DATA MANAGEMENT PLAN – WEBINAR

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UNIVERSITY OF DEUSTO

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atelier
Positive Energy Districts

Purpose of the webinar

Provide the tools and concepts that any entity participating in a H2020 action needs to know to fulfill the EU policy and requirements with respect to data management, security and ethics

Agenda

- Data Management Plan in H2020 projects

- Data Protection Impact Assessment

- Open Access Research Data

- How can we start?

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DATA in H2020 projects

Nearly everything is data!

<u>Datasets</u> but also: reports, questionnaires, software, video/pictures, publications, etc.
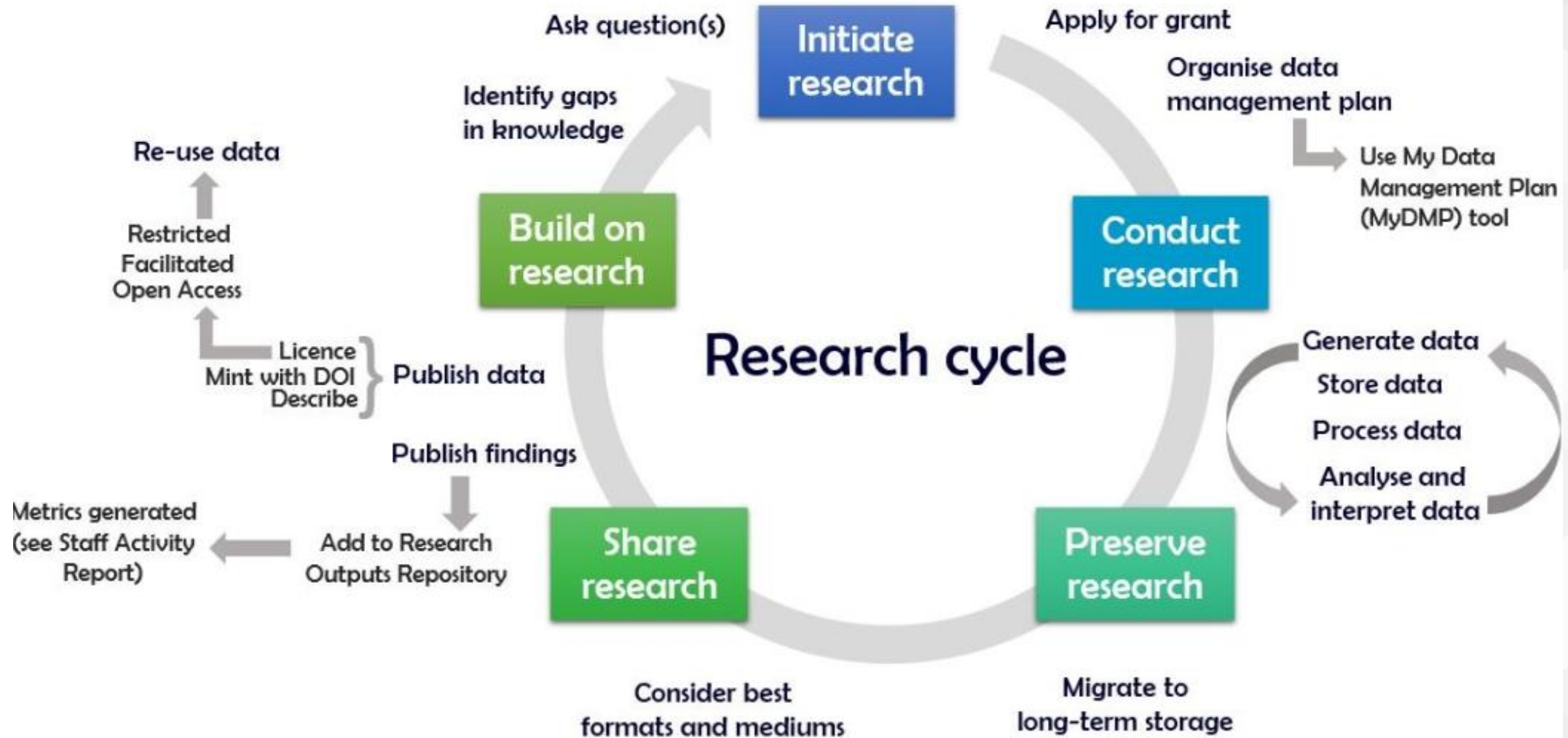
FORMAT

