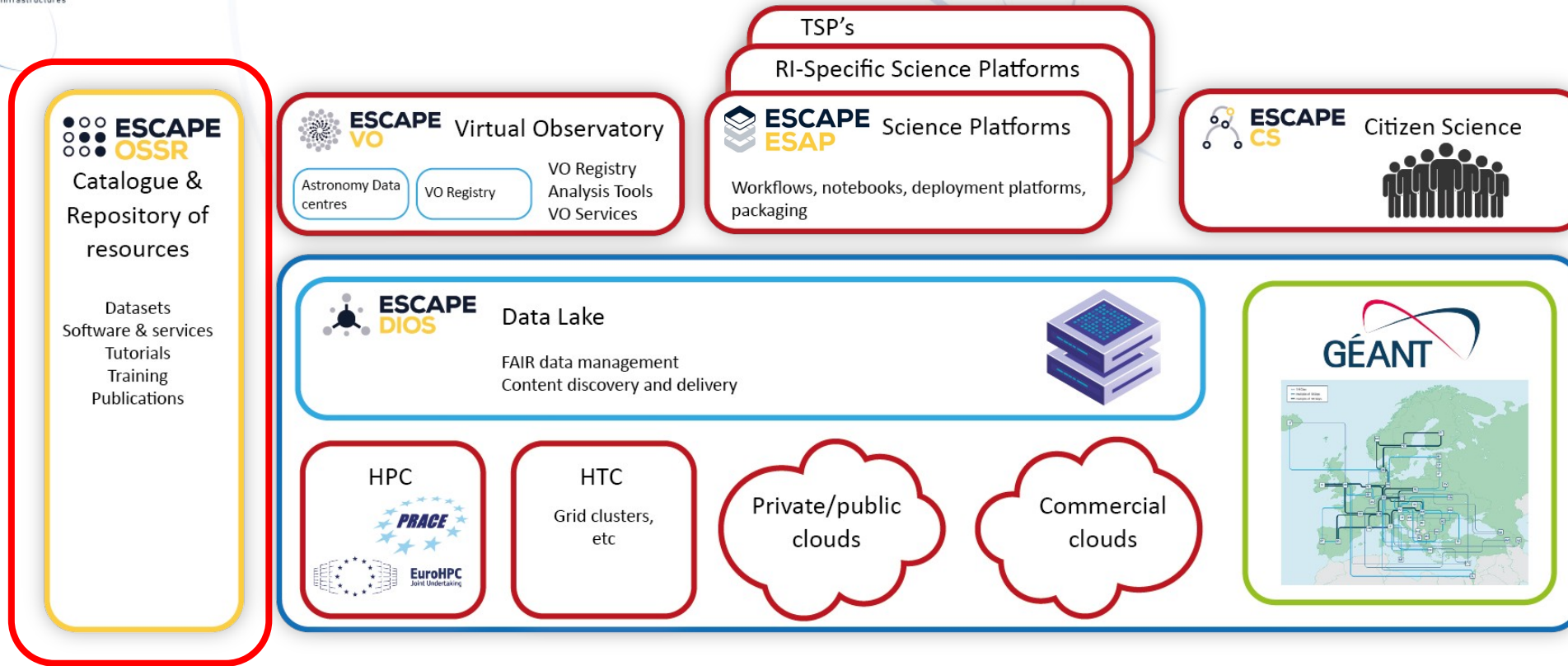


A detailed wireframe model of a particle accelerator is shown. The main feature is a large, horizontally oriented oval ring structure. Above this ring, there is a more complex structure with several smaller loops and straight sections, representing the injection and extraction systems. The entire model is rendered in a black wireframe style, showing the internal structure and components of the facility.

ESCAPE and the OSSR

2023-10-20

Dr. Christian Tacke, SDE, GSI



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 RIS
- Since 03/2023: ESCAPE is an Open Collaboration





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**.

