graspos
open research metrics dataspace

A dataspace for Open Science in Research Assessment

Giulia Malaguarnera
Outreach and Engagement Officer at OpenAIRE

Supporting eosc
Funded by the European Union

Why do we need a dataspace infrastructure for Research Assessment?

- The research process is undergoing to digital transformation, and is becoming less linear and more collaborative and open
- The current research assessment is inappropriate and narrow
- The research community is taking initiative, but there is the need of infrastructures to support the implementation of the Research Assessment Reform to translate the commitments into changes

European Commission, Directorate-General for Research and Innovation, *Towards a reform of the research assessment system – Scoping report*, Publications Office, 2021, https://data.europa.eu/doi/10.2777/707440

Funded by the European Union
Supporting eosc

The Infrastructure

- Open Science has many flavours & parameters
- Metadata is missing or is not good
- Fragmented metrics data for openness & usage. Owned by commercial providers.
- Novel indicators are not just not just about numbers. Composite indicators based on AI

Funded by the European Union

Supporting eosc

What – in a nutshell

- Develop **fit-for-purpose tools and services** with the necessary characteristics to accelerate adoption:
  - **broad coverage** by including multiple types of research results from existing data sources
  - **quality** by imposing check and balances with national CRIS
  - **openness** by introducing open governance via EOSC processes following the CoARA guidance
  - **novelty** by introducing new impact indicators for OS adding on to metrics for excellence
  - **attention to the detail** by capturing subtle metrics related to the practice of OS such as timeliness, collaboration, diligence
  - a mix of **automated (AI)** and **manually curated** **and annotated** metrics
- **Develop and operationalize** an infrastructure for metrics (data-tools-services)

Funded by the European Union
Supporting eosc

GraspOS at a glance

Develops, assesses and puts into operation an **open and trusted federated infrastructure for next generation research metrics and indicators**.

A Research Metrics Dataspace: Offers **data, tools, services** and **guidance** to support and enable policy reforms for research assessment.

At **three levels**

- individual/group researchers
- research and funding performing organisation
- country

