

EVERSE Project: Providing Tools and Resources for Research Software Quality

European Virtual Institute for Research Software Excellence (EVERSE)



Funded by
the European Union

03.06.2026 | RSE Swiss Romand Meetup, EPFL | Kenneth Rioja (CERN, kenneth.brian.rioja@cern.ch)

What is Research Software ?

https://everse.software/RSQKit/research_software

All code and software artefacts that are used, produced, or might be **related to the research process in one or more stages of the research lifecycle** and regardless of the layer of the software stack. (*inclusive description*)

Well identified software that is **part of the research discovery process**, which might require specialized domain knowledge **and is by itself a contribution to science and research** (*exclusive definition*)

Communities around RSE, see <https://rse.swiss/> (CH), <https://society-rse.org/> (UK, 2013), <https://www.software.ac.uk/>, <https://us-rse.org/> (US), <https://de-rse.org/en/index.html> (DE)

MadGraph7 Public

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main 6 Branches 3 Tags Go to file Add file Code

theoheimel multichannel improvements ✖	d3942d1 · 2 months ago	🕒 13,673 Commits
.github/workflows	fix test path in madspace action	2 months ago
Analyses	added wz analysis files	3 years ago
HELAS	Drop unneeded line from oxxxx.F	2 years ago
MadSpin	Merge branch '3_5_13_f2py' into 3.5.13	3 months ago
PLUGIN	allow PLUGIN modifying (as deep as needed) the madgrap...	10 years ago
Template	Merge branch '3.x' into 3.6.1_aloha_obj	3 months ago
aloha	Fix issue with type2def in cpp case	3 months ago
bin	Merge branch '3.5.13' into 3.6.7	3 months ago
docs	update documentation	2 months ago
input	Merge branch '3.6.1_aloha_obj' into madevent7	3 months ago
madgraph	multichannel improvements	2 months ago
madspace	Revert "increase version number"	2 months ago
mg5decay	automatic formating fixing for escape string (with ruff)	2 years ago
models	allow back syntax with e+ e- u u~ ... (not yet j and p and l+...	3 months ago
tests	Merge branch '3.x' into 3.6.1_aloha_obj	3 months ago
vendor	Merge branch '3.5.13' into 3.6.7	3 months ago
.bzrignore	move back on the handling of dummy_fct (put back as ver...	5 years ago

About

[madgraph7.readthedocs.io](#)

- Readme
- View license
- Activity
- Custom properties
- 2 stars
- 0 watching
- 2 forks

Report repository

Releases 2

madspace v0.1.2 Latest
on Feb 10

[+ 1 release](#)

Deployments 3

pypi 2 months ago

[+ 2 deployments](#)

Packages

No packages published
[Publish your first package](#)

Contributors 6



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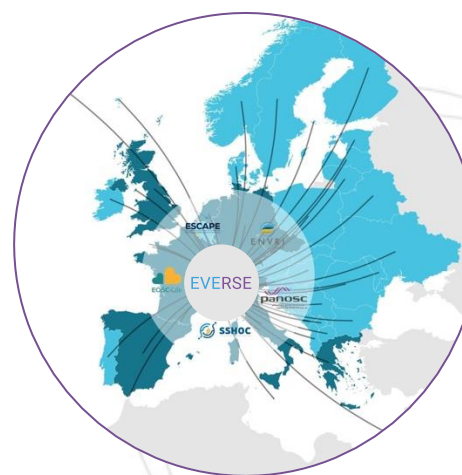


- Is my software FAIR (findable, accessible, interoperable, reusable)?
- Do I apply best practices for research software engineering?
- How could I possibly improve my software engineering skills?

What is EVERSE ? (European Virtual Institute for Research Software Excellence)

<https://everse.software/>

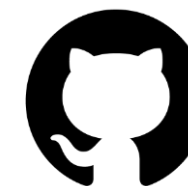
- Funded by Horizon Europe Program
- End in February 2028
- Create a framework for research software **quality** and code excellence, collaboratively designed by the research communities



Join Us



Any individual or organization that agrees with our vision statement is welcome to join the network



Dimensions & Indicators

The Landscape of Software quality indicators

<https://everse.software/indicators/website/indicators.html>

- Which software quality dimensions / categories
- What do these apply to :
 - Best practices
 - Tools
 - Training
 - Assessment Pipelines

Research Software Quality Dimensions

A research software quality dimension represents criteria relevant for assessing software quality (e.g., Documentation, Performance, etc.).

