

Open Science: A Genuine Cultural Change – a viewpoint from OSPP and a research intensive young university

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@evamen

Open Science with many hats



EU-OSPP chair



RPO-Universities (YERUN)



Institutional (UC3M)



OS advocate



Librarian



Researcher



19th century scientist

I must find the
explanation for this
phenomenon in order
to truly understand
Nature....



21st centurt ~~scientist~~ academic

I must get the
result that fits my
narrative so I can
get my paper into
Nature...



facebook.com/pedromics

Outline

- **Concept...**

- Context (RRI, HRS4R, H2020/Eu...)
- Open Science : WHAT? / WHY / HOW?

- **Challenges...**

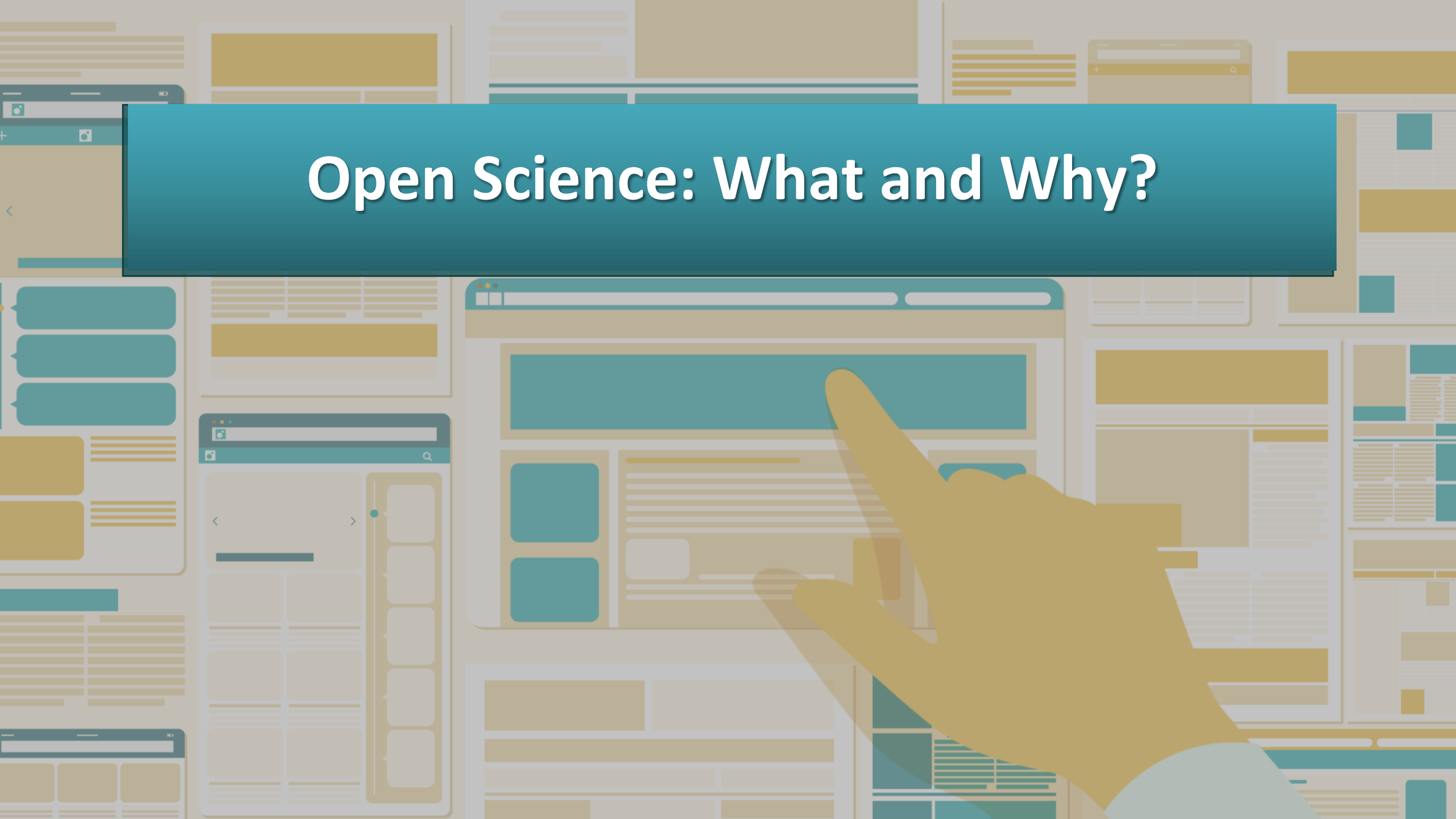
- Cultural Change
- Rewards and incentives system
- Motivators of will

