OpenAIRE: a pillar for Open Science in the EU

Horizon2020 GRACIOUS Live Webinar

www.h2020gracious.eu

Speaker

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Moderator

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What and Why?
- ✓ Reporting obligations under Horizon2020
- ✓ GRACIOUS Data Management Plan and Reporting Policy
- ✓ Links with other Horizon2020 Projects

Housekeeping

- **Live webinar**

- **Attendees are muted**

- **Q&As: you can ask questions via the Chat field**

- **Follow up activities:**
  - ✓ **Webinar recording will be published on https://www.h2020gracious.eu/library/webinars**
  - ✓ **Follow up email**
  - ✓ **Contact us at:**

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www.openaire.eu

Stella Stoycheva, Yordas
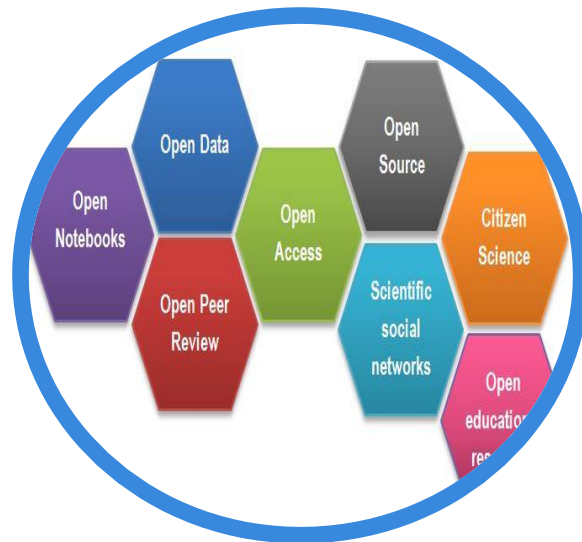
Elli Papadopoulou, ATHENA RC, OpenAIRE NOAD for Greece

OpenAIRE: a pillar for Open Science in the EU

Contents

Open Science in the EU

What are the elements of OS, why choosing OS/ importance for OA and RDM

OA publications, data and DMPs – what you need to know

How to perform research following open practices; comply with EU requirements for OA and what to include in DMPs

OpenAIRE Services and the National Open Access Desks (NOADs)