Search in table...

Name	Description	Source
Compatibility	Degree to which a product, system or component can exchange information with other products, systems or components, and/or perform its required functions while sharing the same common environment and resources.	ISO/IEC 25010 standard
FAIRness	FAIRness refers to the degree to which research software adheres to the FAIR principles: Findable, Accessible, Interoperable, and Reusable. These principles, adapted for research software, aim to enhance the discoverability, accessibility, interoperability, and reusability of software, thereby maximizing its value and impact in scientific research.	
Flexibility	Degree to which a product can be adapted to changes in its requirements, contexts of use or system environment.	
Performance Efficiency	This characteristic represents the degree to which a product performs its functions within specified time and throughput parameters and is efficient in the use of resources (such as CPU, memory, storage, network devices, energy, materials...) under specified conditions.	ISO/IEC 25010 standard
Reliability	Degree to which a system, product or component performs specified functions under specified conditions for a specified period of time.	ISO/IEC 25010 standard
Safety	This characteristic represents the degree to which a product under defined conditions to avoid a state in which human life, health, property, or the environment is endangered.	ISO/IEC 25010 standard
Security	Degree to which a product or system defends against attack patterns by malicious actors and protects information and data so that persons or other products or systems have the degree of data access appropriate to their types and levels of authorization.	ISO/IEC 25010 standard
Sustainability	The capacity of the software to endure. In other words, sustainability means that the software will continue to be available in the future, on new platforms, meeting new needs.	Defining Software Sustainability

Name	Abbreviation	Keywords	Quality Dimension	Description	Source
Software has license	software_has_license	license, metadata, fair	fairness	This check tries to determine if the project has published a license	OpenSSF Scorecard: License Reuse, licensing and legal aspects. RSMD-6.2

EVERSE Objectives

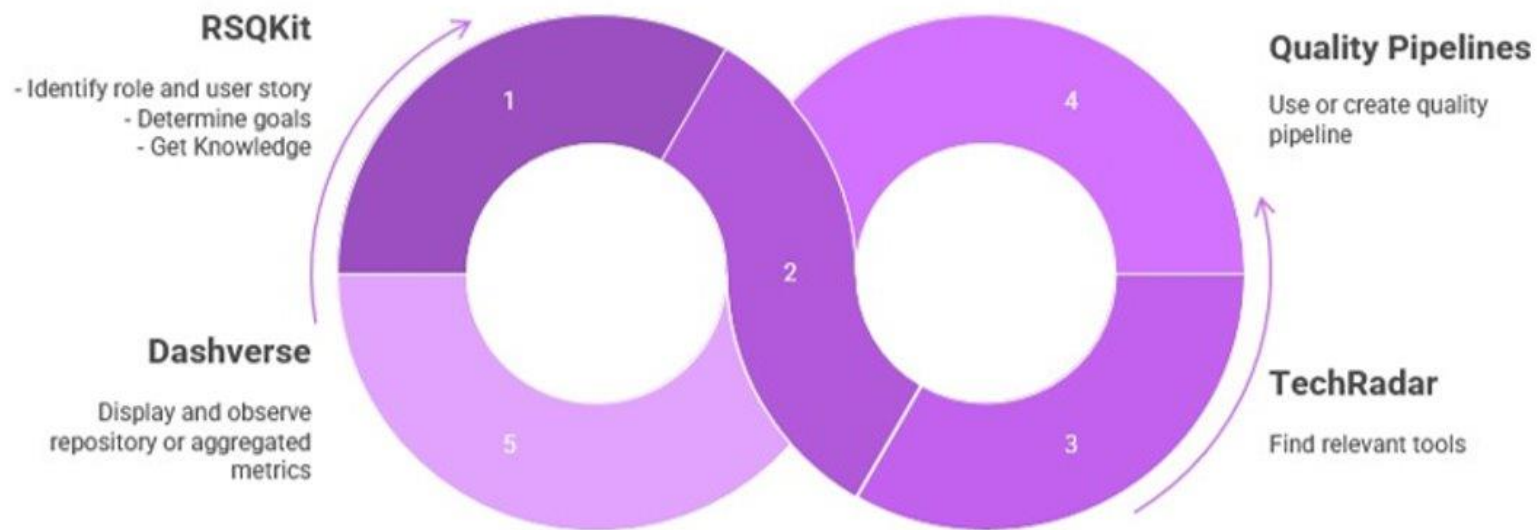
<https://everse.software/about/objectives/>



