

# Advancing Research Assessment with a Focus on Open Science

**Thanasis Vergoulis**  
ATHENA RC, Greece  
14/3/2024

graspos

# Background & Motivation

- **Research assessment** is needed for various important **applications** in research (e.g., related to hiring, career advancement, policy monitoring, planning for research funding).
- There are various **well-known problems** (e.g., focusing only on publications, over-relying on a handful of indicators, depending on non-transparent sources of scholarly information)
- Need for modern approaches which are more **responsible & inclusive**.
- Practicing **Open Science** is not currently accordingly acknowledged.

# GraspOS at a glance

Develop, assesses and put into operation an **open and trusted federated infrastructure** to support and enable policy reforms for “Open-Science-aware” Responsible Research Assessment (OS-aware RRA).

Offering **data, tools, services, and guidance** to support the reforms

Based on an **Open Science Assessment Framework (OSAF)** that assists translating OS & RRA principles into practice

## At three levels

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

**Budget: 2.985M**

**Start date: 1/1/2023**

**Duration: 36 months**

# Key Results

- The **Open Science Assessment Framework (OSAF)**, a living & collaborative guide for RRA that aligns to OS practices & ensures that OS activities are taken into consideration in research assessment events.
- A set of **Assessment Portfolios** to support the collection of inputs for research assessment & an online **Assessment Registry** to facilitate publishing assessment protocols developed.
- A set of **metadata enrichment tools & services** for enhancing missing attributes, semantics, context, and novel indicator values on research outputs & enriching the links among them with appropriate semantics.
- A set of **monitoring tools and services** offering OS indicators, contextual factors, qualitative information (e.g., narratives), and relevant evidence to support assessment processes & relevant types of analysis.
- A **Federated Open Research Assessment Infrastructure** that offers APIs to provide easy access to relevant services and data assets coming from well-established providers of scholarly metadata information, paving the way for the creation of a research assessment data space.
- A **Community of Practice** of responsible research assessment experts from relevant networks, to facilitate knowledge sharing and capacity building.
- A set of carefully designed **Training material** relevant to the subjects of research assessment and OS.

# Demonstrating & evaluating the key results

- **Nine pilots** encompassing a diverse array of use cases spanning various levels, scopes, and values.
- These pilots serve as platforms to **showcase and practically test** the assessment framework, infrastructure, tools, and services developed within the project.
- Furthermore, they **adhere to a co-design approach**, enabling stakeholders to provide feedback on implementation and ensure alignment with real-world needs and requirements.

# A multi-disciplinary consortium





Photo by [Jan Kahánek](#) on [Unsplash](#)

## OPEN SCIENCE ASSESSMENT FRAMEWORK

# OSAF

### Not one size fits all

- Research Assessment must follow set objectives and policy commitments

### Too many indicators and metrics

- Which are the most fitting indicators (what to measure) and what types of metrics to use (how to measure, compare, interact in a trusted way) ?
- Important to put them in the correct context.

# Open Science Assessment Framework

The Open Science Assessment Framework (OSAF) is focused on translating OS and RRA principles into pragmatic resources that facilitate responsible assessment reform in general with specific attention to Open Science contributions.

The framework design includes

- 1. the SCOPE+i method**
- 2. a digital assessment portfolio**
- 3. an assessment registry.**

Together, these elements form the OSAF framework and support the full assessment process.





# OSAF: Translating Principles to Practice

## Open Science Assessment Framework (OSAF)

### SCOPE+i Method

- assessment-specific infrastructure
- assessment resources
  - RRA in general
  - OS in particular

### Assessment Portfolio

- Narrative + Evidence
- Diversity of inputs & roles
- Researcher/group/institution

