



European Integration of National-level services – a look on the case study of FAIRCORE4EOSC project

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The what?
And how it relates to
CRIS / RIM community

Who are
involved
and
what are
we aiming for?

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CASE STUDY

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WHAT'S IN IT FOR YOU?

The Strategic Research and Innovation Agenda (SRIA) for EOSC was created in 2021, as a roadmap for future development. Priorities highlighted in the SRIA are the establishment of the Web of FAIR data and a **Minimum Viable EOSC (MVE) by 2027, that is the core components and functions to enable EOSC to operate (the EOSC-Core).**

The EOSC-Core development has been initiated in the Horizon 2020 calls, but some of the challenges that require to be addressed are:

- **Identifiers:** Introducing new resource types; machine-actionable persistent identifiers (PIDs); establishing a PID meta-resolver; standardising PID graphs; PID compliance framework to ensure compliance to the EOSC PID policy and to ensure quality of service for PIDs;
- **Metadata and Ontologies:** Provide or embrace/stimulate existing registries of metadata schemas, ontologies and crosswalks, develop services that build on metadata registries and can facilitate the creation and sharing of crosswalks;
- **Interoperability:** Enable discovery of data sources available in different formats, making search tools available; Provide tools for quality validation of metadata records and of digital objects; Implement EOSC PID Policy;
- **Research Software:** metadata description standards for research software, automated deposit of new releases into a scholarly repository and Software Heritage.

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WHAT'S IN IT FOR YOU?

Call title: Deploying EOSC-Core components for FAIR Research and Innovation Action

Budget: 10 million EUR

Duration: June 2022 – May 2025

Consortium: 22 partners, coordinated by CSC – IT Center for Science

Website: faircore4eosc.eu

Key results: In response to the gaps identified in the SRIA , the project will develop nine new EOSC-Core components aimed to improve the discoverability and interoperability of an increased amount of research outputs.

<https://doi.org/10.3030/101057264>



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EOSC Research Discovery Graph (RDGraph) to deliver advanced discovery tools across EOSC resources and communities.



EOSC PID Graph (PIDGraph) to improve the way of interlinking research entities across domains and data sources on the basis of PIDs.



EOSC Metadata Schema and Crosswalk Registry (MSCR) to support publishing, discovery and access of metadata schemas and provide functions to operationalise metadata conversions by combining crosswalks.



EOSC Data Type Registry (DTR) to provide user friendly APIs for metadata imports and access to different data types and metadata mappings.



EOSC PID Meta Resolver (PIDMR) to offer users a single PID resolving API in which any kind of PID can be resolved through a single, scalable PID resolving infrastructure.



EOSC Compliance Assessment Toolkit (CAT) to support the EOSC PID policy compliance and implementation.



EOSC Research Activity Identifier Service (RAiD) to mint PIDs for research projects, allowing to manage and track project related activities.



EOSC Research Software APIs and Connectors (RSAC) to ensure the long-term preservation of research software in different disciplines.



EOSC Software Heritage Mirror (SWHM) to equip EOSC with a mirror of the Software Heritage universal source code archive.

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WHAT'S IN IT FOR YOU?

Same issues with interoperability of systems, manual conversions of metadata schemas and identifierless research objects exist in CRIS-domain as well

National built CRISs for research graph information would be invaluable source for e.g. research assessment or to highlight EOSC-related contributions if interoperability could be achieved



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WHAT'S IN IT FOR YOU?

FAIRCORE4EOSC Case Studies:

Social Sciences and Humanities (CLARIN)

Climate Change (DKRZ): ENES supports climate modellers in their work, in particular in the area of data management. In this case...

Mathematics (FIZ Karlsruhe): zbMATH Open & swMATH projects aggregate significant scientific advances in mathematics and related disciplines.

EOSC Service Providers (EUDAT): The case study aims to meet domain-specific requirements of research communities for common data services that improve discovery, access and reusability of research data.

European Integration of National-level Services (CSC): The case study will showcase how the developed components can enrich the content of the national research information systems displaying international connections to research objects and improve their interoperability.