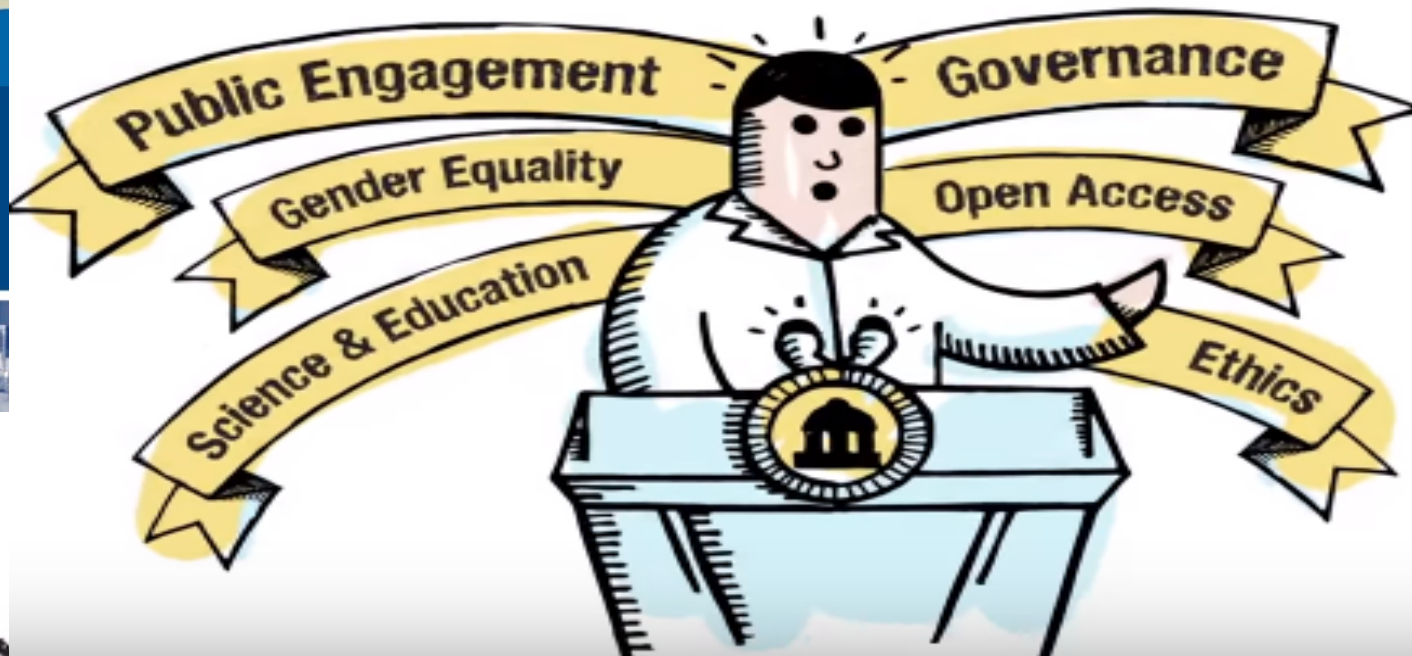
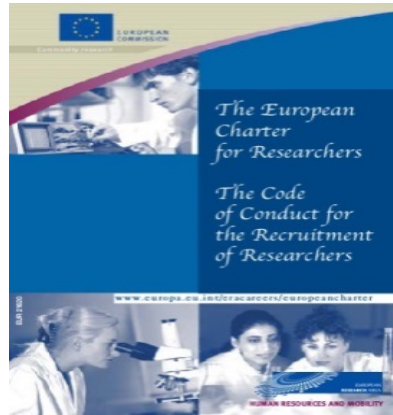
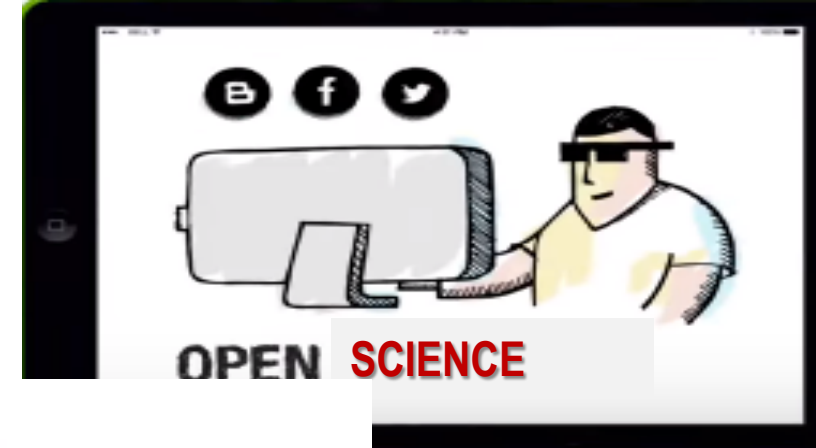
- **Implementation...**

- PCIs: Practical Commitments for Implementation
... and you?

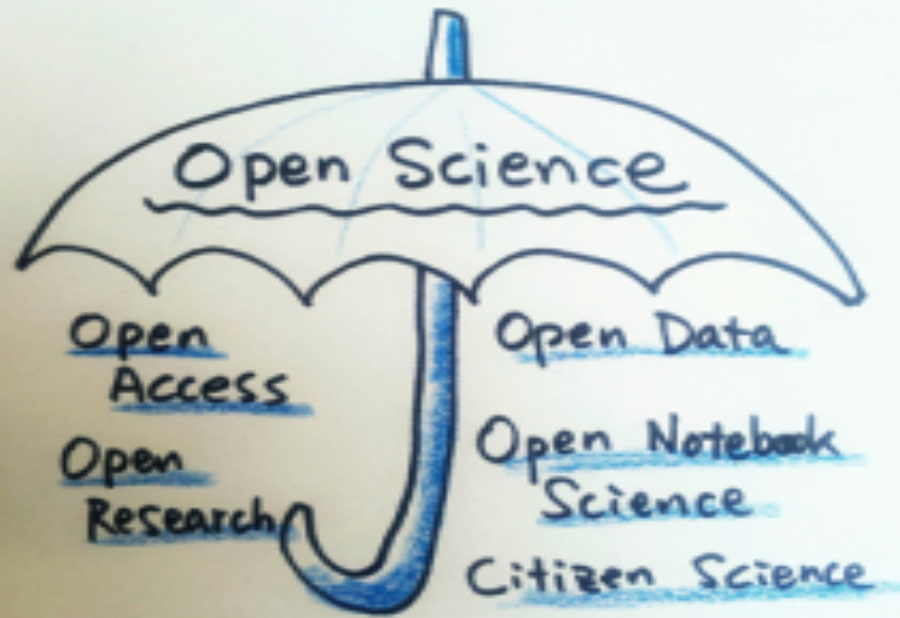


Open Science: What and Why?





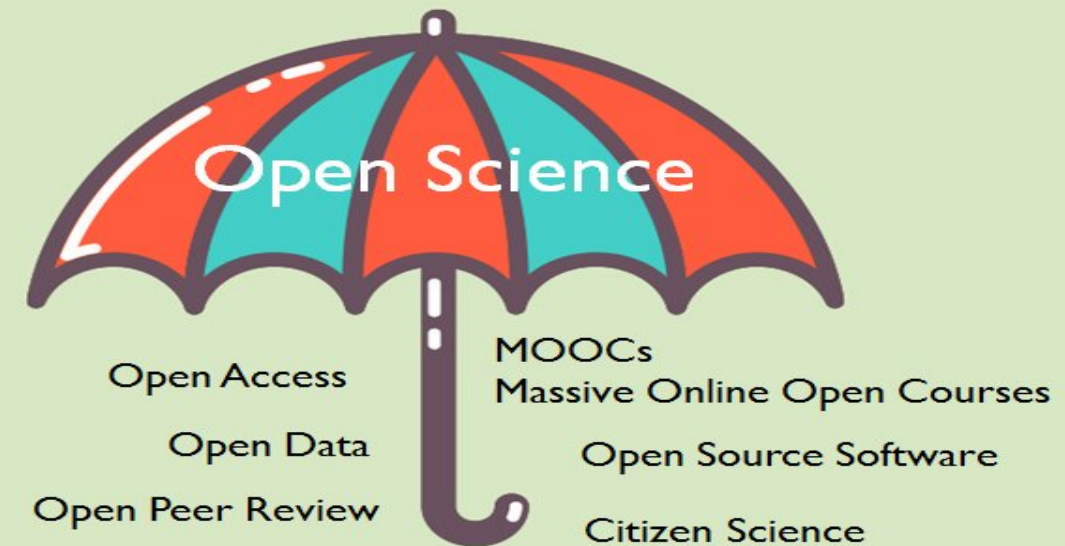
... Where **openness** and **transparency** are an integral component of the research and innovation process



