

Orchestration of research assessment reform in the transition to Open Science

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@evamen

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..



**Current reward
system**

open scientists in the shoes of frustrated
academics

facebook.com/pedromics

Where we are: Just a reminder!! ...

Science



The web is for everyone and collectively we hold the power to change it. It won't be easy. But if we dream a little and work a lot, we can get the web we want.

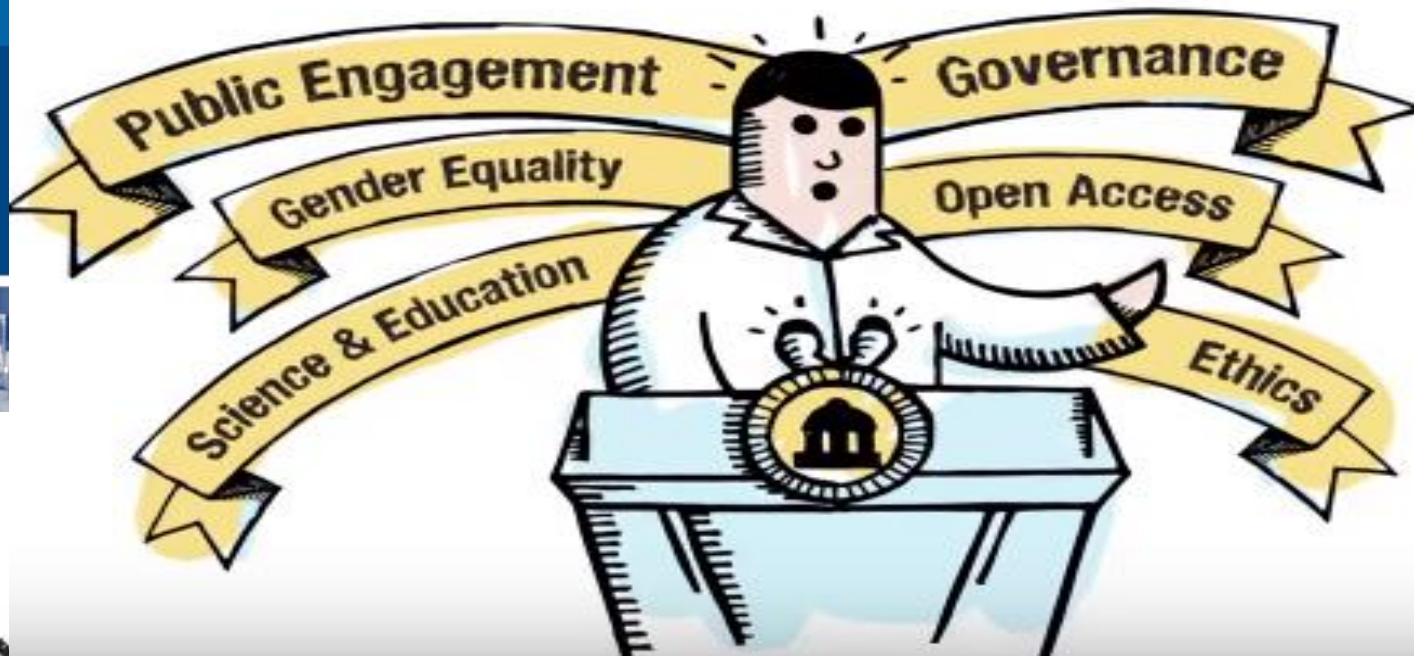
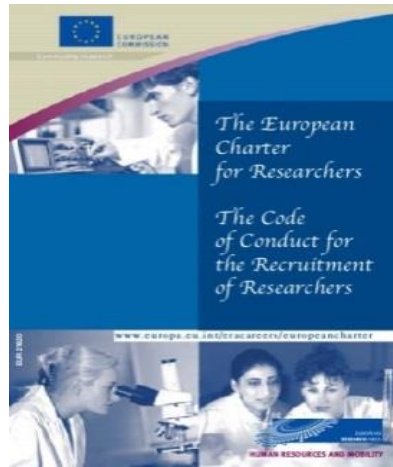
Sir Tim

<https://webfoundation.org/2019/03/web-birthday-30/>

30 years on, what's next #ForTheWeb?

