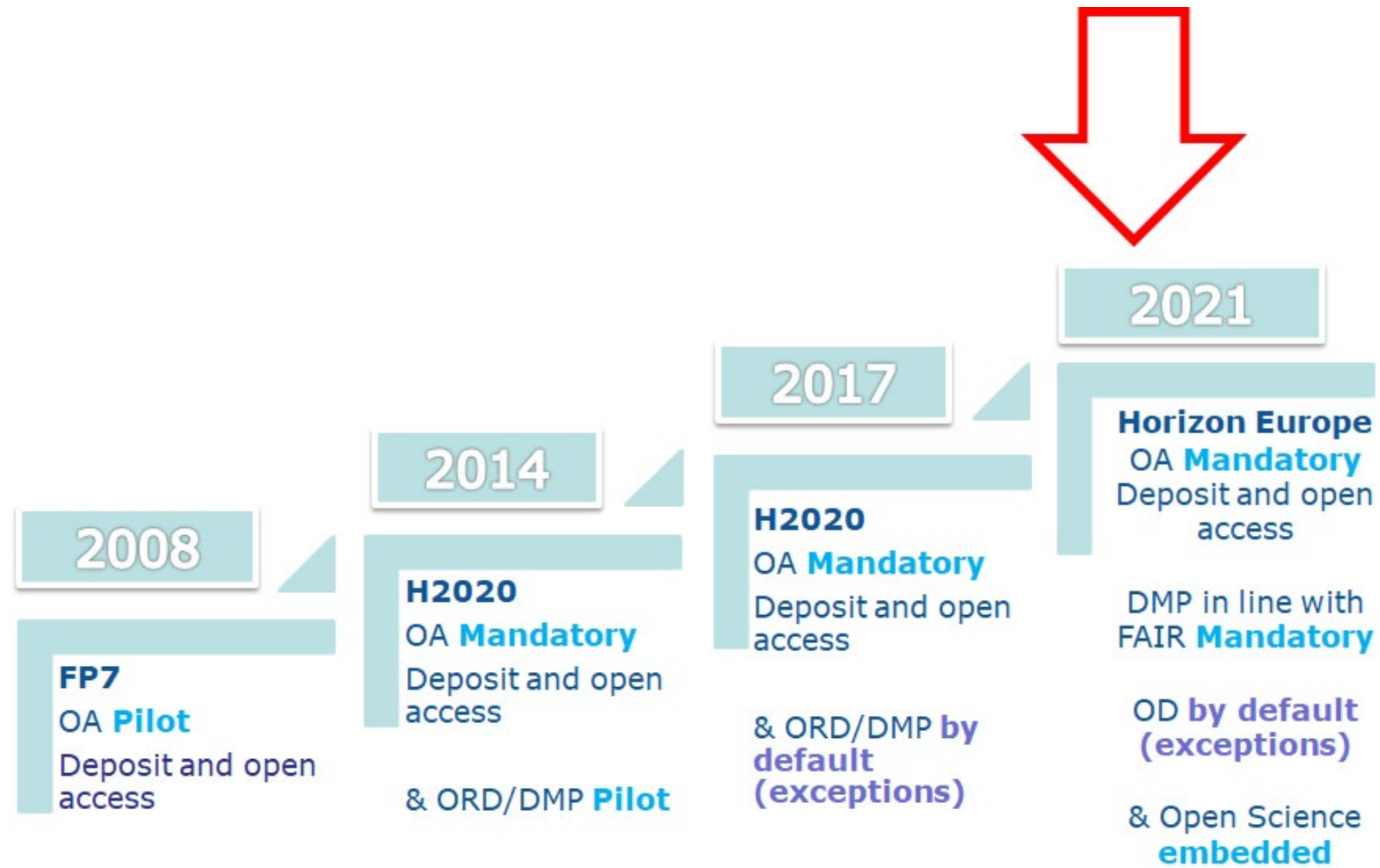# Horizon Europe
Open Science is the new normal