OSSR Overview (2)

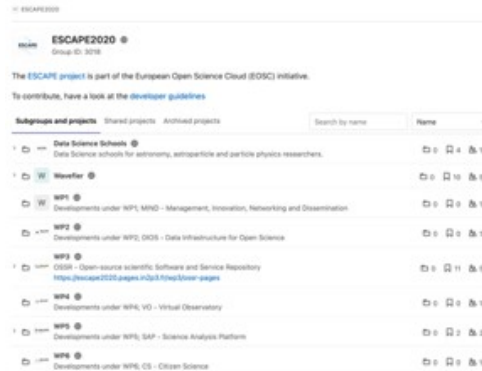


Catalogue &
Repository of
resources

Datasets
Software & services
Tutorials
Training
Publications

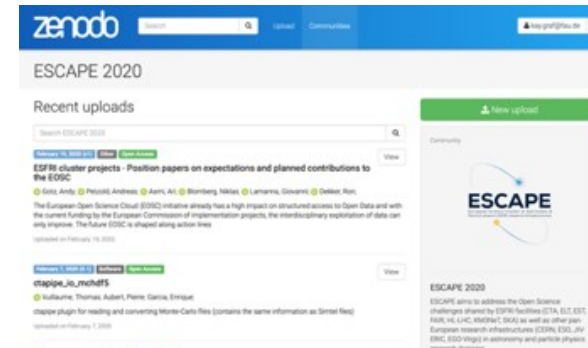
Development Platform

- Software Development
- Integration & Automation



Repository

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



Landing Page

- Entry point, Link Aggregation
- Search



- Transition from project organisation into open collaboration under an MoU
- Three main areas of collaboration:
 - Policy, Strategy and Collaboration
 - Onboarding → Curated Repository!
 - Technical Developments
- Aims:
 - Collect software to provide additional visibility and cite-ability for RSEs; strengthen software competence with quality in focus
 - Use of OSSR as forum to foster publications/opportunities
 - Offer standards for new communities to join

- Basic requirements
 - Mature State, Follow current software engineering practices
 - Publicly available and Open-Source licence
 - Some small things (like introductory documentation)
- Add Metadata (CodeMeta) to your software
- Give Onboarding Talk
- Publish on Zenodo
- Curation

```
{  
  "@context": "https://doi.org/10.5063/schema/codemeta-2.0",  
  "@type": "SoftwareSourceCode",  
  "license": "https://spdx.org/licenses/GPL-3.0",  
  "codeRepository": "git+https://github.com/R3BRootGroup/R3BRoot.git",  
  "contIntegration": "https://github.com/R3BRootGroup/R3BRoot/actions",  
  "dateCreated": "2009-04-14",  
  "name": "R3BRoot",  
  "softwareVersion": "sep22",  
  ...  
}
```


- CodeMeta (initial) Generator
- eOSSR library to interact with the OSSR
- CI / CD helpers:
 - Update your codemeta.json
 - Check your codemeta.json
 - Convert to zenodo metadata
 - Upload to Zenodo
 - Snippets / Integrations for Gitlab CI and Github Actions

- Get a slot during the Onboarding Process
- 20 minute talk, 10 minutes discussion
- Template available
- Projects with recorded talk will get much higher visibility

- Helmholtz MT-DMA has a cooperation with OSSR and will publish all its software as part of the OSSR
- Cooperation with the Netherlands eScience Center to integrate with the Research Software Directory (research-software-directory.org)
 - Currently in active development
 - Will also be used to integrate with the Helmholtz RSD (helmholtz.software)

- OSSR Entry Page: <https://purl.org/escape/ossr>
(nearly everything else should be linked from here)
- GSI Open Science: <https://www.gsi.de/open-science>
(section on “Open Software”)
- eOSSR Library: <https://gitlab.com/escape-ossr/eossr>
- Scientific Paper:
The ESCAPE Open-source Software and Service Repository
DOI: 10.12688/openreseurope.15692.1
- Policy Paper
Open Source and Service Repository Policy
DOI: 10.5281/zenodo.6757112

Questions!