OpenAIRE scope and mission; OpenAIRE services for researchers; who are the NOADs, what is their responsibility, where are they positioned in the national ecosystem
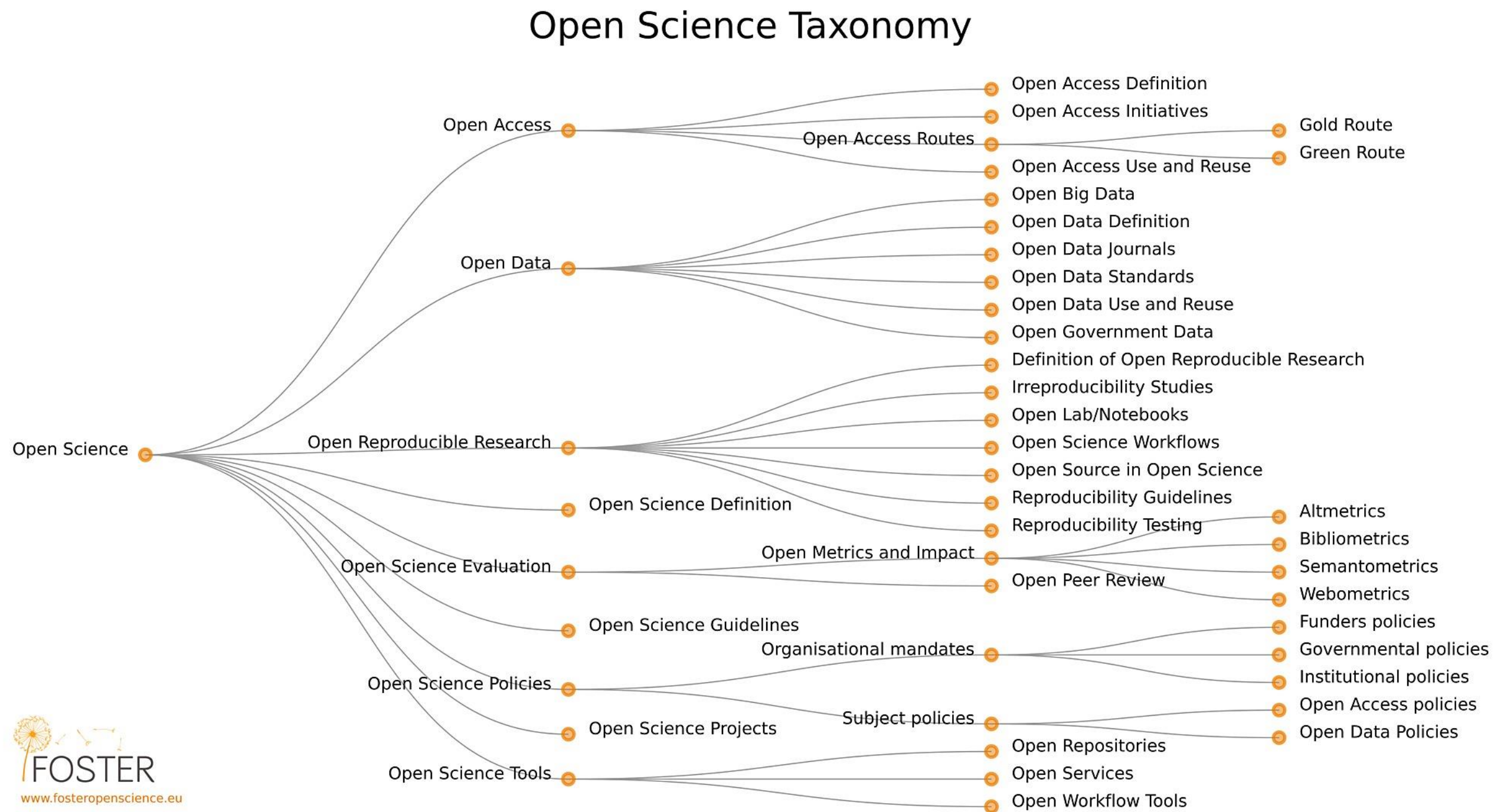
Learn how to comply

How to perform reporting to the EU via OpenAIRE

Open Science in the EU

What is Open Science?

Open Science Taxonomy

Why choosing Open Science?

Research

- Reach wider audience
- Re-use research outputs
- Validate research
- Avoid mistakes
- Prevent information and data loss

