



OSCAR

Open Science Clusters' Action
for Research & Society

WP2: Composable Research Infrastructure Services in EOSC

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Work Package 2: Composable Research Infrastructure Services in EOSC

- Further the development of **domain-specific** and **cross-cluster solutions** for **sharing of services and methods that target FAIR data**
- Foster **composability** of Composable Open Data and Analysis Services (CODAS) and their **integration** with EOSC
- Strengthen RI-specific & Cluster-based **customisation, operation** and **sustainability strategies**



TASK 2.1 – CONSOLIDATION

- Inventorise the Services and FAIR Data portfolios offered by each of Science Clusters
- Undertake a gap analysis to identify where these offerings may be made composable



TASK 2.2 – COMPOSABILITY

- Identify and select a set of services which, when improved, will provide the basis for their Composable Open Data and Analysis Services (CODAS).



TASK 2.3 – ENGAGEMENT

- Each Cluster will build 1–2 exemplary “Composability demonstrators”
- Engage researchers in order to encourage uptake and solicit feedback

Cf. [MS3 report](#)

A variety of methods were used to populate the MS3 spreadsheet and create an initial version of the cluster portfolios:

- [analysis](#) of the [‘EOSC Data Dump’](#)
 - i.e. what can be considered cluster services from the EOSC catalogue onboardings (2019-2024)
 - export from existing Cluster Catalogues
 - SSHOC: [SSH Open Marketplace APIs](#); ENVRI: [ENVRI Catalogue of Services](#); EOSC-Life: [EOSC-Life collection on FAIRsharing](#);
 - manual curation directly in the [MS spreadsheet](#): EOSC-Life; PanOSC; ESCAPE
-