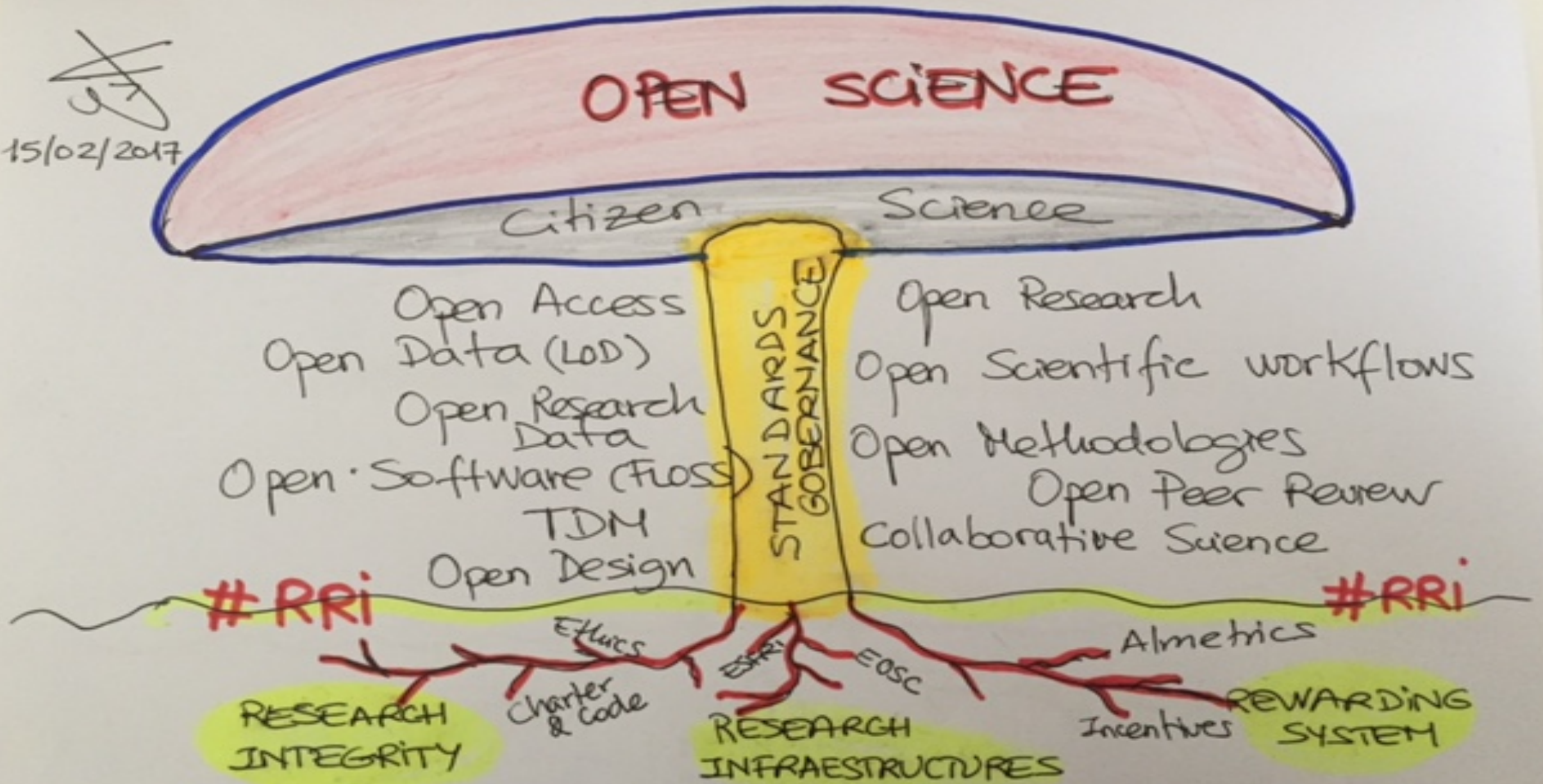
Open science commonly refers to efforts to make the **output of publicly funded research** more *widely accessible in digital format* to the *scientific community, the business sector, or society* more generally ... to promote long-term *research as well as innovation*.

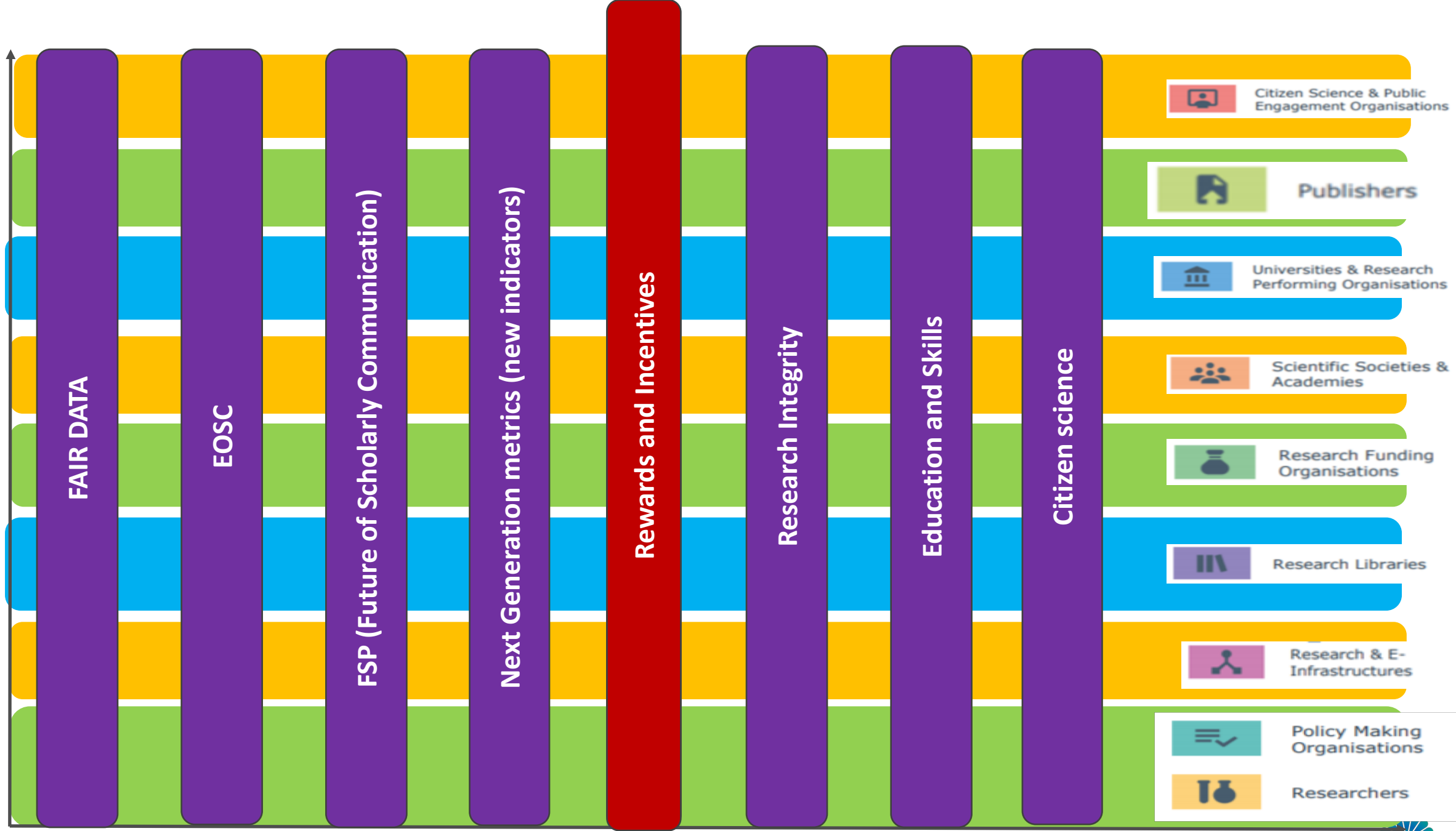
OECD Sept 2015

Open Science Umbrella. Image credit: Flickr user 지우 황 CC BY 2.0



15/02/2017





Open Research Data: PSI

(24/04/18)