Economy

- Stimulate innovation
- Strengthen regional and national markets
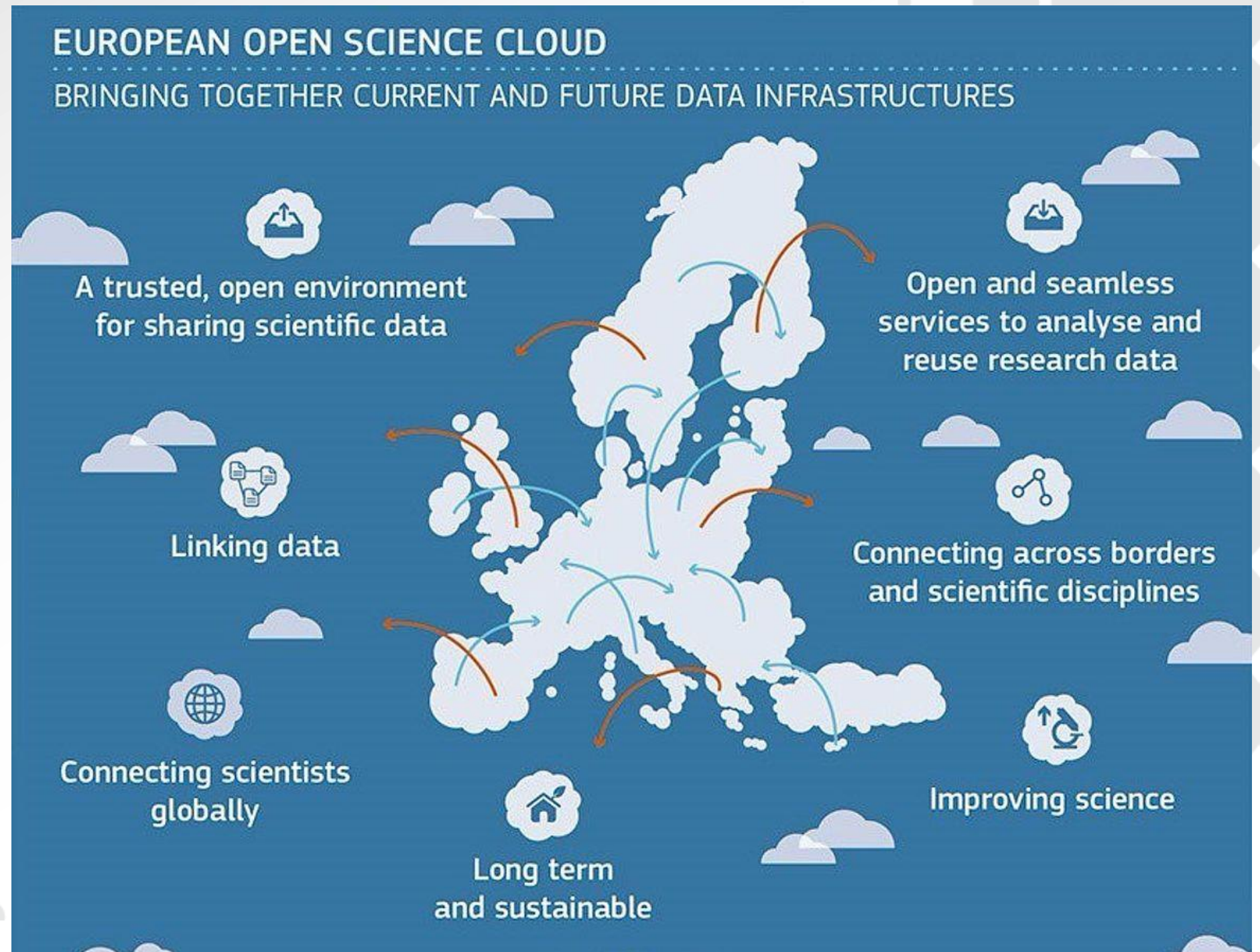- New job openings

Researchers

- Promote integrity
- Increase use of citations and get more credits
- Rewards in the EOSC

Society

- Transparency
- Build trust
- Collaboration on national and EU level
- Citizen Science

OpenAIRE

European Commission

What is the European Open Science Cloud (EOSC)?

- European Cloud Initiative (ECI) - Part of the Digital Single Market and the European Research Area (ERA) strategies

- An **ethical**, **open**, **secure** and **cost-effective** environment to support Open Science practices and research communication in the EU

- Upcoming! EOSC launch on 23 November

EUROPEAN OPEN SCIENCE CLOUD
BRINGING TOGETHER CURRENT AND FUTURE DATA INFRASTRUCTURES

A trusted, open environment for sharing scientific data

Open and seamless services to analyse and reuse research data

Linking data

Connecting across borders and scientific disciplines

Connecting scientists globally

Long term and sustainable

Improving science

EU requirements for OA to publications and data

The Mandate

Article 29.2 Horizon2020 Grant Agreement – Publish in OA, deposit data and submit a DMP (check embargo periods- around 24 months for material science)