- Text
- Figures
- Multimedia
- Estructured data
- Software

ORIGEN

- Experimental
- Simulated
- Observed
- Derived or calculated
- Reference

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Research Data Management

Research cycle

- Ask question(s)
- Identify gaps in knowledge
- Initiate research
- Apply for grant
- Organise data management plan
- Use My Data Management Plan (MyDMP) tool
- Conduct research
- Generate data
- Store data
- Process data
- Analyse and interpret data
- Preserve research
- Migrate to long-term storage
- Share research
- Consider best formats and mediums
- Add to Research Outputs Repository
- Metrics generated (see Staff Activity Report)
- Publish findings
- Publish data
- Licence / Mint with DOI / Describe
- Restricted / Facilitated / Open Access
- Re-use data
- Build on research

http://guides.library.unisa.edu.au/ResearchDataManagement

H2020 requires...

■ Data Management Plan (DMP)

It will be a live report that detailing *what data the project will generate, whether and how it will be exploited or made accessible for verification and re-use, and how it will be curated and preserved*

ATELIER, D1.3. Data Management Plan (M6, M33), updated annually

■ Data Protection Impact Assessment (DPIA)

It includes the chapters referring to*: security, ethics and privacy*. In ATELIER the DMP (D1.3) includes the DPIA
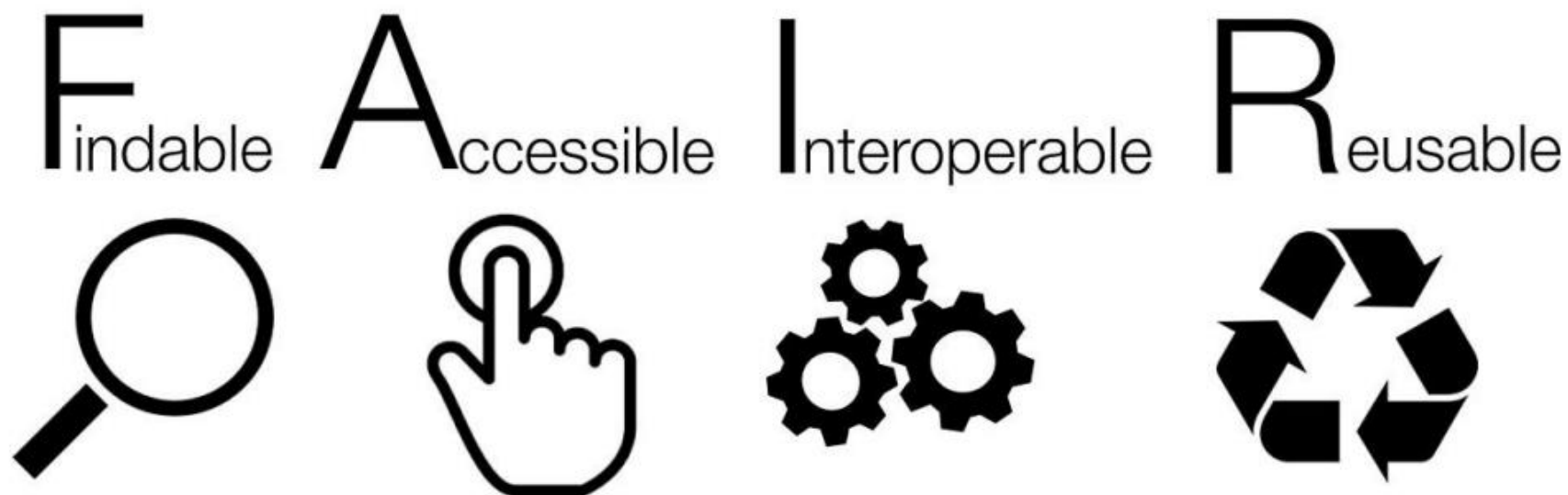
■ Open Access Research Data

All information about Research Data and Publications and whether they will become open or will be protected to be exploited