### Assessment Registry

- Contextualized assessment
- Searchable database

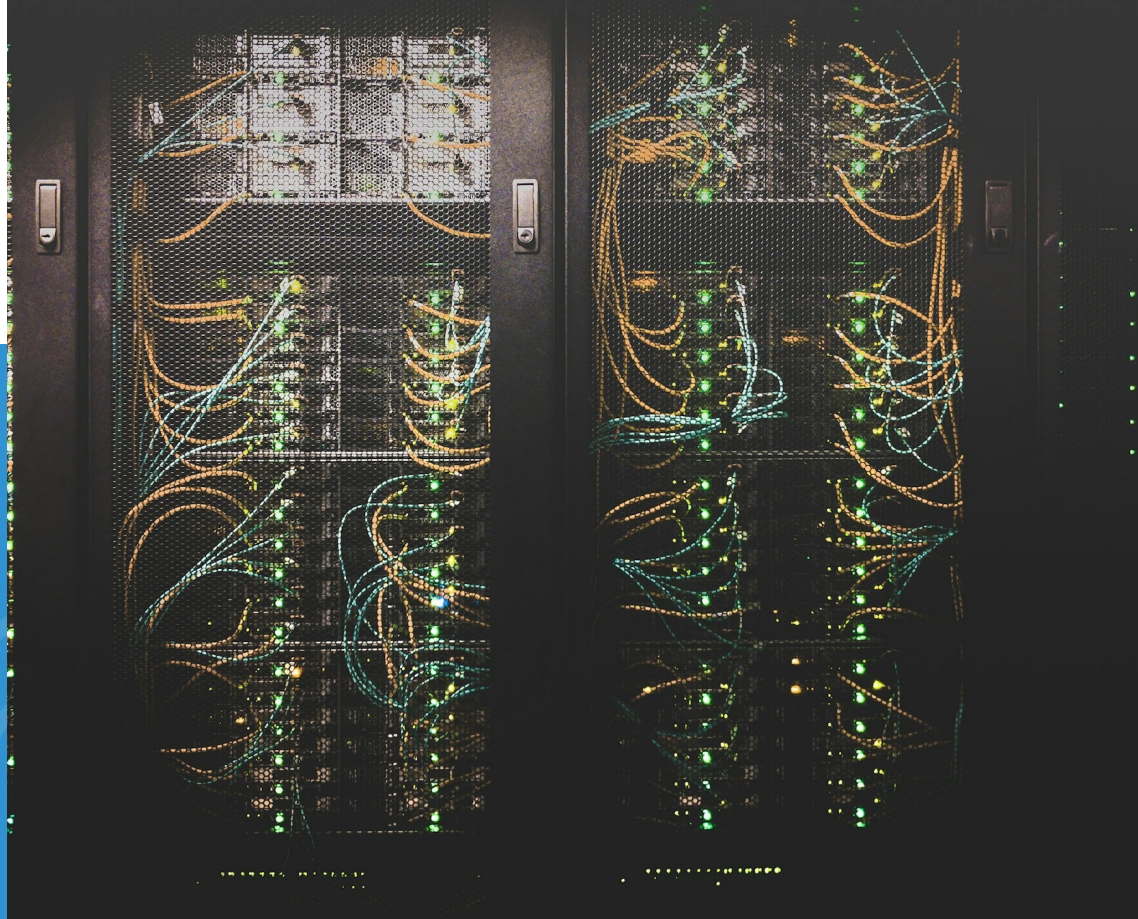


Photo by [Taylor Vick](#) on [Unsplash](#)

# The Infrastructure

Open Science has many flavours & parameters

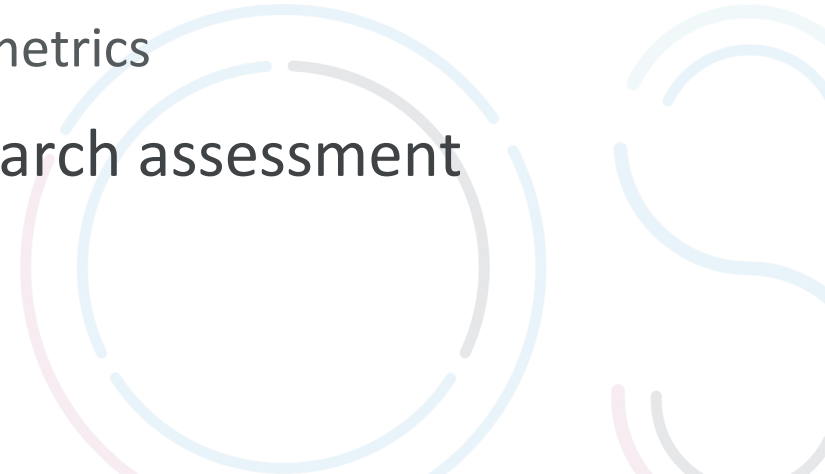
Metadata is missing or is not good

Fragmented metrics data for openness & usage. Owned by commercial providers.

Novel indicators are not just not just about numbers.

