



6-8 November 2019

Prof. Dr. Eva Méndez

Chair of the European Open Science Policy Platform

YERUN / Universidad Carlos III de Madrid

Implementing Open Science from the EU perspective



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[@evamen](https://twitter.com/evamen)

Open Science with many hats



Librarian



Researcher
(FAIRsFAIR, FAIR4Health)



EU-OSPP, chair
(YERUN OS WG)



National Open Science
policies (CRUE, FECYT)



RDA (Research
Data Alliance)
ambassador

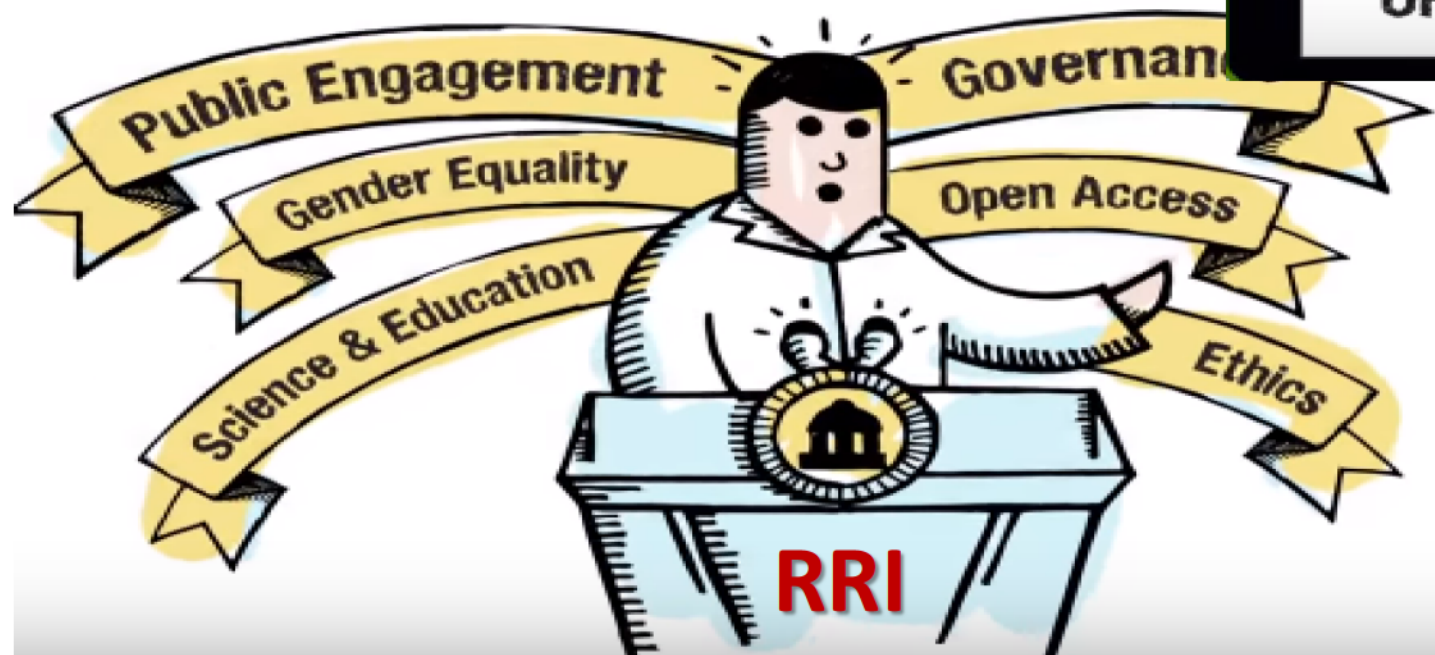
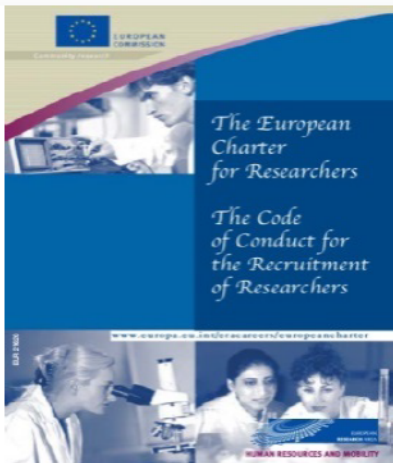


Institutional –UC3M
Deputy Vice-president of Research
policies

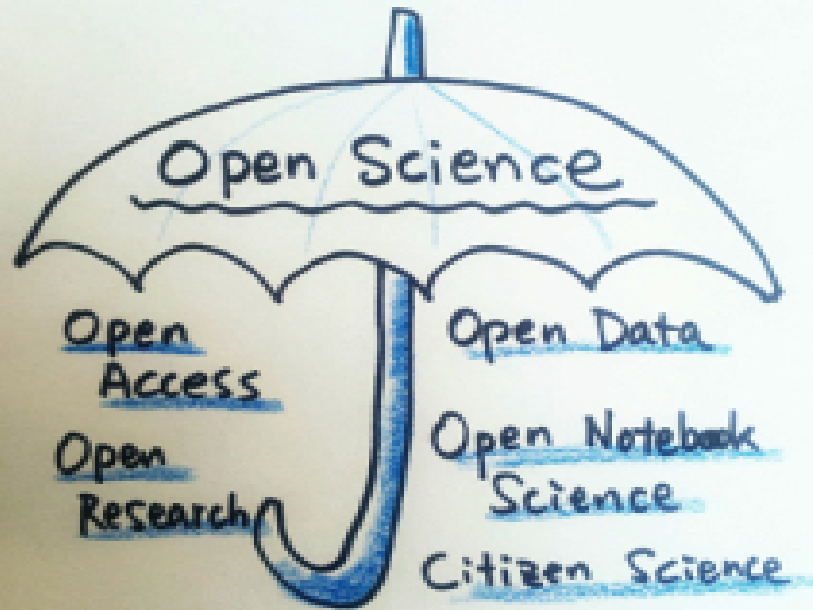


Outline

- **Let's talk about Open Science**
 - Context (RRI, HRS4R, H2020/Eu...)
 - Open Science : WHAT and WHY?
- **Challenges...**
 - 8 challenges → Cultural Change
 - Motivators of will
- **Implementation...**
 - Open Science... HOW?
 - PCIs: Practical Commitments for Implementation

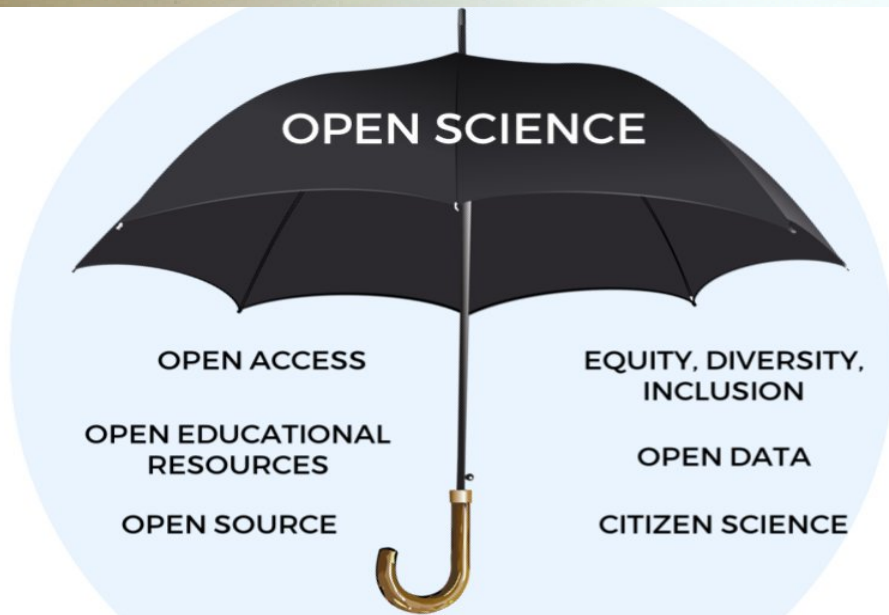


... Where **openness** and **transparency** are an integral component of the research and innovation process