ATELIER, D1.7 Open Access Research Data, updated annually

DATA MANAGEMENT PLAN

DMP: FAIR data principles

Findable   Accessible   Interoperable   Reusable

CC BY-SA SangyaPundir
https://commons.wikimedia.org/wiki/File:FAIR_data_principles.jpg

https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

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FAIR principles

■ FINDABLE

Data and supplementary materials have sufficiently rich metadata and a unique and persistent identifier

■ ACCESIBLE

Metadata and data are understandable to humans and machines. Data is deposited in a trusted repository
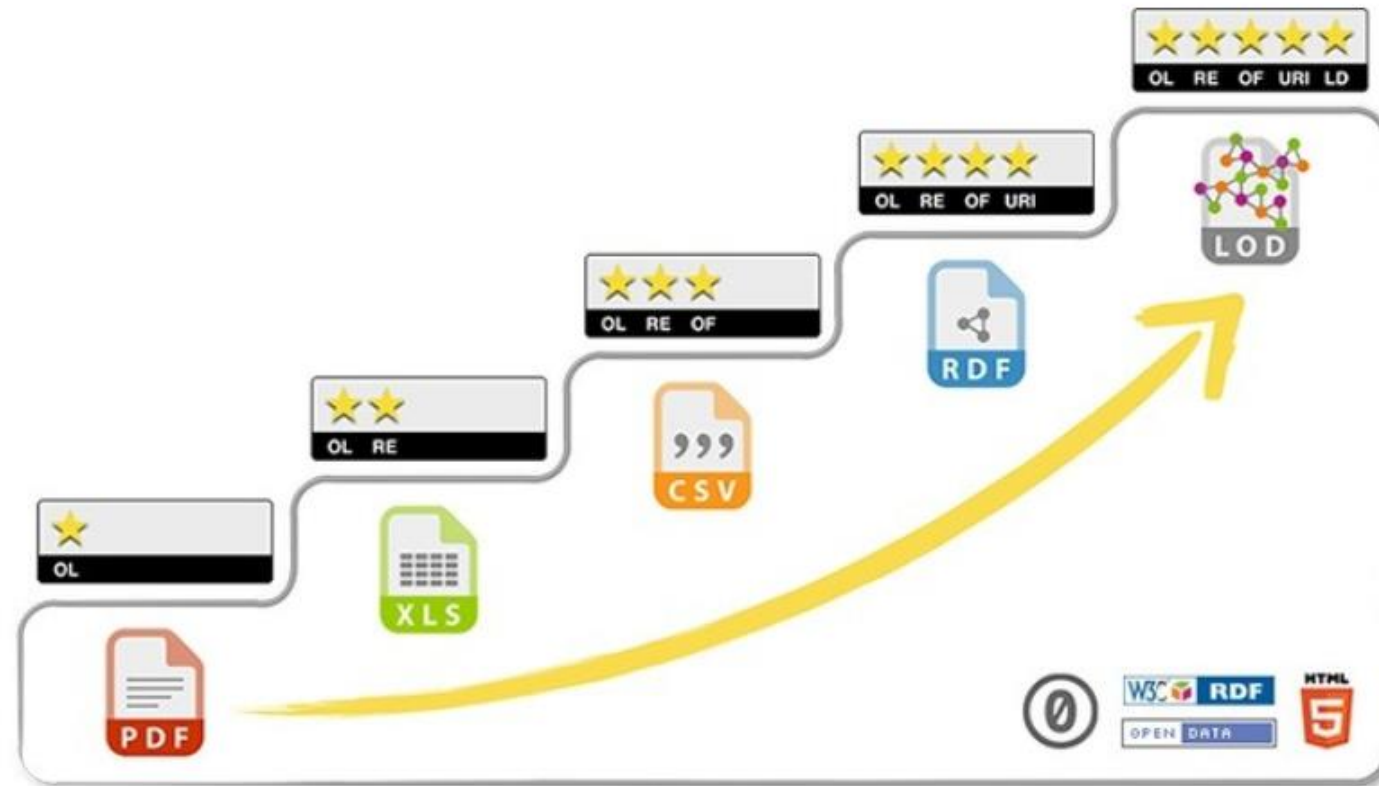
■ INTEROPERABLE

Metadata use a formal, accessible, shared, and broadly applicable language for knowledge representation

■ REUSABLE

Data and collections have a clear usage licenses and provide accurate information on provenance

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Quality of Data

http://5stardata.info/

Repositories

■ ZENODO → OpenAir

Zenodo is a general-purpose open-access repository developed under the European OpenAIRE program and operated by CERN

■ EU Smart Cities Information System (SCIS)

ATELIER project already published. Specifically designed to share data with other Smart City projects

■ Other institutional repositories

■ City open data portals

■ Openstreetmaps

■ Etc.

