

OpenAIRE

SCIENCE.  
SET FREE.

# 3 YEAR STRATEGY

2023-2025





**Authored** by the OpenAIRE Standing Committee on Open Science strategies

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# PREAMBLE

OpenAIRE AMKE was established in 2018 as a non-profit and sustainable organisation, acting as a European-wide network of Open Science experts and implementers and providing e-infrastructure to support open scholarly communication globally. Since its inception, the need for a clear strategy, identifying the priorities for OpenAIRE, has emerged.

The Open Science Strategies Standing Committee initiated the discussion identified strategic priorities and suggested concrete lines of action. The first draft was subsequently opened for comments from members in other standing committees and in the end, by our entire member base. During this process, in the context of the Covid-19 pandemic, the landscape in Europe significantly evolved. This had quite an influence on the strategy itself.

The five strategic priorities outlined in this document connect to the global effort to drive forward open scholarly communication. Guided by these priorities, OpenAIRE will be able to assess and decide on the operation, improvement and development of its services, its participation in projects and initiatives, and on partnerships and collaborations to foster.

Our strategy, accompanied by a 3-year action plan, will increase the impact of OpenAIRE in advancing open scholarly communication and make our community-driven organisation an even stronger and recognised voice on the Open Science landscape in Europe and beyond.

We also hope that it will serve as a motivational tool inspiring our members and the broader community to work towards a common goal: pushing the agenda forward, taking it to the next level and shaping the Open Scholarly Communication ecosystem in Europe and beyond.

Enjoy the read!




**Inge Van Nieuwerburgh**  
Chair of the Executive Board

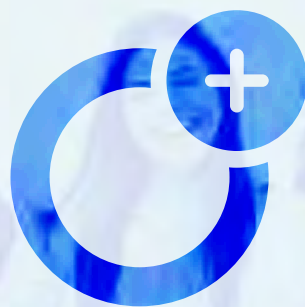


**Eloy Rodrigues**  
Member of the Executive Board

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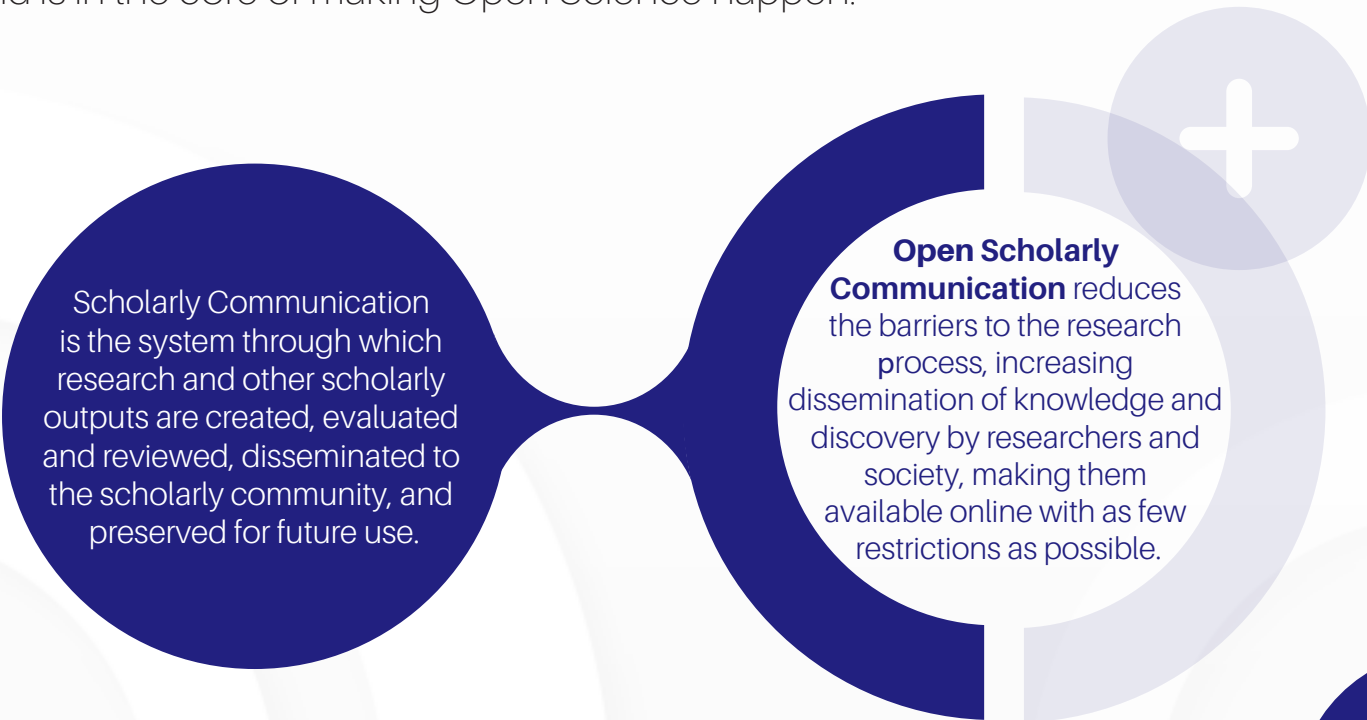
# 1. OpenAIRE TODAY

OpenAIRE is a non-profit organisation that brings together research institutions who have been in the forefront of Open Access developments since the early days of the movement. It federates the European open scholarly communication community of currently 47 member organisations by encouraging collaboration and knowledge sharing, and by developing and

operating services to accelerate the implementation and uptake of Open Science. As Europe and the world is progressing towards a more holistic approach of Open Science, OpenAIRE **reiterates its mission and commitment to be a frontrunner in this transformation process.**

## Scholarly communication is an integral part of the research ecosystem

and familiar to researchers, their institutions and their societies. Open Scholarly Communication is key for advancing science and knowledge as a whole. It provides an infrastructural glue for sharing and re-using data, information, knowledge and is in the core of making Open Science happen.