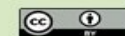
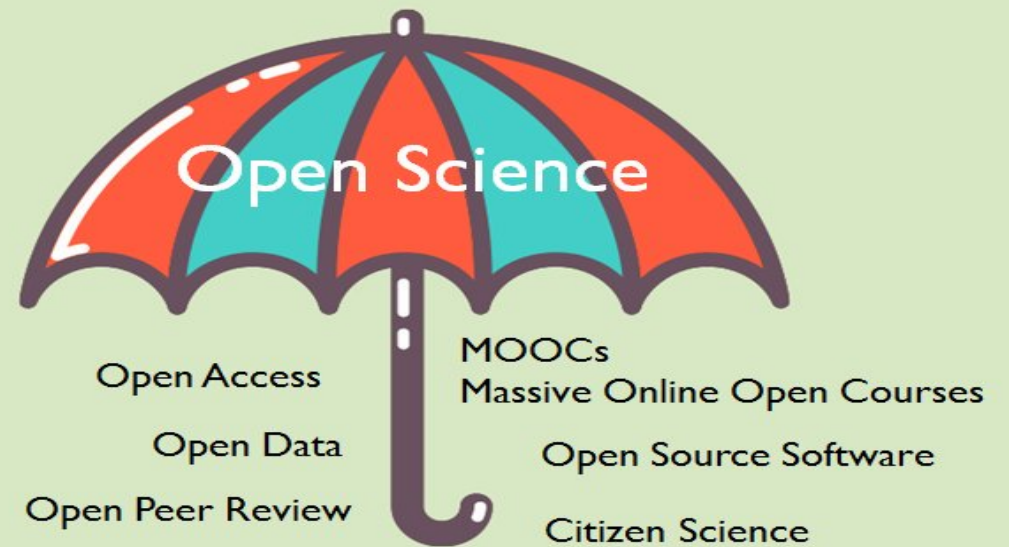
*Open science commonly refers to efforts to make the **output of publicly funded research** more **widely accessible in digital format** to the **scientific community, the business sector, or society** more generally ... to promote long-term **research as well as innovation.***

[OECD Sept 2015](#)



What do we mean when we talk about Open Science?

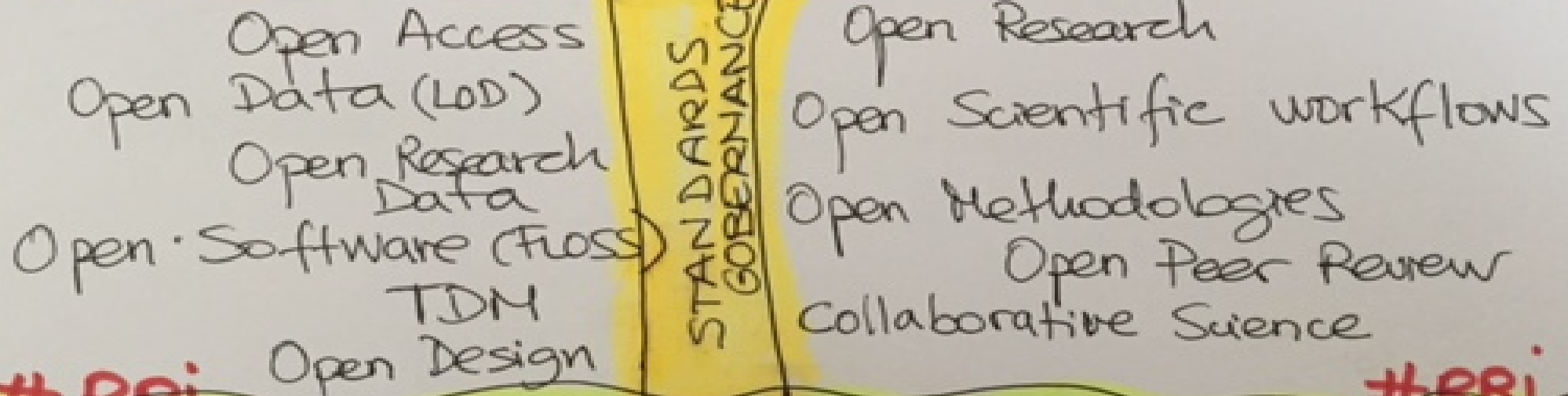
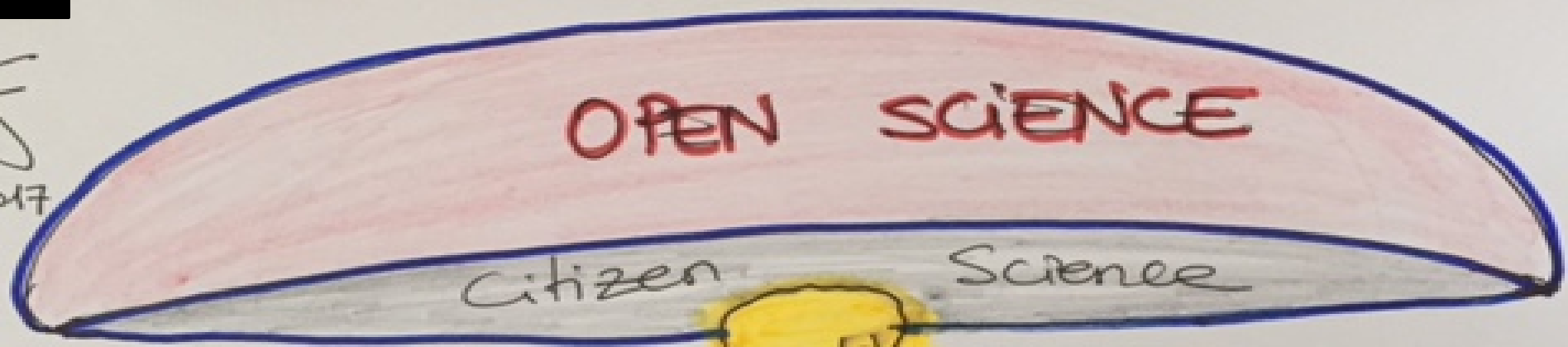
Image courtesy of Robin Champieux