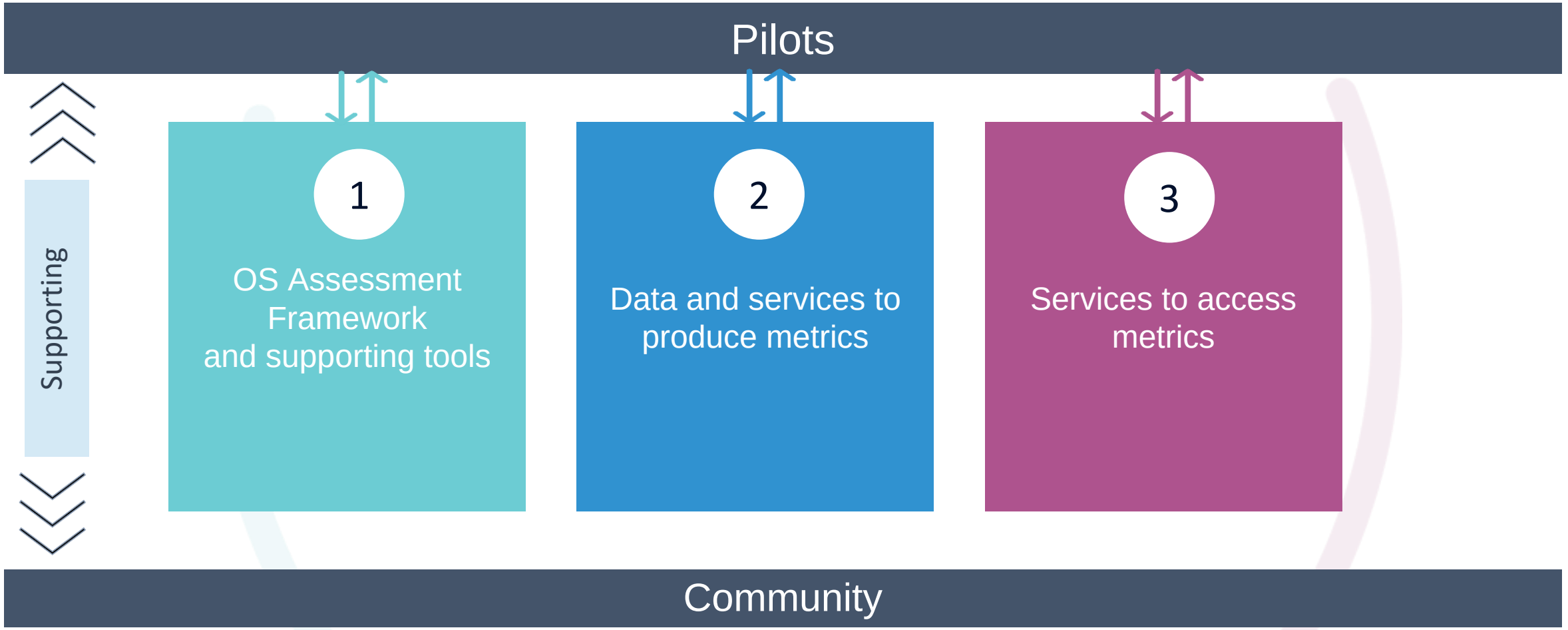
Budget: 2.985M

Start date: 1/1/2023

Duration: 36M

Funded by the European Union
Supporting eosc

How- 3 pillars of actions



Funded by the European Union
Supporting eosc

When – The roadmap

OPEN SCIENCE ASSESSMENT FRAMEWORK

A guide detailing indicator toolboxes and metrics capturing different OS practices and activities in various contexts

OPENNESS PROFILES

RRA templates to be used as fit-for-purpose templates for collecting and structuring quantitative and qualitative indicators

OSAF REGISTRY

An online structured database of OSAF-based Openness profiles and case studies to promote experience sharing and mutual learning

AI-DRIVEN METADATA ENRICHMENT TOOLS & SERVICES

Enhance missing attributes on research outputs.
Enrich research output links with semantics
Enrich research output with novel metrics capturing scientific impact or usage of OS from different perspectives

OS MONITORING SERVICES

OS Institutional Dashboard & OS Researcher Dashboard offering OS metrics and functions for manual annotations (correction/edits/additions) and narrative