Scholarly Communication is the system through which research and other scholarly outputs are created, evaluated and reviewed, disseminated to the scholarly community, and preserved for future use.

**Open Scholarly Communication** reduces the barriers to the research process, increasing dissemination of knowledge and discovery by researchers and society, making them available online with as few restrictions as possible.



# OpenAIRE IN A NUTSHELL

## OUR VISION

Transform society through validated scientific knowledge and allow researchers, educators, funders, civil servants and industry to find ways to make science useful for themselves, their working environments and society.

## OUR MISSION

Shift scholarly communication towards openness and transparency, mobilising R&I actors to co-develop, co-invest and assume co-ownership of an open scholarly communication ecosystem.

OpenAIRE is an e-Infrastructure for Open Scholarly Communication acting as a:

1. **Service Provider** - developing and operating services to embed and accelerate Open Science practices.
2. **Network** - accelerating Open Science uptake through a distributed Open Science helpdesk with a European footprint.
3. **Scholarly Communication market mediator** – identifying, enabling and promoting novel solutions and models for sharing and re-using research outcomes.

# OUR VALUES AND PRINCIPLES

Using old practices and extending them to the new norms of digital and data intensive science will not suffice. Out-of-the box design and involvement of the research community in all stages of implementation is the way forward.

OpenAIRE infrastructure and services are developed  
**by the community and for the community.**

- **Open Governance:** OpenAIRE members have the power to influence all decision-making processes, its steering and shape its services. OpenAIRE welcomes interested parties to get involved in continuing its mission to provide the necessary services, resources and network for supporting a common open e-research and e-science environment.
- **Inclusion and diversity:** Respecting and appreciating the diversity of research practices and infrastructure, while maintaining a European footprint, OpenAIRE relies on the work and infrastructure of its members with the goal to shape an inclusive digital future for Open Scholarly Communication, with no European country left behind and without losing the global perspective.
- **Users in the centre:** Services are designed for researchers and all other actors of the Research and Innovation ecosystem. We are here to make sure they are practical, easy to use and understand.
- **Accessibility and transparency:** Scientific outputs should be free to access and use, and services must use open protocols to avoid vendor lock-in.
- **Collaboration and reciprocity:** The transition towards openness in Scholarly Communication requires fresh ideas and shared solutions. We won't thrive without recognising others' strengths, evolving together, supporting each other and building synergies at local, European and global levels.

## OUR USERS AND PARTNERS

Any viable and sustainable implementation of Open Science requires the participation of many: **researchers, content providers, service providers, policy makers.**

OpenAIRE engages with a wide range of R&I actors, working with them to jointly assume an active role in the emerging open scholarly communication ecosystem, particularly by allowing them to develop and consume services, infrastructure, and policies in accordance with their specific needs.

- **Researchers:** Individuals or research groups and communities.
- **Content providers:** repository managers, OA Journals, preprint servers, data archives and repositories, current research information systems (CRIS), software and other types of repositories, research infrastructures (RIs), learned societies.
- **Service providers:** Providers of scholarly communication services (platform and tool developers, publishers) and providers of R&I evaluation services (primarily SMEs).
- **Policy makers:** funding agencies (policy officers), research administrators.





## 2. THE ENVIRONMENT

**Open Science in an emerging context:** The Open Science landscape in Europe and around the world has significantly evolved in the past five years with progress in key pivotal areas. The following organisational efforts and underpinning policies and infrastructures will further accelerate the developments in the next decade:

**Horizon Europe<sup>1</sup>** embraces Open Science as the modus operandi for performing science.

**European Open Science Cloud (EOSC)**, a key European partnership, sets out to implement a web of FAIR data.

The new **ERA Policy Agenda<sup>2</sup>** includes **Action 1** - Enable Open Science, including through the EOSC, and **Action 2** - Reform the Assessment System for research, researchers and institutions.

**UNESCO Recommendation on Open Science<sup>3</sup>** formulates principles and norms for a global Open Science partnership and implementation.

**The research environment:** With digital and data intensive science in the forefront, libraries and researchers are shifting to prefer open, more collaborative solutions. Universities are in the process of investing in open, community-based services, and on building the human support infrastructure, but face the lack of solid business and operational models. On the other hand, commercial actors increasingly play a more active role in the design and development of Open Science services and products. But tensions still exist, as the traditional or emerging business models fail to address the needs of the next generation researchers as these are being formulated by practices of early collaboration, or research and career assessment methods that go beyond publications.



### 3. KEY STRATEGIC AREAS OF PRIORITY

OpenAIRE identifies five strategic priorities in Open Science.

1

Infrastructure for Open Scholarly Communication

2

Data and service quality assurance

3

Responsible research & career assessment that  
includes Open Science

4

Innovation in research communication & dissemination

5

Monitoring of the uptake of Open Science policies

# INFRASTRUCTURE FOR OPEN SCHOLARLY COMMUNICATION

PRIORITY 1

Scholarly infrastructures that serve researchers should be open by default and avoid any proprietary ownership that could prioritise profit before the principles of free access. To be efficient, Open Infrastructures should create, connect and sustain relevant and efficient ecosystems by ensuring (a) a strong community-led base, (b) interoperability and inclusivity in research supporting infrastructures and services, (c) high quality of provided services, (d) a seamless user experience, (e) seamless or zero transaction cost for the users of such services where possible (free at the point of use).