DATA PROTECTION IMPACT ASSESSMENT

DPIA

A DPIA is a process designed to describe the processing, assess its necessity and proportionality and help manage the risks to the rights and freedoms of natural persons resulting from the processing of personal data[4] by assessing them and determining the measures to address them. DPIAs are important tools for accountability, as they help controllers not only to comply with requirements of the GDPR, but also to demonstrate that appropriate measures have been taken to ensure compliance with the Regulation (see also article 24)[5]. In other words, **a DPIA is a process for building and demonstrating compliance**.

Regulation 2016/6791 (GDPR) will apply from 25 May 2018. Article 35 of the GDPR introduces the concept of a Data Protection Impact Assessment (DPIA2), as does Directive 2016/6803

What is 'Personal Data'?

Personal data' means information relating to an identified or identifiable natural person.
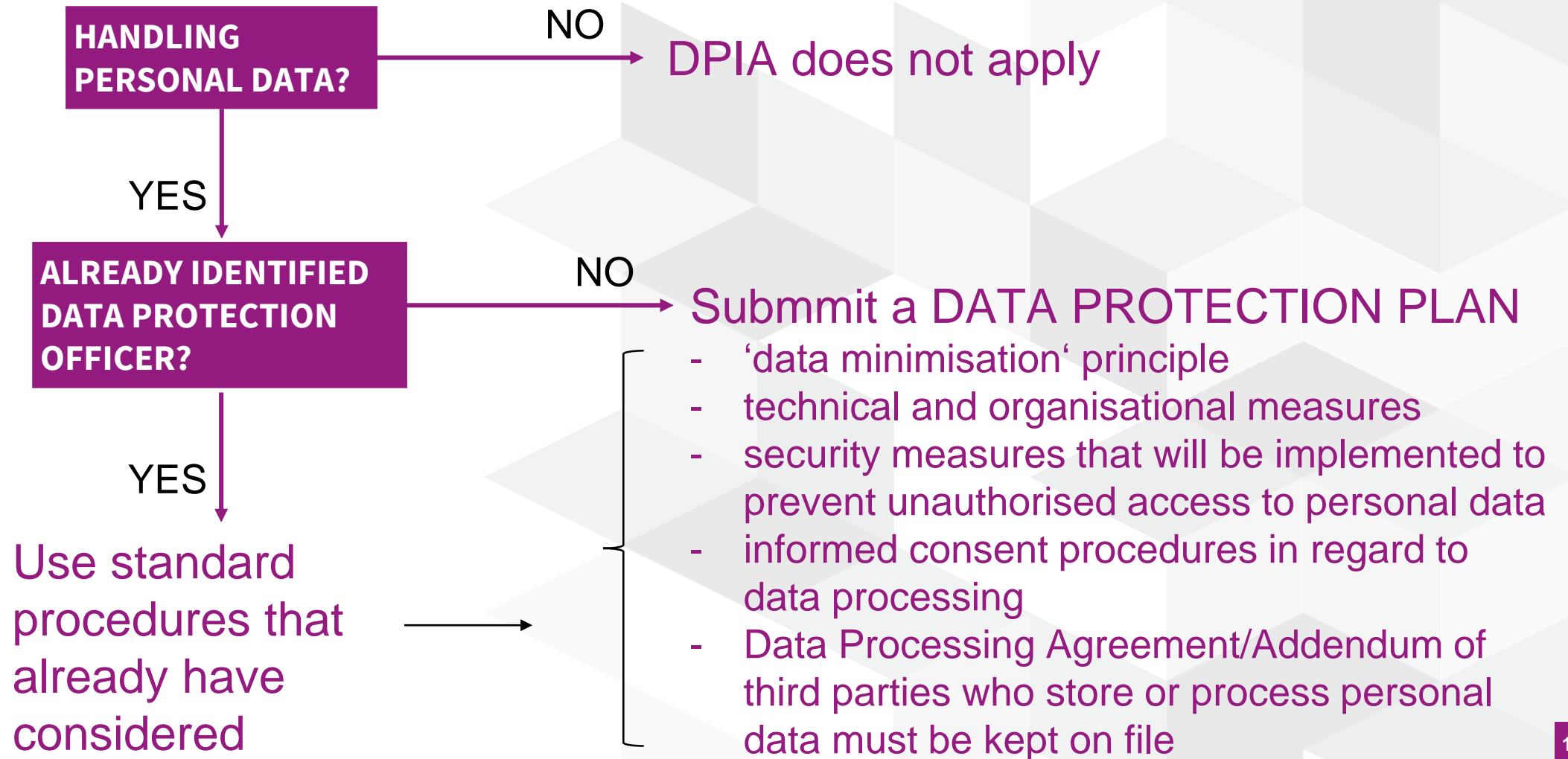
'An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person (art. 2(a) EU General Data Protection Regulation (GDPR)'.