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Open Science Is The New Normal – UiS Open Access week 2021
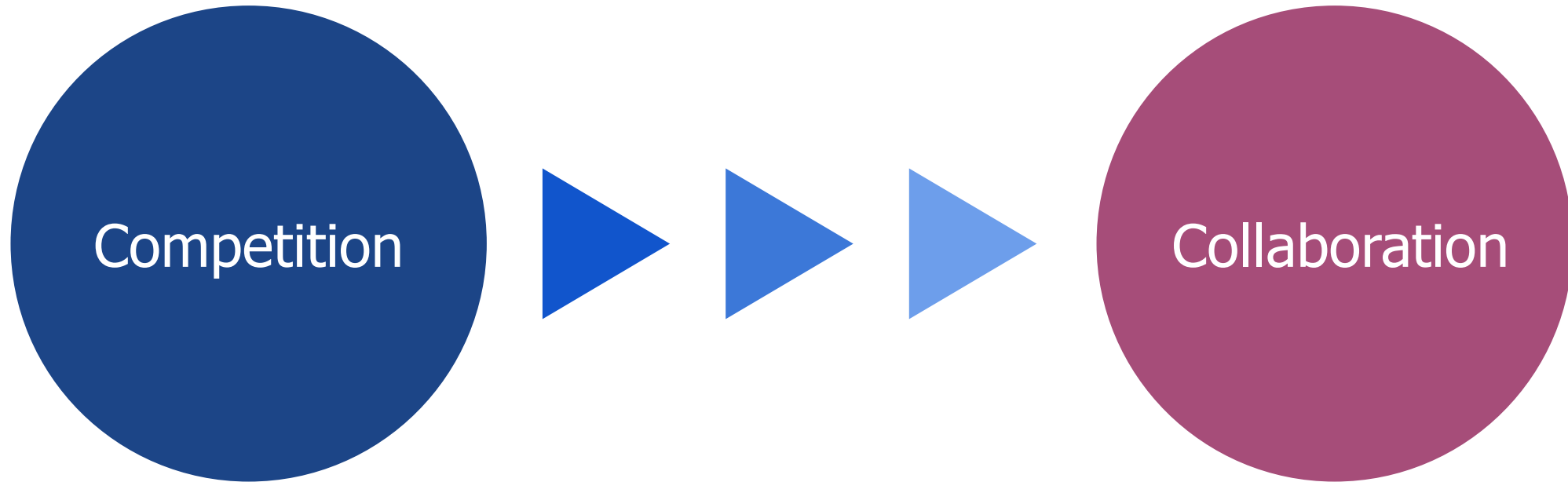
The European Commission and Open Science

2008
FP7
OA **Pilot**
Deposit and open access

2014
H2020
OA **Mandatory**
Deposit and open access
& ORD/DMP **Pilot**

2017
H2020
OA **Mandatory**
Deposit and open access
& ORD/DMP **by default (exceptions)**

2021
Horizon Europe
OA **Mandatory**
Deposit and open access
DMP in line with FAIR **Mandatory**
OD **by default (exceptions)**
& Open Science **embedded**

WE ARE NO MORE DISCUSSING ABOUT THE OPPORTUNITY: OPEN SCIENCE IS THE NEW NORMAL

A change in the approach

Evaluation focus

In Horizon Europe the proposal is evaluated under the Open Science Perspective

What — Results must be managed in line with FAIR principles and as open as possible as closed as necessary

How — Methodology must show Open Science practices are embedded

Who — Single Researchers and Consortium are evaluated for their capacity to support Open Science practices

HORIZON EUROPE LEGISLATION defines three types of impact, tracked with Key Impact Pathways

	Impact Type
1. Creating high-quality new knowledge	
2. Strengthening human capital in R&I	Scientific Impact
3. Fostering diffusion of knowledge and Open Science	

	Impact Type
4. Addressing EU policy priorities & global challenges through R&I	
5. Delivering benefits & impact via R&I missions	Societal Impact
6. Strengthening the uptake of R&I in society	

	Impact Type
7. Generating innovation-based growth	
8. Creating more and better jobs	Economic/ Technological Impact
9. Leveraging investments in R&I	

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Open Science Practices

Mandatory — Required for all the calls

Desiderable for all, in some cases mandatory for specific calls — **Non-mandatory**

Open Science practices

early and open sharing of research (for example through preregistration, registered reports, pre-prints, or crowd-sourcing)

research output management including research data management

measures to ensure **reproducibility** of research outputs

providing **open access** to research outputs (e.g. publications, data, software, models, algorithms, and workflows) through deposition in trusted repositories

participation in **open peer-review**

involving all relevant knowledge actors including citizens, civil society and end users in the co-creation of R&I agendas and contents (such as citizen science)

Open Access to scientific publications I/II

Beneficiaries must ensure **OA to peer-reviewed scientific publications** relating to their results.