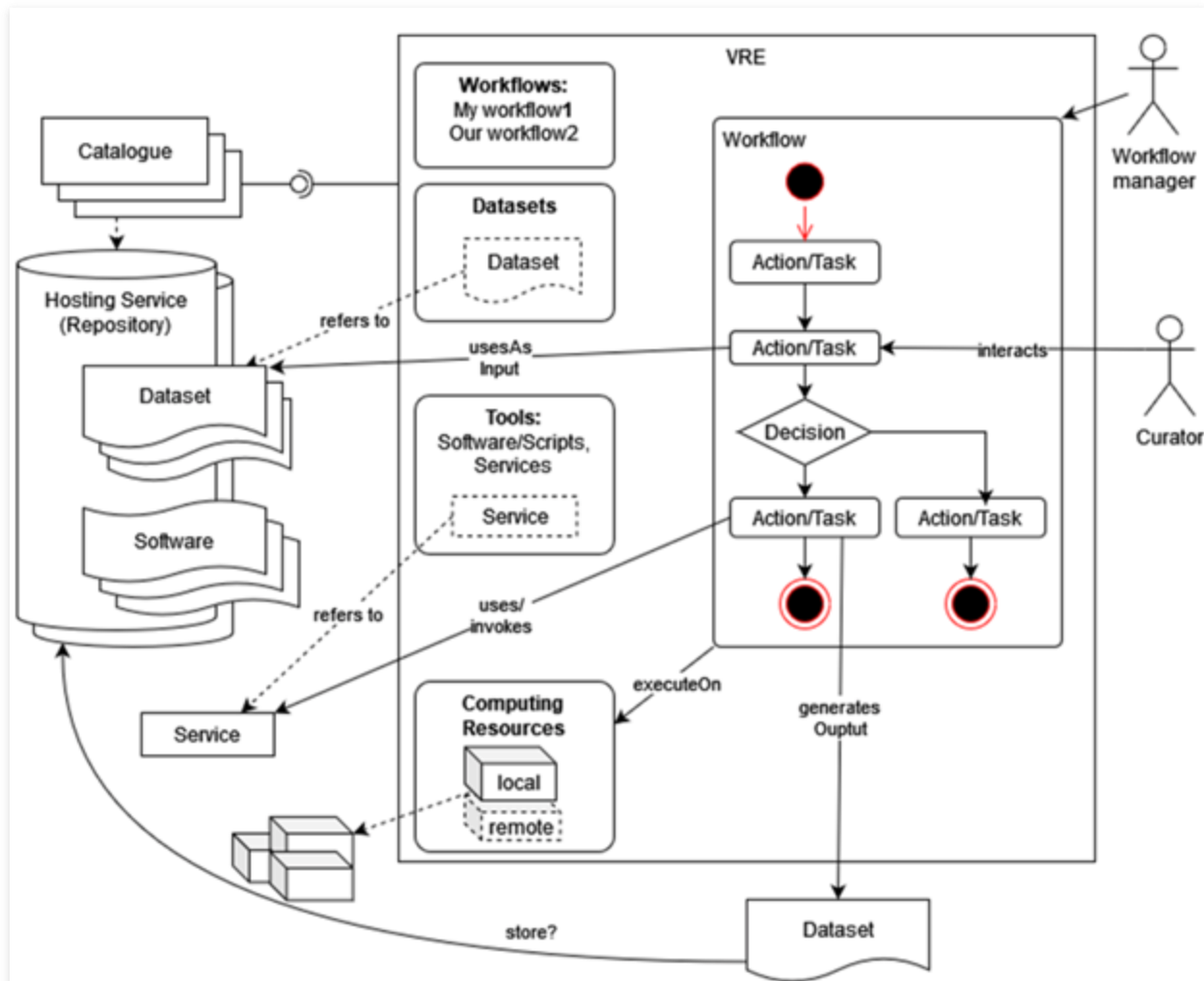
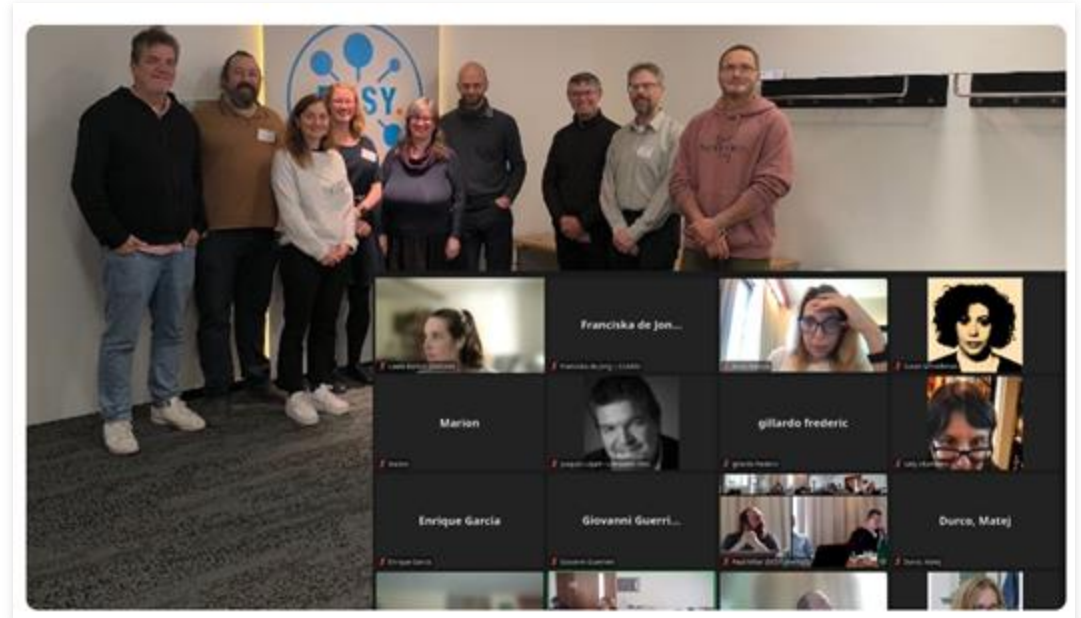
