OSSR: Open-Source Software Repository

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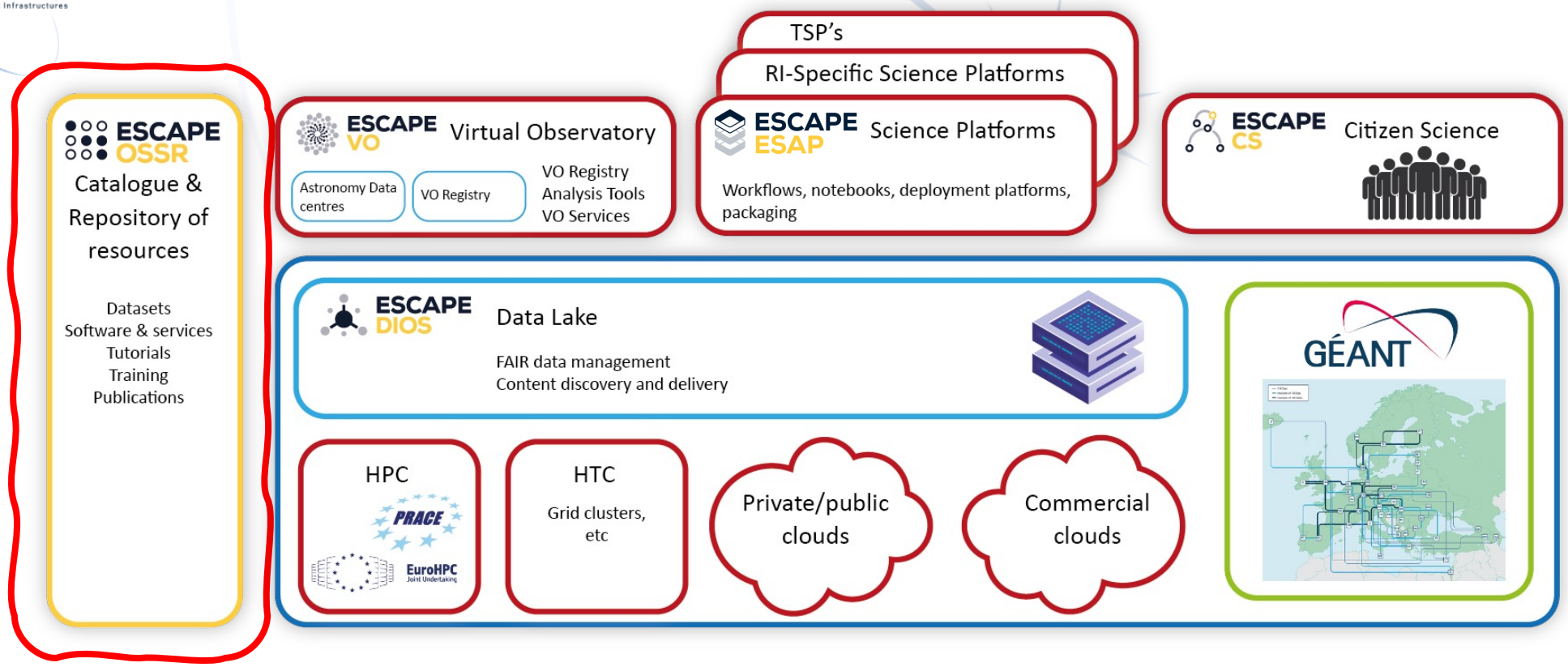
on behalf of the ESCAPE OSSR Working Group

ESCAPE - The European Science Cluster of Astronomy & Particle Physics ESFRI Research Infrastructures has received funding from the European Union's Horizon 2020 research and innovation programme under the Grant Agreement n° 824064.

ESCAPE EOSC cell



OSSR was developed as part of the ESCAPE project
(Astro/particle, Particle Physics and Astronomy Research Infrastructures)
in the EOSC (European Open Science Cloud)

- servicing the needs of the ESF/RIS
- Since 03/2023: ESCAPE is an Open Collaboration → transition phase

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OSSR Aims and Structure

ESCAPE
European Science Cluster of Astronomy & Particle physics ESFRI research Infrastructures

