability, discoverability, reuse

Recommendation
content-based, concentric spheres

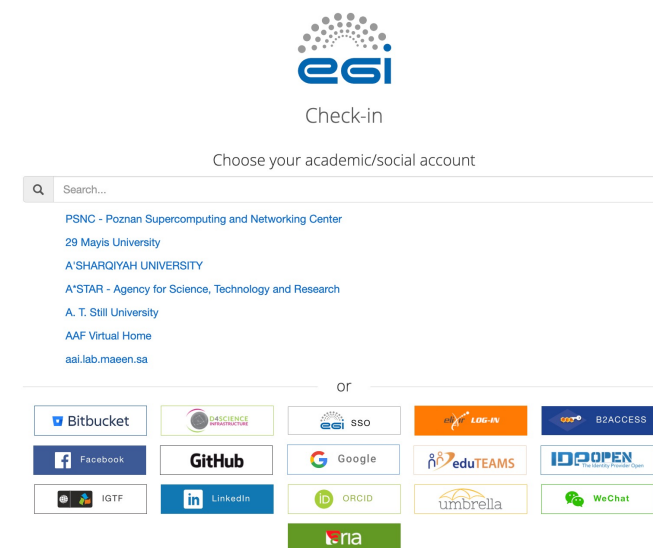
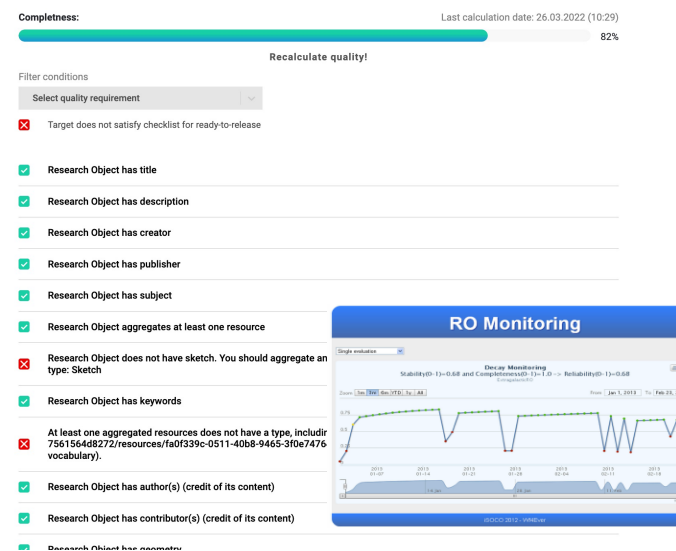
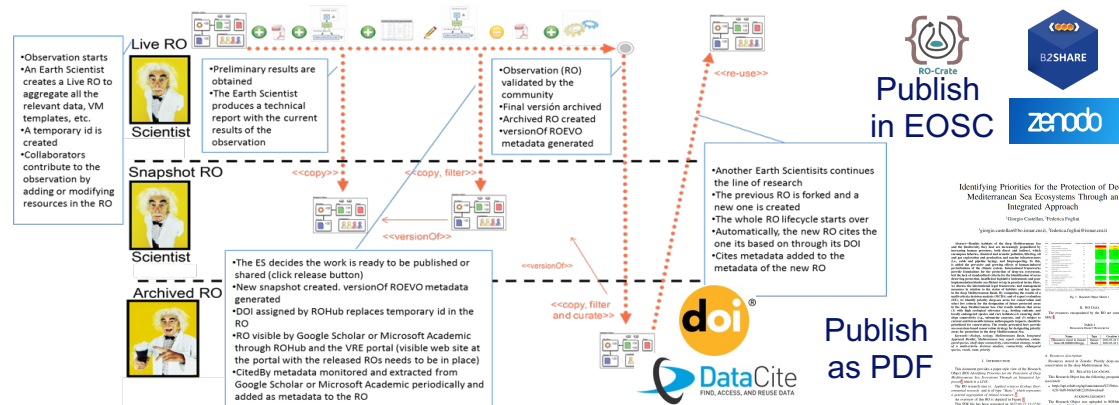
Social Impact
Sharing, quality