Adopted components: DTR, MSCR, PIDGraph, RAID, RDGraph, ISAC, SWHM


Case study: European Integration of National-level services




Research.fi by 



HELIX by 



Open Knowledge Base by 

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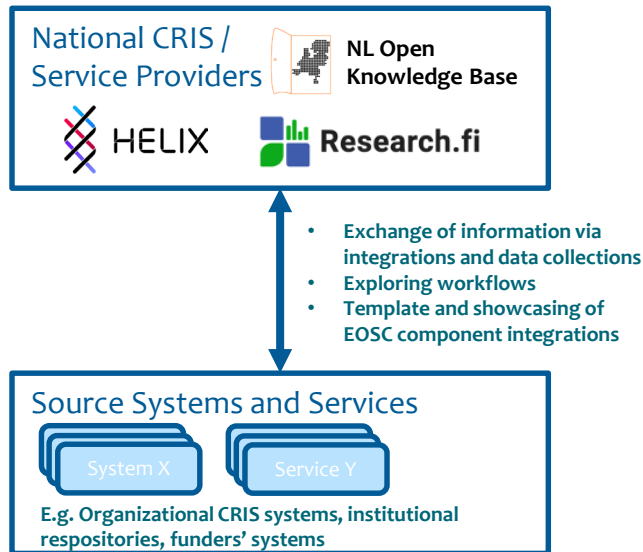
WHAT'S IN IT FOR YOU?

Case study building upon
previous work within CRIS-
domain of:

Established national CRISs and
working integrations with
organizational systems

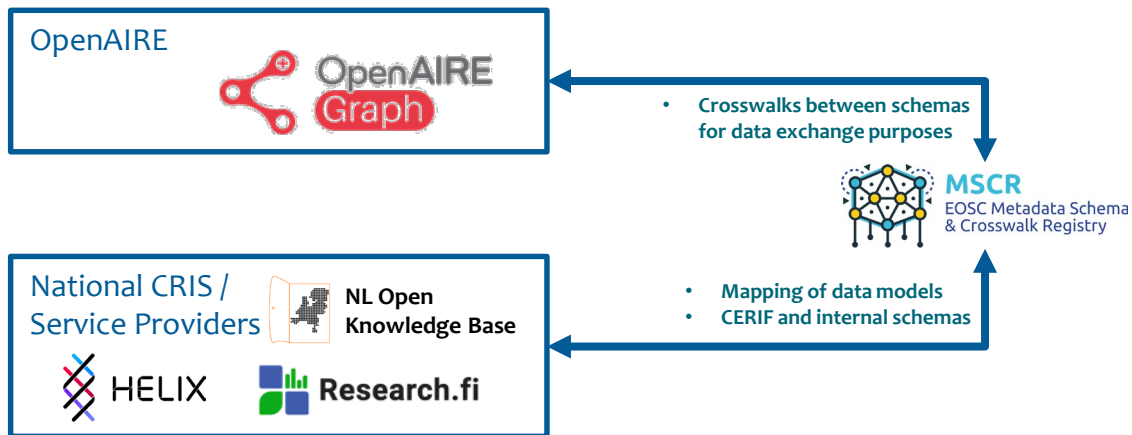
CERIF data model and
refactoring process