Pablo Dorta-González, 2017

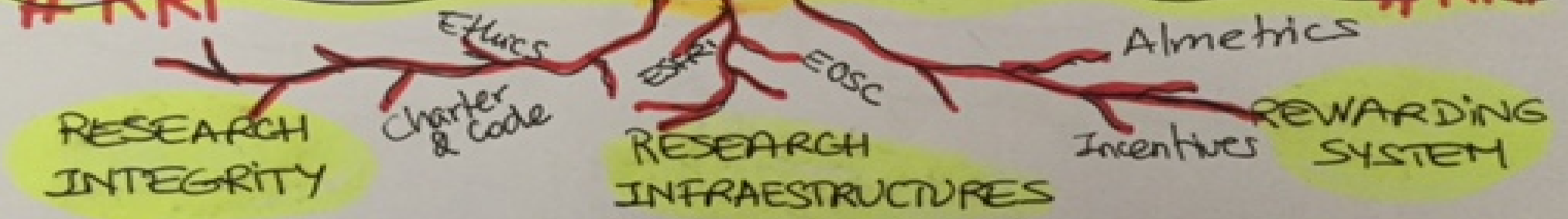


15/02/2017



#RRI

#RRI



Research
Infrastructures

Open Science

Research
Integrity

Open Access
Publications

Open
Software

Open Access
Data

Open
Methodologies

Open Education

Open
Workflows/Protocols

Research
Evaluation

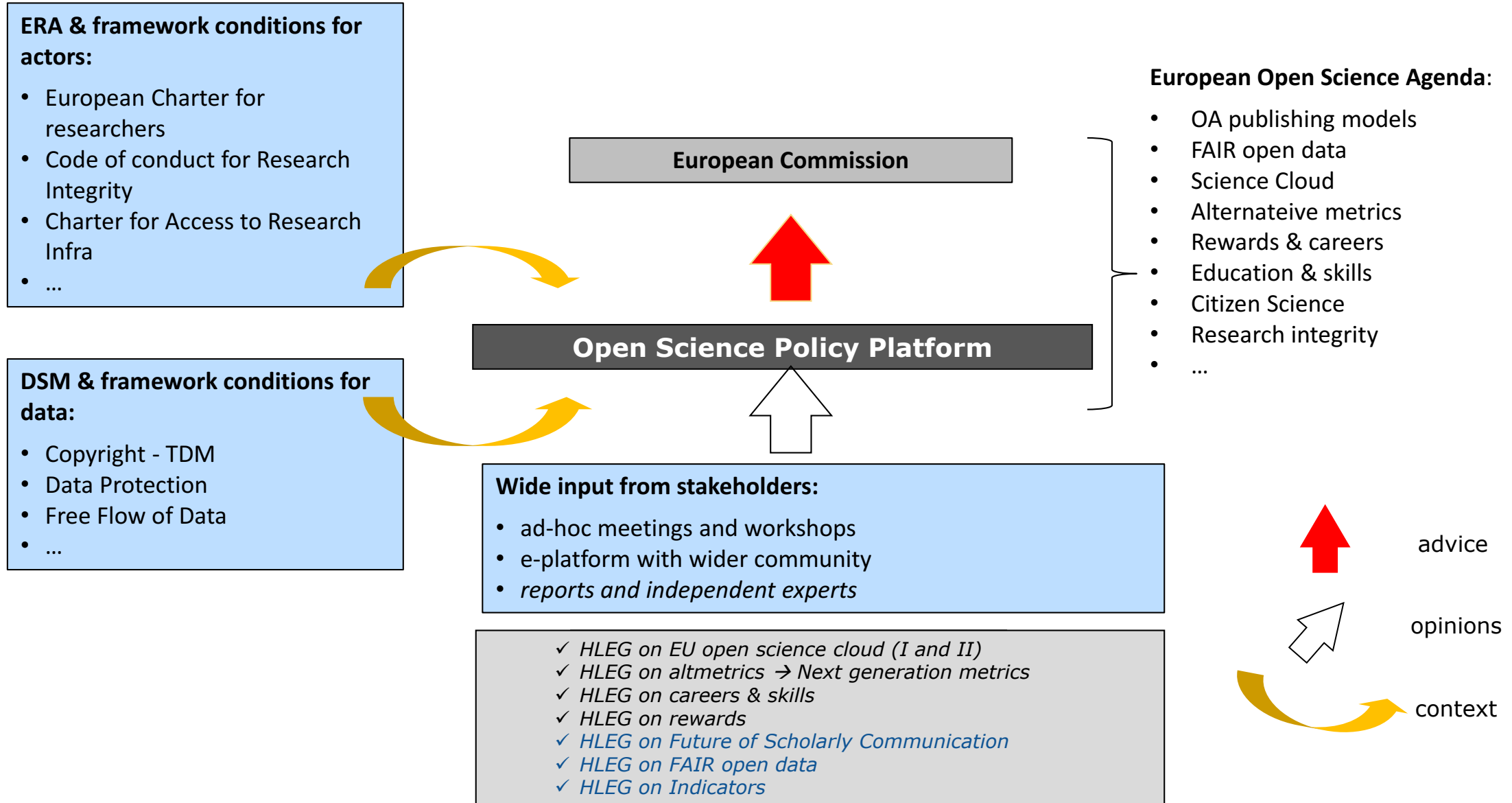
Citizen
Science

Open Peer-Review

<http://bit.ly/OpenScienceYERUN>



OSPP in the EC Open Science state of play (2016)





Evaluation of Research Careers fully acknowledging Open Science Practices

Rewards, incentives

Written by the Working Group on Education and Skills under Open Science
July - 2017



Providing researchers with the skills and competencies they need to practise Open Science

Open Science Skills Working Group Report

Working Group on Education and Skills under Open Science

Research and Innovation



Next-generation metrics: Responsible metrics and evaluation for open science

Research and Innovation



The European Code of Conduct for Research Integrity

REVISED EDITION





European Council
Council of the European Union

Competitiveness Council (May 2018)

OSPP-REC

2.2. Prioritised recommendations for the eight ambitions of Open Science

Below are a set of actionable recommendations from the OSPP to be taken as the next step towards the longer-term vision articulated by Open Science consultations and expert groups set up by the EC and other organisations in Europe and worldwide. The recommendations have been split up into the eight priorities identified from the 5 areas of the European Open Science Agenda⁶, namely:

- Rewards and Incentives
- Research Indicators and Next-Generation Metrics
- Future of Scholarly Communication
- European Open Science Cloud
- FAIR Data
- Research Integrity
- Skills and Education
- Citizen Science

The major stakeholder groups (as listed in the key below) who have the main responsibility to drive the actions stated in the recommendations have been listed alongside each one.