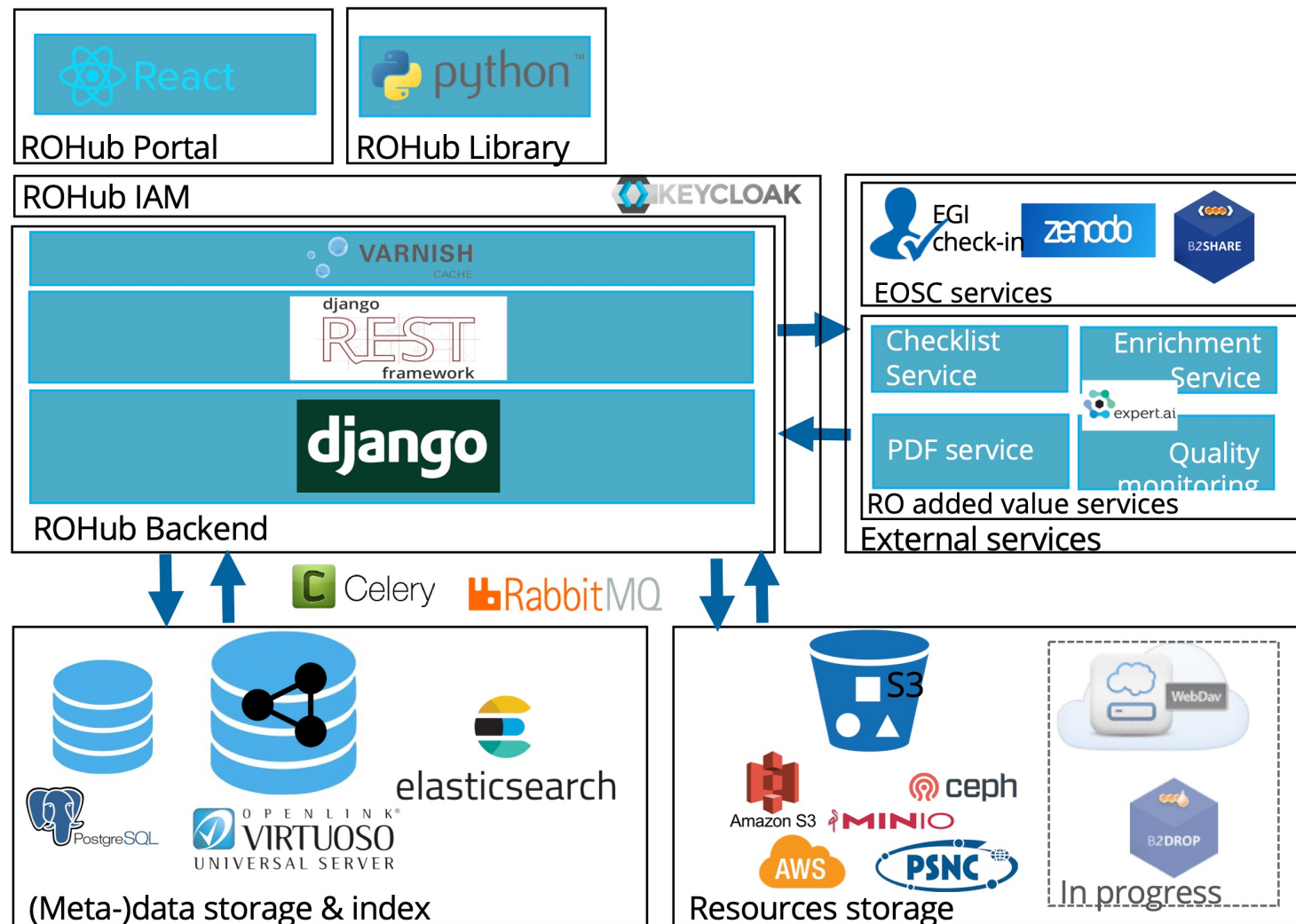
Research lifecycle & scholarly communication
collaboration, publication, citation, validation

Quality assessment
HQ monitoring & preservation

EOSC integration
AAI



ROHub in details





Onboarding and support resources

- ROHub in EOSC marketplace: <https://marketplace.eosc-portal.eu/services/psnc.rohub>
- ROHub portal <https://reliance.rohub.org/>
- ROHub tutorial: https://reliance-eosc.github.io/ROHUB-API_documentation/html/tutorials.html
- ROHub portal documentation: <https://reliance-eosc.github.io/rohub-portal-documentation/>
- ROHub API library documentation : https://reliance-eosc.github.io/ROHUB-API_documentation/html/index.html
- ROHub API library example Jupyter Notebooks: <https://github.com/RELIANCE-EOSC/sample-notebooks>
- ROHub helpdesk: <https://support.pcass.pl/servicedesk/customer/portal/27> or support email: support@rohub.org

See you next time!

Thanks for joining us today.
Don't forget to attend our next ask
me anything webinar

Sign up at
www.eoscfuture.eu/events



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