Reference Model: Not all research software is used in the same way

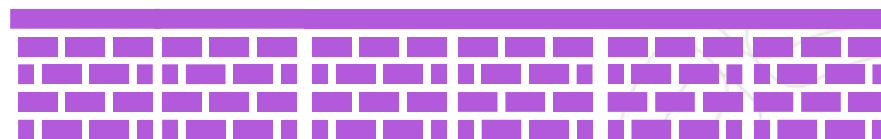
- Leverage existing tools and resources to support the evaluation, verification and improvement of research software and code quality
 - RSQKit (everse.software/RSQKit/)
 - Quality Dimensions and Indicators (everse.software/indicators/website/indicators.html),
 - TechRadar (everse.software/TechRadar/),
 - Quality Pipelines (github.com/EVERSE-ResearchSoftware/QualityPipelines),
 - DashVERSE (dashverse.cloud/)
- Provide a framework that will ensure appropriate recognition, reward, and career development for researchers and RSEs who implement research software
 - EVERSE Training (everse-training.app.cern.ch/),
 - APICURON (apicuron.org/),
 - BIP! Scholar (bip.imsi.athenarc.gr/scholar)

EVERSE Tools and Resources



Quality Dimensions and Indicators

- Identify relevant indicators
- Create new indicators



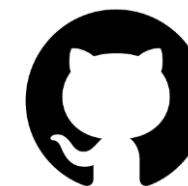
Training and Recognition Framework

- Find relevant training
- Get credit for your work (training and software)



(Bajare et al., 2026)

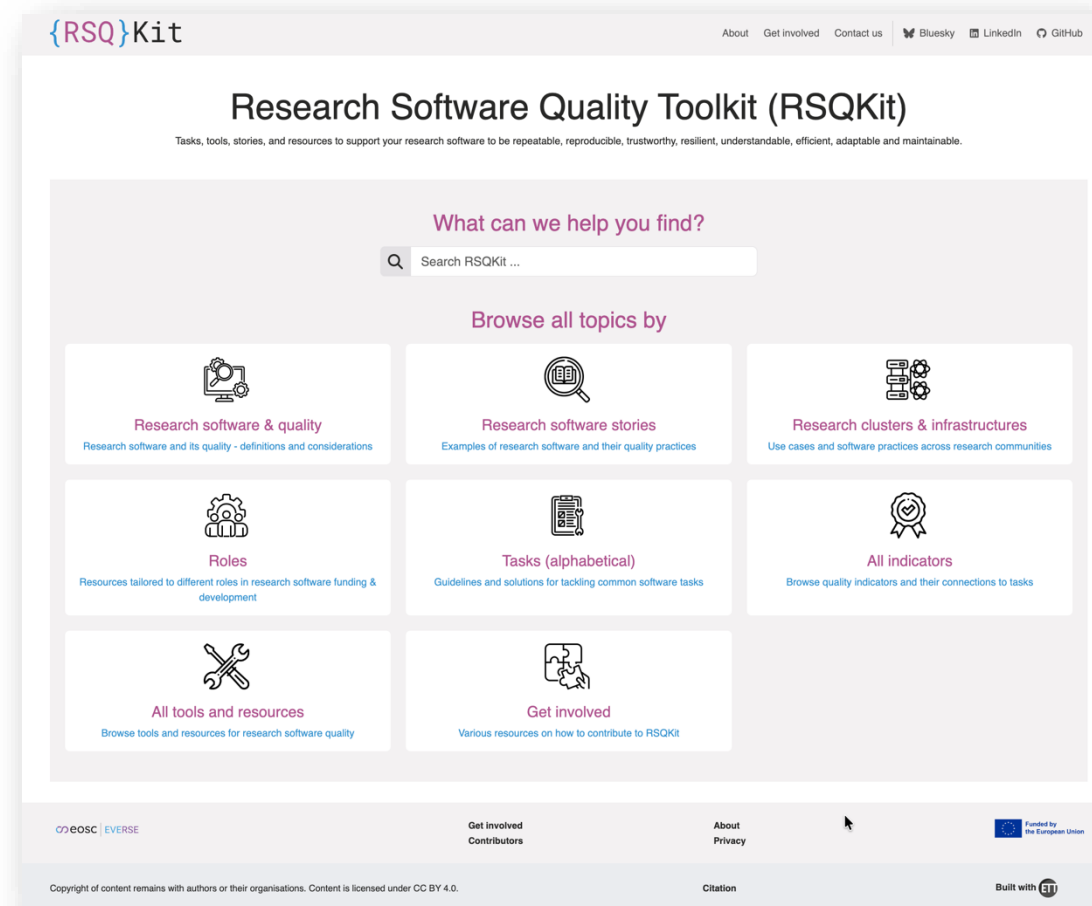
D5.1 Landscape analysis of existing rewards and mechanisms for research software and training activities. Zenodo. <https://doi.org/10.5281/zenodo.14978474>