Individuals are not considered 'identifiable' if identifying them requires excessive effort.

Completely anonymised data does not fall under the data privacy rules (as from the moment it has been completely anonymised).
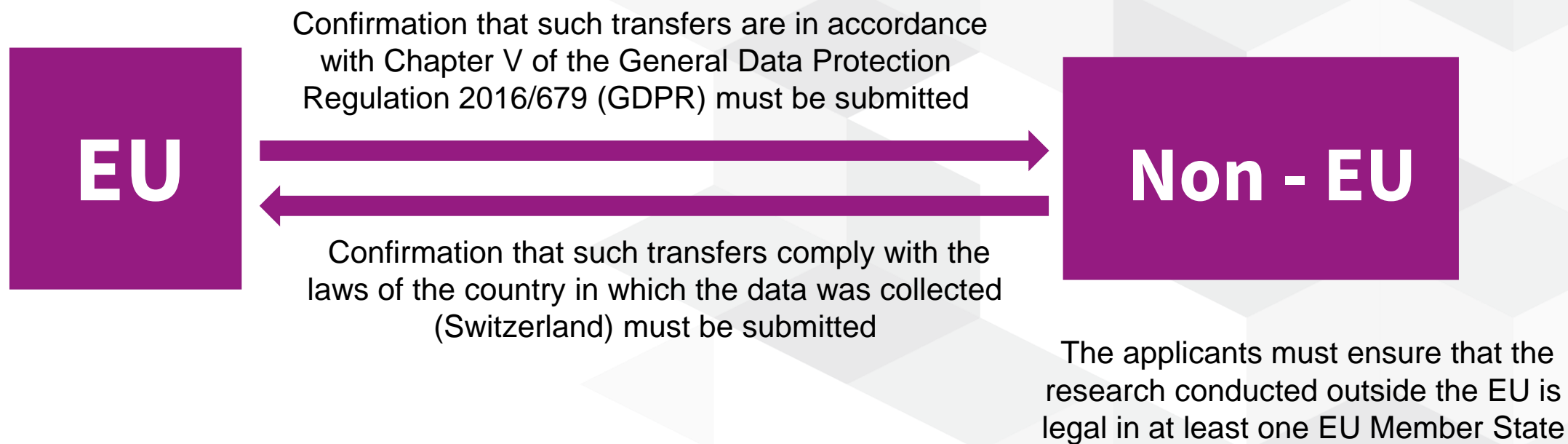
H2020 – Ethic Self Assessment

DPIA

HANDLING PERSONAL DATA? ── NO ──▶ DPIA does not apply

│
YES
▼

ALREADY IDENTIFIED DATA PROTECTION OFFICER? ── NO ──▶ Submmit a DATA PROTECTION PLAN

- 'data minimisation' principle
- technical and organisational measures
- security measures that will be implemented to prevent unauthorised access to personal data
- informed consent procedures in regard to data processing
- Data Processing Agreement/Addendum of third parties who store or process personal data must be kept on file

│
YES
▼

Use standard procedures that already have considered

Ethics related Data issues

■ Transference of Personal Data to non-EU countries

EU → **Non - EU**

Confirmation that such transfers are in accordance with Chapter V of the General Data Protection Regulation 2016/679 (GDPR) must be submitted

Confirmation that such transfers comply with the laws of the country in which the data was collected (Switzerland) must be submitted

The applicants must ensure that the research conducted outside the EU is legal in at least one EU Member State

Volunteers and the Data

■ Recruitment and consent procedures will be provided explaining the details about:

■ The procedures and criteria that will be used to <u>identify/recruit</u> research participants.