"As open as possible, as closed as necessary", following the FAIR principles and well-documented processes of data handling and re-use
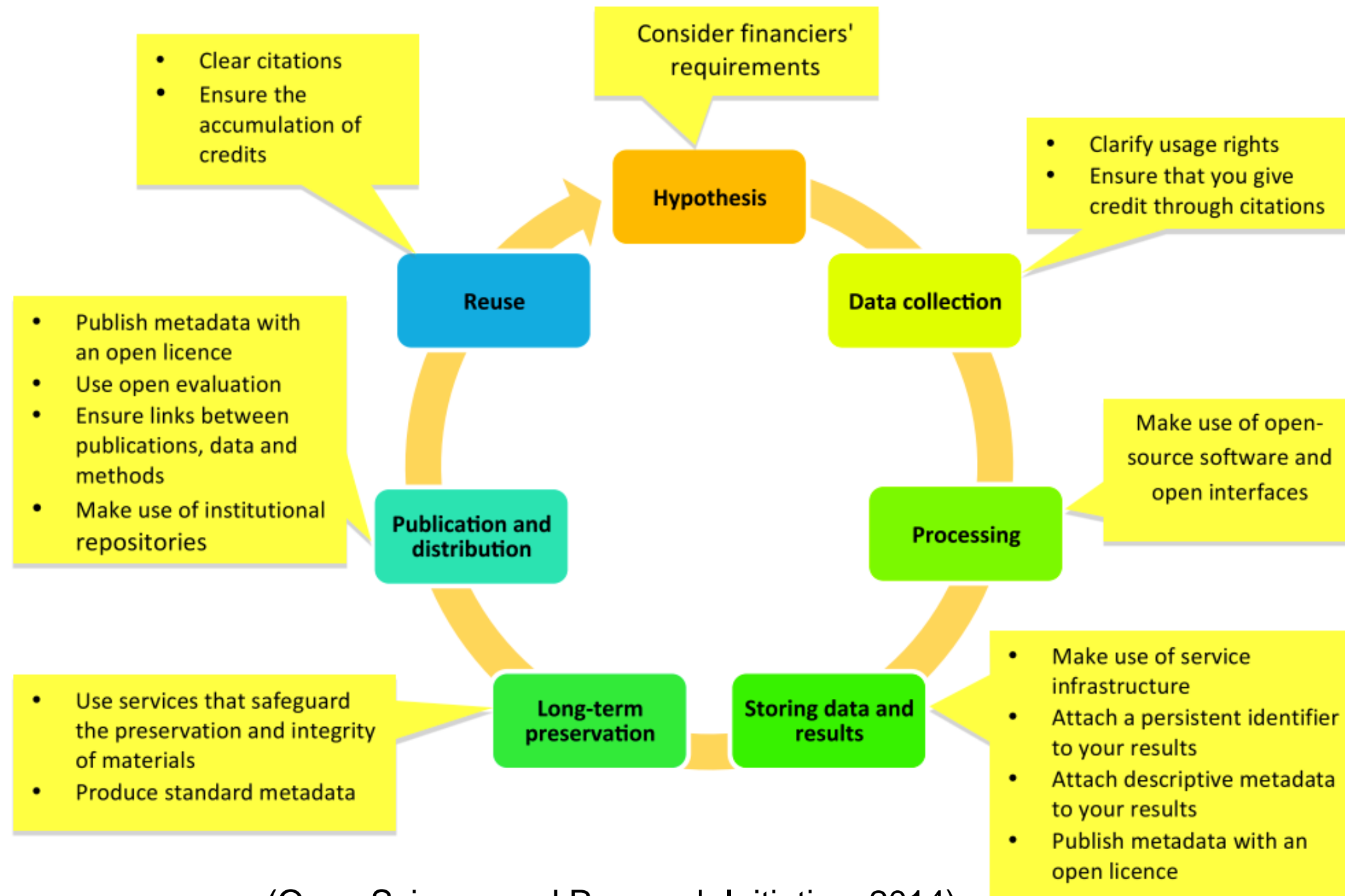
The Motto

Next funding framework - HorizonEurope -> Open Science the modus operandi

OpenAIRE

European Commission

OA publications, data & DMPs – what you need to know

Open Science practices in the research lifecycle

Clear citations
- Ensure the accumulation of credits

Consider financiers' requirements

- Clarify usage rights
- Ensure that you give credit through citations

Hypothesis

Reuse

Data collection

- Publish metadata with an open licence
- Use open evaluation
- Ensure links between publications, data and methods
- Make use of institutional repositories

Publication and distribution

Processing

Make use of open-source software and open interfaces

Long-term preservation

Storing data and results

- Use services that safeguard the preservation and integrity of materials
- Produce standard metadata

- Make use of service infrastructure
- Attach a persistent identifier to your results
- Attach descriptive metadata to your results
- Publish metadata with an open licence