ESCAPE OSSR
Catalogue & Repository of resources

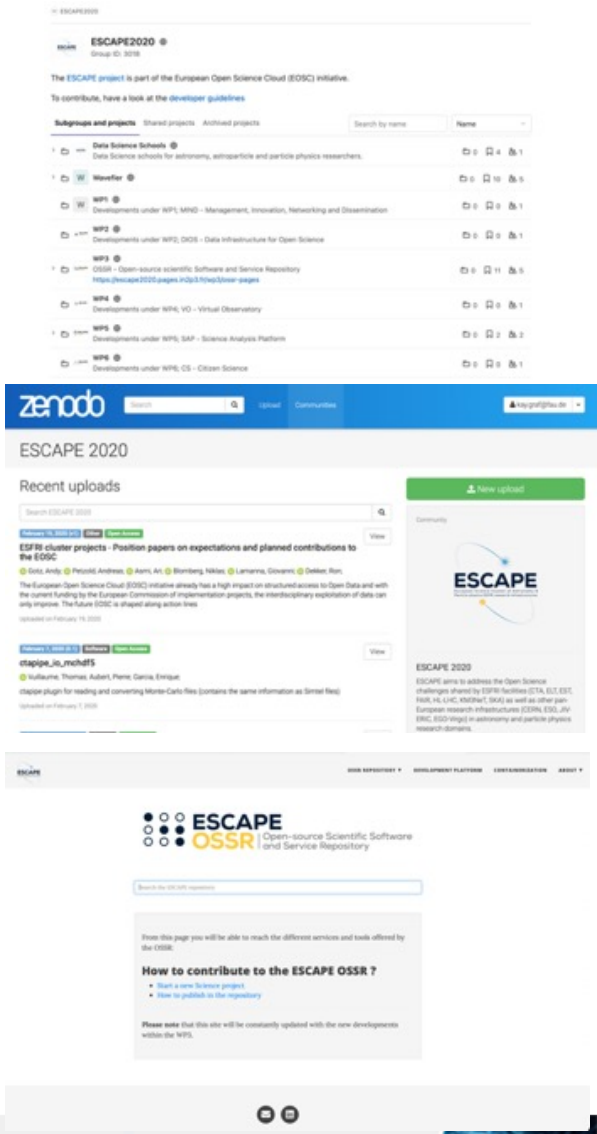
Datasets
Software & services
Tutorials
Training
Publications

The ESCAPE Open-source Scientific Software and Service Repository (OSSR) is a **sustainable open-access repository** to share **scientific software, services** to the **astro-particle-physics-related communities** and enable open science. It is built as a **curated** Zenodo community integrated with **dedicated tools** to enable a complete software life-cycle. The OSSR is fully onboarded into the EOSC explorer.

Development Platform
- Software Development
- Integration & Automation

Repository
- Service Aggregation
- Preservation / Archive
- (link to EOSC)