Outline

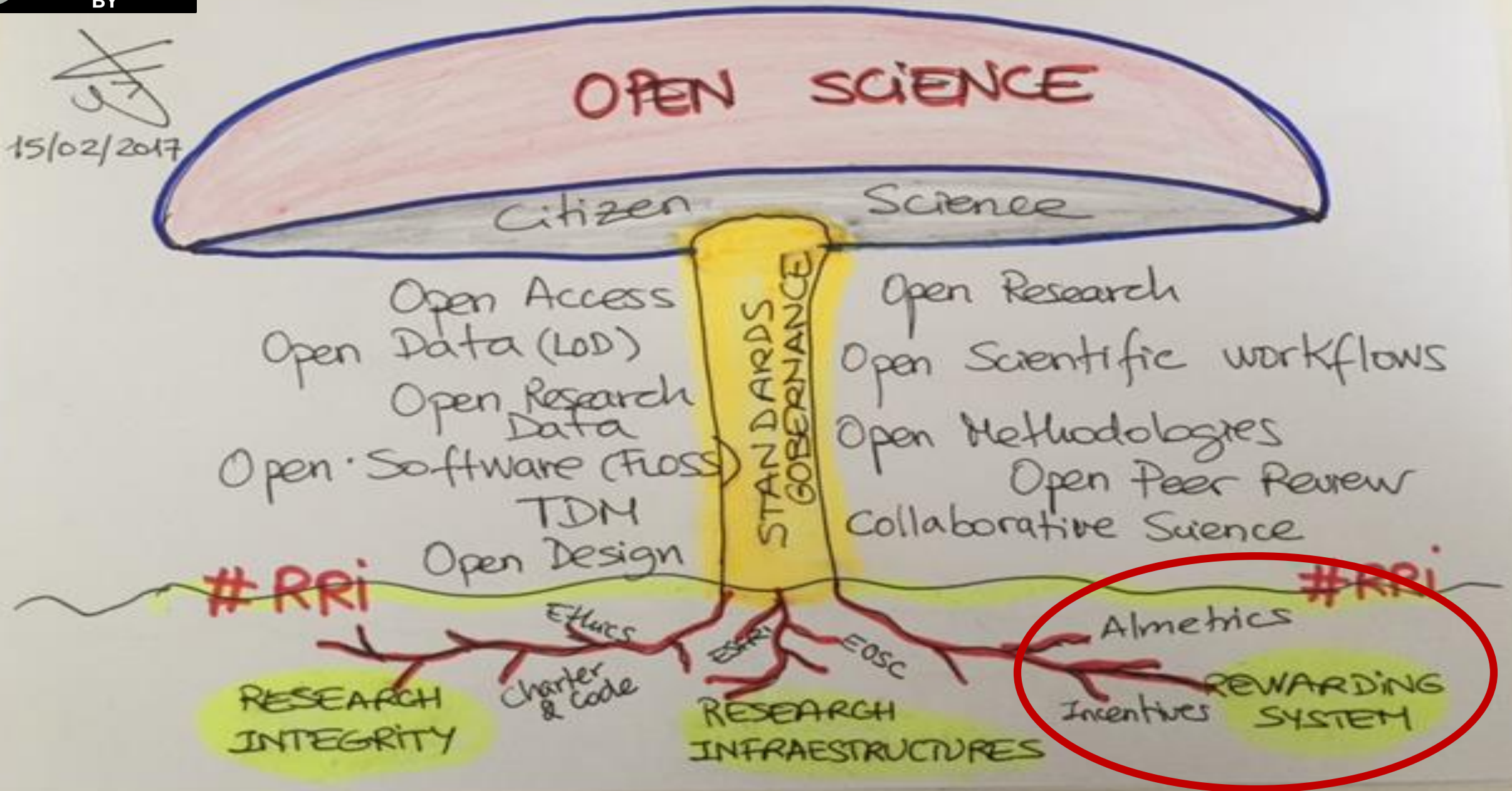
- **Open Science...**
 - Context (RRI, HRS4R, H2020/Eu...)
 - Reward system's role in Open Science: the OSPP view.
- **Challenges... the EU Agenda on OS**
 - Cultural Change
 - Rewards and incentives & motivators of will
- **Implementation mode... @universities**
 - Open Science... HOW? Indicators/NGM?
 - PCIs: Practical Commitments for Implementation