(Open Science and Research Initiative, 2014)

Open Access to publications and research data

- Publish in OA
  - **Gold route** (DOAJ, subscription-based journal)
  - **Green route** (self-archiving)
- Deposit research outcomes in an institutional repository
  - **Find literature repositories – openDOAR**
  - **Find data repositories – re3data**
  - **Find OpenAIRE compliantrepositories https://explore.openaire.eu/**
  - **Deposit all research outputs - Zenodo**

Note: Deposit to repositories should be proceeded even when the gold route has been chosen
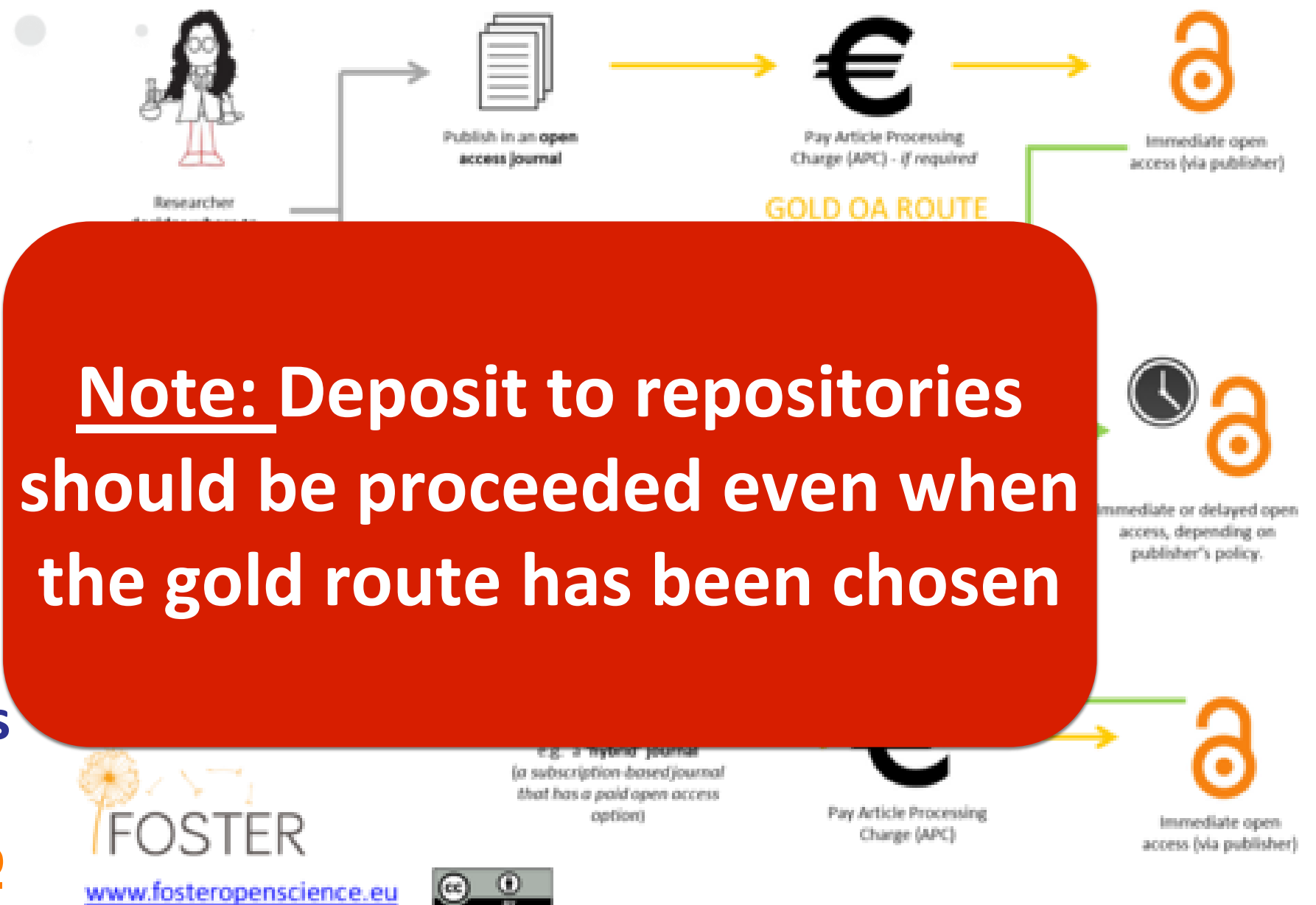
What to deposit - things to consider