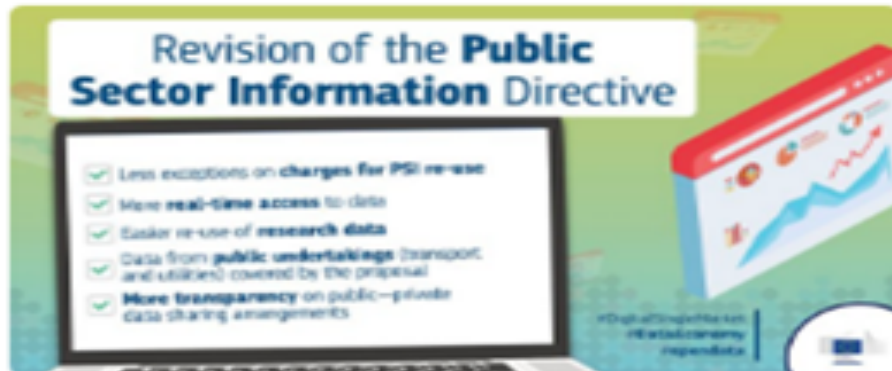
Open Access



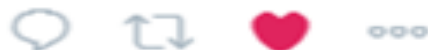
Carlos Moedas @Moedas 6h

The revised PSI Directive will put an obligation on EU Member States to develop policies for [#openaccess](#) to research data resulting from publicly funded research, but leave flexibility on how to do it.

→ europa.eu/!dm86vT
[#DataEconomy](#) [#opendata](#)



Show this thread



Carlos Moedas @Moedas 6h

Open access to scientific information is a cornerstone of an [#OpenScience](#) system. Today's revised Recommendation gives powerful guidance to Member States so they can reach their goal of transition to immediate [#OpenAccess](#) as default by 2020 europa.eu/!dm86vT [#DataEconomy](#)





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



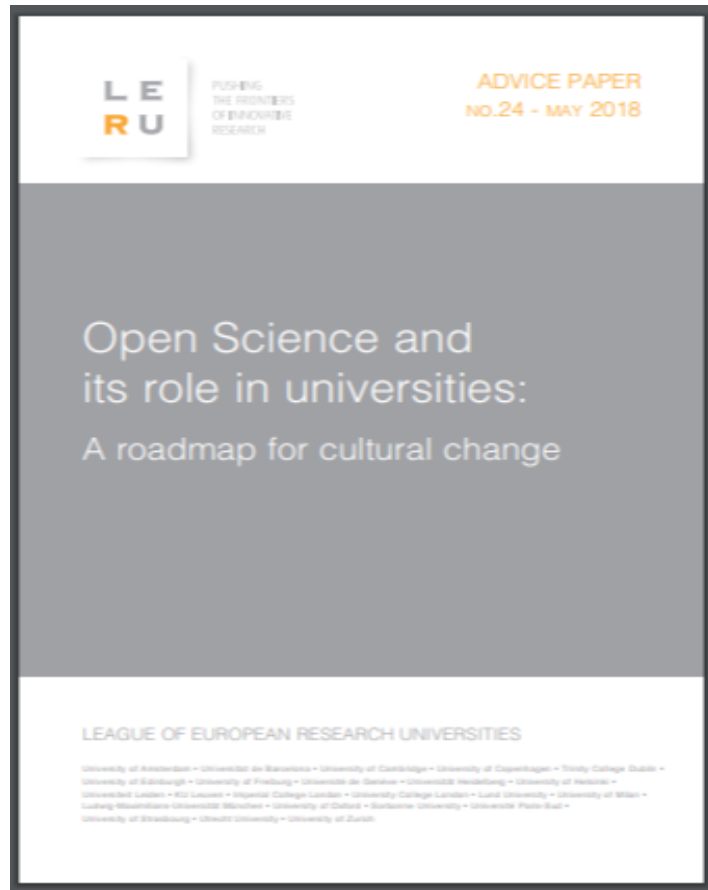
Scientific Societies & Academies



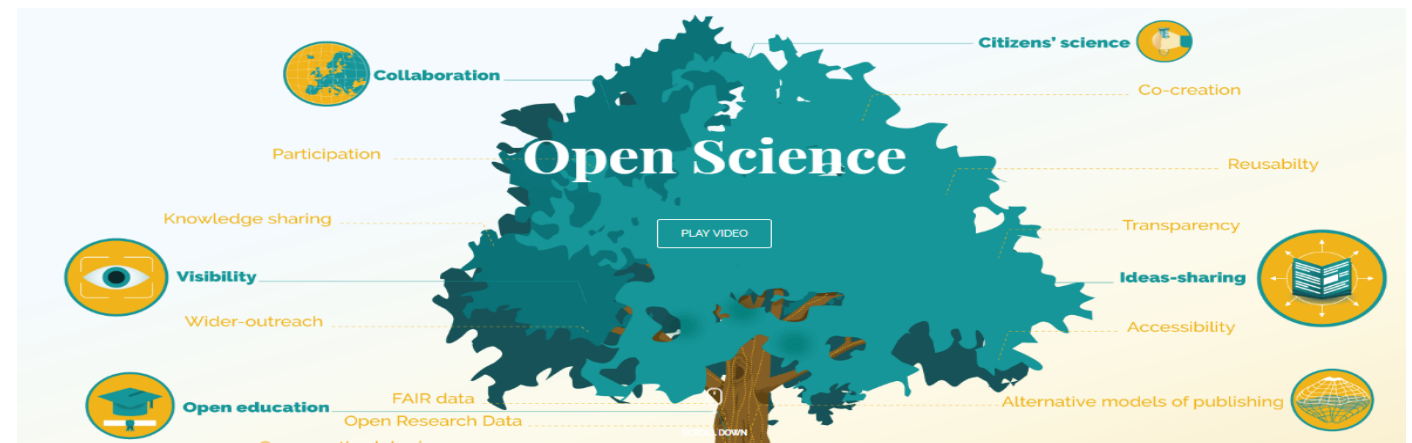
Citizen Science & Public Engagement Organisations