■ The <u>informed consent procedures</u> that will be implemented for the participation of humans.

■ Templates of the <u>informed consent/assent forms</u> and information sheets (in language and terms intelligible to the participants).

■ If children/minors are to participate, <u>justification for their participation</u> and the acquirement of <u>consent of their legal representatives</u> will be provided

Security

EU regulations

Relevant EU standards, e.g., **ISO/IEC 27001 and 27002** (Code of practice for information security management), to ensure confidentiality, integrity, and availability. It will additionally include the Directive on security of network and information systems ('**Cybersecurity directive', NIS-Directive 2016/1148**) on the security of critical infrastructures and the **ePrivacy Directive 2002/58**, as well as **European Union Agency for Network and Information Security (~) guidance**.

National Regulations

For the moment, we will account for Data Regulations of main entities generating data:
- Lighthouse Cities: National, regional and municipal laws
- Follower Cities: IDEM

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Platforms and security

Tag Type	Description	Security Features	Access Credentials
Blue	Public	Clear storage, Clear transmit	Open
Green	Controlled public	Clear storage, Clear transmit	Email- or OAuth Verified Registration
Yellow	Accountable	Clear storage, Encrypted transmit	Password, Registered, Approval, Click-through DUA
Orange	More accountable	Encrypted storage, Encrypted transmit	Password, Registered, Approval, Signed DUA
Red	Fully accountable	Encrypted storage, Encrypted transmit	Two-factor authentication, Approval, Signed DUA
Crimson	Maximally restricted	Multi-encrypted storage, Encrypted transmit	Two-factor authentication, Approval, Signed DUA