Research & E-Infrastructures



Research Libraries



Universities & Research Performing Organisations



Policy Making Organisations



Research Funding Organisations



Publishers



Researchers



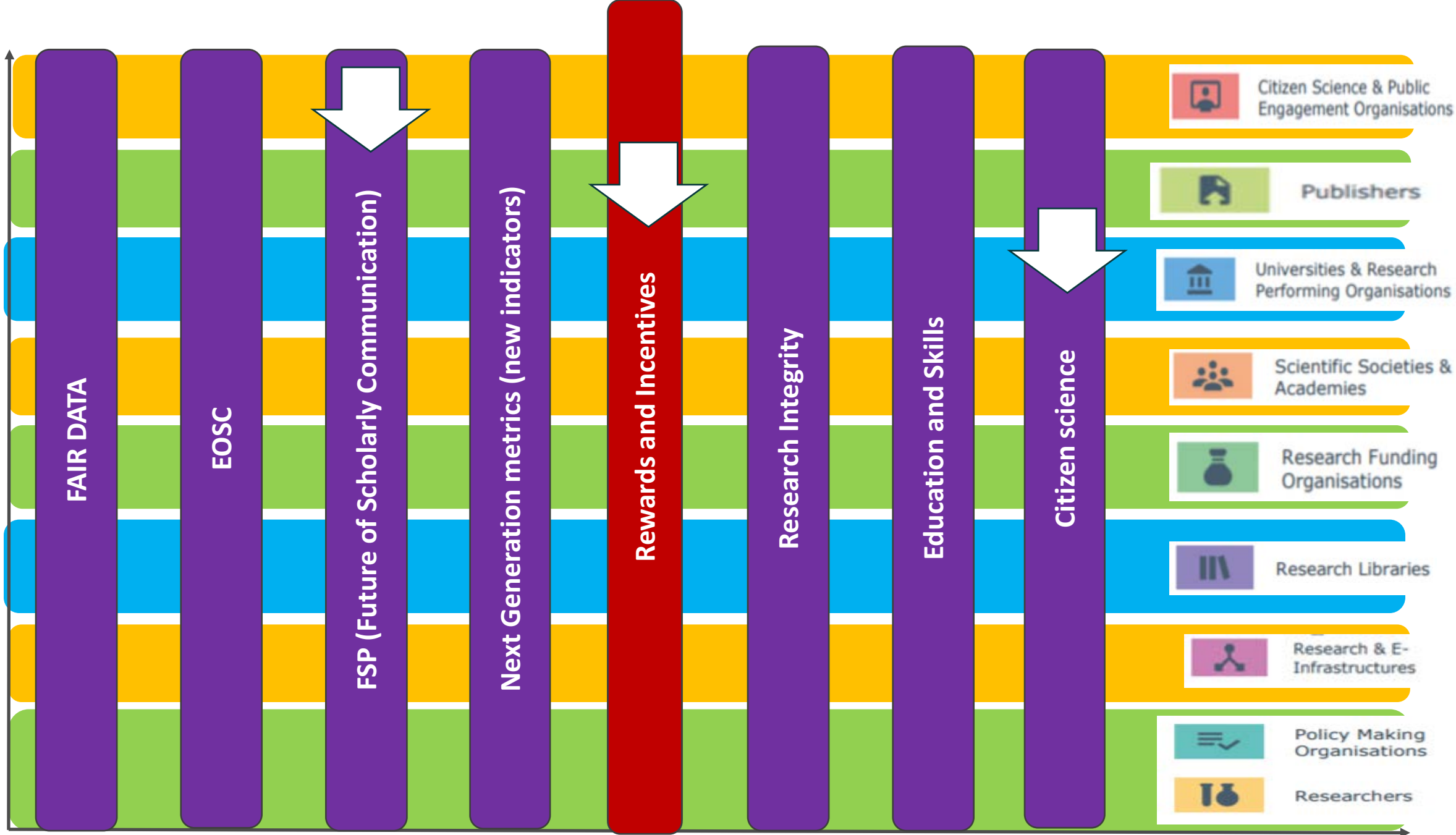
Scientific Societies & Academies



Citizen Science & Public Engagement Organisations



Stakeholders / Actors of Open Science



Open Science challenges / pillars in EUROPE

Open Science

Horizon Europe

THE NEXT EU RESEARCH & INNOVATION

Orientations

towards the first Strategic Plan
implementing the research and innovation
framework programme Horizon Europe

CO-DESIGN

VIA WEB OPEN CONSULTATION

Summer 2019

requiring open access to publications
by EU funding.



Pillar 1

Open Science

European Research Council

More openness: The principle of 'open access' and data. This will assist market uptake of research results and infrastructures



Pillar 3

Open Innovation

European Innovation Council

European innovation ecosystems

European Institute
of Innovation and Technology

Strengthening the European Research Area

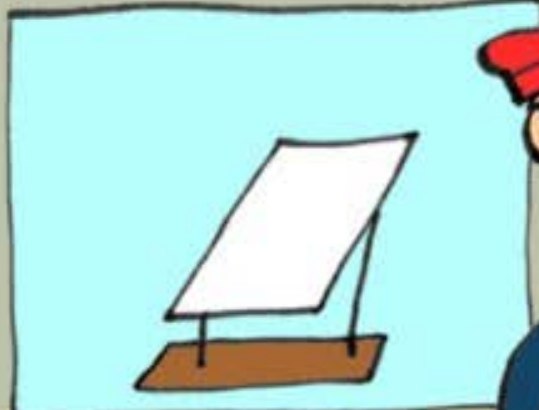
Sharing excellence

Reforming and Enhancing the European R&I system

MUSEUM



← SCIENCE IN THE MODERN ERA



DISCOVERY OF THE INVERSE IMPACT LAW



BEFORE THE GREAT SUBSCRIPTION CRASH OF 2030 SCIENTISTS BELIEVED THE MORE INACCESSIBLE THE STUDY, THE GREATER THE IMPACT.