COMMUNITY OF PRACTICE

Experts from RRA and Open Science domains

FEDERATED OPEN METRICS DATASPACE

Integrated data collections
Extended EOSC EIF
APIs for access

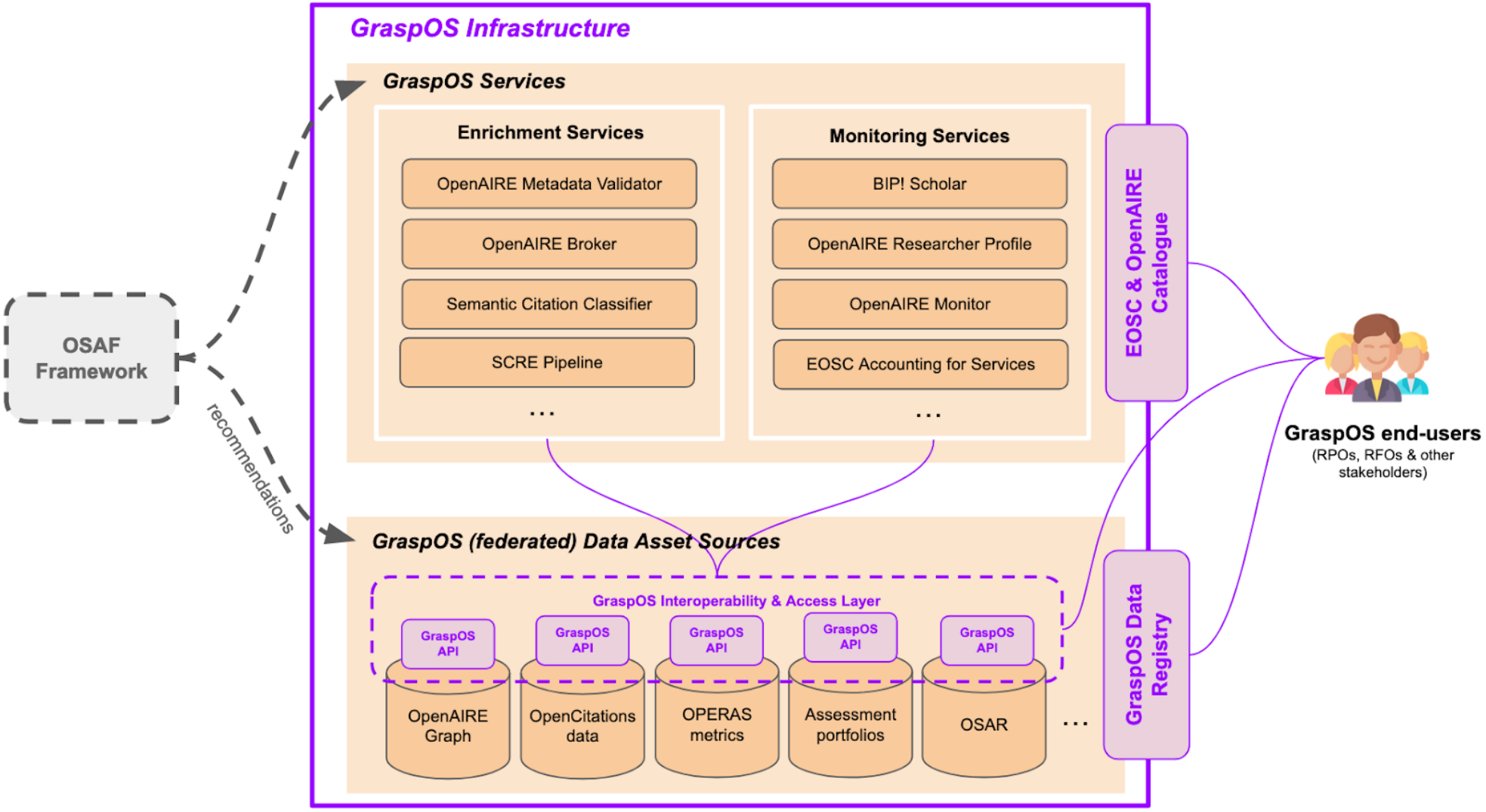
LEARNING MATERIAL

For researchers, research and funding performing organisations

Framework
Technical
Capacity

Funded by the European Union
Supporting eosc

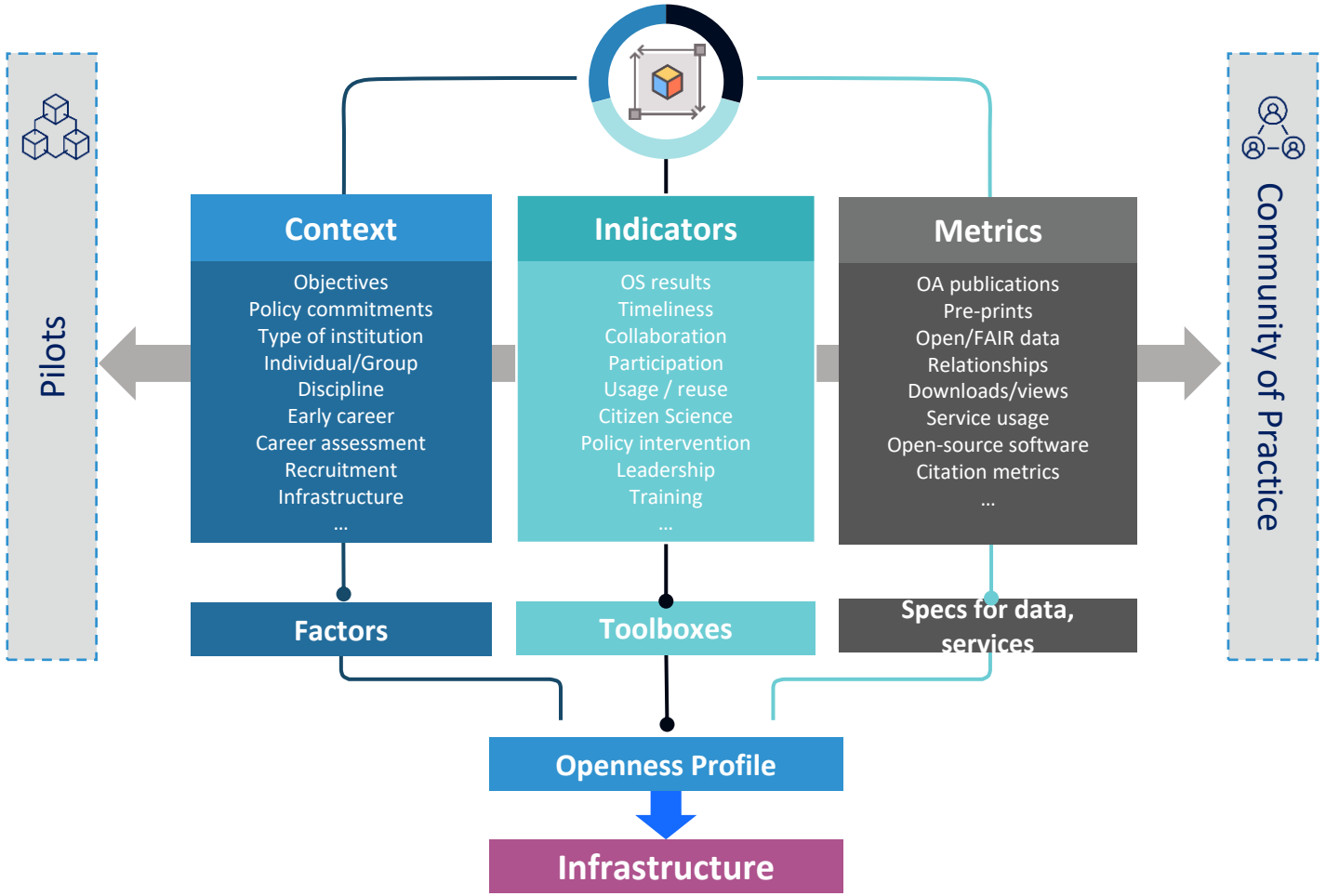
How - The architecture



Funded by the European Union
Supporting eosc

Andrea Mannocci, Thanasis Vergoulis, Serafeim Chatzopoulos, Silvio Peroni, Giulia Malaguarnera, Suzanne Dumouchel, & Clifford Tatum. (2023). GraspOS Deliverable 4.1"Infrastructure Architecture" (1.0). Zenodo. https://doi.org/10.5281/zenodo.830219

Open Science Assessment Framework (OSAF)



Funded by the European Union
Supporting eosc

How – Use and adapt existing tools and resources

OpenAIRE Graph

OpenCitations

OpenAIRE UsageCounts

Software Heritage

MAKE DATA COUNT

BIP! Finder

FAIRCORE4EOSC

RAiD
EOSC Research Activity Identifier Service

OPERAS

EOSC Future

OpenAIRE | OPEN ORGS

Funded by the European Union

Supporting eosc

OpenCitations for research assessment

"In this open-access age, it is a scandal that reference lists from journal articles — core elements of scholarly communication that permit the attribution of credit and integrate our independent research endeavours —are not readily and freely available for use by all scholars."

