EOSC: Infrastructures & Services

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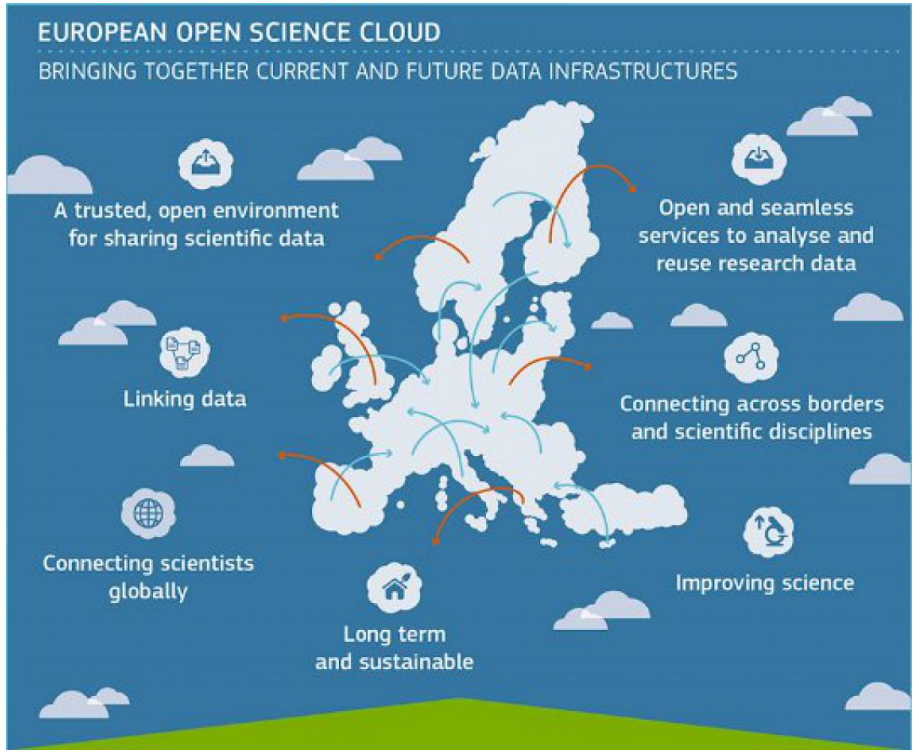
Overview

- EOSC aims and current development stage
- What is service on-boarding and how can be accomplished?
- Different aspects of EOSC integration
- What to promote?

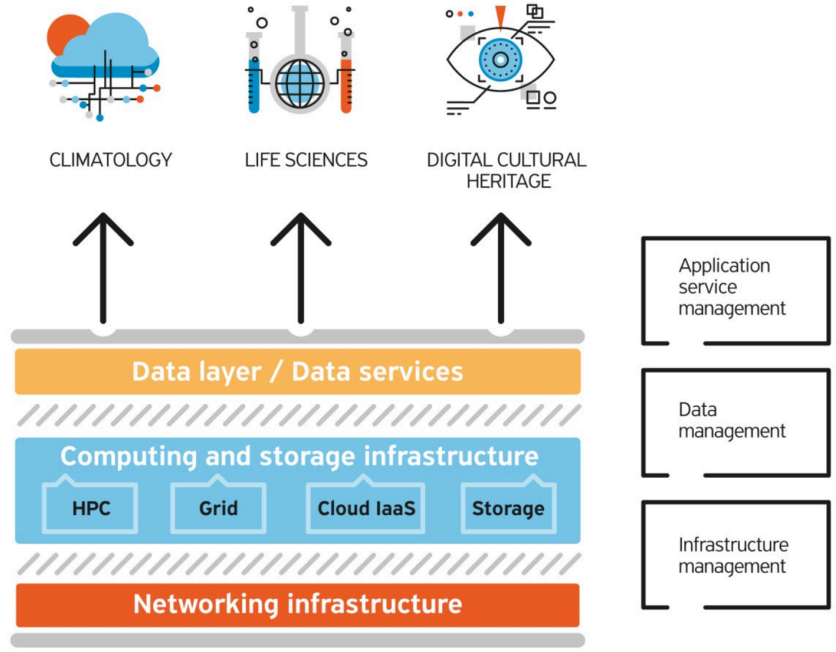
EOSC aims

- Trusted digital platform for the scientific community
- Seamless access to data and interoperable services
- Discovery and mining to storage, management, analysis and re-use
- Federation of existing data infrastructures
  - High-speed connectivity to transport data
  - Data infrastructures to store and manage data
  - Powerful HPC/HTC to process data