Landing Page
- Entry point, Link Aggregation
- New: migration to RSD planned



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Outreach Slides

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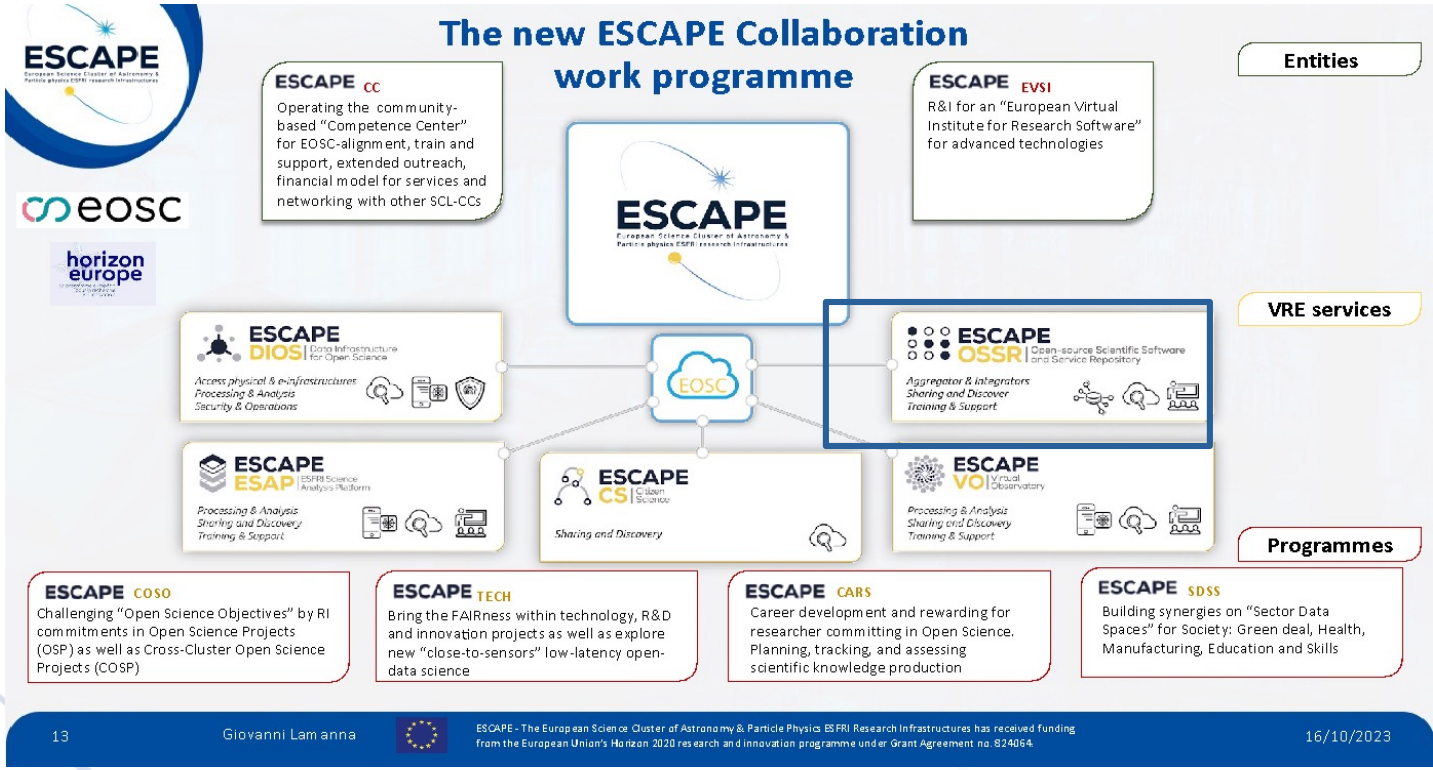
What is the OSSR?

- The Open Software and Service Repository is one building stone emerging from the ESCAPE project in EOSC (European Open Science Cloud)
- Supported through the ESCAPE collaboration
- Catalogue of software repositories or collections based on entries in a Zenodo community
- OSSR group to curate and develop repository & foster community
- Review performed on all entries



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Why should you share your software?

Visibility

- See your work alongside other projects from the same community
- Be citeable through Zenodo and findable through multiple integrated software platforms

Recognition

- Go through our quality review and receive the OSSR badge
- Increase citations through better findability
- Long-term archival of your software

Community

- Be invited to the community exchange during the OSSR collaboration meetings
- Present your project and benefit from the experience of colleagues from the field

Future integration

- Benefit from future developments to enable science platform integration
- Keep in touch with the latest developments in ESCAPE

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What to share - examples

Community relevant software

A **Python** package for **gamma-ray** astronomy

DOI: 10.5281/zenodo.8033275

Analysis repositories

SKA Science Data Challenge

DOI: 10.5281/zenodo.5526844

Service and software collections

An astronomical HiPS visualizer in the browser

DOI: 10.5281/zenodo.8243056

new types

If it makes sense – add it!

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How to onboard

Add metadata

- Create a codemeta.json with required info
- Make sure to add good documentation

Publish on Zenodo

- Push your work to Zenodo and request access to the ESCAPE community

Get your review done

- Get all the quality checkmarks and get added
- Add your OSSR badge to your project

Get involved

- Join the OSSR community meetings
- Share your software, create new opportunites!

Relevant Links

Onboarding instructions: https://escape-ossr.gitlab.io/ossr-pages/page/contribute/onboarding/

Zenodo Community: https://zenodo.org/communities/escape2020

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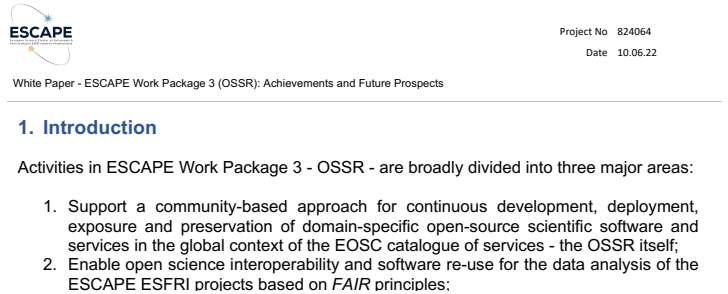
Further Reading: OSSR Publications