- The final peer-reviewed manuscript, accepted for publication, including all modifications from the peer review process

OR

- A machine-readable copy of the published version (usually a .pdf document)

- Find information on APCs per journal on the Open APC project
- Check the publisher's OA policy for conflicts and for embargoes in depositing

- What to do in case of journal policies conflicts
  - Contact the publisher
  - Sign the petition?

- Assign open licenses through https://creativecommons.org/ ; license selector: https://www.eudat.eu/services/userdoc/license-selector
- Acknowledge funders

Data Management Planning – things to consider

Additional concepts to cover

- Type of data: what has been used or generated (e.g. software) during research process and support/validate its outcomes

- Format of data: one format for analysis and then convert to a standard format (more sustainable: .rtf, .xml, .tif, .wav; proprietary: .doc, .jpg, .mp3)

- Metadata: use metadata standards – for material science CIF, CSMD-CCLRC, NeXus

- Persistent Identifiers (PIDs): a long lasting reference to a document, file or other object - many repositories will assign them in deposit

Achieving FAIR compliance

Information and data is

Findable by both humans and machines: PIDs, rich metadata, included in a searchable resource

Accessible through repositories and access conditions: retrievable by their ID using standard protocol, metadata remain accessible even if data don't

Interoperable with other systems and technologies: standard vocabularies, qualified references

Re-usable by others: metadata, licenses, provenance

OpenAIRE

European Commission

The OpenAIRE mission, services for Open Science & National Open Access Desks (NOADs)

What is OpenAIRE?

The pan European infrastructure for open knowledge in the EU

- *How does OpenAIRE help comply with the EU requirements?*

- **Repository Network**

- **Dashboards** for repository managers, funders and research communities **to manage and monitor processes**

- **Tools** for Open Science

OpenAIRE is about opening-sharing-re-using research outcomes

- **Human network**

OpenAIRE

European Commission

Key to Open Science uptake: services for all
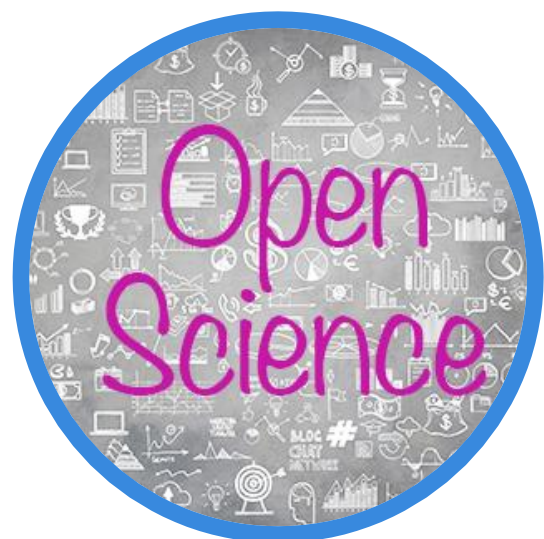
RESEARCHERS & RESEARCH COMMUNITIES

CONTENT PROVIDERS MANAGERS

FUNDERS & RESEARCH ADMINISTRATORS

3rd party SERVICE PROVIDERS

Services at all levels of e-Infrastructure. Services that cover all research life-cycle.

Dashboards for funders, content providers, research communities and institutions.