2030

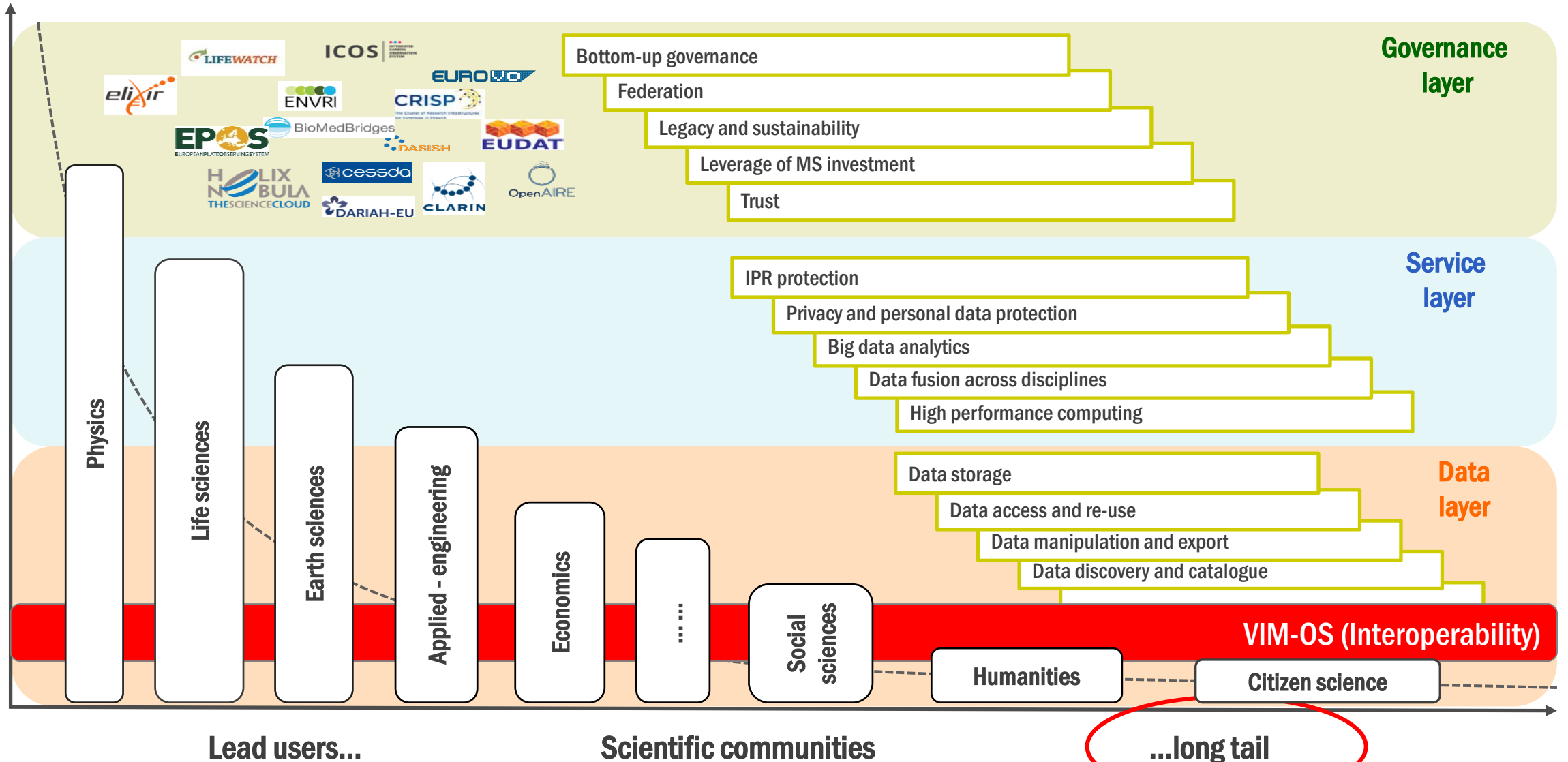


JOURNAL IMPACT FACTOR RANKING

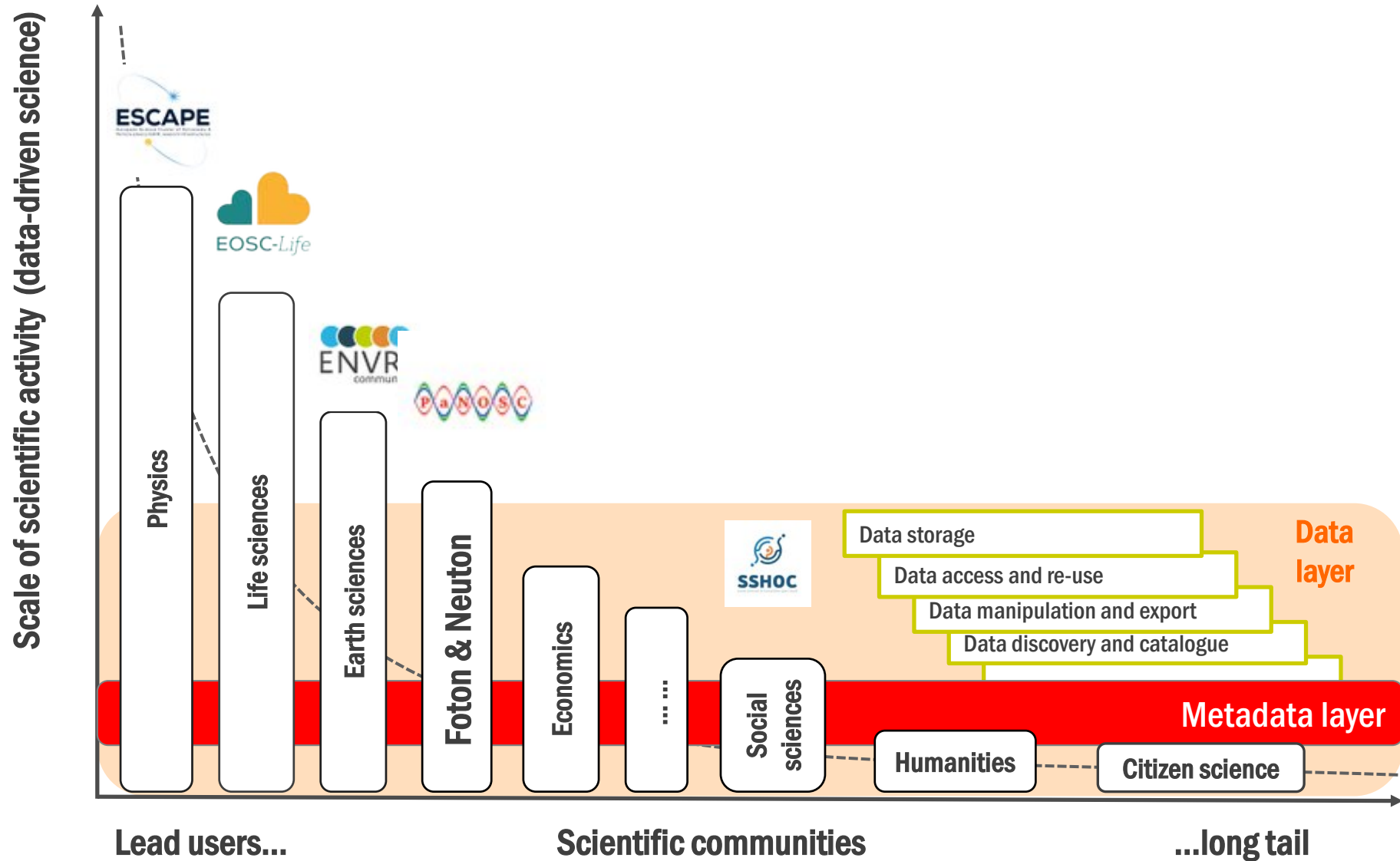
EU Open Science Cloud & FAIR(RRR) DATA

Based on Burgelman

Scale of scientific activity (data-driven science)