Research Software Quality Kit (RSQKit)

<https://everse.software/RSQKit/>

- **Task driven guide** – how to improve you research software quality (RSQ)
- Training related to improving RSQ
- Examples of good practice – Research Software Stories
- Roles involved in research software
- Research clusters and Infrastructures that make & use research software
- A model for understanding the research software process for different types of research software



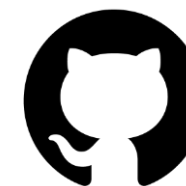
You can contact the editorial board (rsqkit@lists.certh.gr)

Any ideas or queries about RSQKit and research software quality are welcome

(Bajare et al., 2026)



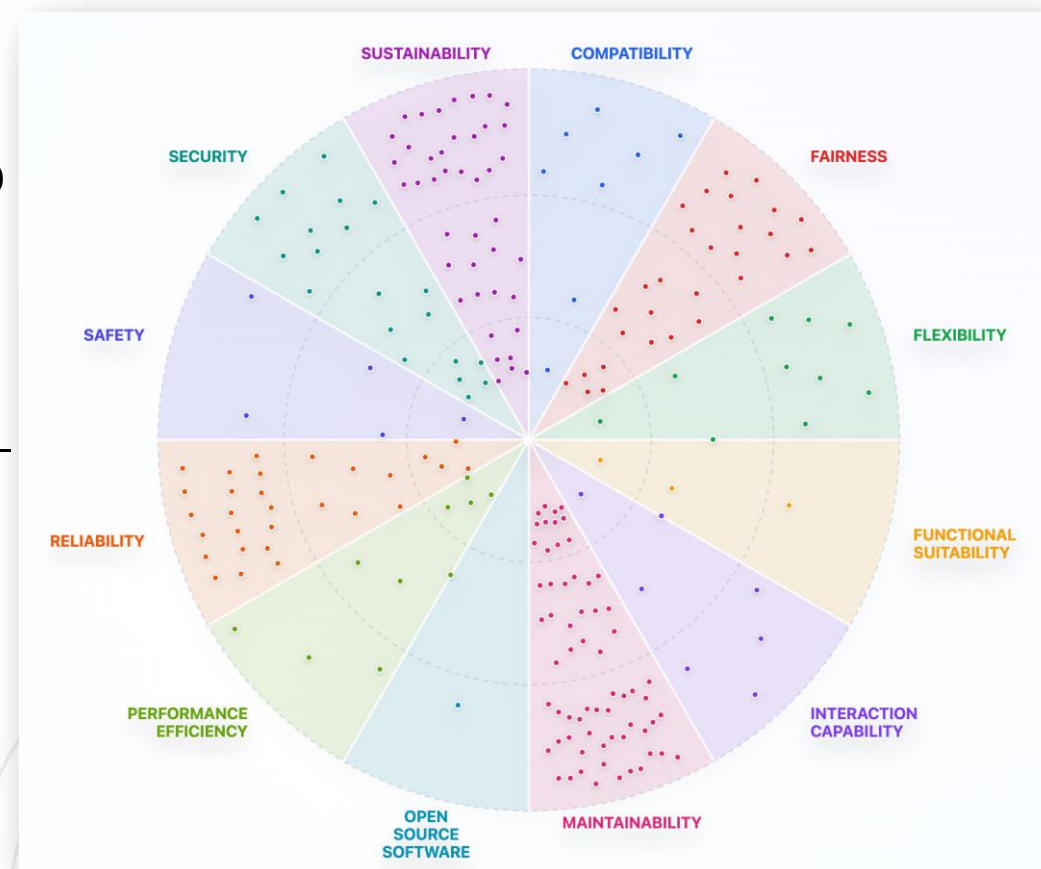
[TechRadar Demo](#)