Institutional answers to OSPP-REC



<http://bit.ly/OpenScienceYERUN>

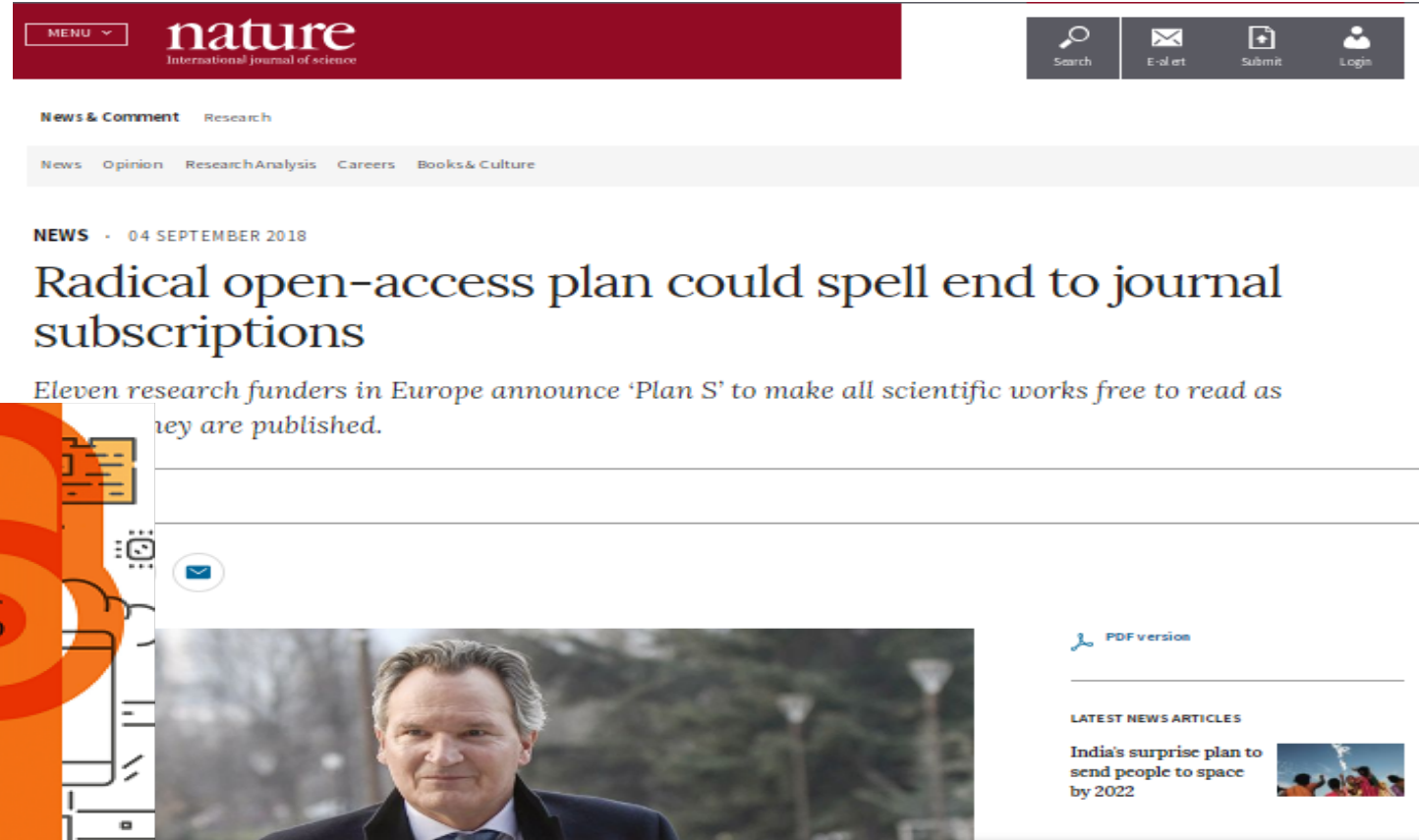


<https://www.leru.org/files/LERU-AP24-Open-Science-full-paper.pdf>



Plan S (September 2018)

<https://www.nature.com/articles/d41586-018-06178-7>



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

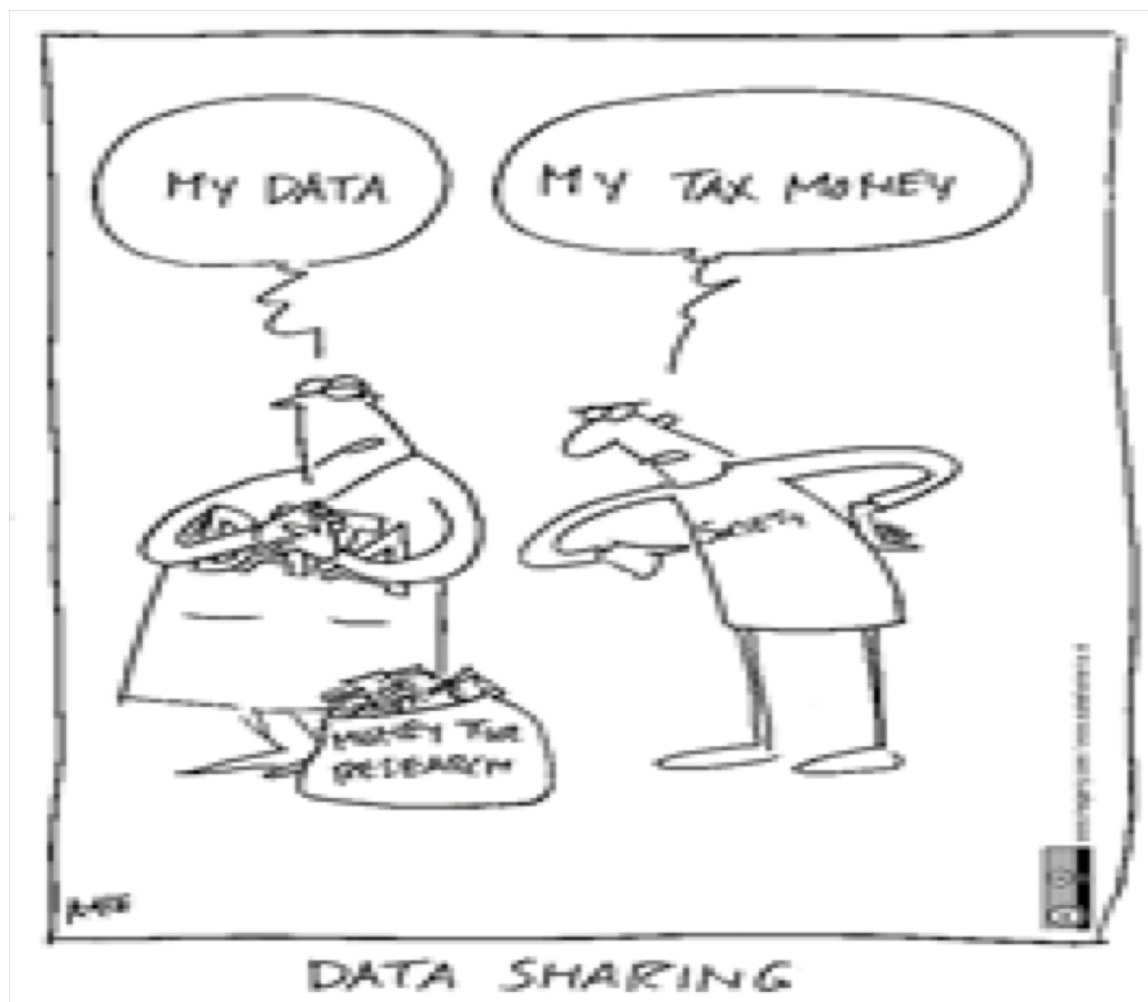


Open Science: WHY

“...Open access to **scientific results and data** is a **great way** to **boost science**, **boost the economy**, and **enable new techniques and collaborations between disciplines**.