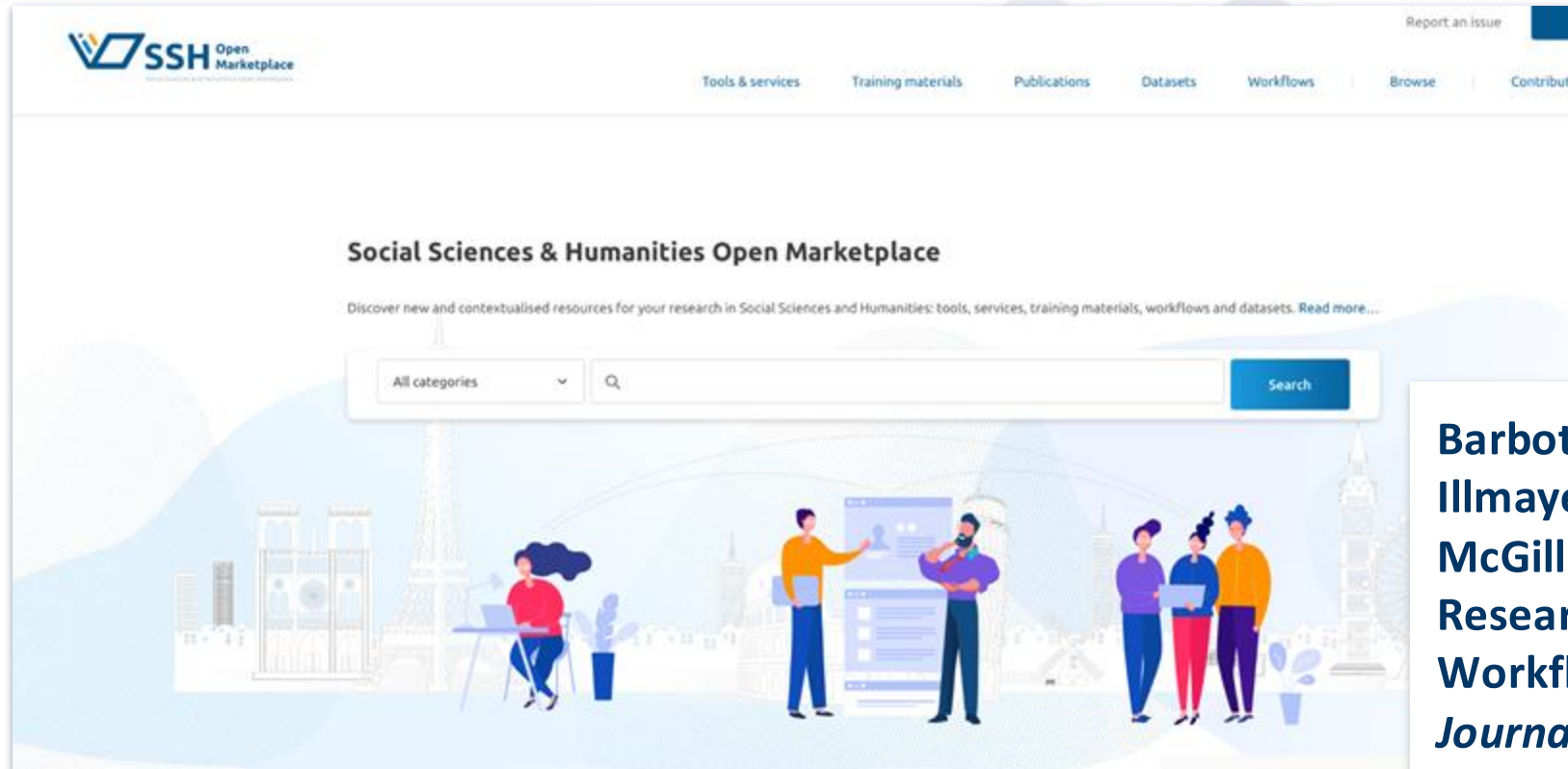