The **interoperability of infrastructures**, and hence their ability to link up with each other and to ensure the smooth circulation of the content produced, is essential for open science to become mainstream.

The fragmented infrastructure landscape leads to non-sustainable services and, frequently, to ad hoc or off-the-shelf solutions that do not necessarily meet the research community needs and expectations.

## CHALLENGES

- A fragmented landscape of diverse infrastructures where scholarly communication is primarily provided and driven by commercial entities.
- Difficulty to align local-national-European and international levels.
- Fragile funding and lack of long-term support (sustainability) for Open Access infrastructure.

# INFRASTRUCTURE FOR OPEN SCHOLARLY COMMUNICATION

1

**Promote interoperability** to strengthen collaboration between open research infrastructure providers.

2

Design open infrastructures based on what the **stakeholders' expectations and needs** are regarding an open infrastructure (for training, consulting, research, monitoring, discovery).

3

Explore and experiment with innovative Open Science **business models**.

4

Address the fragility of funding for open infrastructures by identifying and seeking **multiple and different forms of funding**.

5

**Consolidate existing infrastructure and services**, and develop new services, based on the added value provided by the aggregation and processing (linking, cleaning, enriching, etc.) of distributed data sources.

6

**Modernise** current infrastructures (repositories and publishing platforms) to meet researcher expectations.

**OpenAIRE role:** OpenAIRE products and services, such as the [OpenAIRE Guidelines](#) for Content Providers and the [OpenAIRE Research GRAPH](#), are essential for achieving a loosely coupled interoperability framework and hence for providing the backbone for sharing any type of openly and trustable scholarly work.

# DATA AND SERVICE QUALITY ASSURANCE

## PRIORITY 2

Data increasingly flows from system to infrastructure and back. Data, open infrastructures and services need a minimum level of quality to be trustworthy. Services, data and software must follow guidelines and FAIR principles, as these are manifested by practical quality assurance frameworks and community-validated and maintained data.

Quality is often not formally described, but implied or “hidden” in the background as a mark of excellence, a result of compliance to standards, effectiveness and performance. Quality assurance requires approaches and best practices organised in (i) **data quality interoperability frameworks** accompanied by assessment tools and services, (ii) web solutions that dictate the use of **well-defined ontologies or metadata schema** and (iii) **guidelines, checklists and repository certification schemes**<sup>4</sup>.

## CHALLENGES

- Quality assurance of Open Science infrastructures is linked with Open Science endorsement in institutions and countries. Many of these infrastructures are still new, mainly grant funded, are still in development stages and do not provide proper content curation and user support, e.g., due to a lack of resources.
- Design failures on how data providers and different R&I entities and workflows are represented in the Scholarly Communication ecosystem result in duplications and workload overheads.
- Consensus, acceptance and consistent funding of semi-automated quality assurance processes in publishing venues (OA journals, repositories/pre-prints).



# DATA AND SERVICE QUALITY ASSURANCE

1

Develop a comprehensive data and service quality assurance framework based on FAIR principles. This includes the maintenance and curation of a list of registries for R&I entities (people, organisations, repositories, services, grants, facilities).

2

Develop a governance and implementation model for the quality assurance framework.

3

Hardwire the quality assurance framework in key OpenAIRE services, including training.

**OpenAIRE role:** OpenAIRE builds and relies on external services - repositories, journals, CRIS - and the content they offer. Because of a constant tension between fast dissemination and subjective data curation, poor quality metadata in repositories and journals are reflected in OpenAIRE services, such as [Explore](#), [Connect](#) and [Monitor](#). This causes text and data mining limitations.

Repositories increasingly need to follow excellent practices as defined by the [OpenAIRE Guidelines](#), certified through the [Metadata Validator](#) (including FAIR Assessment) and enriched via use of the [Broker](#).

On the researcher side, it is important to embed quality assurance check points in services such as [Argos](#) and [Zenodo](#).

# RESPONSIBLE RESEARCH & CAREER ASSESSMENT THAT INCLUDES **OPEN SCIENCE**

## PRIORITY 3

Responsible Research Assessment (RRA), from individual career assessment to the assessment of projects and research performing organisations and collaborations, encompasses a variety of different aims and methodologies, measurements and indicators that can greatly differ at institutional, national, and international levels.

Out-dated and redundant research recognition and career assessment methodologies need to be re-designed and replaced to recognise and reward new and changing forms of sharing and building on research outputs reflecting open science. Much remains to be done, but the priorities are to (a) have **responsible openness** permeate the entire research process, from the proposal submission and evaluation stage to final / ongoing reporting and communication, and (b) **increase the capacity and preparedness of current research evaluation systems** and infrastructure to reflect and implement this change.

## CHALLENGES

- Institutions do not make their RA processes clearly visible to all stakeholders or accessible from a single source, i.e., unified guidelines (transparency).
- Different disciplines, countries / regions and institutions often employ different RA methodologies and processes, making comparison hard (natural diversity of RA).
- Open Science practices are currently not appreciated, which hinders broad uptake by researchers. There is still a lack of incentives and rewards for researchers to make their outputs available in OA.
- Consensus on new metrics and indicators across disciplines and regions to support measurements of Open Science practices and impact.

# RESPONSIBLE RESEARCH & CAREER ASSESSMENT THAT INCLUDES OPEN SCIENCE

1

Develop new and diverse approaches to enhance research assessment in a responsible way, that includes appreciation of Open Science practices based on a diverse range of metrics and indicators.

2

Increase transparency and facilitate the sharing of best practice for responsible research assessment across Europe, but also across the world (e.g., UNESCO, Global Research Council).