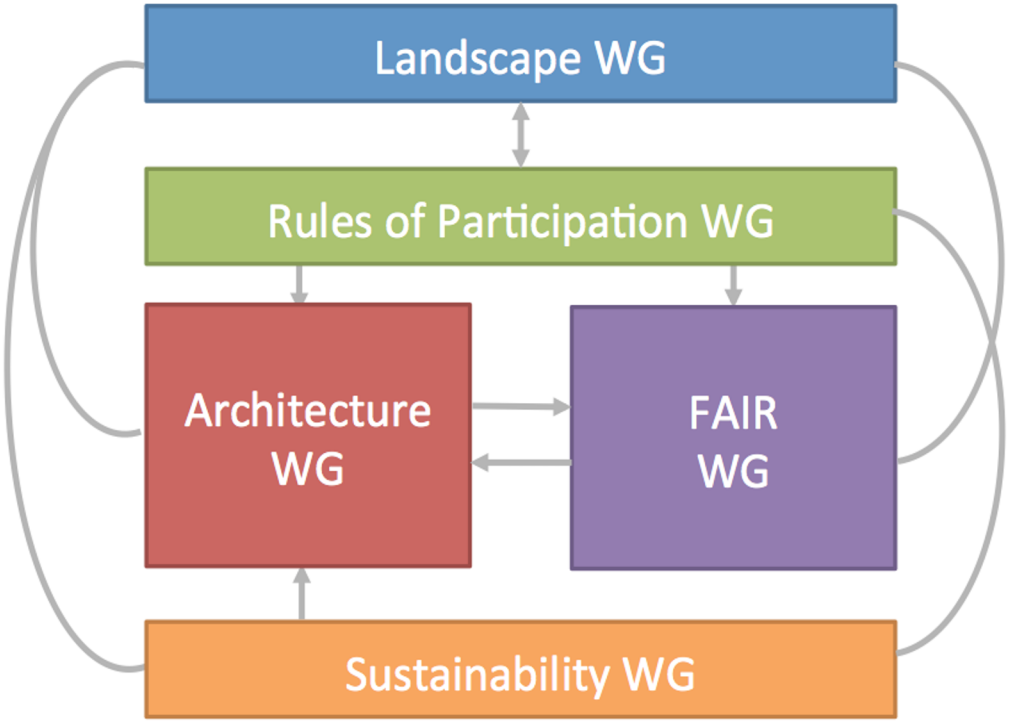
Regional perspective

- SEEREN project series established regional networking infrastructure
- SEE-GRID project series established Grid computing infrastructure
- SEE-GRID-SCI further support regional research communities
- HP-SEE project established the regional HPC infrastructure
- VI-SEEM project tried to link previous into a single infrastructure