Figure 1 - Schema of key definitions capturing the relationships of key terms within SSHOC



Consolidation and Terminology Workshop, 30th September – 1st October 2024, DESY, Hamburg.

<https://oscars-project.eu/news/oscars-consolidation-and-terminology-workshop-overview>



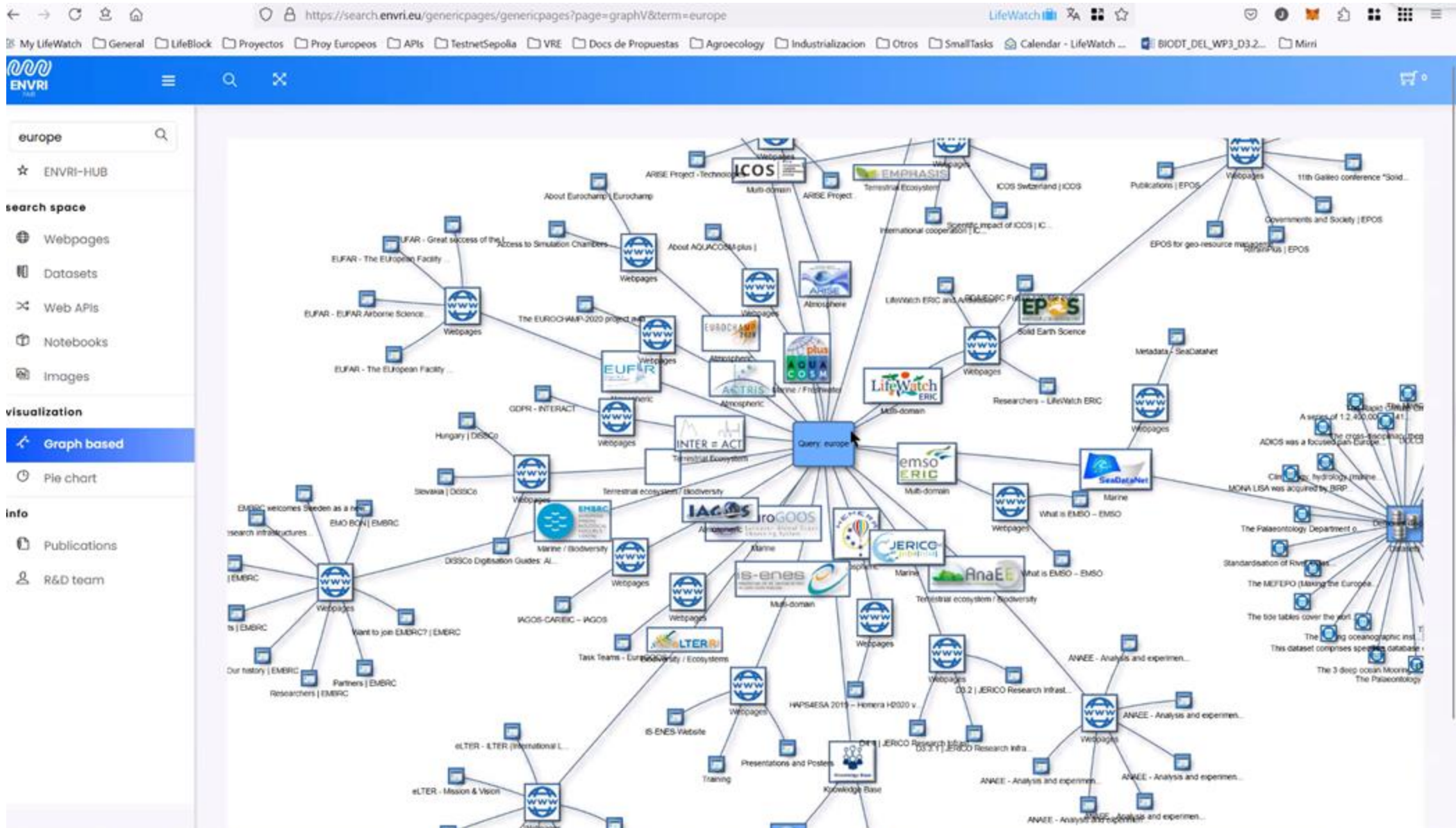
3 Guiding Principles:

- Contextualisation
- Curation
- Community

Barbot, L., Dolinar, M., Gray, E. J., Grisot, C., Illmayer, K., Kurzmeier, M., & McGillivray, B. (2024). Contextualizing Research Tools & Services Through Workflows in the SSH Open Marketplace. *Journal of Open Humanities Data*, 10 (1), 22. <https://doi.org/10.5334/johd.192>