In particular, **they must ensure**:

- at the latest upon publication, **deposition** of the AAM or VoR in a trusted repository + **immediate open access via the repository** under **CC BY** or equivalent (CC BY-NC/CC BY-ND are allowed for long-text formats)

- **information** via the repository about any research output/tools/instruments needed to **validate the conclusions of the scientific publication**

Metadata must be open under CC 0 or equivalent, **in line with the FAIR principles** and provide information about the licensing terms and persistent identifiers, amongst others.

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Trusted Repository

- **Certified repositories** (e.g. CoreTrustSeal, nestor Seal DIN31644, ISO16363) **or disciplinary and domain repositories commonly used and endorsed** by the research communities. Such repositories should be **recognised internationally**.

- **General-purpose repositories or institutional** repositories that present the **essential characteristics of trusted repositories**, i.e.:

  - secure **the integrity and authenticity of their contents**, thus facilitating their use and re-use in the short- and long-term.

  - assign **persistent unique identifiers** to contents and ensure that contents are accompanied by **metadata sufficiently detailed** and of sufficiently high quality to enable discovery, reuse and citation and contain information about provenance and licensing; metadata are machine- actionable and standardized.

  - **facilitate mid- and long-term preservation** of the deposited material. They **provide curation and quality assurance** for the accuracy and integrity of datasets and metadata. They meet generally accepted international and national criteria for security to prevent unauthorized access and release of content.

Photo by Fabian Gieske on Unsplash

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf

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Open Access to publications II/II

Beneficiaries (or authors) <mark>must retain sufficient intellectual property rights</mark> to comply with the OA requirements

Publication in venue of choosing but publication fees are reimbursable only if publishing venue is full open access (<mark>publication fees in hybrids not reimbursed</mark>)

Research Data Management

Beneficiaries **must manage the digital research data** generated in the action responsibly, **in line with the FAIR** principles and:

- establish + regularly update a **data management plan** ('DMP') for generated (and/or collected) data; by mo 6 of project; with submission or latest by grant agreement in cases of public emergency (e.g. COVID projects)
- as soon as possible and within the deadlines set out in the DMP, **deposit** the data in a trusted repository (federated in the EOSC if required in the call conditions) **+ ensure OA under CC BY, CC 0 or equivalent, following the principle 'as open as possible as closed as necessary'**
- provide information via the repository about any research output/tools/instruments needed to **re-use or validate the data**

Metadata must be open under CC 0 or equivalent (to the extent legitimate interests or constraints are safeguarded), **in line with the FAIR principles** and provide information about the licensing terms and persistent identifiers, amongst others.

Make your data FAIR
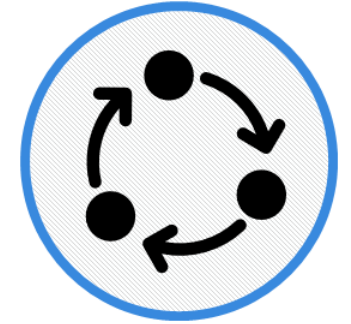

Findable

The data is easy to find

Accessible

It is clear who, when and how can access the data

Interoperable

Data can be integrated with other data and/or they can be easily used and read by machines

Reusable

Data can be reused by others in new research

FAIR and Open Data

Open Data is a particular kind of FAIR Data

All Data should be FAIR

Open Data is the default

In case restrictions apply, access to some data can be restricted, still they should be FAIR

Open Data
Data can be freely used, shared, enriched by anyone, anywhere for any purpose.

FAIR Data
Data follow a series of good practices to allow data access, still respecting any ethical, legal and contractual restriction.