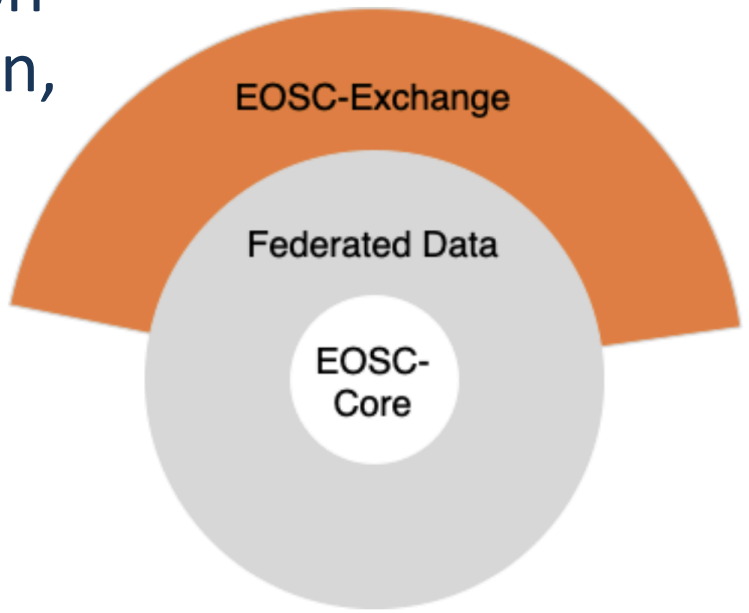
Current stage of EOSC development

- Currently active WGs:
  - Landscape: Mapping of the existing research infrastructures which are candidates to be part of the EOSC federation
  - FAIR: Implementing the FAIR data principles by defining the corresponding requirements for the development of EOSC services, in order to foster cross-disciplinary interoperability
  - Architecture: Defining the technical framework required to enable and sustain an evolving EOSC federation of systems
  - Rules of participation: Designing the Rules of Participation that shall define the rights, obligations governing EOSC transactions between EOSC users, providers and operators
  - Sustainability: Providing a set of recommendations concerning the implementation of an operational, scalable and sustainable EOSC federation after 2020



What is on-boarding?

- All practical activities taken to incorporate a research resource into the EOSC federation
- Wide range of support actions to be directly offered to the resource provider
- Establishment of the support channel, integration with the existing EOSC services, data FAIRification, integration with monitoring, etc.
- Reusable guidelines, best practices, and other recommendations
- NI4OS-Europe and EOSC WGs