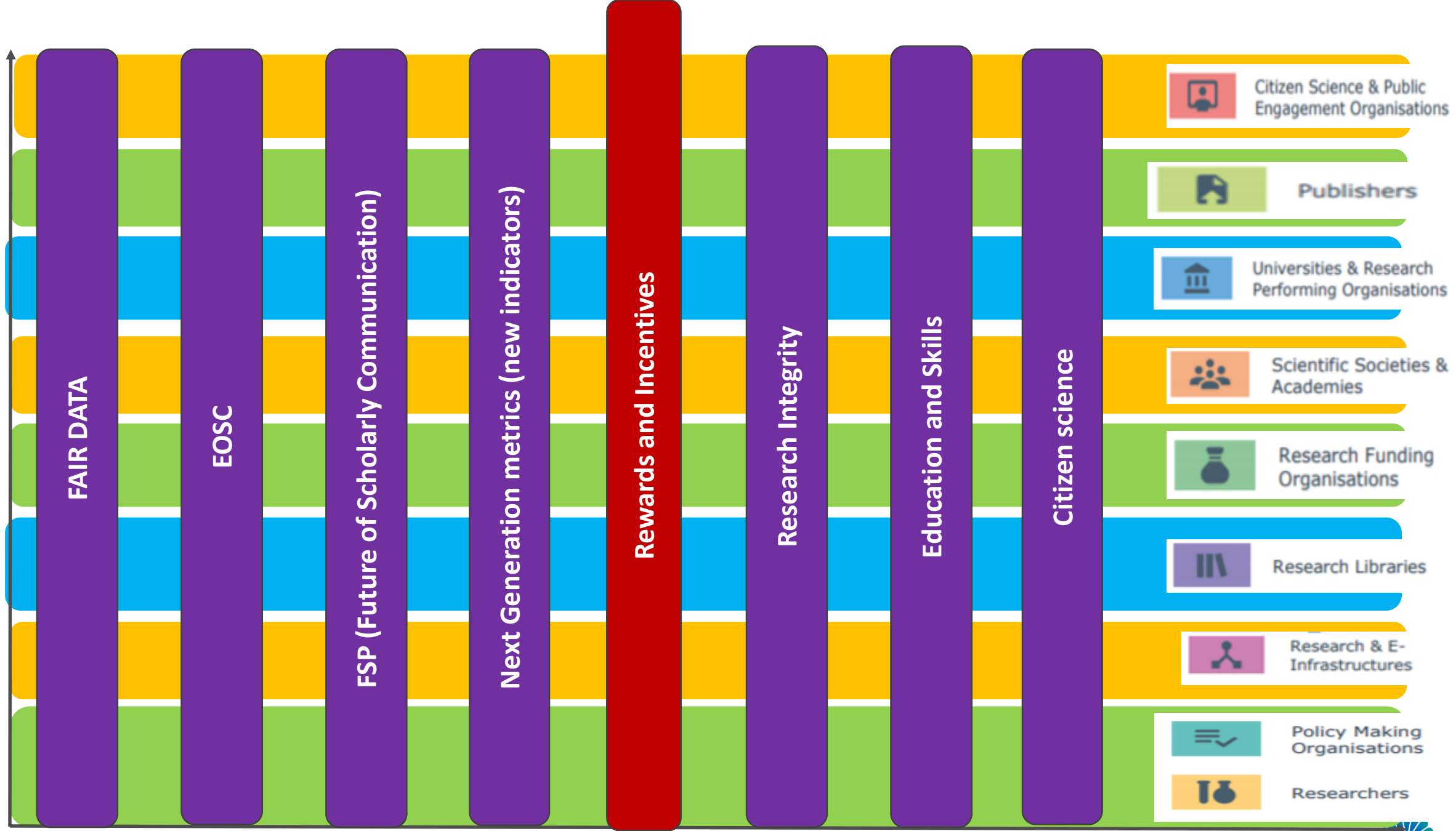
HR EXCELLENCE IN RESEARCH



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



Stakeholders / Actors of Open Science



Open Science challenges / pillars in EUROPE





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 8 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



Rewards and Incentives

Funders, research institutions and other evaluators of researchers should actively develop/adjust evaluation practices and routines to give extra credit to individuals, groups and projects who integrate Open Science within their research practice.



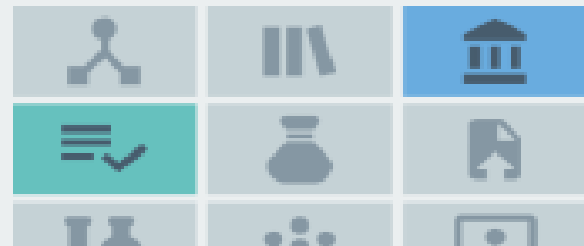
Studies must be commissioned and funded to propose guidelines for best practice and tools for research assessment by 2019, together with an active delivery plan and associated timeline for their implementation. These guidelines must take into account career stage and discipline, and be appropriately tailored to their target such as individual, institution and so forth. Exemplars of innovation and good open science practice must be collated, taking into account the DORA Declaration, the Leiden Manifesto, the OSCAM and other relevant initiatives.



