OSCARS

Open Science Clusters' Action for Research & Society

Kick-Off Meeting - Cluster presentations

Cluster LS - RI

LIFE SCIENCE RI

Funded by the European Union

EOSC Life / LS- RI - Competence centre concept, status

Current situation

What exists already that is similar/can be reused for a competence centre?

- EOSC Life supported development of **cross discipline RI tools and promoted networks**, e.g. ELIXIR Nodes, EATRIS, BBMRI, ECRIN, INSTRUCT…
- **Need to map** developing RI initiatives and identify common ground
- LS RIs represent **multiple potential thematic nodes / competence centres**

Challenges

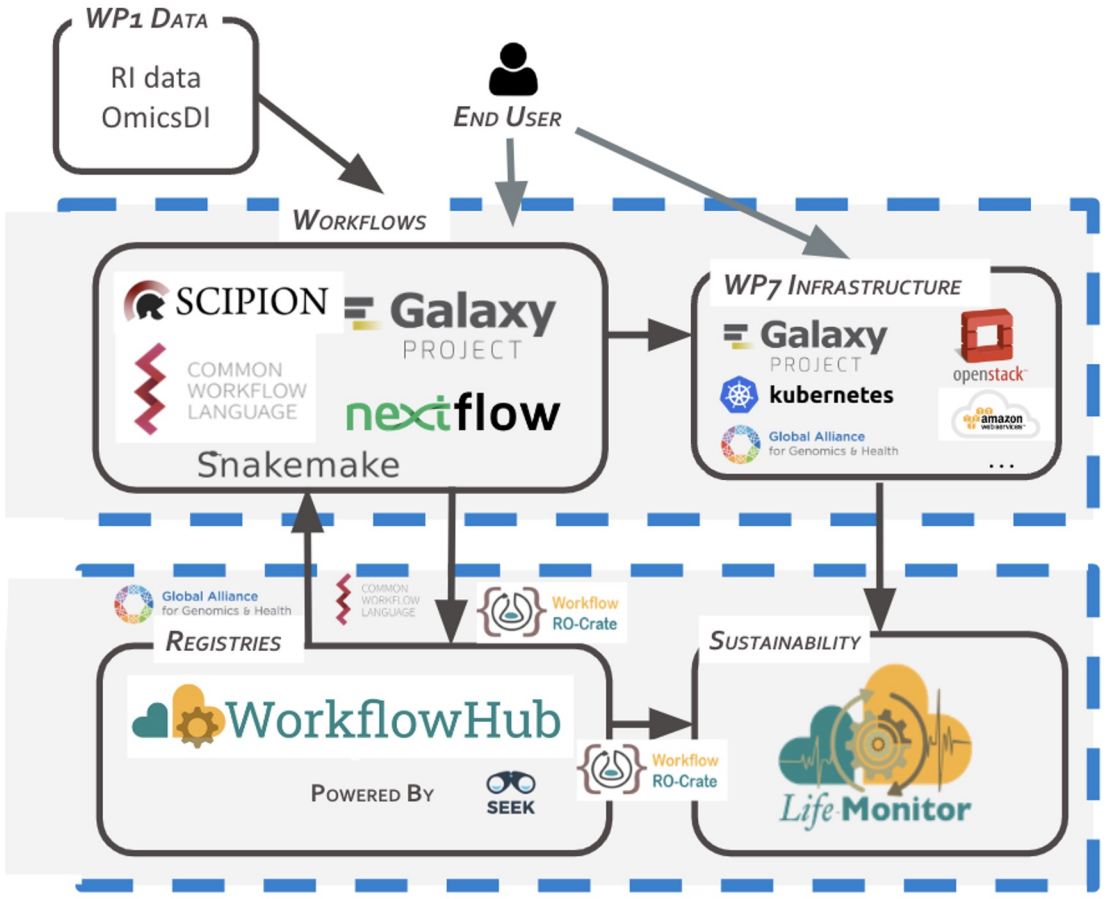
- **Ongoing:** EOSC-Life representa a strong core (but not all) LS RIs - perception of *Lack of support*/resources available for the *existing EOSC-Life / LS sources*/tools in OSCARS
- **Heterogeneity** between and even within RIs, maturity and age / Info skills / data use
  - **Be interoperable:** Lack of information on Data Steward (skills) use and needs across RIs
  - **Be inclusive:**
    - *In cluster:* Need to better understand all CC approaches in each RI
    - *Between cluster:* Clear visibility of opportunities for collaboration with CCs from other clusters
- Manage **sustainability**

Wide Range of Software, Workflow and related services across the LS RIs

- E.g. Galaxy community (Freiburg) is broadening from ELIXIR base to wider set of research communities through the INFRA-EOSC EuroScienceGateway project
- EOSC-EVERSE project will work closely with the Clusters to improve research software quality, drawing on multiple examples of best practices
- CESNET (CZ) building national scale implementations based on EOSC Services including Life Science Login (AAI), compute environments for software

Ongoing first action
A position paper coming from all EOSC-Life / LS RIs describing what pre-existing tools we could/should include as CC components, and how we could describe / design a CC taking in account specific needs in LS and heterogeneity of the landscape