3

Develop a solid basis of curated, comprehensive and open data for new and diverse metrics and indicators.

**OpenAIRE role:** The [OpenAIRE Research Graph](#), an open data asset for meta-research which includes different types of research results, openness metrics, usage and citations, is envisioned to play a key contribution for the **New Generation Open Research Metrics Data Space**<sup>5</sup>. Moreover, the development and provision of value-added services such the **Openness Profile**<sup>6</sup>, are expected to bring consensus and boost the uptake of relevant metrics.

Finally, the [OpenAIRE National Open Access Desks \(NOADs\) network](#) commits to support the European Commission initiated **Coalition on Reforming Research Assessment**<sup>7</sup> in an active way by promoting and putting forward pilots in local settings.

# INNOVATION IN RESEARCH COMMUNICATION & DISSEMINATION

## PRIORITY 4

In recent decades, there have been significant changes and innovations in research practices, methods and workflows, as a result of the technological developments and growing volumes of research data. **Digital based and data intensive research is now the new norm in all aspects of research.**

Despite the transformation from print to digital, the level of innovation in the scholarly communication system was significantly lower. Research articles, journals and monographs, are still very similar to the ones published 20 or 30 years ago and remain the main dissemination artefacts and channels. Moreover, the entire system is increasingly dominated and controlled by a small number of big publishing groups. The rather conservative systems of advancement in scholarly and academic careers continue to encourage and build on the traditional ways of reporting the results of scientific research.

However, several initiatives have been emerging recently trying to move beyond (or even apart from) the traditional publishing models and build a Knowledge Commons, where reusability and reproducibility are in the centre. Examples of such initiatives are **microPublication, modular publishing, Notify, Peer Community in, PubFair, PubPub, executable papers, Research Compendia, Science-octopus, ROHub**. Some of those initiatives build upon repositories and preprint servers, which have been spreading and growing recently.

## CHALLENGES

- Inclusion of all types of research contributions can be part of a dialogue and should be able to be disseminated.
- For years, an alternative communication system has been advocated but not yet implemented, with overlay and value added coordination services on top of distributed content and infrastructures that include curation capabilities.
- Lack of standards for intelligent discovery and semantics, despite growing need for markup and text and data mining tools (TDM).
- Support for the uptake of innovative tools and procedures by the research community, depending on policy and research assessment criteria.
- Coordination needed between different stakeholders, organisations (Research Performing Organisations and Funders), and across regions.
- Modernisation of current infrastructures (repositories and publishing platforms) to support innovative functionalities and workflows.

# INNOVATION IN RESEARCH COMMUNICATION & DISSEMINATION

1

Leverage on the existing (distributed) resources (infrastructures like repositories, publishing platforms, libraries, staff) of research institutions.

2

Support the development of novel approaches to current communication and publication systems and promote their adoption in practice.

3

Seek to develop an Open Science Innovation Hub for the support and enhancement of new and innovative tools, workflows and models related to open scholarly communication.

**OpenAIRE role:** OpenAIRE has in the past focused on innovation towards the repository infrastructure, on how to upgrade services, include new functionalities, connect them. In a similar way it has been supporting OA Journals and platforms. It has also been an innovator in its own services: (i) bringing state-of-the-art, big data technologies in the aggregation; (ii) very early on introducing text and data mining to compensate for the lack of good metadata; (iii) challenging the status quo of bibliographic databases with the **OpenAIRE Research Graph**. And it will continue to do so.

An emerging role is to be an aggregator of new ideas, enable and assist in the funding of such ideas, and be a market mediator via the operation of an **Agora for Open Scholarly Communication Services**, a community-led open catalogue.



# MONITORING UPTAKE OF OPEN SCIENCE POLICIES

## PRIORITY 5

There is a significant diversity of Open Science policies in Europe and around the world. Each country may have its own national policy, institutions may have developed their own roadmaps, as well as several national and European funders. These policies increasingly include a mandate for Open Science practices, particularly Open Access to publications and research data management and sharing. This transformation intensifies the need to provide an evidence-based view of the evolution of Open Science and its impact in order to facilitate stocktaking and efficient policy making.

Many European countries are in the process of setting up Open Science monitoring systems that measure relevant practices and uptake. The European Open Science Cloud, ERA and UNESCO have initiatives that try to measure in some form or other the existence, progress and uptake of Open Science. The **EOSC Observatory** collects information on a periodic basis from EU Member States and Associate Countries through surveys; the **ERA Observatory** measures indicators on Open Access to publications; UNESCO has formed a Working Group on Monitoring Open Science Policies, and utilises **GoSpin** – the Global Observatory of Science, Technology and Innovation Policy Instruments.

## CHALLENGES

- Developing new metrics that take into account all the benefits and impact of Open Science, including economic and societal benefits. Since this is not straightforward it requires a multidisciplinary approach with tools and data that span time.
- Agreement on a set of common indicators for Open Science monitoring, covering all the relevant dimensions (uptake - OA publications, OA Data, Free and Open Source Software/FOSS, etc, - policies, infrastructure use, maturity, etc.).
- Outcomes are not transparent, and we are reliant on paywalled data. Country policies and results are not easily comparable. Results are not reproducible.

# MONITORING UPTAKE OF OPEN SCIENCE POLICIES

1

Align Open Science monitoring approaches on national and European/global level, keeping regional and other differences in mind.

2

Use the information assembled and linked in the OpenAIRE Research Graph to support the generation of metrics and indicators for Open Science monitoring.

3

Equally important is the narrative about the policy and its implementation, e.g., what are the mechanisms and bodies each country uses to achieve its goals, to serve as a mutual learning exercise.