Graph-based representation of ENVRI Resources





zenodo

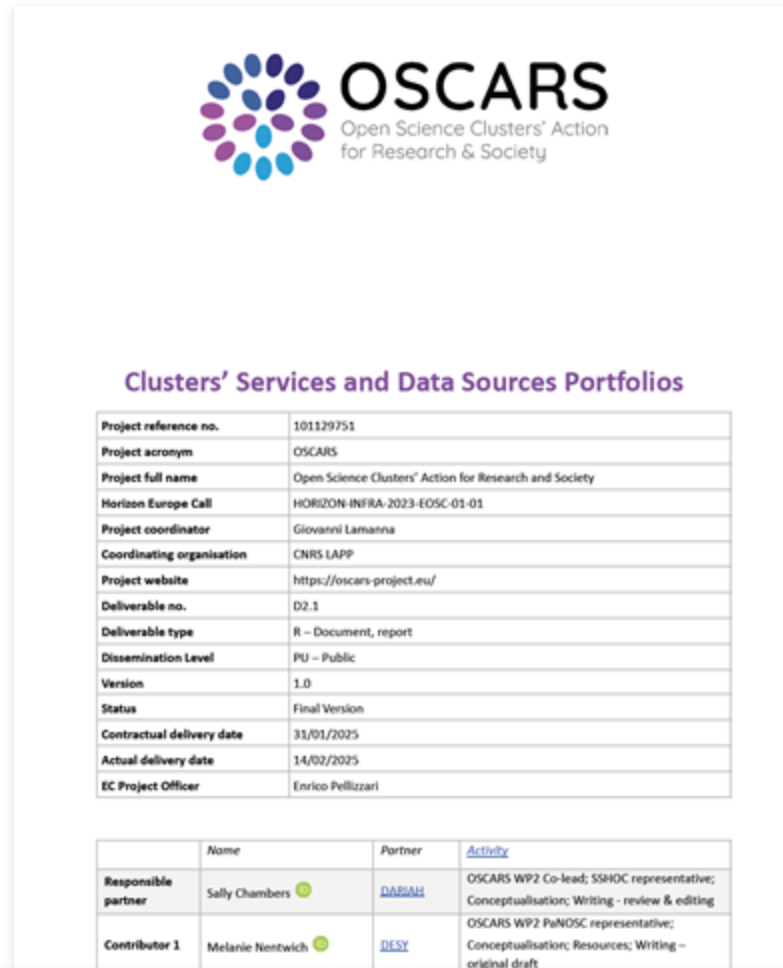
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Project deliverable Open

OSCARS D2.1 - Clusters' Services and Data Sources Portfolios



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Clusters' Services and Data Sources Portfolios

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EC Project Officer	Enrico Pellizzari

	Name	Partner	Activity
Responsible partner	Sally Chambers 	DABIAN	OSCARS WP2 Co-lead; SSHOC representative; Conceptualisation; Writing - review & editing
Contributor 1	Melanie Nentwich 	DESY	OSCARS WP2 PaNOSC representative; Conceptualisation; Resources; Writing – original draft

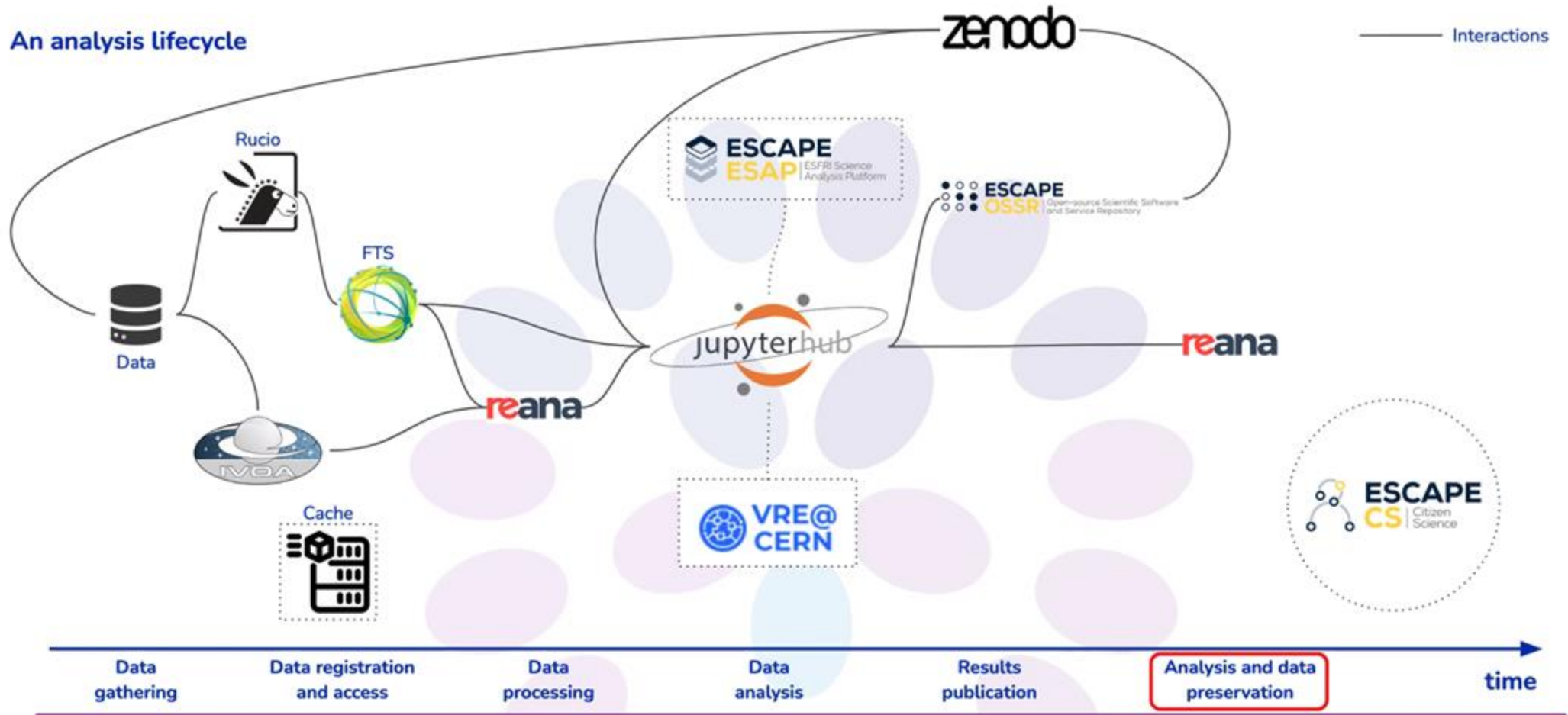
Chambers, S., Nentwich, M., Guerrieri, G., Hienola, A., Pierre, M., Kurzmeier, M., Barbot, L., Chazallet, L., López Lerida, J., David, R., Millar, P., Ďurčo, M., Wolff-Boenisch, B., Kaczmirek, L., Tedds, J., Götz, A., Bodera Sempere, J., Ivanoaica, T., Wagh, J., ... Saunders, G. (2025). **OSCARS D2.1 - Clusters' Services and Data Sources Portfolios**. <https://doi.org/10.5281/zenodo.14881627>