David Shotton (2013). Open citations. Nature, 502 (7471): 295 297. http://dx.doi.org/10.1038/502295a

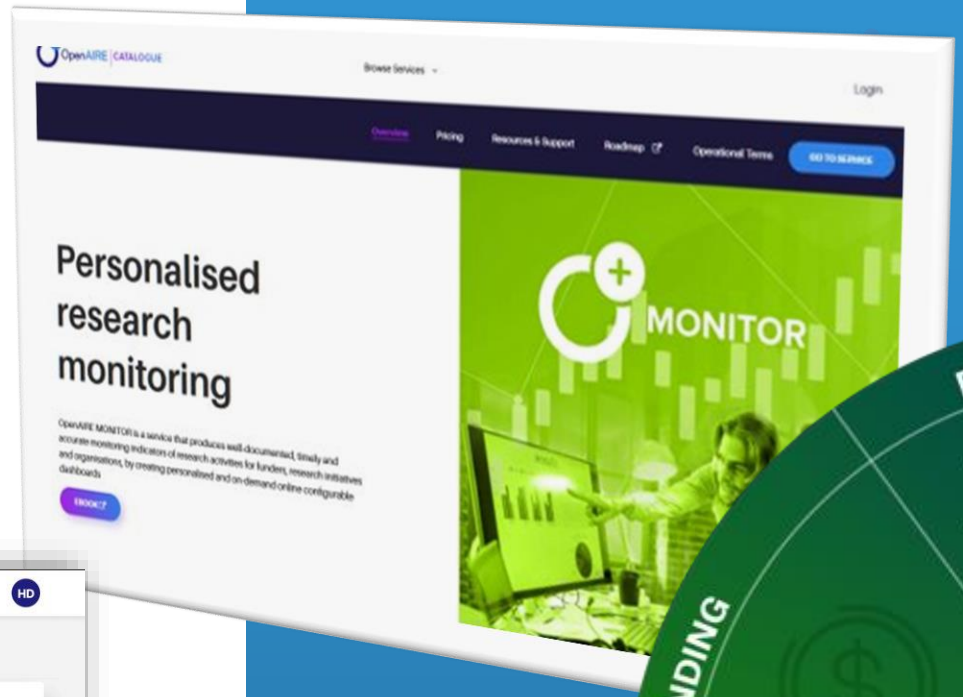
The open availability of bibliographic citation data is a crucial requirement for the bibliometrics and scientometrics domain **for the creation of reproducible metrics for research assessment exercises**.

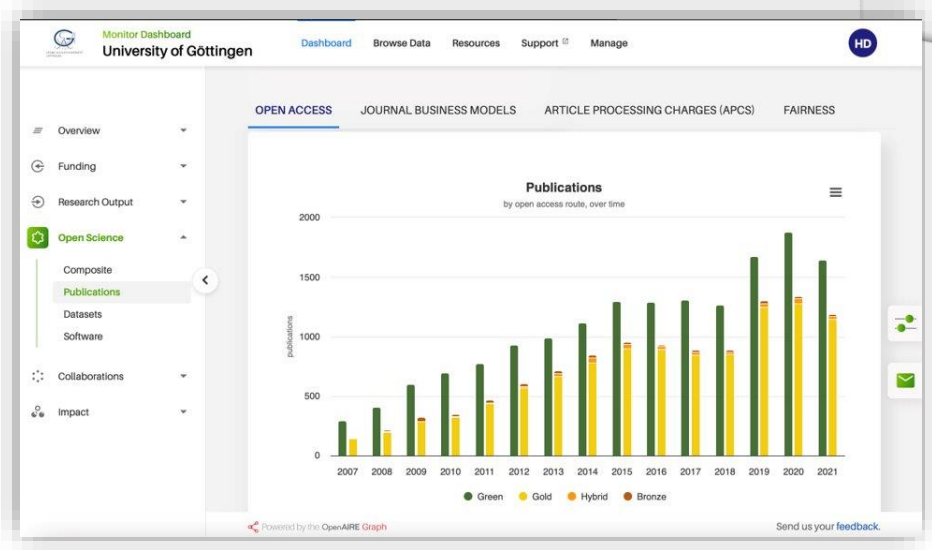
Since its foundation in 2010, **OpenCitations** has been established with the aim to provide open and free access to global scholarly bibliographic and citation data.