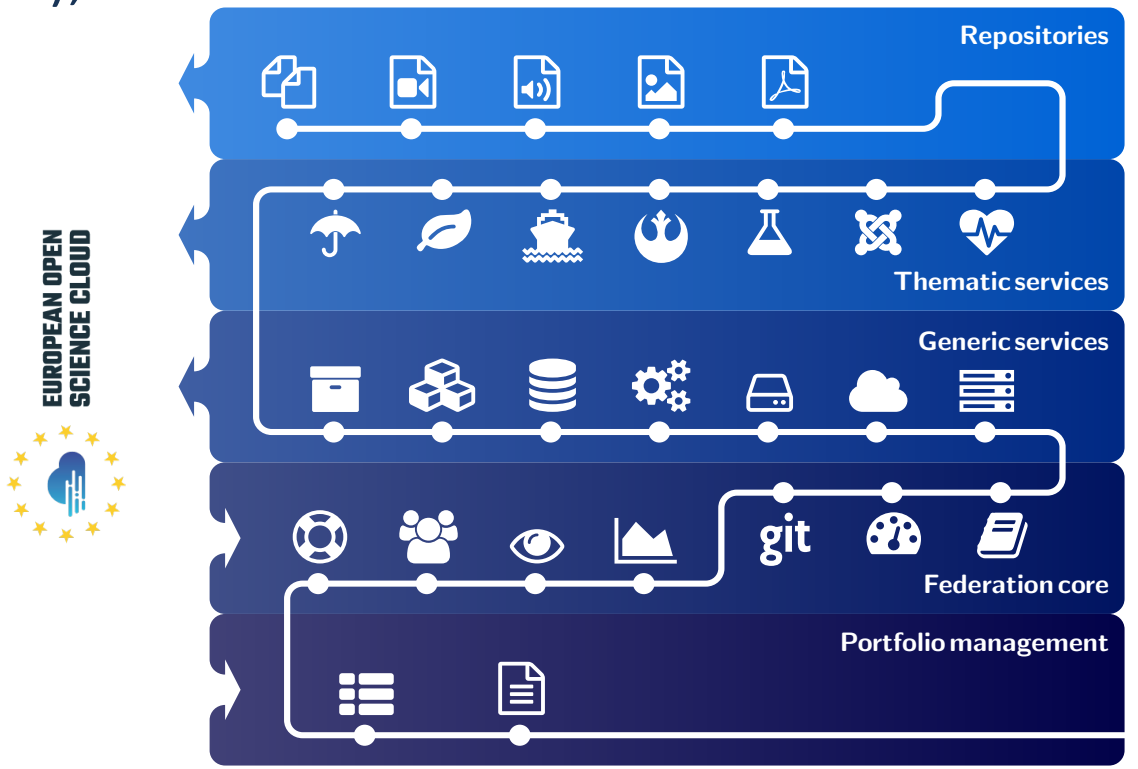


Main onboarding steps

- Resource on-boarding includes five main steps
  - Request for on-boarding (on-boarding team will initiate)
  - Information gathering (Service Description Template)
  - Integration (all practical aspects of the on-boarding)
  - Validation (NI4OS-Europe preproduction environment)
  - Publication (NI4OS-Europe catalogue and EOSC catalogue)

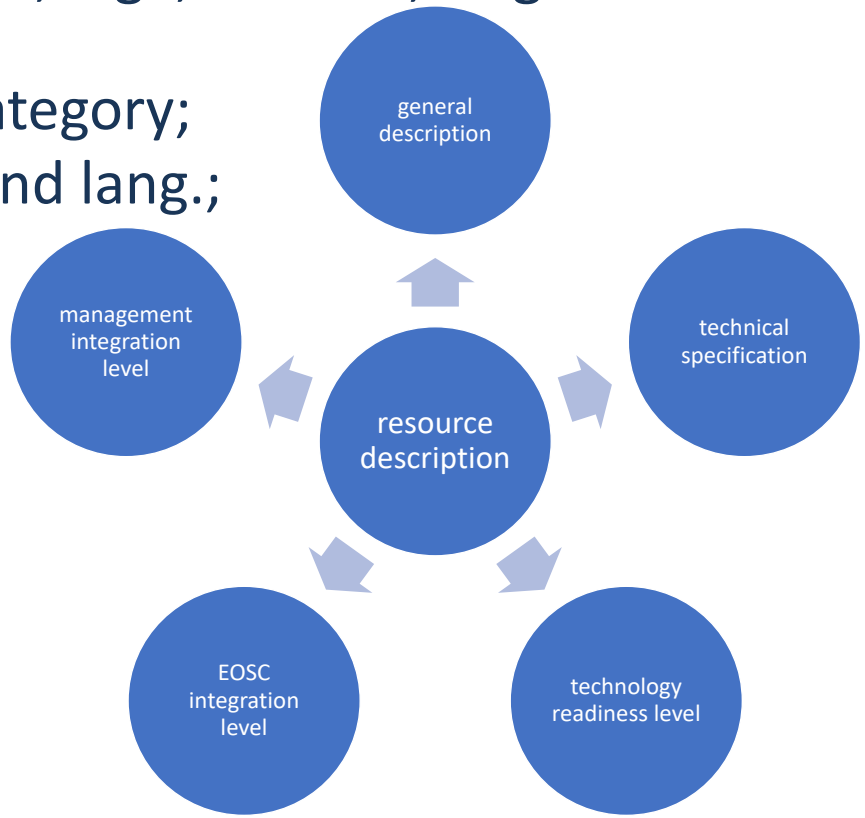
NI4OS-Europe services

- Hierarchical organization of services within the NI4OS-Europe project
  - federation core (monitoring , accounting, auth. & autz.);
  - generic services (HPC, Cloud, Storage, etc.);
  - thematic services;
  - repositories.
- What kind of the services are expected?
- How to approach?