Additional Open Science practices

- Some calls may have **additional obligations on OS practices** they must be complied with

- Beneficiaries **must provide (digital or physical) access to data or other results** needed for validation of the conclusions of scientific publications, provided **legitimate interests safeguarded** and **unless (open) access already** provided at publication

- Additional obligations in **cases of public emergency**

Tools are key

Open Research Europe

- It is not a Journal, it is a **publishing platform**

- The **aim** is to give researcher a venue where to publish the results of their research funded by the EC, irrespective of the perceived level of interest or novelty

- **Confirmatory or negative results**, as well as null studies are suitable

- The **scope of the Peer Review** is not to reject or accept a result but to improve its publication thanks to a collaboration effort among experts

- The **Reviewer role** is to assess whether the research is technically sound and of academic merit.

- Only H2020 and Horizon Europe results are **eligible**

- **Open Peer Review**

Excellence Criterion

Methodology

- Describe how ==OS practices== are embedded in the methodology
- Describe research data/output management strategy
- Evaluation of the quality of open science practices

Quality of Implementation

Criterion

Capacity of participants and consortium as a whole and list of achievements
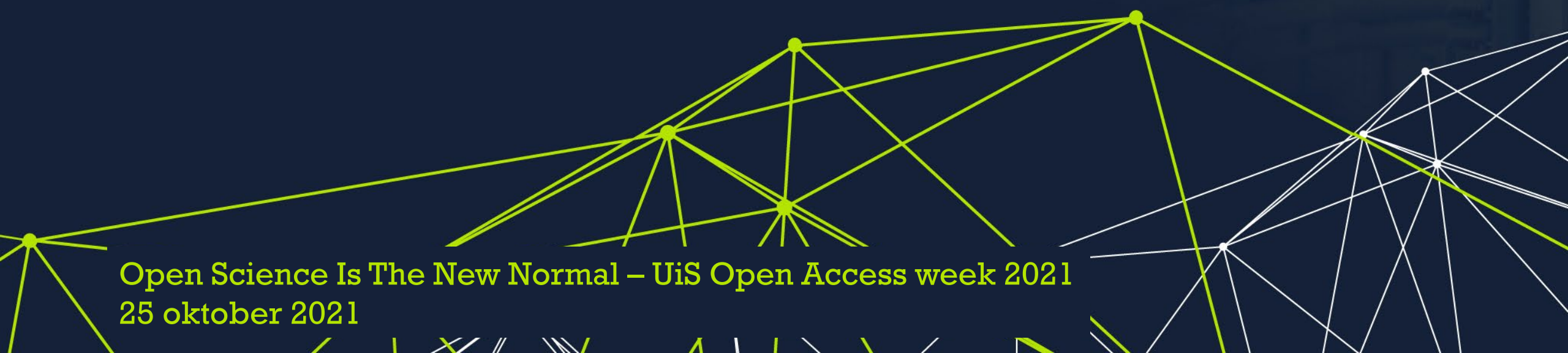
- Expertise on OS

- List relevant projects and initiatives

- List relevant infrastructures and equipments

- List publications, software, data, etc, relevant to the project with qualitative assessment and, where available, persistent identifiers

  - Publications expected to be open access

  - Datasets expected to be FAIR and 'as open as possible, as closed as necessary'

  - Significance of publications to be evaluated on the basis of proposers' qualitative assessment and **not per Journal Impact Factor**

References

[1] Victoria Tsoukala, PhD - DG RTD Open Science (Unit G4) - PUBMET 2019, Zadar, September 19th, 2019, http://pubmet.unizd.hr/pubmet2019/talks/fit-for-purpose-shaping-open-access-and-open-science-policies-for-horizon-europe/

[2] Angelica Marino, April 21, 2021, Webinar: A successful proposal for Horizon Europe: Scientific-technical excellence is key, but don't forget the other aspects, https://ec.europa.eu/research/participants/docs/h2020-funding-guide/other/event210421.htm

[3] EU Grants AGA – Annotated Model Grant Agreement

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf

[4] Victoria Tsoukala, April 21, 2021, Webinar: A successful proposal for Horizon Europe: Scientific-technical excellence is key, but don't forget the other aspects

Tusen Takk!

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