EVERSE Tech Radar

<https://everse.software/TechRadar/>

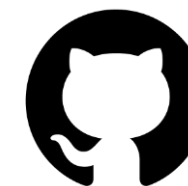
- A curated **catalogue of tools and services** that help evaluate, measure, and improve the quality of research software.
- The radar does not aim to cover all existing tools — it highlights tools that have been community-vetted and curated based on established criteria.



Get users experience & gather feedback <https://forms.gle/1ZLKc4y4AcZHpVkt6>



[Resqui Demo](#)



Quality Pipelines / resqui

<https://github.com/EVERSE-ResearchSoftware/QualityPipelines>

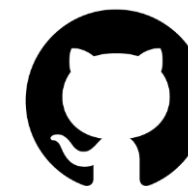
- A command line tool to check indicators related to research software quality.
 - Via command line (local)
 - Via GitHub Actions / CI
- You can choose what indicators you want to check
- Output: List of indicators/quality tests for your software/repo (JSON, EVERSE schema)
- Option to publish results on DashVERSE dashboard

```

run-resqui
succeeded last month in 39s

Run resqui action 34s
44 Using cached packaging-26.0-py3-none-any.whl (74 kB)
45 Using cached setuptools-80.10.2-py3-none-any.whl (1.1 MB)
46 Building wheels for collected packages: resqui
47 Building wheel for resqui (pyproject.toml): started
48 Building wheel for resqui (pyproject.toml): finished with status 'done'
49 Created wheel for resqui: filename=resqui-0.1.2.dev2+gd564bf8e9-py3-none-any.whl size=26190
sha256=2e5fc9c2a4c03fd8ea14bbe3cd1442db2410c56b25b2e02759dcfb6d68d64be7
50 Stored in directory: /tmp/pip-ephem-wheel-cache-
fmt4d4g6/wheels/6d/c1/75/d04c23491ceab33befa3845eba0c684412c98a3ae6c843f814
51 Successfully built resqui
52 Installing collected packages: setuptools, packaging, setuptools_scm, resqui
53
54 Successfully installed packaging-26.0 resqui-0.1.2.dev2+gd564bf8e9 setuptools-80.10.2 setuptools_scm-9.2.2
55 ▶ Run if [[ -n "$RESQUI_CONFIG" ]]; then
72 Loading default configuration.
73 GitHub API token ✓
74 Repository URL: https://github.com/ebreitmo/shinyproxy-testing
75 Project name: shinyproxy-testing
76 Author: ebreitmo
77 Email: elena@epcc.ed.ac.uk
78 Version: 4fedcab
79 Branch, tag or commit hash: 4fedcabf68fc7c6c9154ec06971a572d905382c8
80 Checking indicators ...
81 has_license/HowFairIs (1.2s): ✖
82 has_citation/CFFConvert (0.4s): ✖
83 has_ci_tests/OpenSSFscorecard (5.5s): ✖
84 human_code_review_requirement/OpenSSFscorecard (0.0s): ✖
85 has_published_package/OpenSSFscorecard (0.0s): ✓
86 has_no_security_leak/Gitleaks (1.0s): ✓
87 Summary has been written to resqui_summary.json
88 Publishing summary ✓

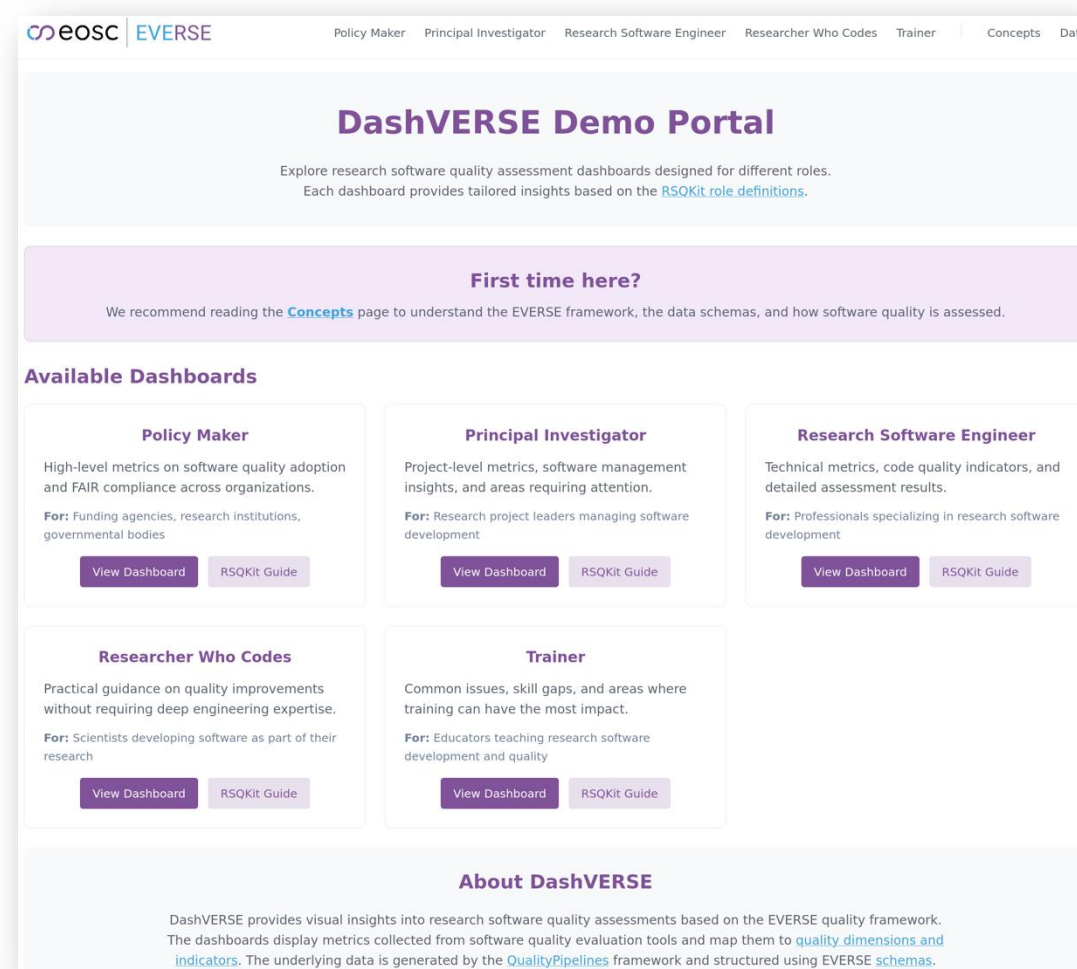
Post Run resqui action 0s
Post Checkout repository 0s
Complete job 0s
    
```