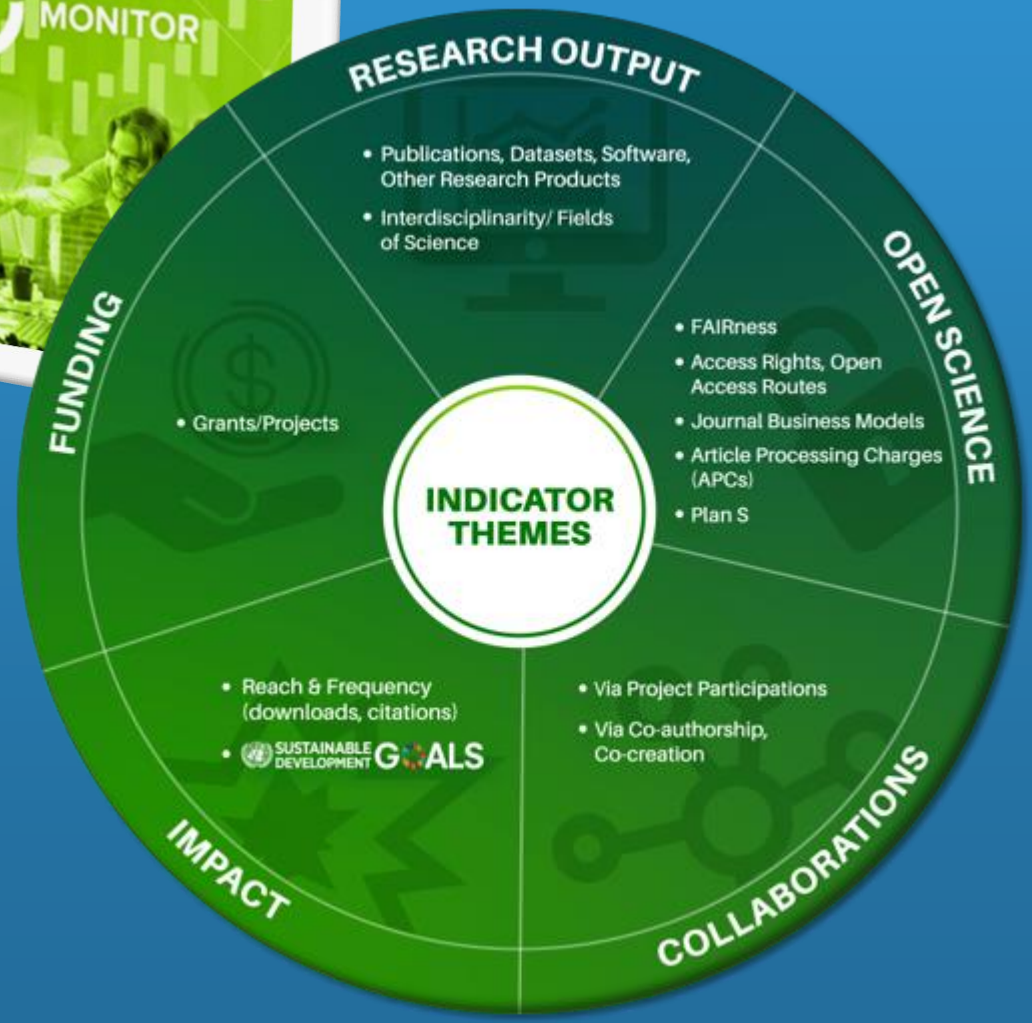
Funded by the European Union Supporting eosc