OpenAIRE

Services for researchers

Zenodo

- Catch-all repository for EU-funded research

- Up to 50 GB per upload

- Data stored in the CERN Data Center

- Persistent identifiers (DOIs) for every upload, with DOI versioning

- Includes article-level metrics

- Free for the long tail of science

- Open to all research outputs from all disciplines

- GitHub integration

- Easily add EC funding information and report via OpenAIRE
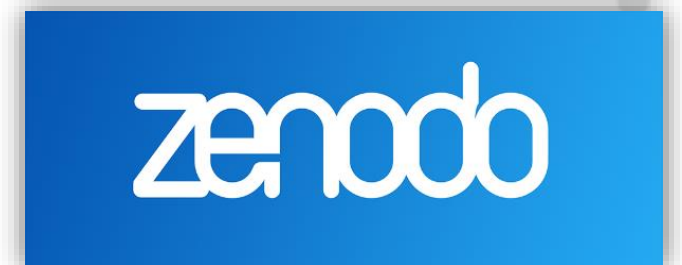
Browse the repository here: https://zenodo.org/

Amnesia: making personal data shareable

- Micro data often reveal important private information, e.g., medical condition of a person

    - Individuals are afraid to provide their data

    - Companies are afraid to share data with experts

    - GDPR makes a strict protection scheme obligatory

- The key idea in anonymization is that identifying information is removed from the published data, so no sensitive information can be attributed to a person – not even after data linking
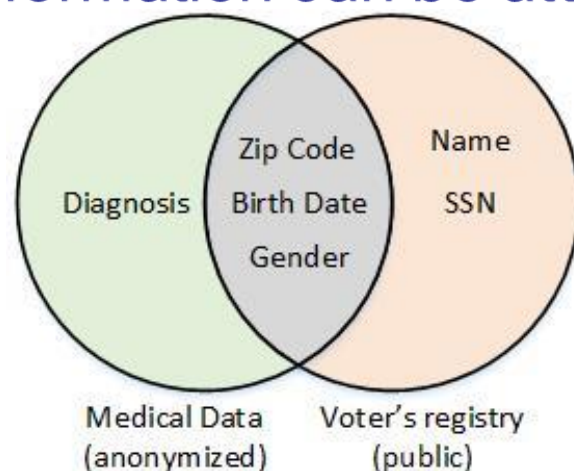
- The aim of anonymization methods is to allow sharing such data, without compromising the privacy of the users.

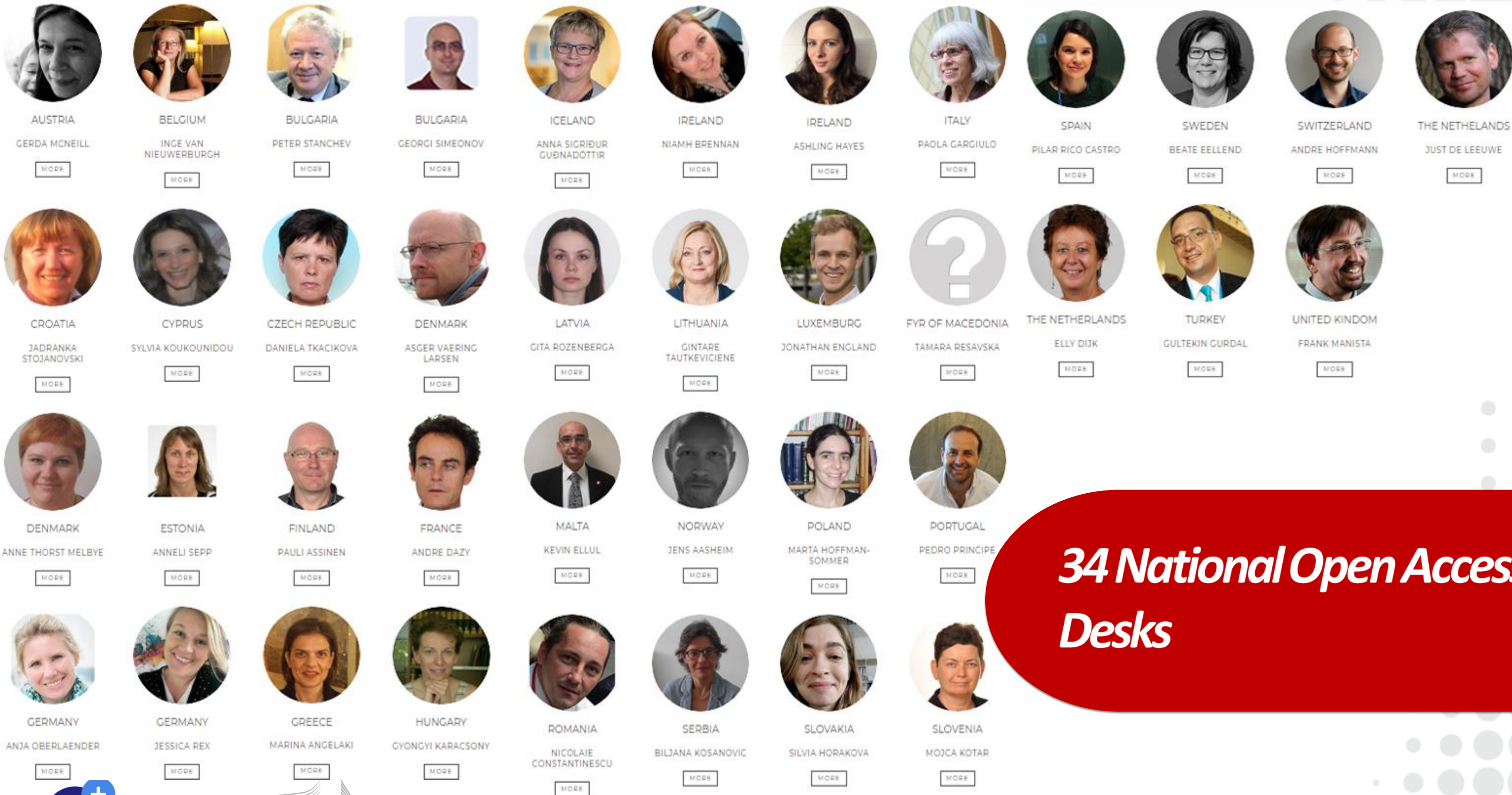Amnesia tool: https://amnesia.openaire.eu/

