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EVERSE

About us

Into the EVERSE

Welcome to the first newsletter of the EVERSE project. What is EVERSE though, you might ask? Let us introduce ourselves with a Q&A with our project leader, Fotis Psomopoulos; take a look at some conferences and workshops we held; check-out our services and website; and finally see where you can meet us in person.

EOSC-EVERSE

EVERSE Project

Enjoy exploring our newsletter!

Sanje Fenkart

Communications Officer

Towards research software excellence

In March 2024 the European Virtual Institute for Research Software Excellence was launched. Project leader Fotis Psomopolous talks about the goals of EVERSE.

How would you describe EVERSE in short?

The ambition of EVERSE is to produce a mentality shift in how to approach research software. In order to achieve that, we have defined certain goals. One is to create a knowledge base of good practices in research software quality and how these can be defined in each domain or discipline. Another is on how to recognise and reward people who are actively involved in producing software: from creating and maintaining it, to sustaining it and providing support. And lastly to make sure that you are not working in a vacuum, but rather being connected to other research software engineers all around the world. Essentially, we want to put together a network of like-minded people who can contribute to defining and promoting good practices for research software.

What gave the idea to launch EVERSE?

Many people across (science) communities are working on research software. They realised that this is not getting as much attention to reach

the people who matter. It's also lacking a common framework, a common reference point for research software excellence, where anyone could go for support and insights. Some countries have it - in the shape of research software societies - but it's not prevalent. When we realised that there was a funding opportunity to support activities specifically around research software quality, we jumped to the idea and connected to some science communities to bring together experts on software across Europe.

How does EVERSE fit into the EOSC frame?

The EOSC projects in Horizon Europe are a wide system of initiatives which promote open science. They all tackle different challenges and perspectives like, e.g., EOSC4Cancer addresses cancer research data. I'd say the vision for EVERSE would be to have a common understanding of what open science services are and how to promote open science in Europe. While most of the other projects focus more on data, EVERSE is one of the first ones that specifically targets research software. And our ultimate goal is to make it, together with data, a first class citizen in science.

What are the main outputs of the projects?

The first one would be a repository, if you like, where people can get information on good practices for software quality, for FAIR use in both, domain agnostic and domain specific cases. We plan for this knowledge base, the RSQKit (Research Software Quality Kit), to be a dynamic resource with active community involvement.

Another output is a catalogue of services and tools that facilitate research software quality. It's also meant to be dynamic, leveraging what already exists in different domains, going across various communities and connecting them to the proxies for quality impact. A third key aim is recognition, which is currently not formally in place. For this we have to first identify how we can list contributions and individual recognition, from the creation of software to maintenance.

Finally, we have the community itself: we want to establish a Network with EVERSE where people can either contribute to our outputs or simply stay informed and adopt the results. We also want to expand the Network beyond Europe, on a global level.

What do you see as key for the project to succeed?

The key is to convince people - the end users - that there is a value. It is the role of EVERSE to make a convincing statement that it has a value for them. In my mind that is key to see it continue beyond the lifecycle of the project.

I think it's also useful to mention for which scientific domains EVERSE is meant - is it domain specific or completely domain agnostic? While EVERSE is by definition the latter, meaning that software is the same regardless of the field, there are particular requirements and presentation for each domain. So we are closely working with the EOSC Science Clusters: physics & astronomy (ESCAPE), photon & neutron science (PANOSC), social sciences & humanities (SSHOC), life sciences (Life-RI) and environmental sciences (ENVRI-Hub). Each of them has one pilot case so we can identify all requirements and make it work.

Fotis Psomopoulos is a Researcher at the Institute of Applied Biosciences (INAB), at the Centre for Research and Technology Hellas (CERTH), in Thessaloniki Greece. He holds a PhD in Electrical and Computer Engineering with a focus on Bioinformatics

Introducing the RSQkit

Your Essential Guide to Research Software Quality

The role of research software quality is rapidly expanding across software-driven investigations. Research Infrastructures and funders from different domain areas provide a wide array of research software quality support in the form of tools, policies, standards and guidelines. Yet, many researchers find themselves caught in the middle, overwhelmed by the growing expectations and the big volume of resources available.

To simplify the process, research software quality experts across Europe have come together to create the RSQkit — an online toolkit designed to navigate these challenges and streamline research software quality integration.

The RSQkit aims to offer a carefully curated collection of guidelines, tools, and training resources, tailored to meet the diverse needs of research communities. More than just a toolkit, the RSQkit will serve as a comprehensive guide, offering practical advice on ensuring software is FAIR (Findable, Accessible, Interoperable, and Reusable) and providing support from project start to finish.