Example : WP2 Objective 2: Cloud implementation of workflows that cross boundaries

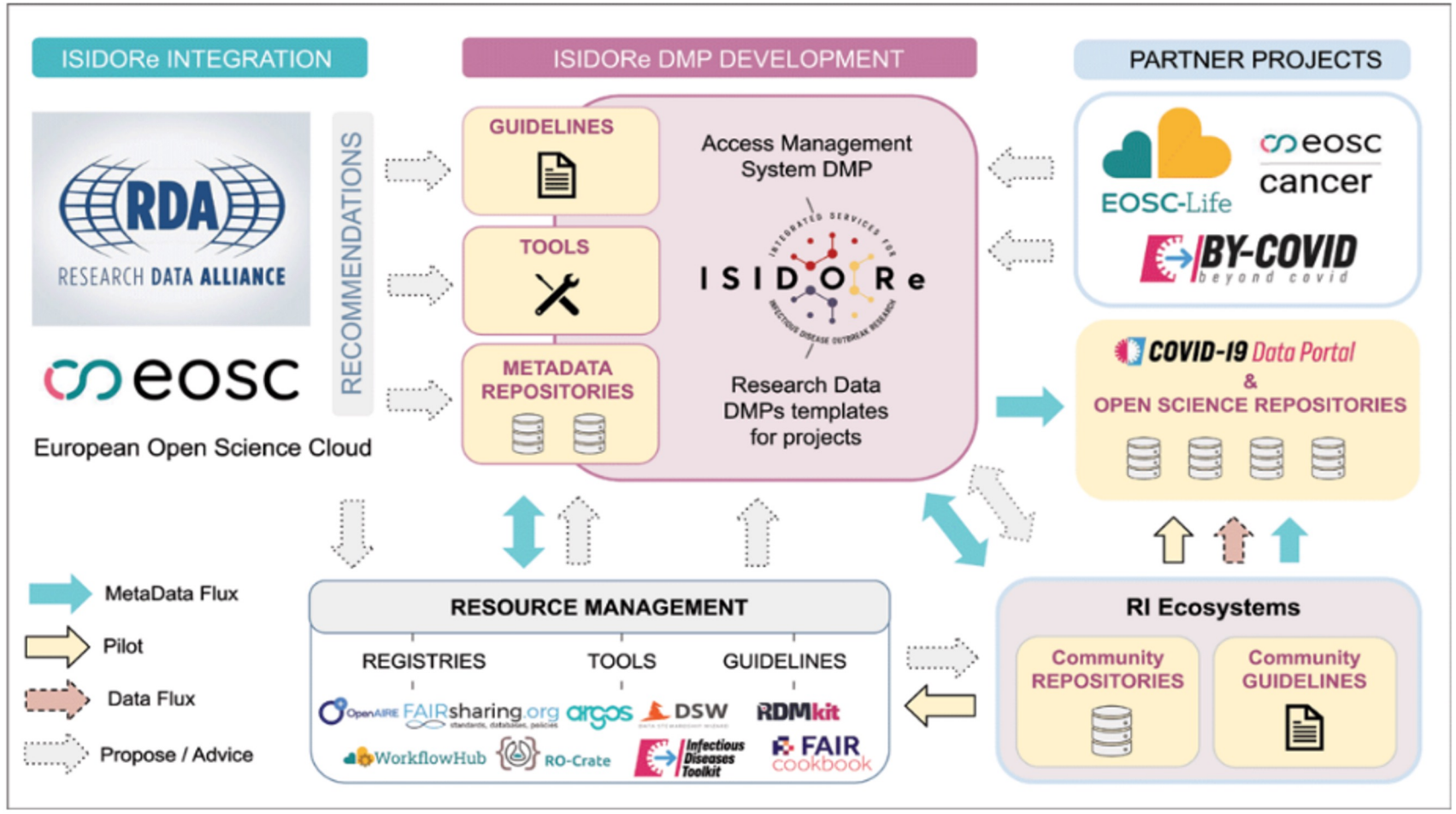


WorkflowHub Registry

- Beta release Sept 2020; released Sept 2021
- 470 registered workflows (Nov 2023)
- 43 COVID-19 workflows
- 19 different WfMS + scripts
- 206 teams, 180 orgs, 29 countries
- ELIXIR, Instruct, Euro-BioImaging, IBISBA
- BioExcel, Australian BioCommons
- Biodiversity Genomics Europe, BioDT
- Square Kilometer Array …
- BY-COVID, EuroScienceGateway, EOSC4Cancer, BioIndustry4.0, HDR-UK …

Search over and launch workflows directly from WorkflowHub in Galaxy, search WorkflowHub from Galaxy

Example : UMBRELLA DMP (ISIDORe - David et al., 2023)



The ISIDORe DMP is being developed by integrating available DMP guidelines, resources and advice provided by participating RI communities, partner EU projects (such as those shown) and the overall recommendations by the RDA and EOSC. [...] While many LS-RI partners already have DMP workflows in place, the goal and challenge of the ISIDORe project will be to set up cross-disciplinary pipelines, onboarding additional communities and adapting DMP procedures to meet the needs of infectious diseases research (data and tools) for the different disciplines in the consortium.

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Thank you