DashVERSE: Dashboard for EVERSE

<https://www.dashverse.cloud/>

- Visual analytics platform for research software quality
- Ingests EVERSE Quality Pipelines (resqui) assessment results via REST API
- Five role-based dashboards for different stakeholders
- Tracks software quality trends over time
- Identifies quality deficits to guide targeted improvements
- Open source: Apache Superset, PostgreSQL, Kubernetes



The screenshot shows the DashVERSE Demo Portal interface. At the top, there is a navigation bar with the 'eosc | EVERSE' logo and several user roles: Policy Maker, Principal Investigator, Research Software Engineer, Researcher Who Codes, Trainer, Concepts, and Data. The main heading is 'DashVERSE Demo Portal' with a sub-heading: 'Explore research software quality assessment dashboards designed for different roles. Each dashboard provides tailored insights based on the [RSQKit role definitions](#).' Below this is a purple box with the text 'First time here?' and a recommendation to read the 'Concepts' page. The 'Available Dashboards' section features five cards for different roles: Policy Maker, Principal Investigator, Research Software Engineer, Researcher Who Codes, and Trainer. Each card includes a brief description, a 'For:' statement, and buttons for 'View Dashboard' and 'RSQKit Guide'. At the bottom, there is an 'About DashVERSE' section with a paragraph explaining the platform's purpose and data sources.