Built by a collaborative community of researchers representing the EOSC Science Clusters and software engineers, the RSQkit will help you make sense of the research software quality landscape and elevate the quality of your research software.

RQSkit

FAIRly visible

While we are working on our project goals, we didn't miss a beat to be where the people are: conferences.

Since the kick-off meeting in March 2024, our members have been busy presenting EVERSE to a wider audience. We went to different conferences, fairs and workshops to engage with our people — professionals in research software engineering.

First up was Aleksandar Stankovski (picture below), who recently started his PhD at Universidad Politécnica de Madrid. He presented EVERSE at the Ex-tended Semantic Web Conference in Hersonissos, Greece. EWSC gives a stage to expose the latest advances in knowledge graphs and knowledge engineering. His poster was part of the session on project networking where attendees have the opportunity to find related projects and exchange common interests. Also in Greece, Fotis represented EVERSE with a booth at the Thessaloniki International Fair at the HELEXPO centre.
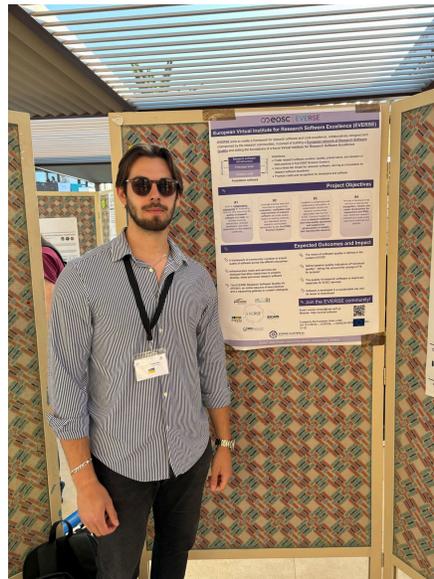
EVERSE was presented at RSECon24 in Newcastle with a poster and a lightning talk. The conference provided a platform to connect with the UK and international RSE community. The occasion helped coagulate interest among individuals and groups already indirectly involved with the project, and stimulated engagement with new people previously unfamiliar with EVERSE. Throughout the conference, team members engaged in discussions that provided valuable context for the current state of research software development across various disciplines. These insights will inform the ongoing development of EVERSE's framework and tools.

The event also served to gauge the community's response to proposed initiatives such as network and the Research Software Quality toolkit (RSQkit). The feedback received will be useful in refining these goals of EVERSE. Overall, the participation at RSECon 2024 not only increased awareness of EVERSE within the RSE community but also provided interesting insights for the project's future direction. Building on the momentum generated at RSECon24, EVERSE has set its sights on deRSEcon25 in Karlsruhe. With the project's advancement, we aim to present a more comprehensive contribution, such as a dedicated workshop. This expanded participation will showcase EVERSE's progress and offer attendees a deeper engagement with the project's developing frameworks and tools. (*A word from Giacomo Peru, University of Edinburgh*.)
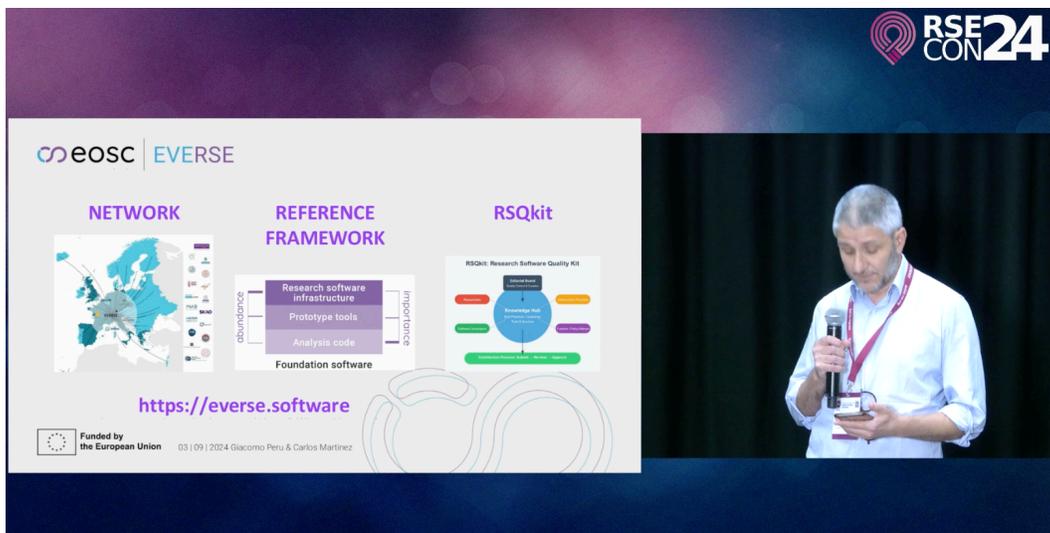
2024 International Research Software Funders Workshop

