#### EDSC-PEIDER Coordination and Harmonisation of National &Thematic Initiatives to Support EOSC

### Supporting national actors to join EOSC

EOSC-Pillar Final Event, 26<sup>th</sup> October, 16:00-17:00



EOSC-Pillar has received funding from the European Union's Horizon 2020 research and innovation Programme under Grant Agreement No. 857650.



#### Outline

- \* Overview
- \* What are our goals?
- \* What are the services we provided with support?
- \* Various examples of achievements thanks to EOSC-Pillar
- \* Some recommendations to achieve a high level of quality

# The Infrastructure layer: delivering horizontal data storage and computing services, from national to transnational activity

- \* Bring together user communities, use cases, e-infrastructure and service providers
- \* Provide technical and strategic guidance for the integration and federation of services in the EOSC ecosystem
- \* Define solutions for new services to access distributed resources
- \* Mediate and coordinate between technical experts and communities in the project
- \* Support the integration of federating solutions with services in the national frameworks
- \* Set up and test AAI solutions and proof of interoperability
- \* Perform the validation and prove readiness for deployment of federating services through the reallife experience of scientific communities
- \* Steer federated services on a trans-national level, feedback to standardisation activities
- \* Deploy service solutions as developed in WP6 in the federation framework or national infrastructure
- \* Test specific services of European-wide interest for their ability to be integrated in the EOSC framework





# Relationship and collaborations: reduce fragmentation and avoid silos

- \* Strong collaboration between the 4 tasks of WP7
  - \* examples: maturity assessment and support for integration
- \* Collaborations with other workpackages:
  - \* WP3 to use the survey's contacts
  - \* WP4 on catalogues
  - \* WP5 on F2DS integration
  - \* W6 on requirements, gap analysis, support of use cases, services provision...
- \* Strong connection with EOSC
  - \* EOSC-Hub and EOSC Future projects
  - \* EOSC-5 Service Onboarding Task Force (one of the chairs)
  - \* EOSC-Association on RoP Compliance and Monitoring Task Force
  - \* EOSC Onboarding Strategy Board
- \* Larger targets: videos, documentation, recommendations



#### What are the services we provided with support?

Ready to use services (proposal)

- The use of acceleration resources (GPU, FPGA)
- Galaxy as a service platform -
- Laniakea@ReCaS service &
- contribution to Galaxy-E
- Virtual Laboratories / Virtual Research Environments
- Virtual Research Environment based service for research data publishing
  PICO2
- Materials Modelling Marketplace &

OIE

Ready to use services provided as Inkind by the partners

- Indigo- IAM by INFN-CNAF
- FG-iRODS by France Grilles
- VIP (Virtual Imaging Platform) by France Grilles
- HPC resources by CINECA
- Cloud computing and resources by GARR
- B2SAFE storage services based on iRODS by CINES, KIT and CINECA
- VM service by KIT

Services coming from the WP6 call\* \* more information in a previous session

- Readmetrics
- EMM
- AstroODA (MMODA)

Service coming from WP5

• F2DS

Services provided by WP6 use cases

- Software Heritage
- Datainrae
- Simbad
- VITAM



#### Most common achievements thanks to EOSC-Pillar

Most common achievements of the services:

- \* registration in the EOSC catalogue & MarketPlace
- \* adoption of a federated AAI
- \* service quality improvement and
- \* user expansion

Better adaptation to EOSC



#### Various examples of achievements thanks to EOSC-Pillar

not exhaustive! benefits for service and users A more exhaustive description is in D7.4 (available soon)

#### \* The use of acceleration resources

\* registered the EOSC catalogue & MarketPlace, increased quality (TRL9)

\* many <u>documentations</u> now available, <u>policies</u> & operation manual written

#### \* Laniakea@Recas

- \* update following the best practice decided in the subtask 6.6.1 "share and harmonize Galaxy deployment practices".
- \* use of the official Galaxy Project Ansible roles allowing for faster alignment of Laniakea flavours to the latest Galaxy releases.

#### \* Contribution to Galaxy-E

- \* development of a scientific workflow dedicated to ecology in Galaxy
- \* a tutorial and dissemination of the results in conferences



#### Various examples of achievements thanks to EOSC-Pillar

not exhaustive! benefits for service and users A more exhaustive description is in D7.4 (available soon)

- \* Virtual Laboratories/VRE & VRE-based service for research data publishing
  - \* 12 Virtual Research Environments have been created, 500+ registered users
  - \* we all had the opportunity <u>to play with during a project Face to Face</u> <u>meeting</u>!
  - \* various publications

#### \* Pico2

- \* distributed memory program launched on a HPC cluster from a Galaxy server without writing a script in OAR
- \* seamless communication between data and calculations through a connection between INRAE dataverse and the VM deployed on GRICAD.



#### Various examples of achievements thanks to EOSC-Pillar

not exhaustive! benefits for service and users A more exhaustive description is in D7.4 (available soon)

- \* OIE and Marketplace projects
  - \* connection to Dataverse
  - \* AAI integration
  - \* maturity assessment provided a better view of the requirements' priorities

#### \* Readmetrics

- \* set up a dedicated platform (sandbox) in EOSC for institutions to test the service without having to install it locally
- \* Indigo-IAM integration



# Some recommendations for high level quality and mature enough services in EOSC infrastructure level

#### **Best practices**

• Follow the guidelines and documentation produced by WP7 (details in the next talks)

#### Method and tools

 Adopt the maturity model assessment to improve the quality of the services (details in last talk)

#### Federation building components

• Use a Single Sign On service through a federated AAI (details in next talk)

#### Competences building

• Gap between people with technical background and people with scientific background: complete the staff!

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### Thank you!

## Stay tuned!

#### Get in touch with us!



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#### **Ready to use services**

#### \*6 services in the proposal

- \* T7.4.1: The use of acceleration resources (GPU, FPGA)
- \* T7.4.2: Galaxy as a service platform Laniakea@ReCaS service & contribution to Galaxy-E
- \* T7.4.3: Virtual Laboratories/Virtual Research Environments
- \* T7.4.4: Virtual Research Environment-based service for research data publishing
- \* T7.4.5: Converging to common deployment tools to facilitate code circulation and mobility between different infrastructures (HPC, HTC) PICO2 service
- \* T7.4.6: Materials Modelling Marketplace (MarketPlace ) & OIE
- \*1 service from T6.10 call (since end of 2021)

\* Readmetrics