**OpenAIRE role:** OpenAIRE has a role in delivering monitoring data via the **OpenAIRE Research Graph**, and indicators through the **Open Science Monitor** and **MONITOR Dashboards** services. The **National Country Open Science Pages**, maintained by the National Open Access Desks, provide the narrative on the what-how-who of the national policy and infrastructure environment.

The newly formed **Working Group on Monitoring Open Science Policies** aspires to become a core mechanism for engaging with all stakeholders across Europe, to align and bring consensus on processes and methods.



## 4. TURNING STRATEGY INTO ACTIONS

OpenAIRE has built a **socio-technical** European e-Infrastructure over its 10+ years of operations: a service provider and a network of expert organisations and people as a conduit for the efficient implementation of Open Science practices, services and policies.

Moving along the three areas that have been at the core of OpenAIRE from its outset, i.e., **SERVICES-TRAINING-POLICIES**, there are five concrete lines of action for implementing our strategic priorities.

### ACTION LINES FOR 2023-2025

#### SERVICES

1. Make OpenAIRE infrastructure and services core elements in the Open Science ecosystem.
2. Develop sustainable and innovative business and process models for Open Scholarly Communication.

#### TRAINING

3. Develop and operate a hub of quality training material for open science.
4. Substitute a decentralised pan-European Open Science competence centre and Helpdesk.

#### POLICIES

5. Develop collaborative communities of practice that strengthen Open Science adoption through regional coordination.

## STRATEGIC PRIORITIES 2023-2025

- 1 Infrastructure for Open Scholarly Communication
- 2 Data and service quality assurance
- 3 Responsible research & career assessment that includes Open Science
- 4 Innovation in research communication & dissemination
- 5 Monitoring uptake of Open Science policies

## ACTION LINES

### SERVICES

1. Make OpenAIRE infrastructure and services core elements in the Open Science ecosystem.

2. Develop sustainable and innovative business and process models for Open Scholarly Communication.

### TRAINING

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4. Support a decentralised pan-European Open Science competence centre and Helpdesk.

### POLICIES

5. Develop collaborative communities of practice that strengthen Open Science adoption through regional coordination.

## SUPPORTING ACTIONS

Partnerships

Participation in projects

Effective organisational structure

## ACTION LINE - SERVICES

OpenAIRE has developed a suite of services which target different stages of the research cycle. These focus on supporting open scholarly communication in Europe (EOSC, Horizon Europe and other national funders), but they also serve as exemplars for other parts of the world.

**1.** Make OpenAIRE infrastructure and services core elements in the Open Science ecosystem.

**2.** Develop sustainable and innovative business and process models for Open Scholarly Communication.



## S-1: MAKE OPENAIRE INFRASTRUCTURE AND SERVICES THE CORE ELEMENTS OF THE OPEN SCIENCE ECOSYSTEM

### ► Increase and enhance interoperability

1. Promote and position the **OpenAIRE Guidelines** as the *de facto* light weight standard for interoperability.
2. Promote and position the **Metadata Validator** as a core tool for metadata quality and lightweight FAIR assessment.
3. Promote the **Broker** service to ensure repositories and other open data sources become an integral part of the open scholarly communication infrastructure.

### ► Position OpenAIRE Research Graph at the core of Open Science infrastructures in Europe and the world

4. Invest in the **OpenAIRE Research Graph** as a global, multilingual asset for discovery, supported by an open governance scheme.
5. Position the **OpenAIRE Research Graph** at the centre of the development of an open metrics infrastructure for EOSC.
6. Empower national & institutional CRIS systems, and emerging publishing platforms as trusted data sources and alliance partners of the **Graph**.
7. Extend the **OpenAIRE Research Graph** with semantic information and support the development of domain specific Knowledge Graphs.
8. Support innovations by third parties through a sandbox for prototyping innovative services on top of the **OpenAIRE Research Graph**.

### ► Contribute to the Next Generation Metrics which include Open Science

9. Facilitate and participate in global efforts towards the uptake of responsible research metrics and indicators with Open Science embedded in them.
10. Invest and establish open metrics standards, services and infrastructure for usage data, citations and publishing costs.
11. Promote and position the **MONITOR Dashboard** services for funders and institutions.

## ACTION LINE - SERVICES

Open Science drives innovation. OpenAIRE is committed to identify opportunities to support the transition to an Open Scholarly Communication ecosystem. As research is a global effort, OpenAIRE will actively seek synergies with like-minded organisations and visionaries to support experimentation and innovation in services and business models that will bring us one step closer to our goal.

1. Make OpenAIRE infrastructure and services core elements in the Open Science ecosystem.

2. Develop sustainable and innovative business and process models for Open Scholarly Communication.

## S-2: DEVELOP SUSTAINABLE AND INNOVATIVE BUSINESS AND PROCESS MODELS FOR OPEN SCHOLARLY COMMUNICATION.

### ► Develop sustainable and user centric services for Open Scholarly Communication

1. Embrace and put in practice the **Principles for Open Scholarly Infrastructure (POSI)** for all services in the OpenAIRE portfolio, promoting and including research and scholarly communication communities as partners.
2. Adopt user centric development for services. **Professionalise the operation** and provision of services by investing in user understanding, engagement and support.
3. Explore and pilot different **business and revenue models** for OpenAIRE services.
4. Develop and operate a **scholarly communication catalogue** with services from OpenAIRE AMKE, members and affiliates.