graspos

Monitoring OS



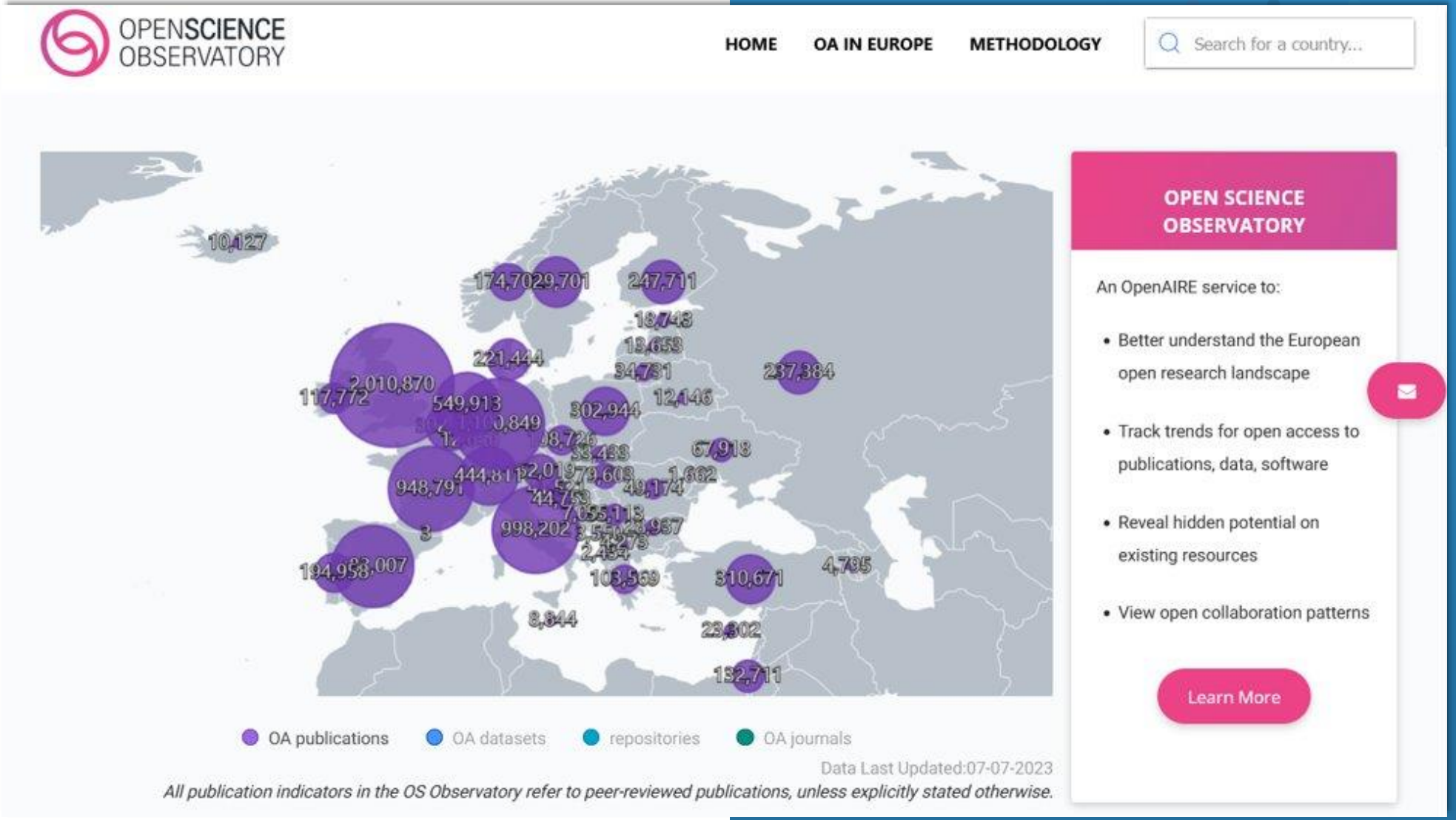




Funded by the European Union
Supporting
eosc

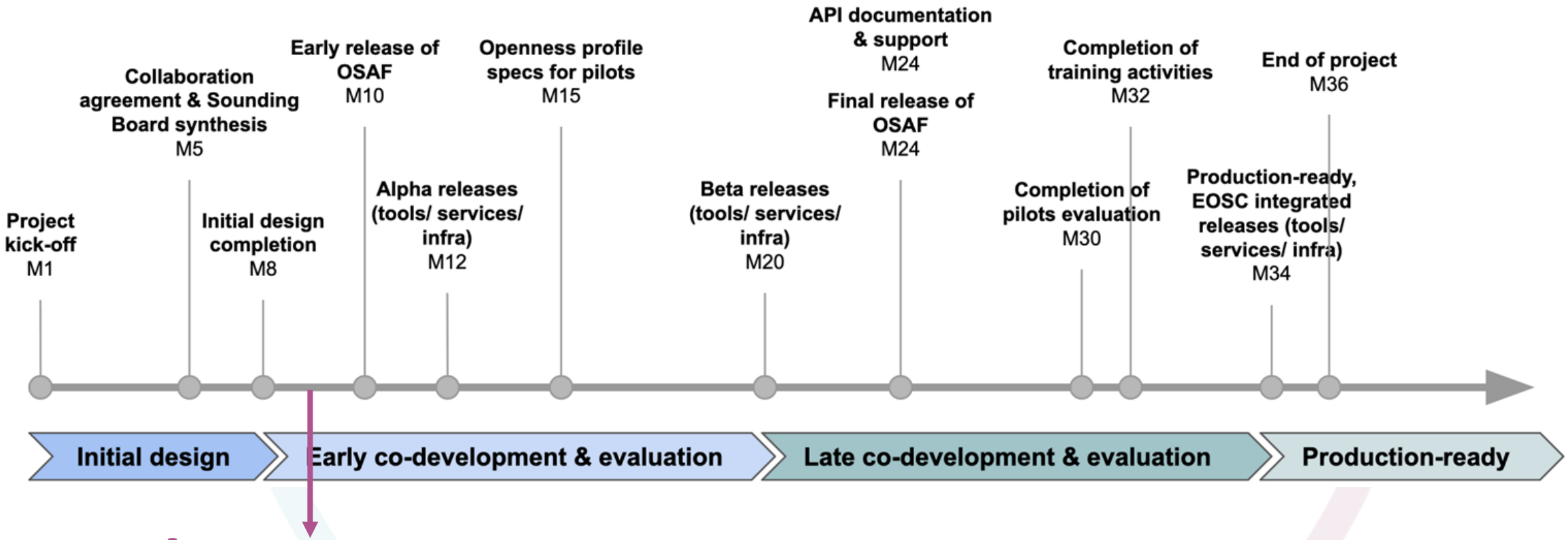
graspos

Monitoring OS



Funded by the European Union
Supporting eosc

Timeline – in 3 phases



Where we are

Funded by the European Union
Supporting eosc

Towards a Responsible Research Assessment

Collaborate with us!

Join our **Community of Practice** on Open Science and Responsible Research Assessment

Send an email to giulia.malaguarnera@openaire.eu to join the CoARA WG **"Towards Open Infrastructures for Responsible Research Assessment"**

CoARA

Visit **graspos.eu** and subscribe to our newsletter

graspos

Funded by the European Union Supporting eosc

graspos

Who - A multi-disciplinary consortium

Infrastructure experts + RRA + OS experts + Communities

ATHENA Research & Innovation Information Technologies

OpenAIRE

CWTS Meaningful metrics

INRAE

Consiglio Nazionale delle Ricerche

EGI

ALMA MATER STUDIORUM UNIVERSITÀ DI BOLOGNA

Federation of Finnish Learned Societies

UNIVERSITY OF EASTERN FINLAND

CSC

cesnet

Inria

OPERAS open scholarly communication in the european research area for social sciences and humanities

grnet

Faculty of Chemistry University of Belgrade

Utrecht University

ue fiscdi

TÜBİTAK

Funded by the European Union

Supporting eosc

Let’s make it happen! Together.

THANK YOU

graspos

open research metrics dataspace

Funded by the European Union

Supporting eosc