# What – in a nutshell

- Deliver **fit-for-purpose tools and services** with the necessary characteristics to accelerate adoption of and support for OS-aware RRA approaches:
  - **broad coverage** by including multiple types of research results beyond literature and enriching the existing data assets with additional information and semantics
  - **novelty** by introducing indicators related to the practice of OS
  - **inclusivity** by including diverse types of evidence beyond research results and indicators (e.g., narrative CV, texts)
  - **Interoperability by design** of data sources
  - a mix of **automated** and **manually curated and annotated** metrics
- **Develop and operationalize** an infrastructure for research assessment (data-tools-services-guidance)



# High-level Architecture

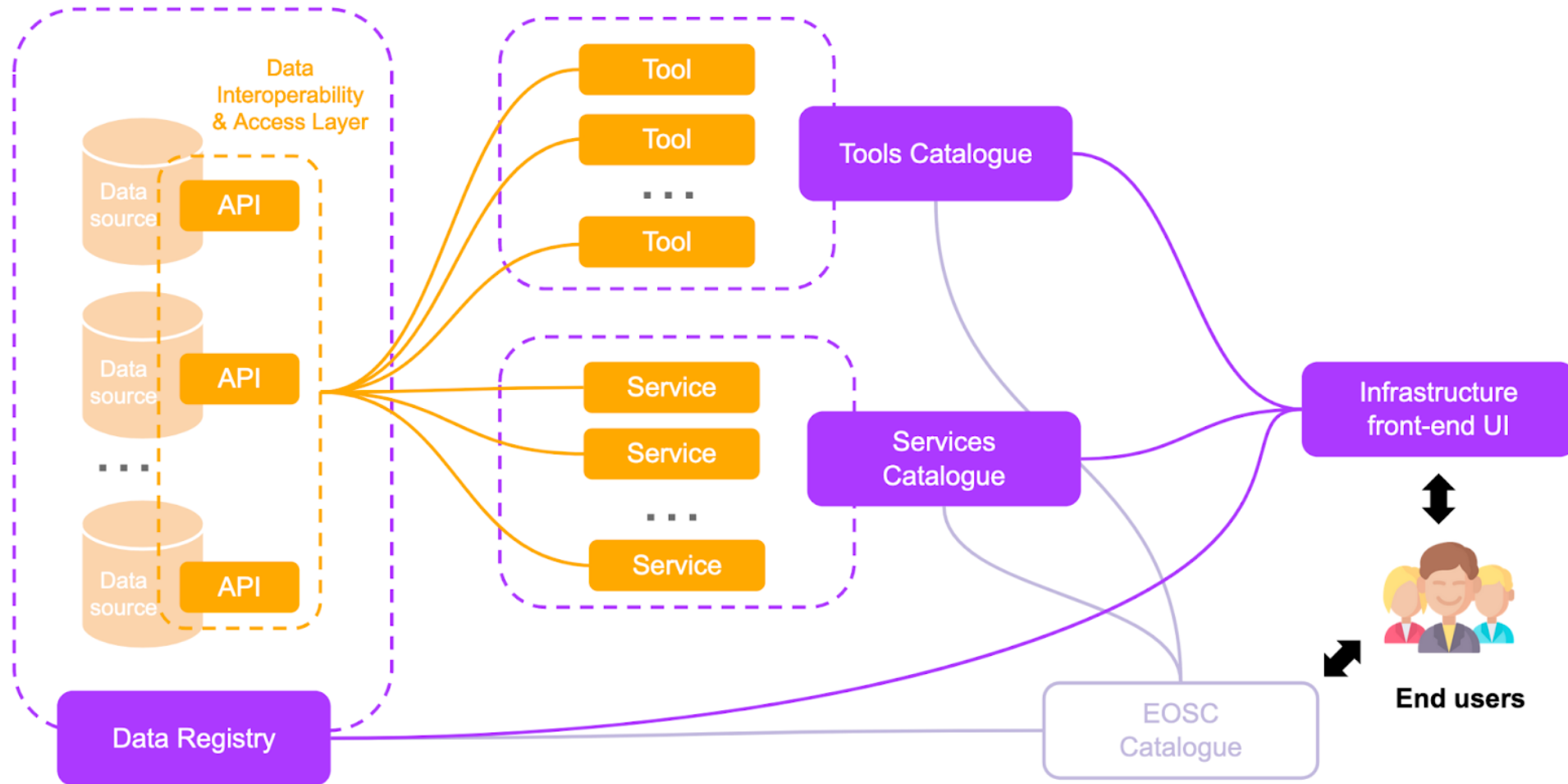






Photo by [Hannah Busing](#) on [Unsplash](#)

# The Community

## Different types of pilots

- Funders & national stakeholders
- Universities (Research performing organisations)
- Thematic disciplines