### ► Support innovative publishing and research dissemination

5. Support the **modernisation of repositories and publishing platforms**, in collaboration with **COAR** and national organisations and initiatives. Share resources and expertise, technical guidance and support to enable the adoption of innovative publication models, with the goal to position Open Access platforms and institutional settings at the core of governance for innovative services.
6. Develop a **directory of existing innovative publishing initiatives** in coordination with other organisations and initiatives like **COAR, SPARC, LIBER**. Create a template that describes at a minimum disciplinary research, publication workflows and practice, business models, governance.
7. Engage with the research community to identify and support **instruments for the financing of innovative business models**, fund Proof of Concept (PoCs) and highlight successful Open Scholarly Communication practices and models.

## ACTION LINES - TRAINING AND SUPPORT

OpenAIRE and its members have gained a lot of traction and expertise in designing and delivering training for Open Science. Building on this expertise, OpenAIRE will solidify efforts to (i) improve the **quality** of all training resources, (ii) co-invest and co-develop in **tools** and infrastructure to share costs and resources for delivering professional training, and (iii) help NOADs and other national actors **acquire skills** so they may assume key training activities in their country.

**3.** Develop and operate a hub of quality training resources for Open Science.

**4.** Support a decentralised pan-European Open Science competence centre and Helpdesk.

## T-1: MAKE OPENAIRE A HUB OF QUALITY TRAINING RESOURCES FOR OPEN SCIENCE.

### ► Develop open training infrastructure and services

1. Invest in the development and operation of a **Learning Management System (openplato.eu)** to host world class training resources for Open Science. Liaise with key players in the field and offer it as a hosting platform.
2. Participate and contribute to global efforts for **standards related to quality and certification of learning resources** and adopt them in openplato.eu.
3. Capitalise on current efforts related to the delivery of the **EOSC training catalogue** and continue its support within the EOSC remit.
4. Explore and pilot dedicated **innovative learning platforms and methods**. Liaise with third parties for knowledge exchange.
5. Operate a **continuous and open process for co-designing and co-developing learning resources**, and deliver to different actors (researchers, repository managers, data librarians, policy makers) addressing different levels of expertise (entry, intermediate, advance). Extend coverage of resources from implementation of Open Science to topics of Responsible Research.
6. Embed **quality** through continuous assessment and professional/pedagogical evaluation mechanisms.

## T-2: MAKE OPENAIRE AN INTEGRAL PART OF A DECENTRALISED PAN-EUROPEAN OPEN SCIENCE COMPETENCE CENTRE AND HELPDESK.

### ► Coordinate relevant organisations and develop synergies within and outside the EU

1. Empower members to continue and strengthen local training and be involved in and align with national/institutional initiatives.
2. Work with e-Research Infrastructures at EU and local levels to deliver training and upskill researchers. Mobilise and support NOADs to **contribute to national digital transformation efforts** related to Digital Skills agendas via national EOSC initiatives.
3. Sustain and expand the **Community of Practice** of training coordinators and transform it into a body that can steer developments in skills and training.
4. Support an **Open Science Helpdesk** in collaboration with other e-Infrastructures.



## ACTION LINE - POLICIES

A sustainable policy environment at the national level is centred on two priorities: (a) the creation of synergies with complementary national nodes within national EOSC systems, and (b) an extension of open science policies to cover topics such as responsible research and governance related to research outcomes and products.

### 5. Develop collaborative communities of practice that strengthen Open Science adoption through regional coordination.

The **NOADs** have played an important role in fostering the alignment and enhancement of Open Access policies across countries in the past 10 years. As Open Science becomes a game changer and the new norm within the new ERA, and the global recommendations of UNESCO are being put into motion, the OpenAIRE network will adjust to this emerging landscape where more actors are in play, and **commits to support the national dialogue, facilitate a mutual learning environment and put into practice tools for a faster transition.**

## P-1: DEVELOP COLLABORATING COMMUNITIES OF PRACTICE THAT STRENGTHEN OPEN SCIENCE ADOPTION THROUGH REGIONAL COORDINATION.

### ► Contribute to EU open science policy alignment

1. Sustain the **OpenAIRE NOADs** network and support it via mechanisms that will allow cross-fertilisation of ideas, practices, experiences, measures and action plans for implementing infrastructure and upskilling.
2. Actively participate in the **EOSC Association** and its Working Groups to create a bi-directional communication channel.
3. Encourage the **recognition of Open Science practices** within mainstream research practices. Integrate new methods and criteria of research evaluation recognising open science practice. OpenAIRE is not only a data provider but also a stakeholder in the development of **new indicators**.
4. Become the most reliable source in terms of **Open Science indicators, metrics and data** contributing to the development of a commonly accepted system of classifying and assessing Open Science policies.

### ► Develop tools and toolkits for policies

5. Be vigilant, deliver and adopt tools to support policy alignment, e.g., **Model Policy, legal , Open Science Profile** templates.
6. Regularly update the **country pages** to reflect on the ground developments and work with the EOSC Partnership for keeping the **EOSC Observatory** up to date.



## 5. SUPPORTING THE STRATEGY

### A. BUILDING PARTNERSHIPS

**Open Science is not a game for one.** It often means different things to different people. But what's at OpenAIRE's core is sometimes harder to grasp. We are an infrastructure that wants to advance openness and transparency in research, to integrate the best-of-breed, and support community-driven solutions to be built on the infrastructure we operate. **We can't do it all** — there are other organisations in Europe and the world to address the needs and share the costs of an Open Infrastructure.