EVERSE Training

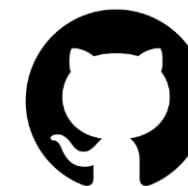
eiverse-training.app.cern.ch

- A curated **training catalogue** that helps early career scientist and engineers who want to learn the best practices in RSE; and trainers to showcase and advertise their learning resources
- Materials = videos, tutorials, webpages, courses, etc.
- Events = workshops, lectures, talks, schools, etc.
- Trainers = any contribution to training activities will be credited
- If you know a website offering training resources that can be showcased in EVERSE Training contact: kenneth.brian.rioja@cern.ch



EVERSE Training

<https://github.com/ElixirTeSS/tess>



The screenshot shows the EVERSE Training website. At the top, there is a navigation bar with links for Materials, Events, Trainers, About, and Log in. The main content area is divided into four sections:

- Training and events to foster Research Software Quality:** A large heading with a sub-heading. Below it, a brief description: "Browse the catalogue and find local and online courses, events, as well as videos, presentations, tutorials ... All types of resources at all levels for leveraging Research Software Quality." There is a search bar below this section.
- Upcoming events:** A section with a note: "Note: all times are shown in the timezone in which each event occurs." Below this, there is a card for "Gray Scott School 2026" with details: "Date: 22 June - 3 July 2026" and "Timezone: Central European Summer Time".
- Latest materials:** A section featuring a card for "SLIDES EVERSE Quality Pipelines and Dashboard demo". The card includes tags: "intermediate", "better software", "ci cd", "research infra software", "software tool", "good practices", "research software engineering", and the eosc logo.
- Featured trainer:** A section with two trainer profiles. The first is Céline Acary-Robert, a scientific computing research engineer at an applied mathematics lab in Grenoble. The second is Daniel Garijo Verdejo, an associate professor at the Artificial Intelligence Department of the Computer Science Faculty of Universidad Politécnica de Madrid.



[Webinar](#)

APICURON

<https://apicuron.org/>

- A platform to credit and acknowledge scientific contributions
- Tracks contributions to research artefacts and activities
- Transparent attribution of roles and activities
- Incentives and engagement through recognizable contribution records
- Connection to persistent identifiers and broader recognition workflows (e.g., ORCID)

APICURON Databases Contributors Docs Help About Login

S3 School

Sustainable Scientific Software School [Visit website](#)

The S3 School is a one week training program designed to teach good and modern coding practices tailored for scientific software development. Through APICURON, participants and instructors activities are tracked and rewarded with badges and recognition, highlighting their learning progress and contributions.

Database statistics

- 30 Unique Contributors
- 33 Contributions committed
- 14/01/2026 Joined APICURON
- 17/01/2026 Most Recent Contribution

Total Leaderboard

This Leaderboard comprises all contributions recorded by APICURON. From the beginning of the resource. This may include very old contributors.

Ranking	Total Score	Last Contribution Date	Contributor	Generation Contributions	Badges
1	30	17-01-2026	Thomas Vuillaume	3	0
2	20	15-01-2026	Alexander Moreno Briceño	2	0
3	10	16-01-2026	Imad Bourouche	1	0
4	10	16-01-2026	Yohann Jezequel	1	0
5	10	16-01-2026	Mykhailo Levytskyi	1	0
6	10	16-01-2026	Thomas Tomiczek	1	0
7	10	16-01-2026	ebraux	1	0
8	10	16-01-2026	Israt Jahan Tulin	1	0
9	10	16-01-2026	Suhasini Venkatesh	1	0
10	10	16-01-2026	Nicolás Ezequiel Avalos	1	0

Total Contributors: 30

What Contributions can be done on

- Teaching**: Delivering courses, workshops and training sessions to participants.
- Badges**:
 - Instructor**: Requires completing 1 activity between 14-01-2026 and 21-01-2026 UTC

ORCID Sign in / Register English

Alexander Moreno Briceño
<https://orcid.org/0000-0001-8415-2543>

Contributions to S3 School

- Dataset URI**: [APICURON Profile for S3 School](#) [Show less detail](#)
- Description**: Completed 2 Activities that contribute to S3 School
- Added**: 2026-03-31
- Last modified**: 2026-03-31
- Source**: APICURON



[Webinar](#)

BIP! Scholar

<https://bip.imsi.athenarc.gr/scholar>

- Showcasing broader scholarly contribution
- It helps present diverse scholarly contributions beyond papers alone
- Support richer researcher profiles
- Connect contributions, metadata and indicators in a more transparent way
- Easy reuse of recognized activities in CVs and assessments



Thank you!