Data Management Plan (DMP) Tool

- EC Horizon2020 template

- Machine-actionable DMPs

- Versioning of DMPs

- Collaborate with others (invite)

... coming soon!

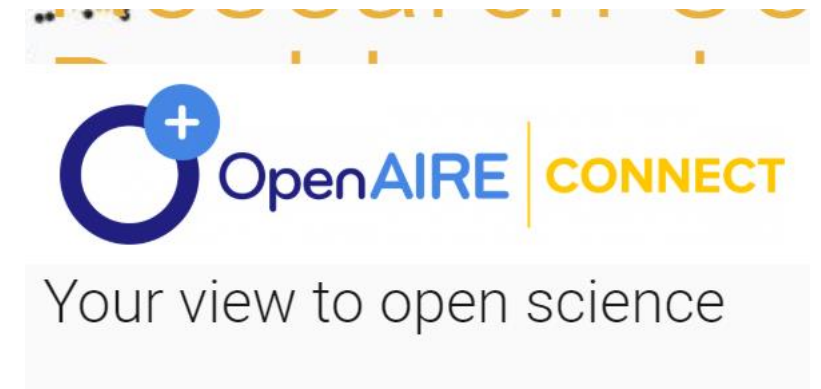# National Open Access Desks (NOADs)

34 National Open Access Desks

Learn how to comply

Report and link your research outputs through OpenAIRE

Reporting in OpenAIRE:

a. Immediately through Zenodo

b. After few days through all other OpenAIRE compliant repositories -> check the OpenAIRE Explore

c. Manually through the OpenAIRE connect

Your view to open science

Useful Links

- **OpenAIRE Helpdesk: https://www.openaire.eu/support/helpdesk**
- **OpenAIRE NOADs: https://www.openaire.eu/contact-noads**

- **OpenAIRE Factsheets: https://www.openaire.eu/openaire-h2020-factsheets**
- **OpenAIRE Research Community Dashboard: https://connect.openaire.eu/**
- **OpenAIRE webinars: https://dl119.madgik.di.uoa.gr/index.php?option=com_zoo&view=frontpage&layout=frontpage&Itemid=1888**

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Questions?

Thank you!

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in linkedin.com/groups/OpenAIRE-3893548

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