**Partnerships are at the heart of OpenAIRE.** Our infrastructure supports our partners and our partners' support groups. Focusing on the Open Scholarly Communication layer, building effective, long-term relationships is of key importance to reach our strategic goals, and in the next few years we will actively look for partnerships with:

- **Scholarly communication ecosystem:**
  - COAR** – promoting repository infrastructure;
  - LIBER** – common outreach via libraries;
  - EUA** and other university associations – promoting policies and practices;
  - European University Networks** – sharing services;
  - EuroCRIS** – linking to institutional and national CRIS platforms;
  - RDA** – using a global forum for standards;
  - Operas** – meeting the world of SSH scholarly communication;
  - Coalition S** – promoting the use of repositories;
  - OA platform suppliers** (DSpace, PKP and others) – upgrading them to new technologies and functionalities;
  - learned societies** – supporting them towards a transition to Open Access.
- **Infrastructures:** e-Infrastructures – presenting a holistic solution to European providers and researchers, working towards an **eInfra Forum**; EOSC Association – encompassing OpenAIRE core services; Research Infrastructures – federating research artefacts and promoting Open Science practices.
- **Global:** Regional initiatives around the world who are ready to mirror OpenAIRE infrastructure and link towards a global and Open Scholarly Communication system.
- **SMEs:** Supporting them in building novel services supporting any type of sharing and re-using or advancing knowledge. Provided they follow Open Science practices, i.e., no content and service lock-ins.

## **B. PARTICIPATING IN PROJECTS, TENDERS AND COLLABORATIONS**

OpenAIRE will actively participate in EU projects and tenders, as well as other national or international funders, whose purpose serves the five strategic priorities. This will allow the organisation to build synergies and deliver tangible results on the envisioned action lines.

With the services and network in the forefront, our participation will exploit the following areas:

### **1. Co-development of an Open Scholarly Communication infrastructure with a European and global footprint**

Contribute to the building and operation of EOSC Core, focusing on interoperability (OpenAIRE Guidelines, OpenAIRE PROVIDE) and place the OpenAIRE Research Graph in the centre of developments to enable discovery, policy monitoring and research assessment.

### **2. Co-creation of Open Science communities**

Work together with Research Infrastructures, Data Spaces or projects related to EU Missions, embed Open Science practices and services from early on in foreseen operations and co-develop training materials and tools to upskill and support the communities.

### **3. Innovation on scholarly communication services and models**

Attract innovators and visionaries in scholarly communication (ICT, scholarly communication experts) and work with them to develop pilots that support innovations in infrastructure and research/publishing practice, and test them.

### **4. Studies and models for Open Science monitoring, uptake and impact**

Work with social scientists and experts in scientometrics and econometrics to identify trends in R&I practices related to Open Science. Specifically focus on Diversity, Equity and Inclusion (DEI) and on ethical aspects related to data/code sharing and re-use in AI.

### **5. Open Science sustainability at global scale**

Bring international communities closer to cooperation models related to infrastructure, data and technology exchange, community development, R&I assessment indicators.

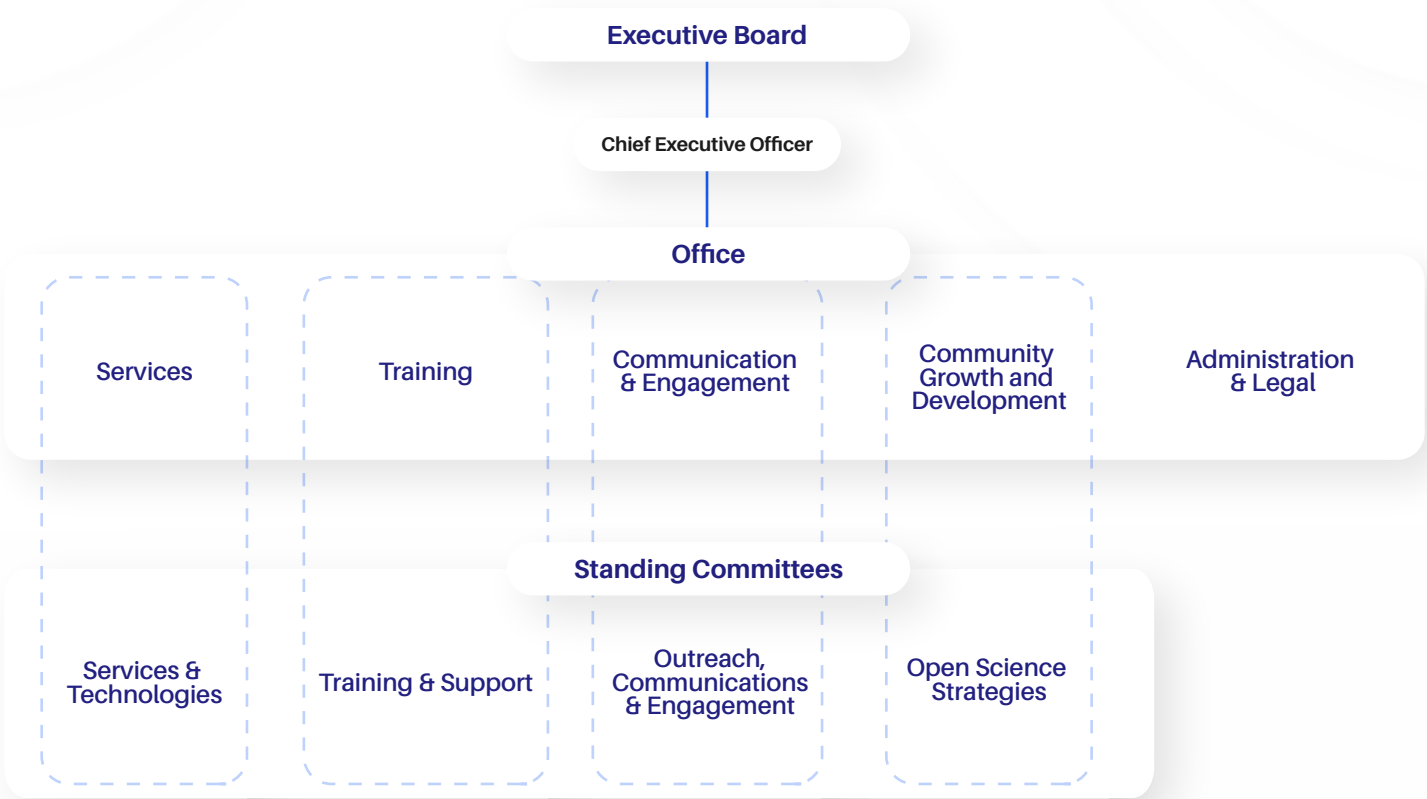
## C. PROMOTING AN EFFECTIVE ORGANISATIONAL STRUCTURE