OpenAIRE and aggregating
CRIS information



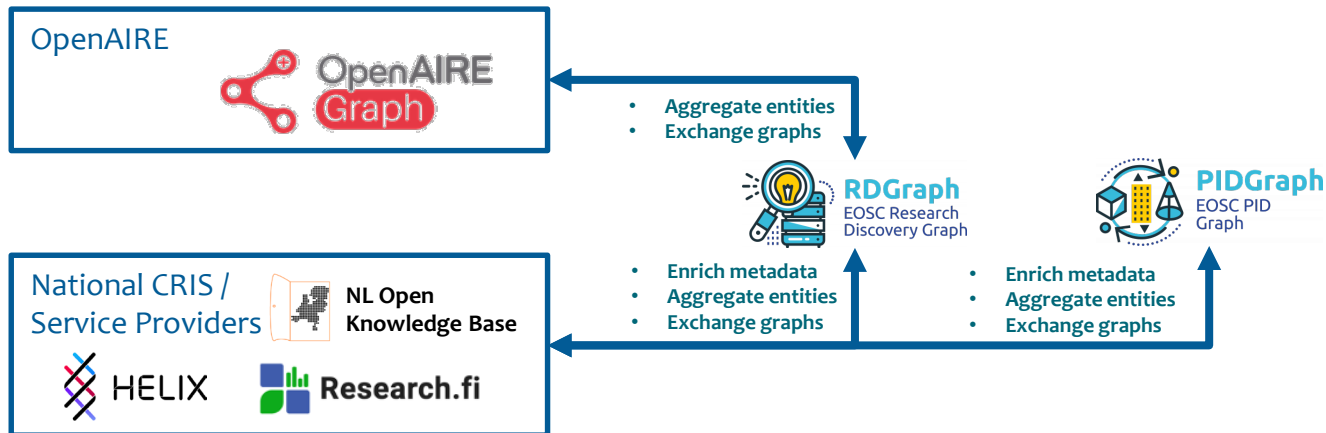


Showcase the CERIF data model as common for exchanging research graph information between organizational and national CRIS systems & OpenAIRE





Realize the potential in combining CRIS-like research graph information from national sources on European level, aggregating this to RDGraph and OpenAIRE





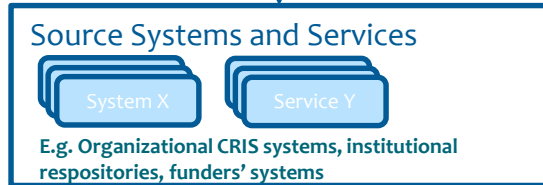
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WHAT'S IN IT FOR YOU?



- Explore workflows for RAiDs
- Assign RAiDs for activities and projects



Development of governance and operational framework + establishing European RAiD registry for issuing RAiDs:

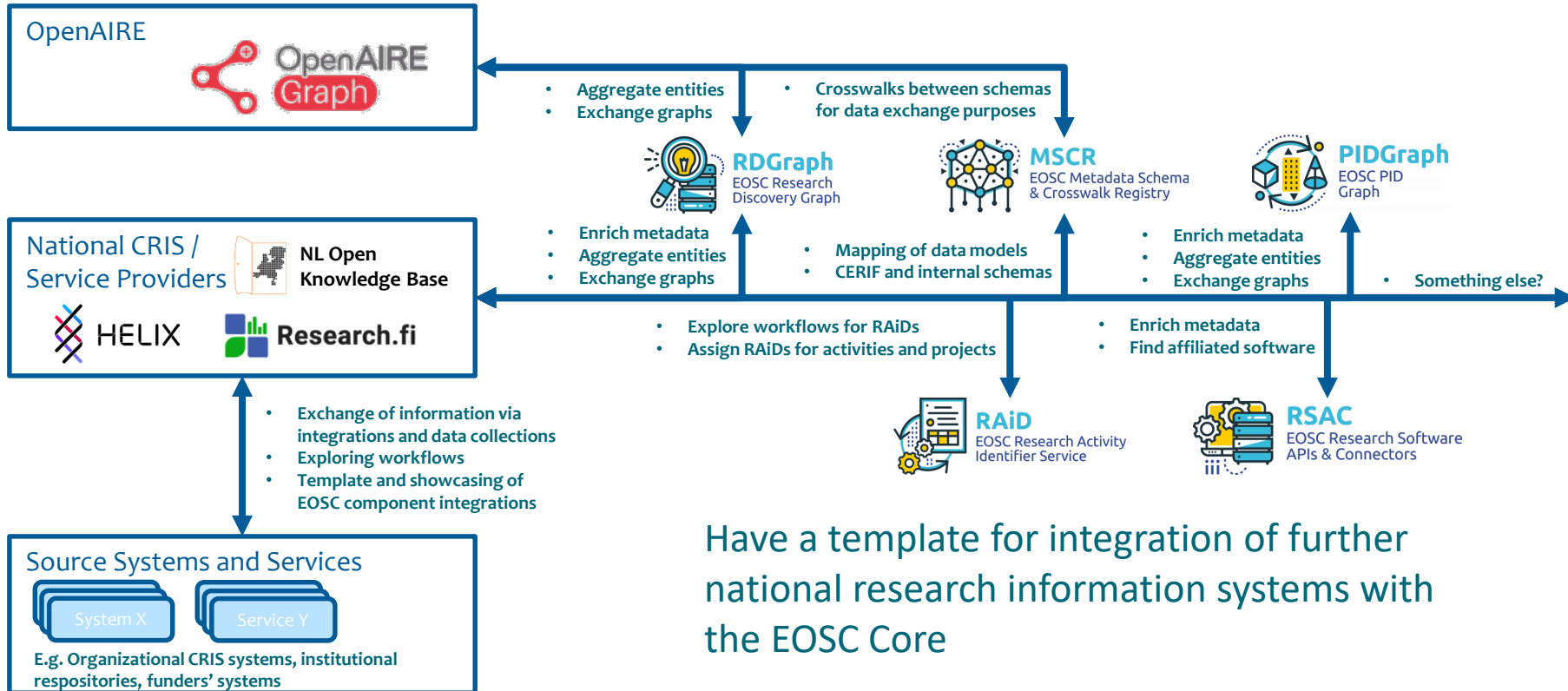
RAiD is persistent identifier for research projects and activities – an envelope of metadata, delivered by Australian Research Data Commons (ARDC)