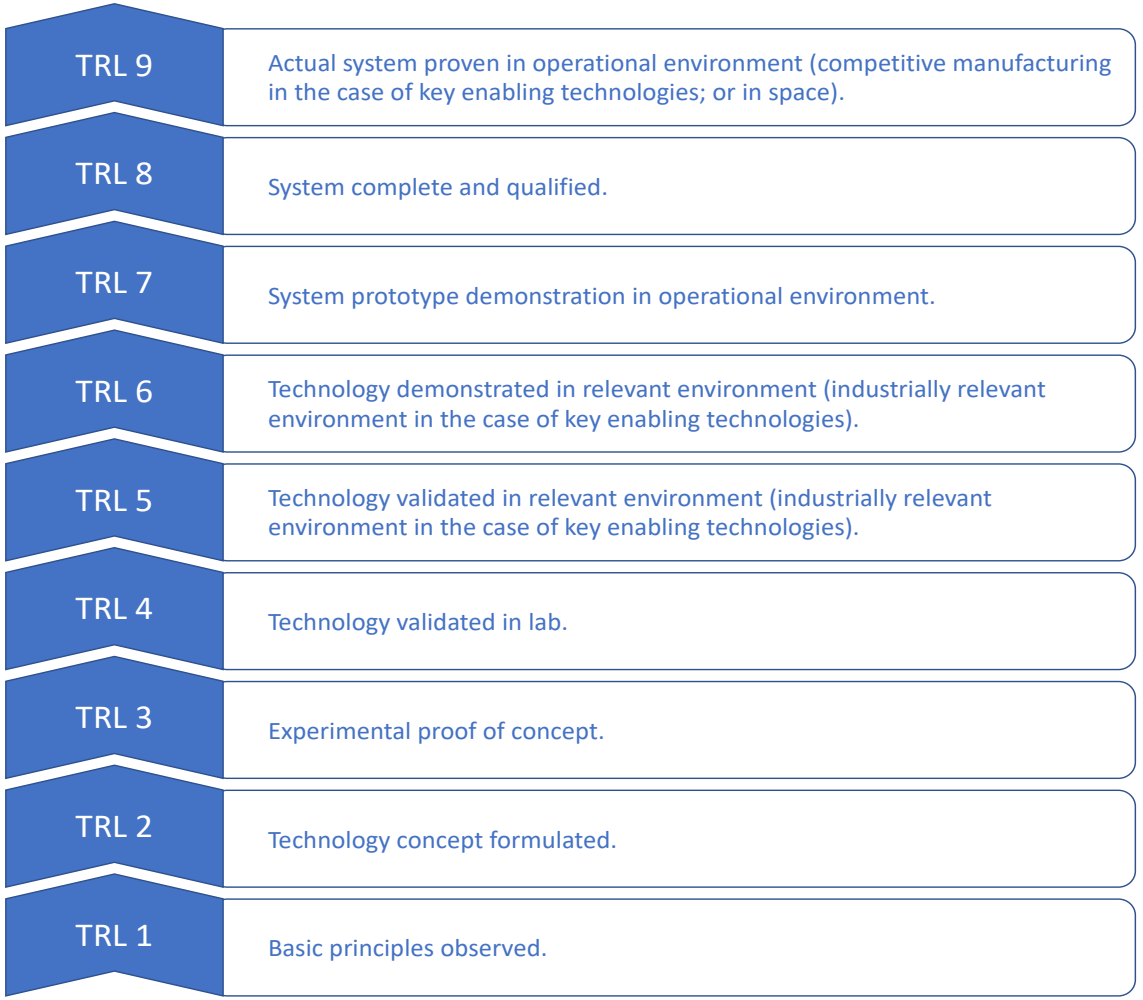
Different aspects of a resource description

- General description
  - Basic information, such as the name of the service and its endpoint;
  - Marketing information, such as service tagline, desc., logo, website, target communities;
  - Classification information, scientific domain, and category;
  - Location information, in terms of geograph. avail. and lang.;
  - Service provider-related information.
- Technical specification
- Technology Readiness Level (TRL)
- EOSC Integration Level (EIL)
- Management Integration Level (MIL)



Technology readiness levels

- Resource development stage
- Only high-level TRLs are of interest TRL > 7
- Resources with TRL < 8?