Really it's quite simple: it's about ensuring you can see the **results you've already paid for** through your **taxes....**”

([Nelie Kroes](#))



Cartoon by Auke Herrema



Magazine

Open Science: but HOW?



- 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 our T&Learning? → Data **literacies**?
 - New scientific **behavior** (research integrity)
- Public Institutions + **Transparency**

Challenges



GREEN LIGHT FOR OPEN ACCESS

17-18 MAY 2016 AMSTERDAM

#1

WELCOME & OUTCOMES

"give us the wings and we're ready to fly"



PROCESS OF CULTURAL CHANGE

TIME FOR ACTION!

What are you going to do tomorrow??

EXCHANGE OF BEST PRACTICES!

FIND NEW PUBLIC

OPEN PLATFORMS!

TRAIN THE TRAINERS

'INCLUDED MODEL' (INCL PUBLISHERS & SCIENTISTS) IS NEEDED!

economic innovation

social innovation

OPEN ACCESS

PASTEUR → engage POLICY MAKERS

partner network →

REBUILDING ROAR MAP

OPEN TOOLS

POLICIES

DUTCH UNIVERSITIES:

GOAL:

ONE BIG DEAL

WITH PUBLISHERS

"political support!"

"we formed one block with all universities"

"keep your own researchers on board!"

"stick to your principles!"

CHANGE THE SYSTEM!

OPEN SCIENCE

"making research more transparent"

"OPEN KNOWLEDGE"

LEGAL COPYRIGHT ISSUES

SCI HUB

EASY TO USE 😊
NOT SUSTAINABLE 😞
NOT LEGAL 😞

PASTEUR4OA

HORIZON 2020

POLICY ALIGNMENT

KNOWLEDGE NETWORK

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).

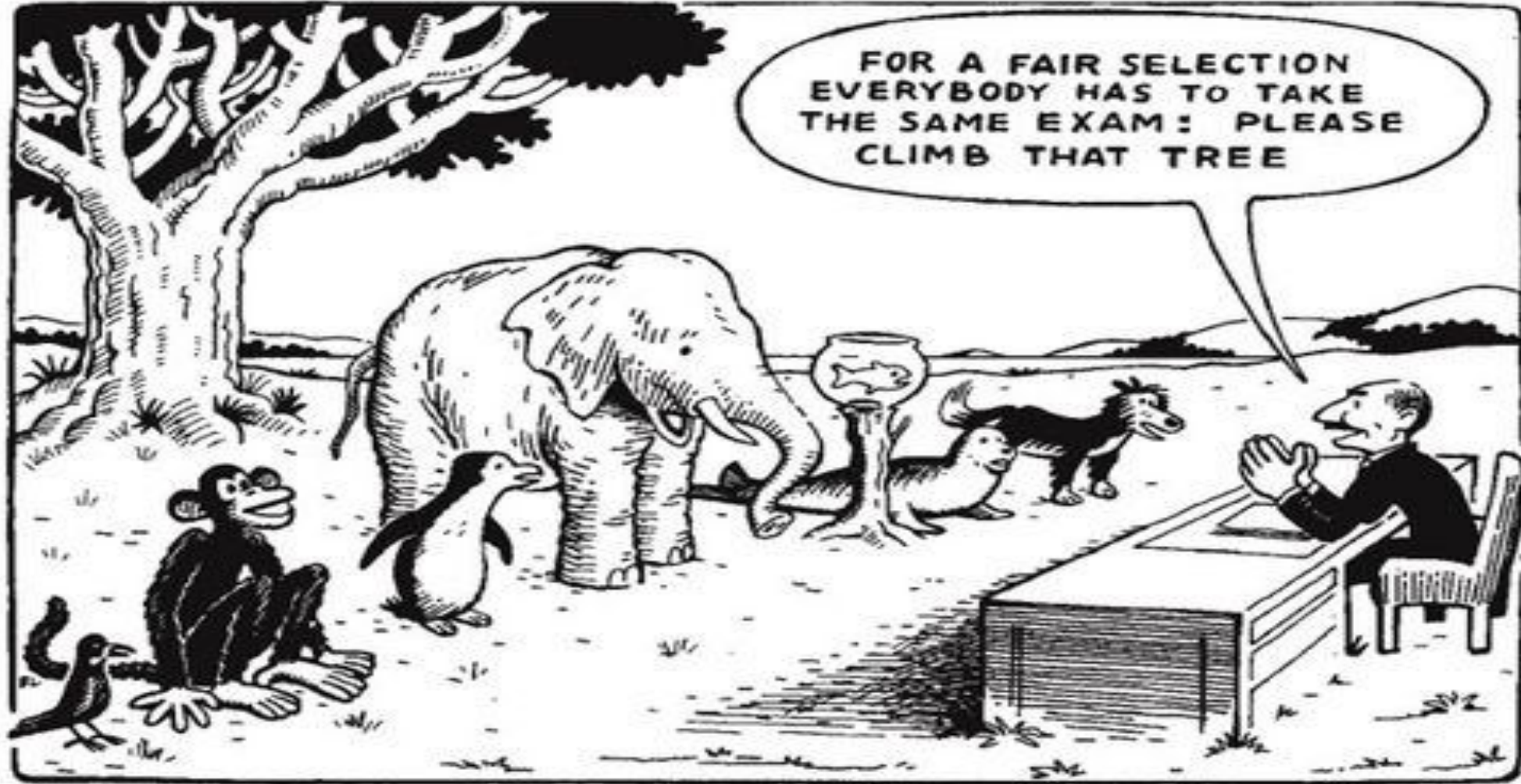
Challenges

- **Cultural change** (researchers mindset)
[Darling, we need to talk!!]
- **Education (Skills)** → training ECR but also senior researchers
- **Attitude CC: Conviction & Confidence** → Demonstrate the impact of **Open Knowledge**
- **Strategic alignment** internal policies



Challenges: Research evaluation

One size does not feet all!!!



