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Pilots and Drivers

Environmental Sciences: Integration of the EVERSE framework into the ENVRI-HUB knowledgebase and Virtual Research Environment (pilot by ENVRI-HUB)

Life Sciences: Leverage EVERSE towards making RO-Crate actionable for secure and federated workflow orchestration, and use of community-led standards for mobilising encrypted data whenever needed (pilot by ELIXIR)

Astronomy and Particle Physics: Use EVERSE to optimise ML-enabled data compression, refine reconstruction and data analysis software built for Open Science (pilot by the ESCAPE Dark Matter Science Project)

Proton and Neutron Science: Use EVERSE to transition software to high performance computing and heterogeneous computing architectures (pilot by LEAPS/LENS)

Social Sciences: Rely on EVERSE services to develop a multilanguage textual analysis pipeline of tools to create a state-of-the-art tool capable of deploying locally or as a service (pilot by SSHOC)

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PARTNERSHIP

Funded by the European Union

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European Virtual Institute for Research Software Excellence

High Quality Research Software for the Communities by the Communities

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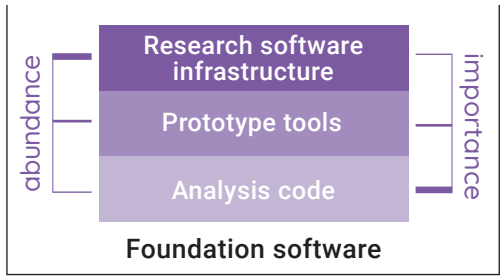
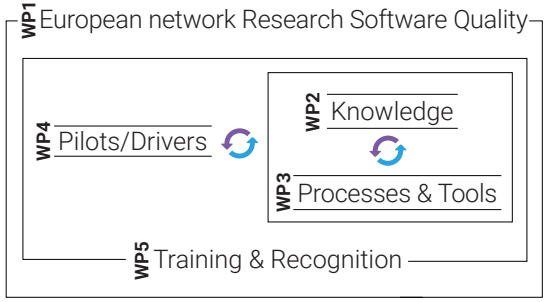
Paving the way towards a European Virtual Institute for Research Software Excellence



The EVERSE project aims to create a framework for research software and code excellence, to be collaboratively designed and championed by the research communities. In doing so, EVERSE aspires to build a European network of Research Software Quality and set the foundations of a future Virtual Institute for Research Software Excellence.

- Foster research software curation, quality, preservation, and adoption of best practices through collaboration with the five EOSC Science Clusters.
- Use a three-tier model for research software, catering to different complexities and serving as a foundation for research software excellence.
- Prioritize credit and recognition for developers and software to bolster sustainable software practices.

Objectives



Objective 1: Build a collaborative, community-led structure for evaluating, verifying, and improving the quality of research software and code, by actively involving researchers, software developers, and other stakeholders in the research community.

Objective 2: Leverage existing tools and resources to support the evaluation, verification and improvement of research software and code quality, based on existing practices and standards across research communities represented by the five EOSC Science Clusters.

Objective 3: Establish a sustainable and collaborative ecosystem of stakeholders across the research communities associated with the five EOSC Science Clusters to ensure research software and code quality assurance and support the advancement of reliable and reproducible research.

Objective 4: Provide a framework that will ensure appropriate recognition, reward, and career development for researchers and RSEs who implement research software and code quality assurance practices and policies.

Expected Outcomes and Impact

- A framework of **community curation** to ensure quality of software across the different disciplines
- **Infrastructure, tools and services** are deployed that allow researchers to properly develop, share and reuse research software
- The EVERSE **Research Software Quality kit (RSQkit),** an online resource of best practices and a signposting gateway to curated catalogues, is developed
- The notion of **software quality** is defined in the context of EOSC
- Define baseline **quality indicators** of "minimum quality", taking into account the concept of "fit for purpose"
- The quality of research software is improved, in general, especially for EOSC services
- Software is developed in a **sustainable way and its reuse is maximized**