## Community of Practice of OS and RRA experts

## Capacity via training

# Community of practice on assessments that value OS

Focus on **binding the technical infrastructure** development and its operational aspects with the **RRA/OS community** and envisioned practices

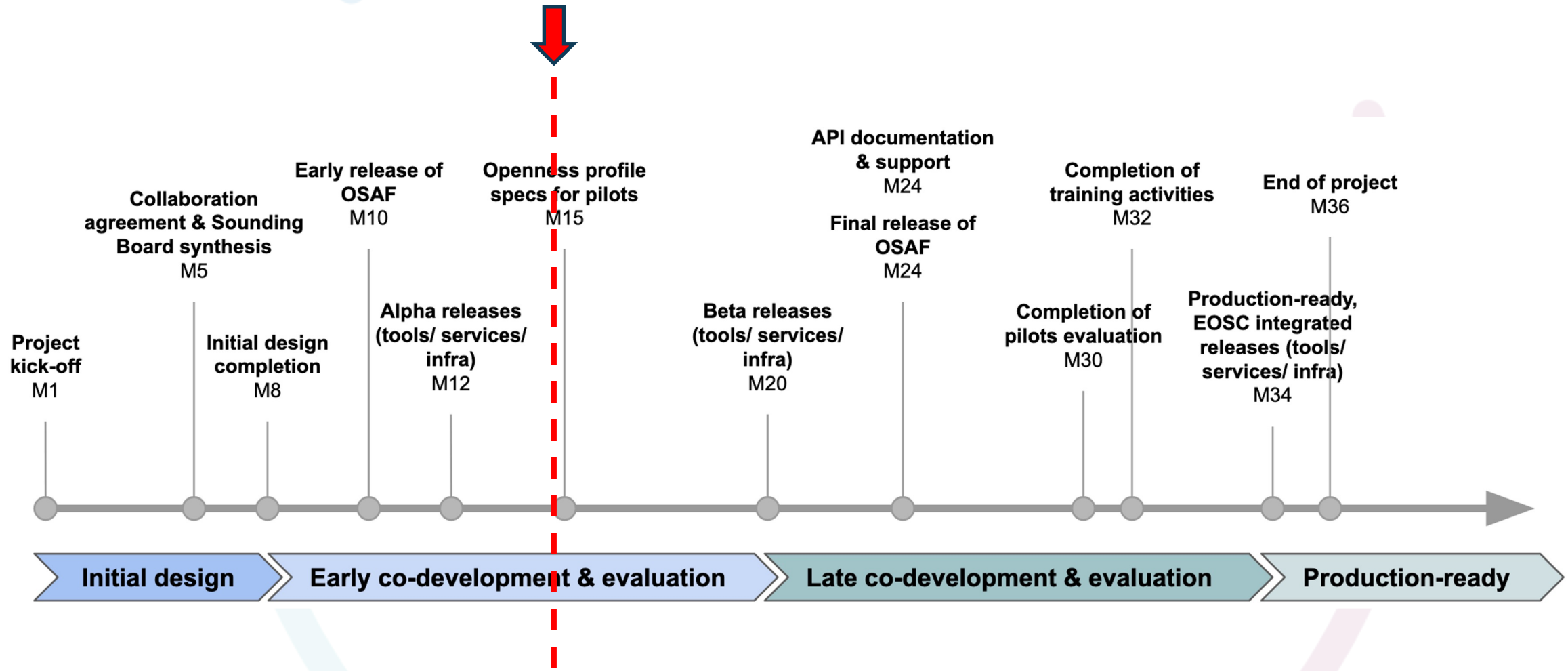
**Complement COARA** and will consist of different actors and stakeholders brought in by the partner networks as follows:

- Research performing & funding organisations
- Providers of data/metrics infrastructure
- Local and national monitoring infrastructures
- Research Infrastructures
- National Open Science initiatives and bodies
- Scholarly societies and other professional bodies
- Researchers who focus on R&I assessment tapping on the Super MoRRI network



graspOS

# Timeline – in 3 phases



Let's make it happen! Together.

# THANK YOU

[vergoulis@athenarc.gr](mailto:vergoulis@athenarc.gr)

---

Twitter/X: [@vergoulis](https://twitter.com/vergoulis)

---

Mastodon: [@vergoulis@scicomm.xyz](https://mastodon.social/@vergoulis@scicomm.xyz)

---



Funded by  
the European Union

Supporting



The project is funded by the European Commission, under Grant Agreement No. 101095129