- OSSR White Paper:
  ESCAPE Work Package 3 (OSSR): Achievements and Future Prospects

- Scientific paper:
  The ESCAPE Open-source Software and Service Repository
  ORE 2023, 3:46 (under review)

- Policy Paper:
  Open Source and Service Repository Policy
  DOI: 10.5281/zenodo.6757112



ESCAPE

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White Paper - ESCAPE Work Package 3 (OSSR): Achievements and Future Prospects

1. Introduction

Activities in ESCAPE Work Package 3 - OSSR - are broadly divided into three major areas:

1. Support a community-based approach for continuous development, deployment, exposure and preservation of domain-specific open-source scientific software and services in the global context of the EOSC catalogue of services - the OSSR itself;
2. Enable open science interoperability and software re-use for the data analysis of the ESCAPE ESFRI projects based on *FAIR* principles;

Open Research Europe

Open Research Europe 2023, 3:46 Last updated: 04 JUL 2023

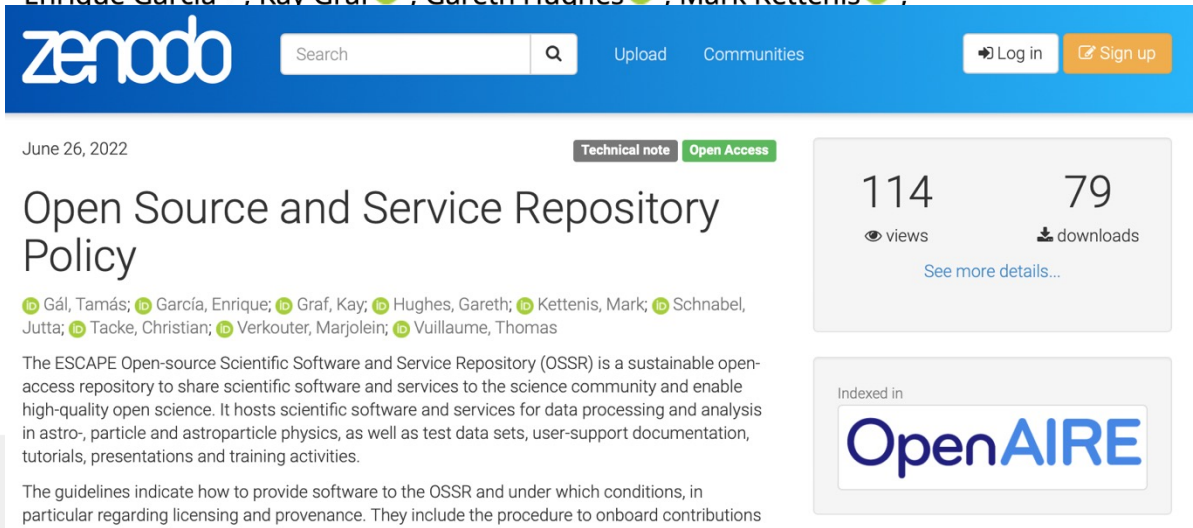
Check for updates

OPEN LETTER

The ESCAPE Open-source Software and Service Repository

[version 1; peer review: awaiting peer review]

Thomas Vuillaume[1], Mohammad Al-Turany[2], Matthias Füßling[3], Tamas Gal[4], Enrique Garcia[1,5], Kay Graf[4], Gareth Hughes[3], Mark Kettenis[6],



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June 26, 2022

Technical note Open Access

Open Source and Service Repository Policy

Gál, Tamás; García, Enrique; Graf, Kay; Hughes, Gareth; Kettenis, Mark; Schnabel, Jutta; Tacke, Christian; Verkouter, Marjolein; Vuillaume, Thomas

The ESCAPE Open-source Scientific Software and Service Repository (OSSR) is a sustainable open-access repository to share scientific software and services to the science community and enable high-quality open science. It hosts scientific software and services for data processing and analysis in astro-, particle and astroparticle physics, as well as test data sets, user-support documentation, tutorials, presentations and training activities.

The guidelines indicate how to provide software to the OSSR and under which conditions, in particular regarding licensing and provenance. They include the procedure to onboard contributions to the OSSR and an overview over the required metadata.

These guidelines are part of this OSSR policy and are therefore subject to change.

114 views 79 downloads

See more details...

Indexed in OpenAIRE

Publication date:

OSSR started as EOSC Project and became an Open Collaboration lately

Many overlapping topics with national projects/RIs

Thank you for your attention!

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