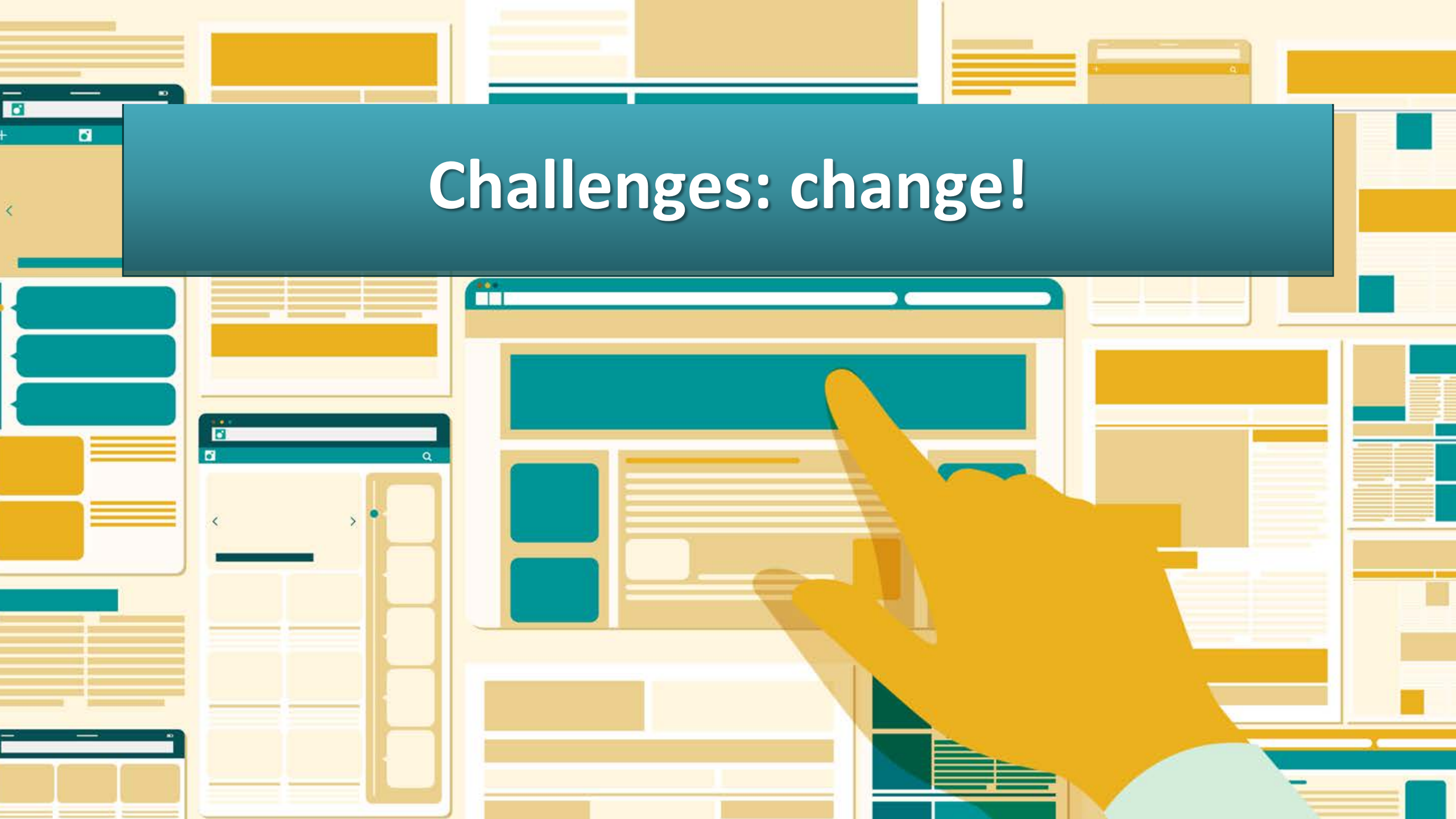
EOSC & FAIR(RRR) DATA



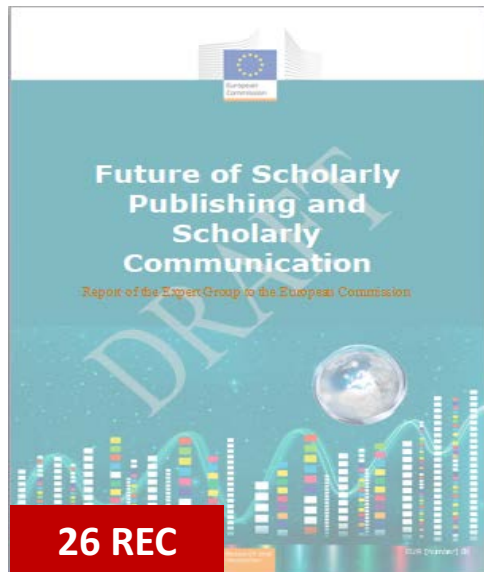
EU Directive on Open Data and the Re-use of Public Sector Information (Rev. 2019)

Article 10. Research data: “1. Member States shall support the availability of research data by adopting **national policies and relevant actions** aiming at making publicly funded research data openly available ('open access policies'), following the **principle of “open by default” and compatible with the FAIR principles**. In that context, concerns relating to intellectual property rights, personal data protection and confidentiality, security and legitimate commercial interests, shall be taken into account in accordance with the principle of “**as open as possible, as closed as necessary**”. Those open access policies shall be addressed **to research performing organisations** and research funding organisations”.

Challenges: change!



Where we are? Among **RE**ports (4) & **RE**commendations (87)



European Commission

Open Science Policy Platform

Wide input from stakeholders

- Ad-hoc meetings and workshops
- Communication with stakeholders

We need to talk!

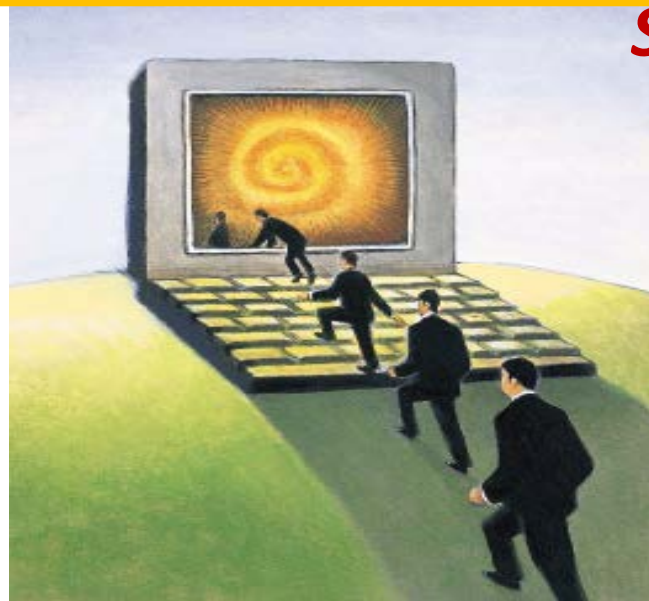
HLEG on FAIR open data
HLEG on EOSC II
HLEG on Indicators
HLEG on FSC



Challenges = Building blocks

1. Removing barriers and **creating incentives** (alternative/next generation metrics, research integrity, TDM (Text and Data Mining)).
2. Developing **infrastructures** for Open Science (e.g. European Open Science Cloud, EOSC).
3. Embedding Open **Science in Society** (citizen science, public engagement... knowledge coalitions to address societal challenges).

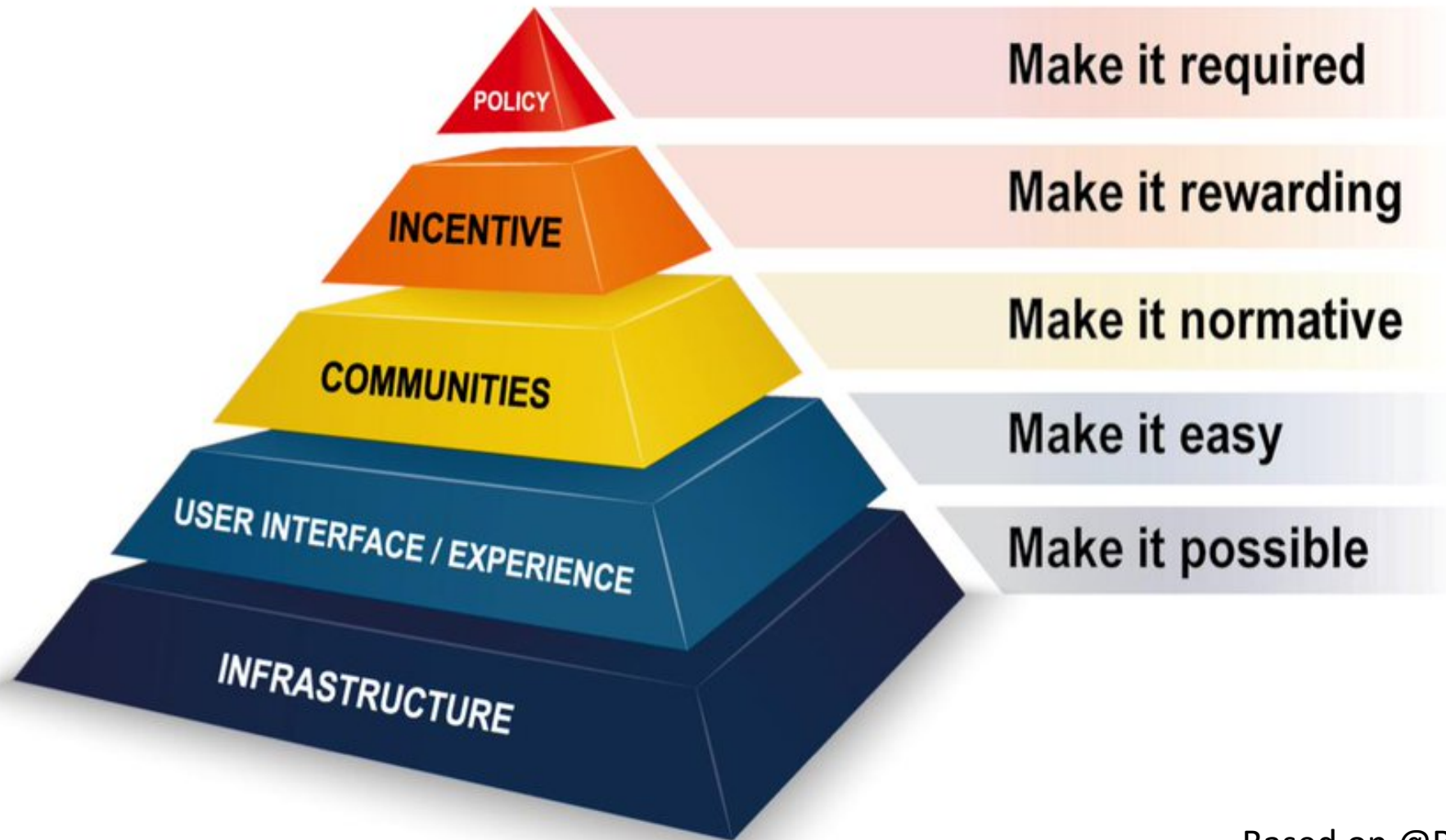
Motivators of will... (for academics)



SEDUCTION

Make it very easy...
Motivate...
Help...