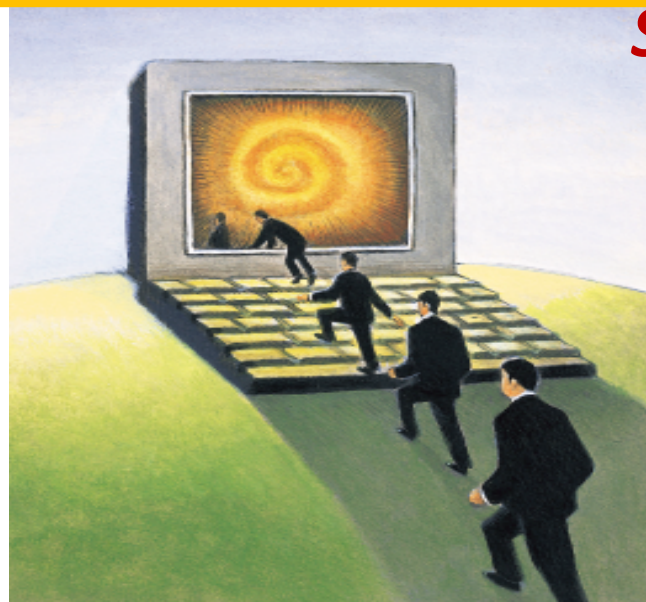
This metaphor is very much used in the context of education assessment but it works for research evaluation. See: <https://www.quora.com/What-did-Albert-Einstein-mean-when-he-said-Everybody-is-a-genius-But-if-you-judge-a-fish-by-its-ability-to-climb-a-tree-it-will-live-its-whole-life-believing-that-it-is-stupid>



Motivators of will... (for academics)

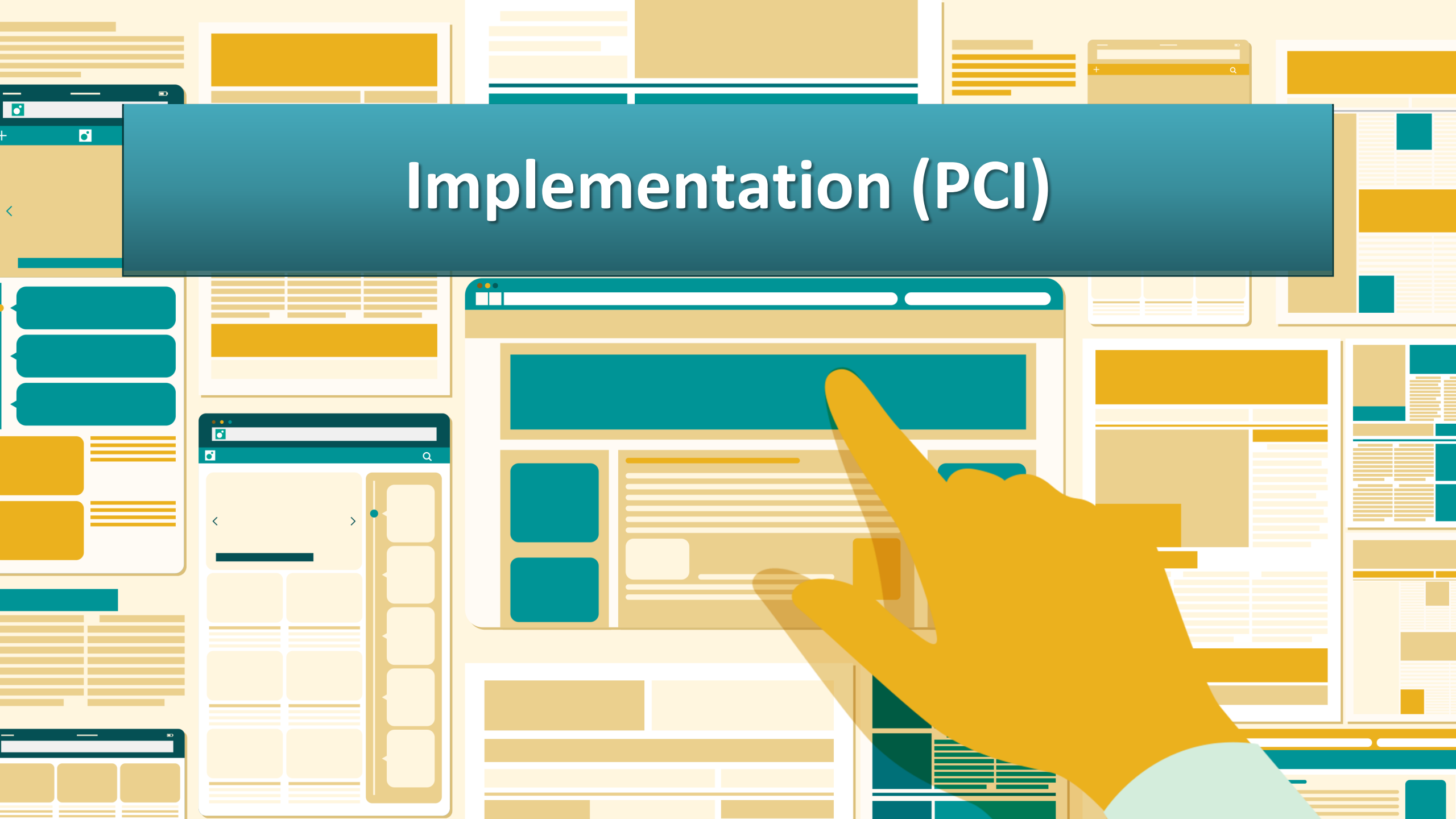


SEDUCTION



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

Implementation (PCI)



Policies for OA/ORD



3. Mandate on open access to publications

[Article 29.2](#) of the Model Grant Agreement sets out detailed legal requirements on open access to scientific publications: under Horizon 2020, **each beneficiary must ensure open access to all peer-reviewed scientific publications** relating to its results.