The organisational structure underpinning OpenAIRE's strategy and activities has three main objectives:

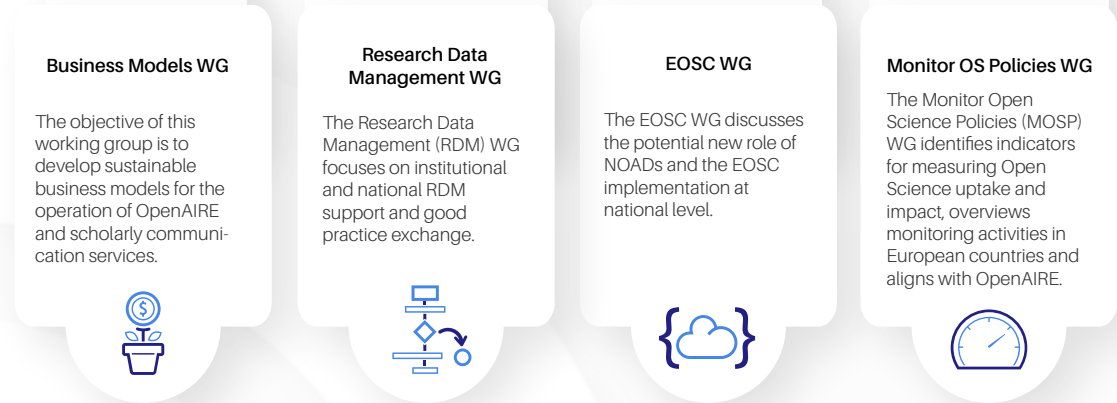
1. Ensure optimal coordination for the delivery of the envisioned action lines between members.
2. Optimise the flexibility and efficacy of the strategic activities.
3. Monitor progress and ensure accountability.

All activities described in the action lines for services-training-policy are steered by **Standing Committees** whose roles are to coordinate, monitor and assess. The implementation targeting specific topics or themes is carried out by **Working Groups** which are created based on needs and gather members and non-members to work collaboratively, share information, and have a limited timeframe of one or two years with clearly set objectives and deliverables to be achieved.

# OPENAIRE ORGANISATIONAL CHART



## WORKING GROUPS



+ ...



# OPENAIRE SERVICES MAPPED TO THE 5 STRATEGIC PRIORITIES

	<b>P1: INFRASTRUC- TURE FOR OS</b>	<b>P2: DATA &amp; SERVICE QUALITY ASSUR- ANCE</b>	<b>P3: RESEARCH ASSESSMENT</b>	<b>P4: INNOVATIONS IN RESEARCH COM- MUNICATION &amp; DISSEMINATION</b>	<b>P5: MONITORING OF THE UPTAKE OF OS POLICIES</b>
 AAI  PROVIDE  OpenAIRE Interoperability Guidelines	Reach interoperability standards with the EOSC ecosystem	Improve metadata & repository quality		Improve value of added services	
 Metadata Validator	Compatibility assessment	Improve repository metadata quality	Assess OS practice		Assess FAIRness of data
 OpenAIRE ResearchGraph  ScholeXplorer The Data Literature Interlinking Service	Discovery service for EOSC & beyond	Build commercial services with scientific quality	Enable Next Generation Metrics		Indicators / visualizations in Open Science & EOSC Observatory
 MONITOR			Adopt, Adapt and Visualize metrics		Indicators and visualizations of organisational OS uptake
 EXPLORE  CONNECT	Intelligent discovery	Curated by local communities	Assess research community outcome and OS	Communicate research via customised portals	
 argos	RDM linked to local & EU infrastructure	Increase quality of RDM			Assess uptake of RDM practice
 OpenAIRE UsageCounts	Interoperability		Next Generation Metrics		Used in OS metrics and indicators
 OpenAIRE BROKER	Interoperability	Increase quality of repositories			
 amnesia  zenodo	Publish and share data	Share data in a trusted way			
 EPIsciences	Publish OA publications			New publishing model	
 OpenCitations	Interoperability		Enable Next Generation Metrics	New indicators for ranking systems	
 open@PC  OPENSOURCE OBSERVATORY	Interoperability for sharing costs			Derive new business models	Assess costs and counterfactuals

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# SCIENCE. SET FREE.

## 3 YEAR STRATEGY 2023-2025

OpenAIRE's strategy moulds our identity, purpose and scope. Thus, this document aims to give a clear image of where we stand, what we desire to achieve and how to do it. We hope that it will serve as a motivational tool inspiring our members and the broader community to work towards a common goal: pushing the agenda forward, taking it to the next level and shaping the Open Scholarly Communication ecosystem in Europe and beyond.



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