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WHAT'S IN IT FOR YOU?



Have a template for integration of further national research information systems with the EOSC Core

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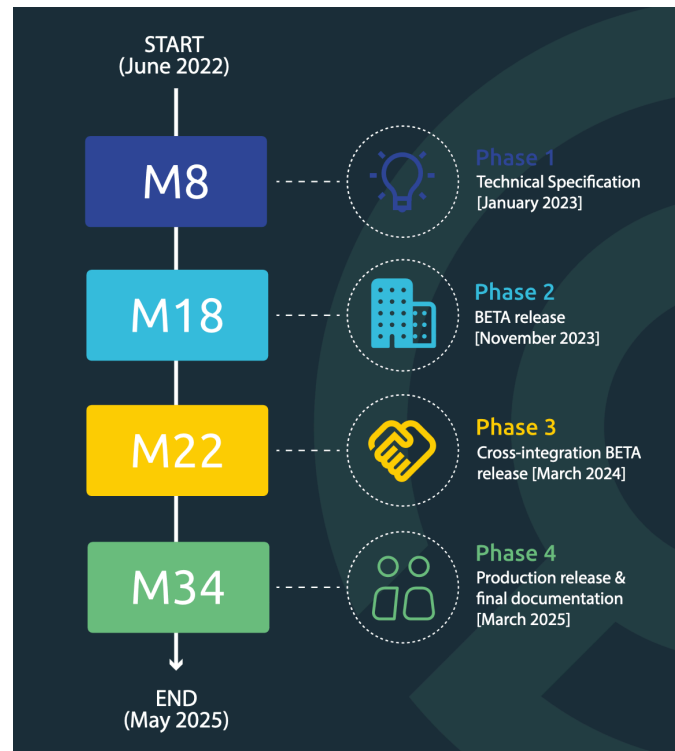
WHAT'S IN IT FOR YOU?

Handling research project and activity information in CRISs – implementation of RAiD-identifier

Having refactored CERIF as "crosswalkable" schema within MSCR

Showcasing OpenAIRE / RDGraph integrations for (national) CRIS services

Workshop(s) with CRIS community in 2023-2024 – CRISCROS?





Thank you!

More information:

<https://faircore4eossc.eu/>

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