Horizon 2020 already mandates open access to all scientific publications

..... BE PART OF THE NEW ERA OF OPEN SCIENCE



reach more people, have greater impact



avoid duplication of efforts



preserve data for future researchers



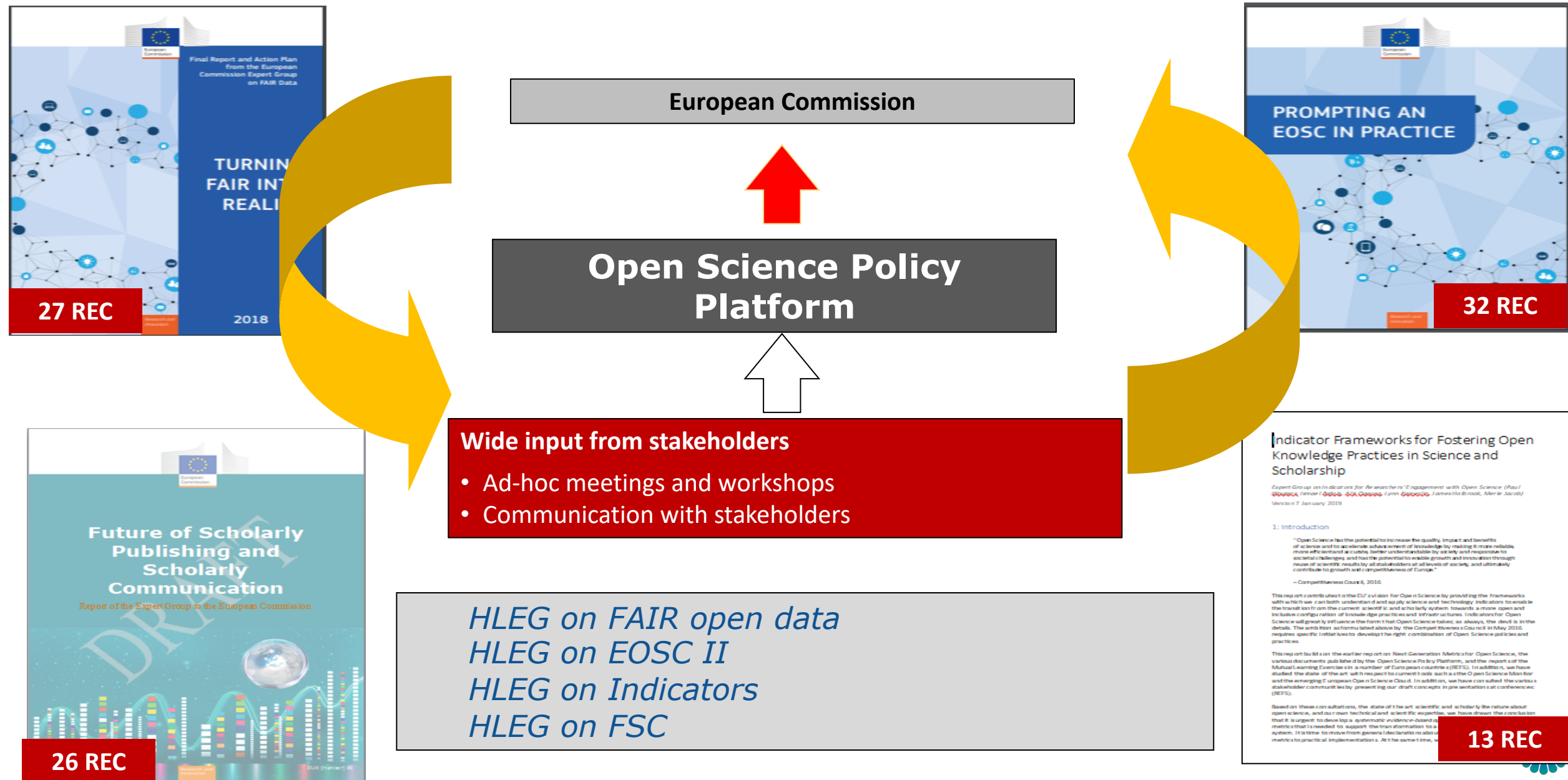
simplify final Horizon 2020 reporting thanks to an up-to-date DMP



From 2017, research data is **open by default**, with possibilities to opt out



Where we are? Among REPort (4) & RECommendations (87)



Where we want to be? Among OS practices

EVERYONE ON THE ROAD TO OPEN SCIENCE



We need **PCIs** (Practical Commitments for Implementation) in Open Science

- Shift from “*declaration/recommendation 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 policy maker...
 - I am a publisher...
 - I am a research infrastructure manager...
 - I am a librarian, etc.

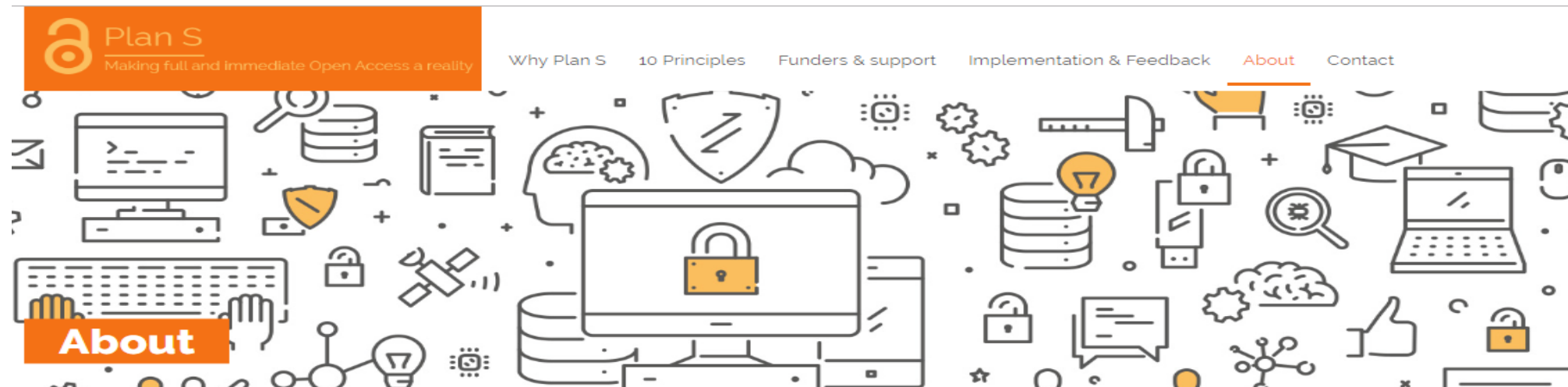


What are **PCIs** in Open Science

- **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 Release](#)
- > [European Research Council](#)
- > [Statement](#)

1ST
PCI



PCIs example: RPOs- LIBRARIES

UNIVERSITY JOURNALS

<http://www.universityjournals.eu>

- University of Groningen
- Wageningen University
- Linköping University
- University of Zurich
- Maastricht University
- University of Amsterdam
- Universidad Carlos III de Madrid
- Vrije Universiteit Amsterdam
- Universitat de Barcelona
- Erasmus University Rotterdam
- Technische Universiteit Delft
- Tilburg University
- University of Essex
- Utrecht University



PCIs example: RESEARCHER

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



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

YERUN OPEN SCIENCE SELF-ASSESSMENT

1. Information about YERUN member
2. Policies
3. Infrastructures
4. Citizen Science
5. Research Integrity
6. OS Training / Education
7. Staff for OS
8. Projects
9. Open Science outreach
10. Final review and additional comments



Piloting Open Science practices: be prepared for a National OS policy + HEurope

- **Publications:**

- From 26% OA (Repository) to 100% 2020 :-O (94% -- 85% realistic in 2022)
- All the thesis and dissertations

- **Research Data:**

- Incentivate **shareData** culture (thesis)
- Proactive management of research Data: FAIR Data

- **Citizen science** → *maker space* / Innovation

- **Training in** Open Science (ECR but also PIs)

- **New incentives**

- Openness and transparency part of **Research Integrity**

SUPPORT



UniOS (by SEDUCTION)

Join us! Let's make it happen



- **UniOS: Open Science Unit / Open Science University**
 - Library + Research Service
 - + Researchers (including ECR)
- A Working group and operational unit to support and help OS @UC3M



FOS (Full Open Science) research group

- **Pilot with voluntary research teams**
- Supported by UniOS
- The experience will lead the OS policy
- Analysis of results and experiences



And you? What are you going to do?



Introduction video: Conference Open Science 4- 5 April 2016, **Dutch Presidency EU2016:**

<https://www.youtube.com/watch?v=C9a3Ap3yyak>

[[Amsterdam Call for Action](#)]



Thank you!



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@evamen