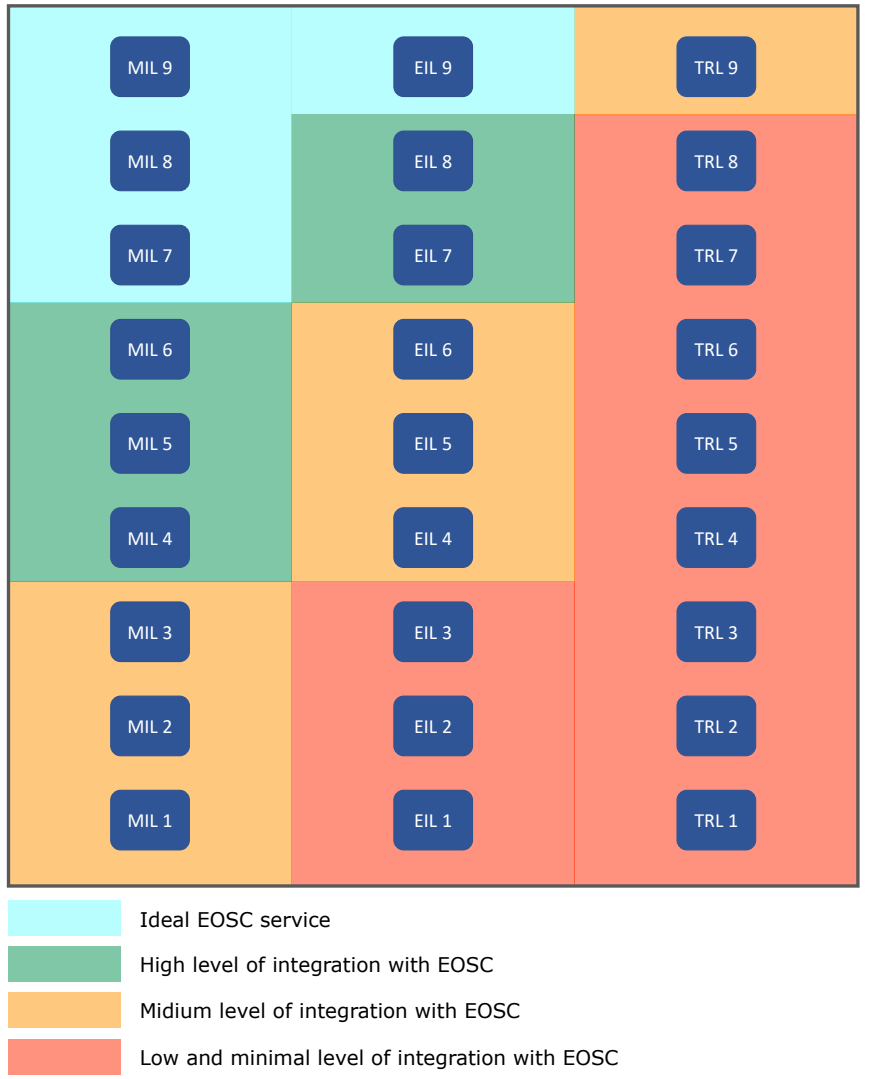


EOSC integration levels

Management integration levels

Level of integration with EOSC

- Low and minimal level of integration with EOSC, requires TRL 8 and EIL 3. No MIL requirements at this stage
- Medium level of integration with EOSC, requires TRL 9, EIL 6, and MIL 3
- High level of integration with EOSC, needs TRL 9, EIL 8, and MIL 6
- Ideal EOSC service requires level 9 of all three different aspects of integration



What to promote?

- Three different promotional packages
  - 1st year - EOSC integration promotion, and positive aspects of the integration
  - 2nd year - concrete services and real case studies
  - 3rd year - open call for productional use of EOSC services
- Let's be focused on the promoting concepts of EOSC and FAIR
- Many different development directions and opportunities
- Integration process will be fully supported by the NI4OS-Europe project
- Service are searchable - user community will grow
- Vision AI 2.0