http://datatags.org/

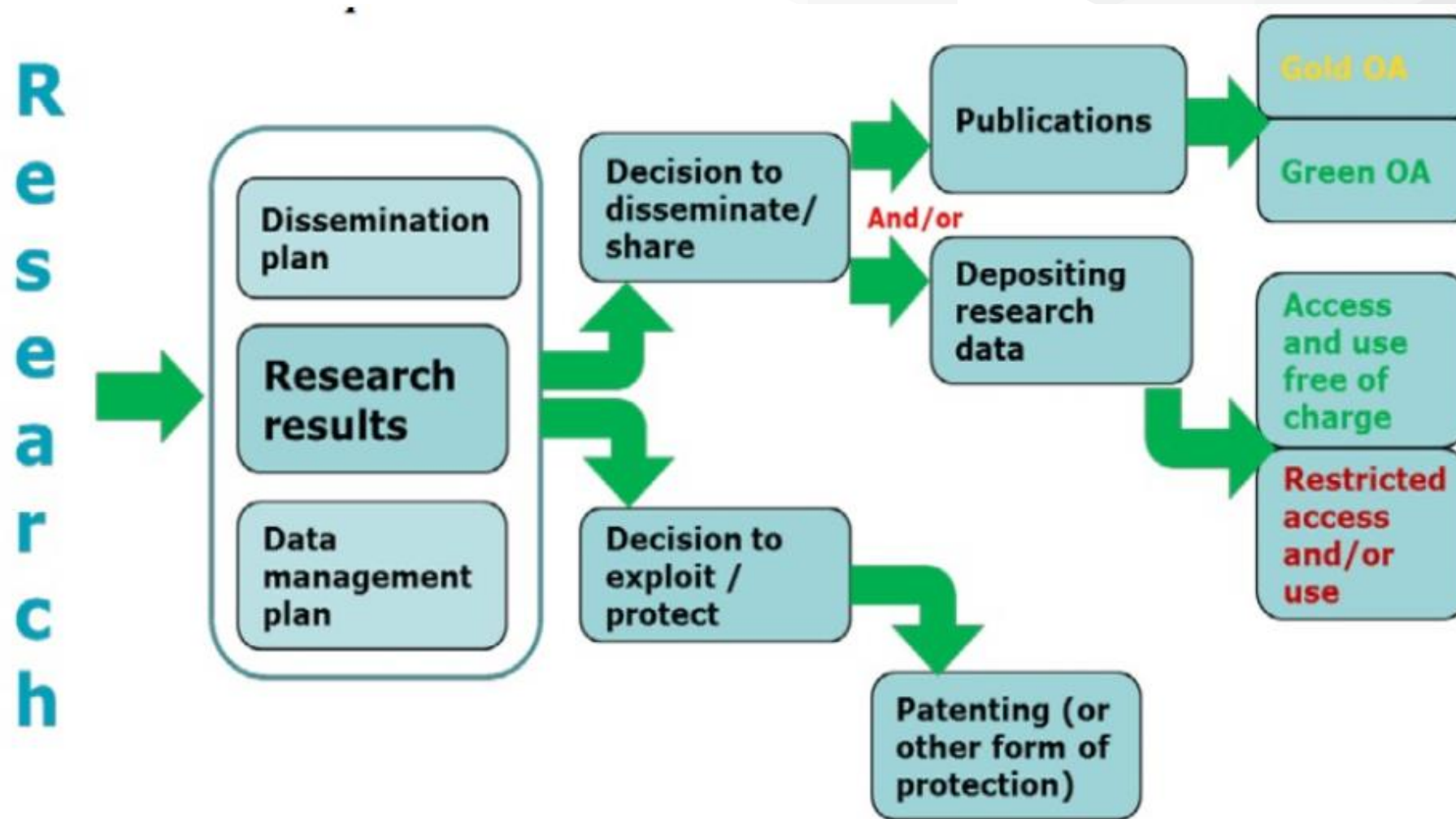# OPEN RESEARCH DATA

Open Research Data Pilot in H2020

In Horizon 2020 the Commission committed itself to running a flexible pilot on open research data (ORD Pilot). **The ORD pilot aims to improve and maximise access to and re-use of research data generated by Horizon 2020 projects**. It takes into account the need to balance openness and protection of scientific information, commercialisation and IPR, privacy concerns, security as well as data management and preservation questions.

⚠ Please note the distinction between open access to scientific peer-reviewed *publications* and open access to research *data*:

- **publications** – open access is an *obligation* in Horizon 2020.
- **data** – the Commission is running a flexible pilot which has been extended and is described below.

From: https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

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⚠ Participating in the ORD Pilot does not necessarily mean opening up all your research data. Rather, the ORD pilot follows the principle "**as open as possible, as closed as necessary**" and focuses on encouraging sound data management as an essential part of research best practice.

From: https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Misconceptions of ORD

■ In the context of Research FUNDING

■ Open access requirements do not imply an obligation to publish results. The decision to publish is enterely up to the grant beneficiaries.

■ Open Access does not affect the decision to exploit research results commercially, e.g. patenting.

■ The decision on whether to publish through open access must come after the more general decisión on whether to publish directly or to first seek protection

From: European Help Desk factsheet "Publishing vs. patenting"

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The work may not be used for commercial purposes

Licensing H2020

...as far as possible, projects must then take measures to enable for third parties to access, mine, exploit, reproduce and disseminate (free of charge for any user) this research data. One straightforward and effective way of doing this is to attach Creative Commons Licence (CC-BY or CC0 tool) to the data deposited.

Pilot on Open Research Data in Horizon 2020

Data should be covered by a CC BY license or a less restrictive license

PLoS Open Data Policy

HOW CAN WE START?

Which datasets my entity will collect or process in ATELIER?

What my entity wants to do with those datasets?

Are we handling personal data?

Are we working with volunteers?

References

■ Open Acess & Data Management Online Manual

https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination_en.htm

■ Guidelines on FAIR Data Management in H2020

https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

■ Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020

https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

■ GDPR (Regulation (EU) 2016/679)

https://eur-lex.europa.eu/eli/reg/2016/679/oj

■ Guidelines on Data Protection Impact Assessment

https://ec.europa.eu/newsroom/article29/item-detail.cfm?item_id=611236

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