Contact: contact@everse.software

Website: <https://www.everse.software/>

BlueSky: <https://bsky.app/profile/eosc-everse.bsky.social>

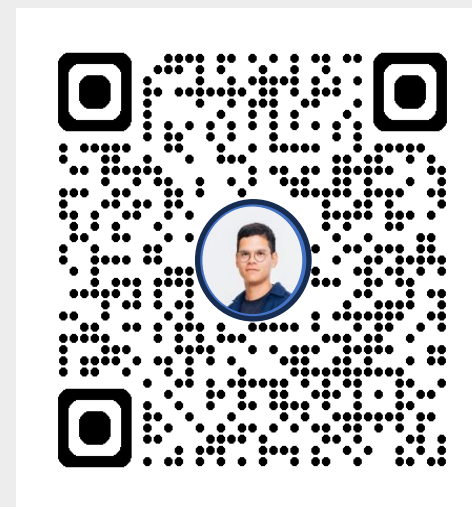
LinkedIn: <https://www.linkedin.com/company/eosc-everse/>

FOSSTodon: https://fosstodon.org/@eosc_everse



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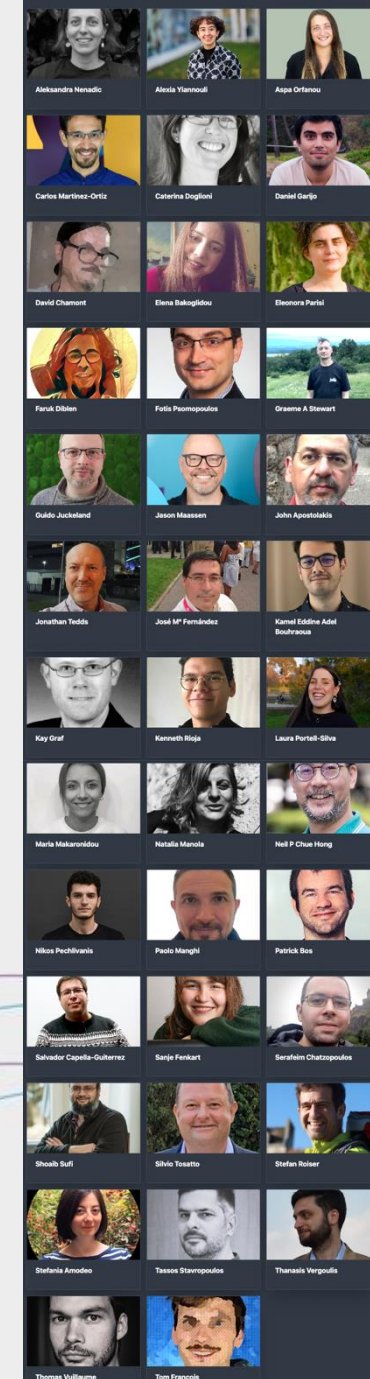
This project has received funding from the European Union's Horizon Europe Programme under GA 101129744 – EVERSE – HORIZON-INFRA-2023-EOSC-01-02



Kenneth Rioja

EVERSE People

Here are the people of EVERSE



Bajare, S., Breitmoser, E., Diblen, F., & Gál, T. (2026,). EVERSE: Tools and services for software quality and FAIRness. deRSE26 - 6th conference for Research Software Engineering in Germany (deRSE26), Stuttgart, Germany. Zenodo. <https://doi.org/10.5281/zenodo.18864327>

Quaglia, F. (2026). EVERSE Webinar: a Credit and Recognition Framework for RSEs and Trainers. Introduction and Overview. Indico. <https://indico.cern.ch/event/1663496/>

Rioja, K. (2026). EVERSE Training – A training catalogue for Research Software Engineering curated by EVERSE. Zenodo. <https://doi.org/10.5281/zenodo.18695269>

Roiser, S. (2026). The European Virtual Institute for Research Software Excellence, CHEP 2026, Bangkok, Thailand. Indico. <https://indico.cern.ch/event/1471803/contributions/6966818/>



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