Composability = Reproducible Research Workflows (based on Open Science practices)

- **FAIR Data Sources per Cluster (FAIRification of Data)**
- **Tools and Services (Interoperability)**
- **Research Outputs (Publications; Datasets; Code etc.)**

**Strategy / Needs Analysis (WP1) – Training and Education (WP3)
Engagement via Cascading Grants (WP4)**

Composability





Humans-in-the-loop

The screenshot shows a document browser interface with a list of documents on the left and a detailed view of a document on the right. The document view includes a title, a date, and a main body of text in Dutch. Below the screenshot, there is a section for Automatic Text Recognition (HTR, OCR) showing a sample of handwritten text being processed.

Automatic Text Recognition (HTR, OCR)



Digital (Text) Analysis Workflows




- Named Entity Extraction
- Social Network Analysis
- Sentiment & Emotion Mining



Virtual Transcription Laboratory



Icons designed by rawpixel.com / Freepik

Step	Solution	Services	Responsible	Deadline
				
1. Review of Existing Solutions	<p>Context: A (partial) solution to a standardized downloading of data might exist and should be considered in order to minimize the workload. However, some approaches were discovered, which do not solve the issue.</p>			
	<ul style="list-style-type: none"> • Dacite Metadata • Signposting • Signposting + Metalink • Metalink/HTTP • JSON-LD • RDFa 		DESY	completed



Elixir Research Data Management Toolkit:
[FAIR Research Data Lifecycle](#)

- **Composability Action Plan:** Further iteration
- **MS7: Composability Workshop:** To review progress on composability development & deployment and explore initial ideas for engagement activities (September 2025)
- **MS8: Composability Progress Report:** Work on composability development & deployment reported (December 2025)
- **MS9: Engagement Concept – Initial Version:** First engagement concept established and described (December 2025)



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Thank you

TASK 2.1 – CONSOLIDATION

- **MS3: Services and Data Source Portfolio – [initial version](#) (M6, June 2024)**
- **MS4: Consolidation Workshop (M9, September 2024)**
- **MS5: Services and Data Source Portfolio: final version (M11, November 2024)**

D2.1 Clusters' Services and FAIR Data Sources Portfolios (DARIAH): Evaluation and Gap Analysis of the cluster-level service and data portfolios (M13, January 2025)

TASK 2.2 - COMPOSABILITY

- **MS6: Composability Action Plan (M14, February 2025)**

Strategic Embedding: OSCARS is not just an EU project, but poses strategic questions to the Clusters:

- **Publication of Science Clusters Services and FAIR Data Source portfolios**, e.g. via Science Clusters websites? Link with Competence Centres?
- **EOSC Federation:** To node or not to node? Level of granularity?
- **EOSC Federation Handbook:** contribution of the Science Clusters, e.g. Chapter 5: Research Resources