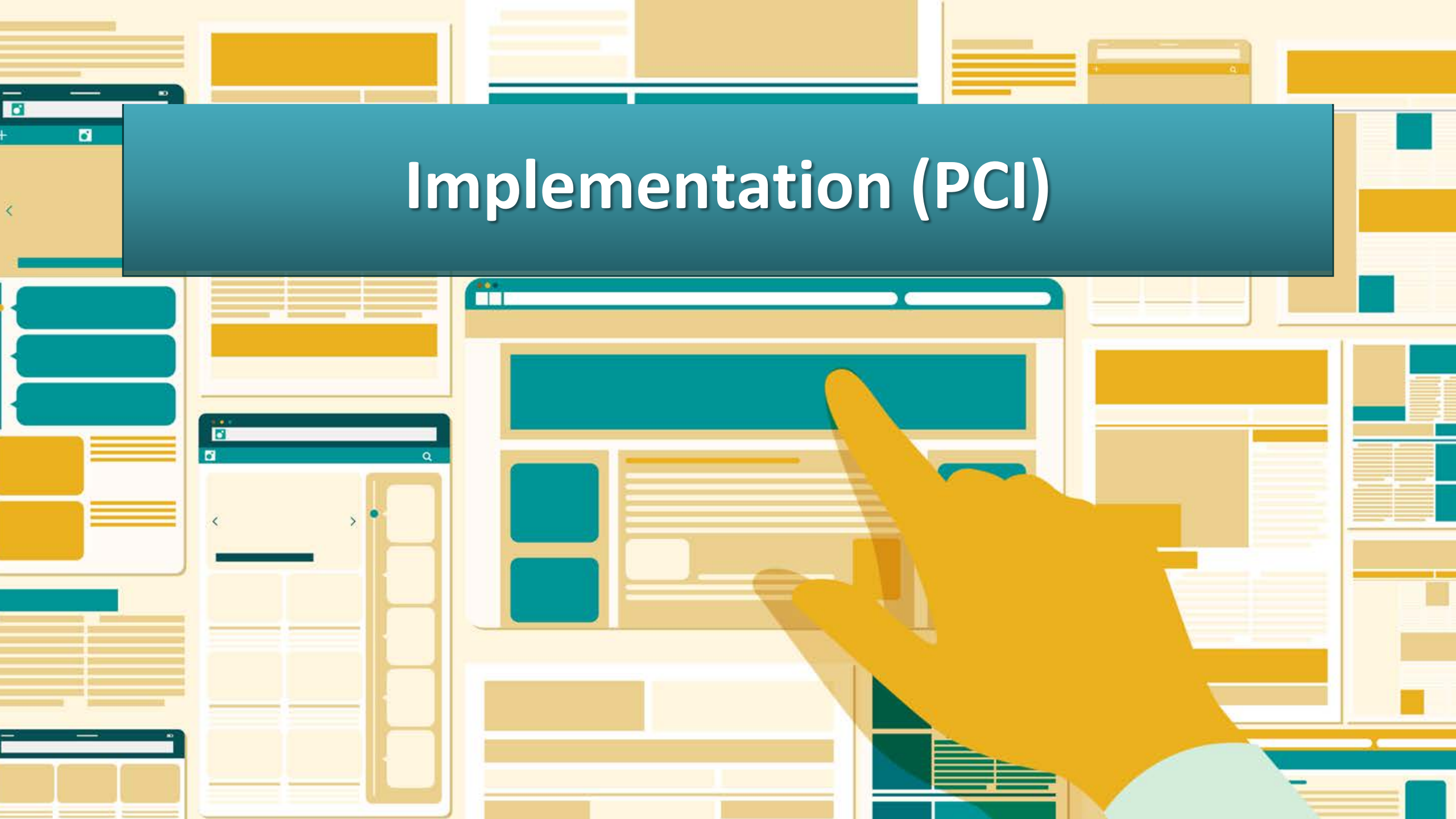
Open science is a cultural change



Based on @BrianNosek (OSF)



Implementation (PCI)



EU-OSPP (M2)

- Communication and engagement (We need to talk!)
 - Stakeholders meetings
 - @euospp
- Change from *Declaration mode* to the *Implementation mode* (PCIs)
 - from REP&REC to PCIs
 - From #YAD to #NPCI
- Map-interconnect - the projects working in Open Science (eInfras, SWAFS, etc.)
- **Align MS policies** → **Align OSPP-MS objectives**

Open Science: HOW?

www.benitaepstein.com

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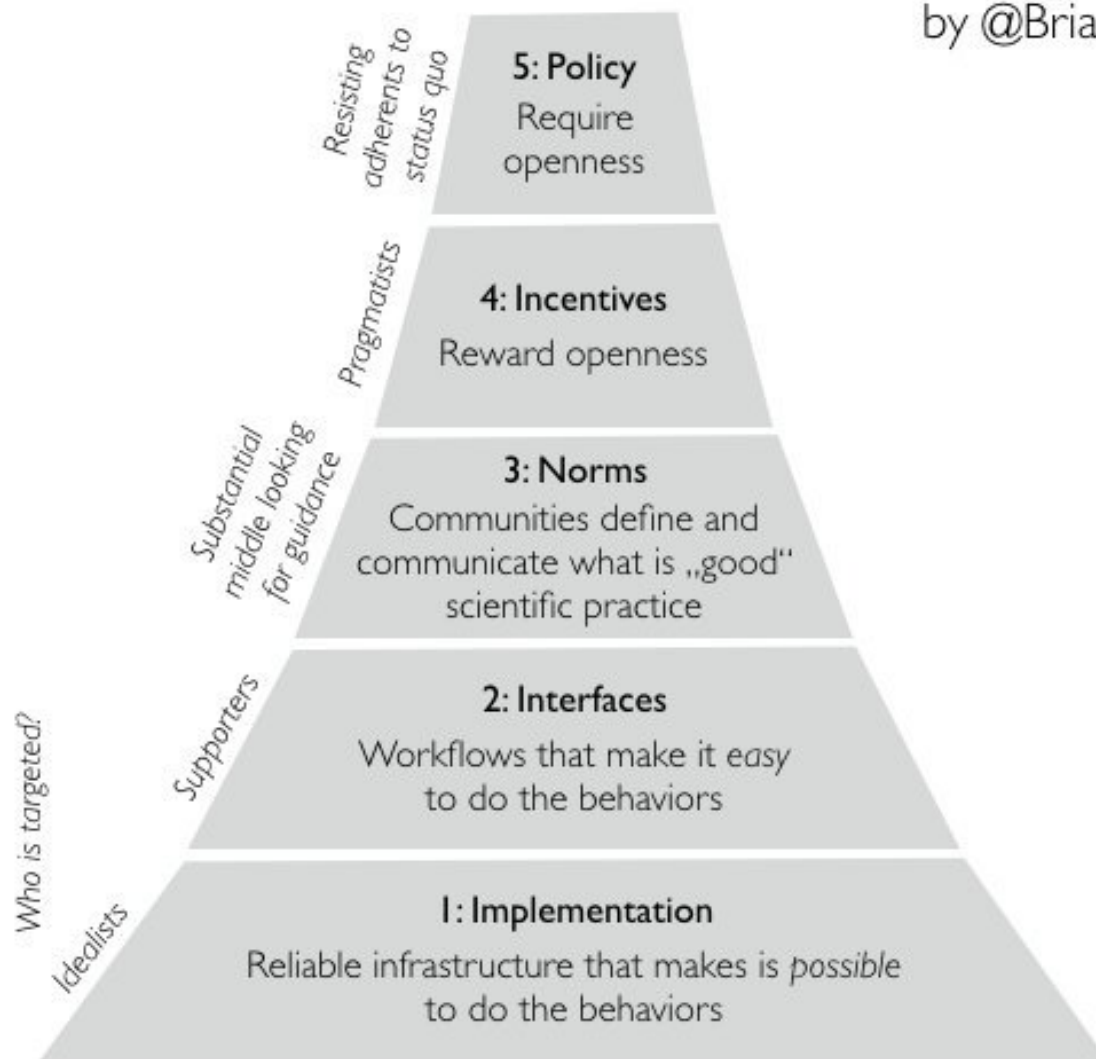
"I already wrote the paper.
That's why it's so hard to
get the right data."