September finally saw the highly awaited the 2024 International Research Software Funders Workshop in Uppsala, Sweden. Organised by the SciLifeLab with their Data Center and the Research Software Alliance, the EVERSE workshop was held as a satellite event on 11th October. Each day held a different focus for the attendees, among which where more than 50 funding organisations and infrastructure providers. As a host SciLifeLab especially focused on how the research software landscape should evolve for Sweden and under which guidelines.

EVERSE was up on day 2. It started with three key presentations by Fotis Psomopoulos for EVERSE, Chris Erdmann for SciLifeLab and Colette Bos

for the Netherlands eScience Center on [ADORE.software](). Participants then split into three break-out groups, each discussing different aspects of research software and propose key outcomes.

The first group discussed the role of funders in ensuring the quality of research software, more precisely the definition, assessment and maintenance of standards. They recommended that funders should support conference-like event that are software related as well as promote the inclusion of a software management plan; EVERSE could lead a mapping

activity on the latter's usefulness. Group nr. 2 talked about approaches to addressing research software quality, especially how standards differ depending on the type and purpose of software. A lot of consideration went into indicators and measurable quality. Here, EVERSE got the main action point: assessing the correlation of potential quality indicators for different types of software. In the third group the participants addressed the matter of policy in research software and software development. The idea was to collect idea for a shift away from discouraging policies that are heavy on judgements and rather endorse the ones that support participation creativity and progress. This can also help to bridge the gap between researches and policymakers. EVERSE is planning to conduct a survey to find impactful software which can then help policymakers to identify the best results.

So the action plan is now set and EVERSE will start to work on its tasks to help improve the status of research software engineering.

For more detailed reports please see:

[Report on the Funders Forum on Zenodo](#)

[Summary by SciLifeLab](#)

Click & Connect

<div>Webpage</div>

EVERSE operates under the motto "from the communities, for the communities". We want to engage with professionals in research software engineering and exchange ideas and guidelines. While we offer services like the Network, the reference model and the Research Software Quality Kit, we invite anyone who is interested to elevate the standards of research software excellence. Individuals as well as organisations can contribute by joining us a member.

On our dedicated [Network webpage](#) you can find the description of the Network and how to join us. For this, we would ask you to fill out a quick

survey to let us know your interest and so that we can add you to our mailing list.

For news updates you will receive this newsletter and you can also follow us on social media:

Announcements & Outlook

Meet us at the EOSC Symposium in Berlin from 21-23 October. Among the many other Horizons Europe projects, we will be present at the Unconference session on "Open Science Competence Center in the EOSC and beyond." Let's connect there!

Click here

Not cool with freezing temperatures? EOSC-A and EOSC Focus are organising a winter school in Sevilla (20-24 January 2025). The EOSC Winter schools are aiming at strengthening the collaboration between the different projects from Horizon Europe.

More detailed information about content and registration will be available here:

Click here

There are my national research software alliances and each has its own conference. And while there are international conferences, symposia and workshops on all things computing and software, so far there is not one dedicated conference on international RSE.

The ReSA is about to tackle just this. Part of their planning towards an international research software conference is a webinar series. The idea for these online events is to foster discussion and collect ideas from the community to make the conference happen with all aspects needed.

Click here

When: 31 Oct-5 Nov 2024

Where (Zoom link): https://us02web.zoom.us/j/2187873236?pwd=cXpmZXQzalhMcGlUN0J...

Organised by our partner ELIXIR Europe, a full week of hacking in the field of life sciences awaits. The main focus is on bioinformatics and its challenges in coding. Since its first edition in 2018 it gained a lot of popularity and while in-person registration is already full, you can register for the waiting list or virtual attendance here:

Click here

The International Conference for High Performance Computing, Networking, Storage, and Analysis is dedicating a full-day session for research software engineers in high-perfomance computing.

Check out the whole programme (17-22 Nov; Atlanta, GA) here:

Click here

Still enough time for planning is left for the German conference on research software engineering. Contributions can still be submitted until 28th October and registration will open early December.

Want to join from 25-27 February at the Karlsruhe Institute of Technology? Sign up here:

Click here