- How to **incentivize** the systemic change?
- How does it **affect our researchers?** → Promotion, research assessment...
- How does it affect our research **infrastructures?** → New ones?
- How does it affect researcher's **skills** → Data **literacies?**
- How does it affect to our researcher's **behavior** (research integrity)

MANAGING A COMPLEX CHANGE

How to achieve a cultural change towards open science

Based on a [tweet storm](#) by @BrianNosek



PCIs (Practical Commitments for Implementation) for Open Science

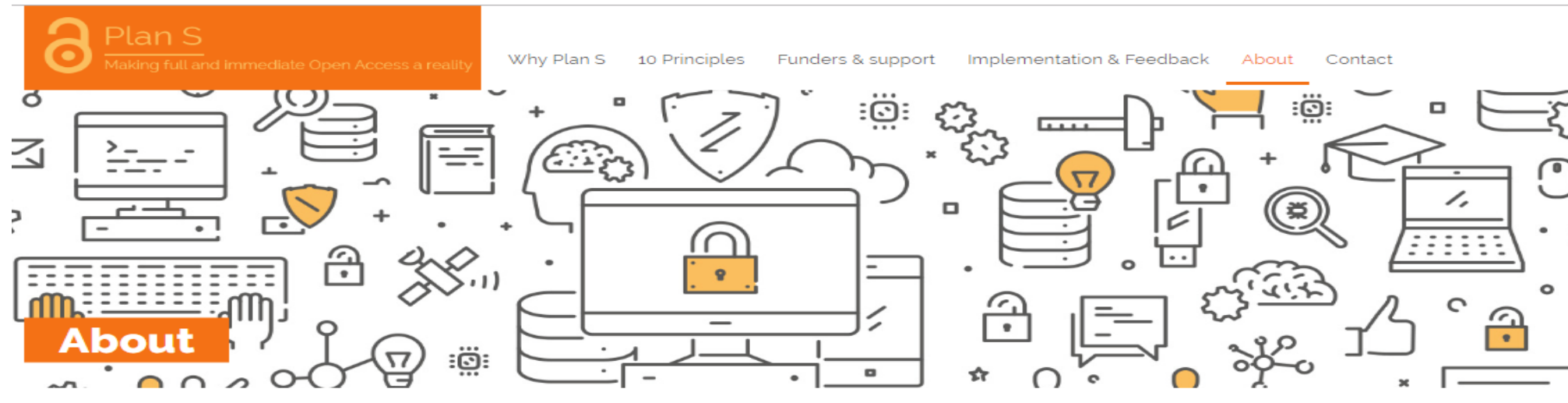
- Shift from “*declaration mode*” → to “implementation mode”
- You, at your institution, at your office, with your attributions, etc. **what can you do for Open Science?** (regarding the 8 challenges, and taking into account your condition as stakeholder...)
 - I am a researcher....
 - I am a publisher...
 - I am a research infrastructure manager...
 - I am a librarian, etc.

What are **PCIs** for Open Science

- **Commitments** regarding any aspect (challenge) of Open Science
- Actual, **realistic** and **affordable**... in a level where the proponent has “jurisdiction”
- **Effect** → real **implementation**
- They answer to the question: *What **CAN** I do to make Open Science happen?*
- Open science at “action level” (**practical**)

PCIs example: FUNDERS

<https://www.coalition-s.org>



What is cOALition S?

On 4 September 2018, a group of national research funding organisations, with the support of the European Commission and the European Research Council (ERC), announced the launch of cOALition S, an initiative to make full and immediate Open Access to research publications a reality. It is built around Plan S, which consists of one target and 10 principles.

cOALition S signals the commitment to implement, by 1 January 2020, the necessary measures to fulfil its main principle:

Further Information

- > [Guidance on Implementation](#)
- > [Participating Institutions](#)
- > [Press Releases](#)
- > [European Commission](#)
- > [Statutory Instruments](#)

1ST
PCI

PCIs example: Member state (**France**)

<http://www.ouvrirlascience.fr>

First **commitment**: spread open access (OA) to publications

Second **commitment**: structure research data and make them available through open access

Third **commitment**: Follow the European, International trend of sustainability



PCIs example: RESEARCHER

<http://anxosanchez.eu/adopting-plan-s-as-an-individual-researcher>

ANXO SÁNCHEZ

HOME

RESEARCH

PROJECTS

TALKS

17 ENE ADOPTING PLAN S AS AN INDIVIDUAL RESEARCHER

Posted at 18:01h in Sin categoría by 1dinamoanx • 0 Comments • 0 Likes • Share



Since Plan S was announced last September, I have been ruminating about whether it should be something for funding agencies only, or on the contrary it should involve individual researchers too, so bottom-up working together with top down. As you probably know, [Plan S](#) is an initiative

for Open Access publishing supported by cOAlition S, an international consortium of research funders. Plan S requires that, from 2020, scientific publications that result from research funded by public grants must be published in compliant Open Access journals or platforms. So far, 13 national funders, along with other organizations have joined cOAlition S, and I do hope, along with many of my colleagues, that the Spanish



Anxo Sánchez @anxosan

10h

Today I have made a decision I've been thinking about for a while. From 2020 I will follow [Plan S coalition-s.org](#) as an individual researcher, no matter where my funds come from. Potential co-authors, students and postdocs, be aware. Read about it [anxosanchez.eu/adopting-plan-...](#)

1 5 8 ...



Anxo Sánchez

@anxosan

I believe [@evamen](#) will like this. If you also like this, spread the word, and think about it. Perhaps you want to contribute to ending the crazy, unfair and damaging business of scientific publication

Translate Tweet

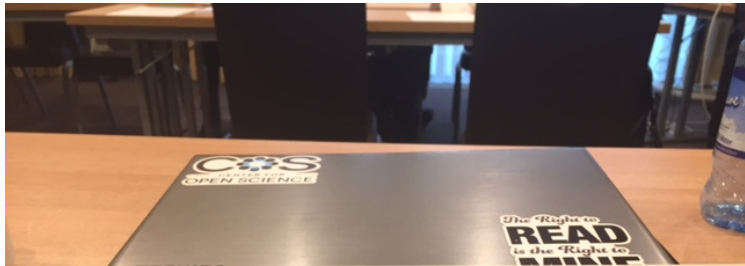


International
STAFF WEEK
Open Science

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Universidad
Carlos III
de Madrid

THANK YOU!!!!



Eva Méndez Rodríguez

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@evamen

@euospp