Public research performing and funding organisations (RPOs/RFOs) should provide public and easily accessible information about the approaches and measures being used to evaluate researchers, research and research proposals.



The traditional academic career structure disincentivises Open Science because of the current focus on tenured positions based solely or largely on publication output. Institutions need to have a career and reward structure for all researchers, and particularly for Early Career Researchers (ECRs), that values and promotes a diverse range of outputs, activities and career directions. This should include facilitating a means by which researchers can, for example, move between academia and industry or between national jurisdictions.



Research Indicators and Next-Generation Metrics

Evaluations of individual researchers or of research groups should not use journal brand or Impact Factor as a proxy for research quality. Those responsible for hiring, promotion, funding and/or the evaluation of researchers must use a broader, tailored range of quantitative and qualitative indicators of research activity, progression and impact that incentivises and rewards open research practice. All publication venues must prominently display a broad range of indicators for all research outputs.



Quantitative and qualitative indicators need to be identified and developed for research assessment that captures the full range of contributions to the knowledge system. These should reflect the complexity and varied context of the research environment, the specific characteristics of the research being undertaken, as well as the new kinds of questions and results that might emerge in an open system.

Experiments, pilots and case studies assessing the validity of such indicators need to be undertaken urgently, and included as part of FP9 with appropriate funding allocated to support them. The results and data of these pilots must be made publicly available as exemplars for further implementation.



All researchers need to be identified through an ORCID ID. Best practice for CV/biosketch evaluation should be developed and publicly showcased to encourage a broader recognition of the range of verifiable (and especially open) contributions individuals make to the knowledge system, including teaching and peer review, and the production of a broad range of output types. The career narrative should be central to the evaluation of individual researchers as it provides the crucial context in which indicators can be interpreted.



The data, metadata and methods that are relevant to research evaluation, including but not limited to citations, downloads and other potential indicators of academic re-use, should be publicly available for independent scrutiny and analysis by researchers, institutions, funders and other stakeholders.

Open metrics



Challenges

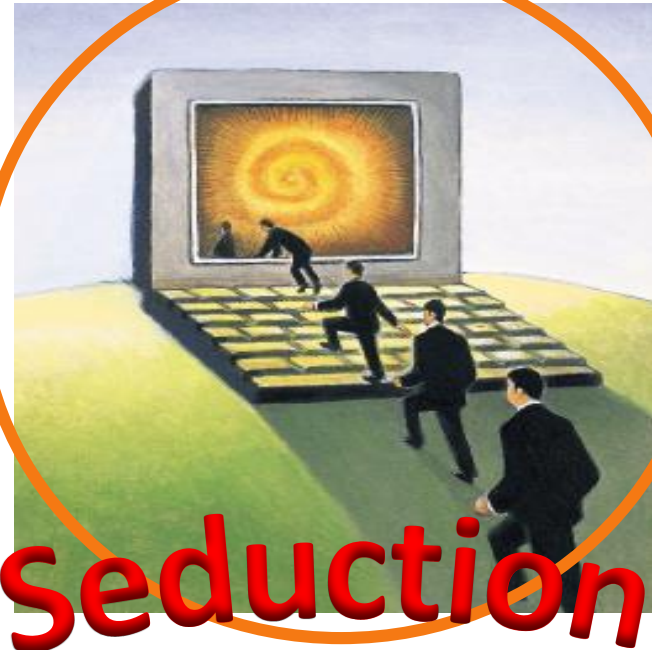


Challenges

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

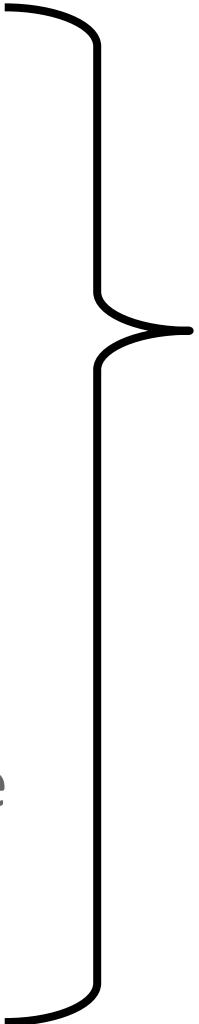


Motivators of will... (for academics)



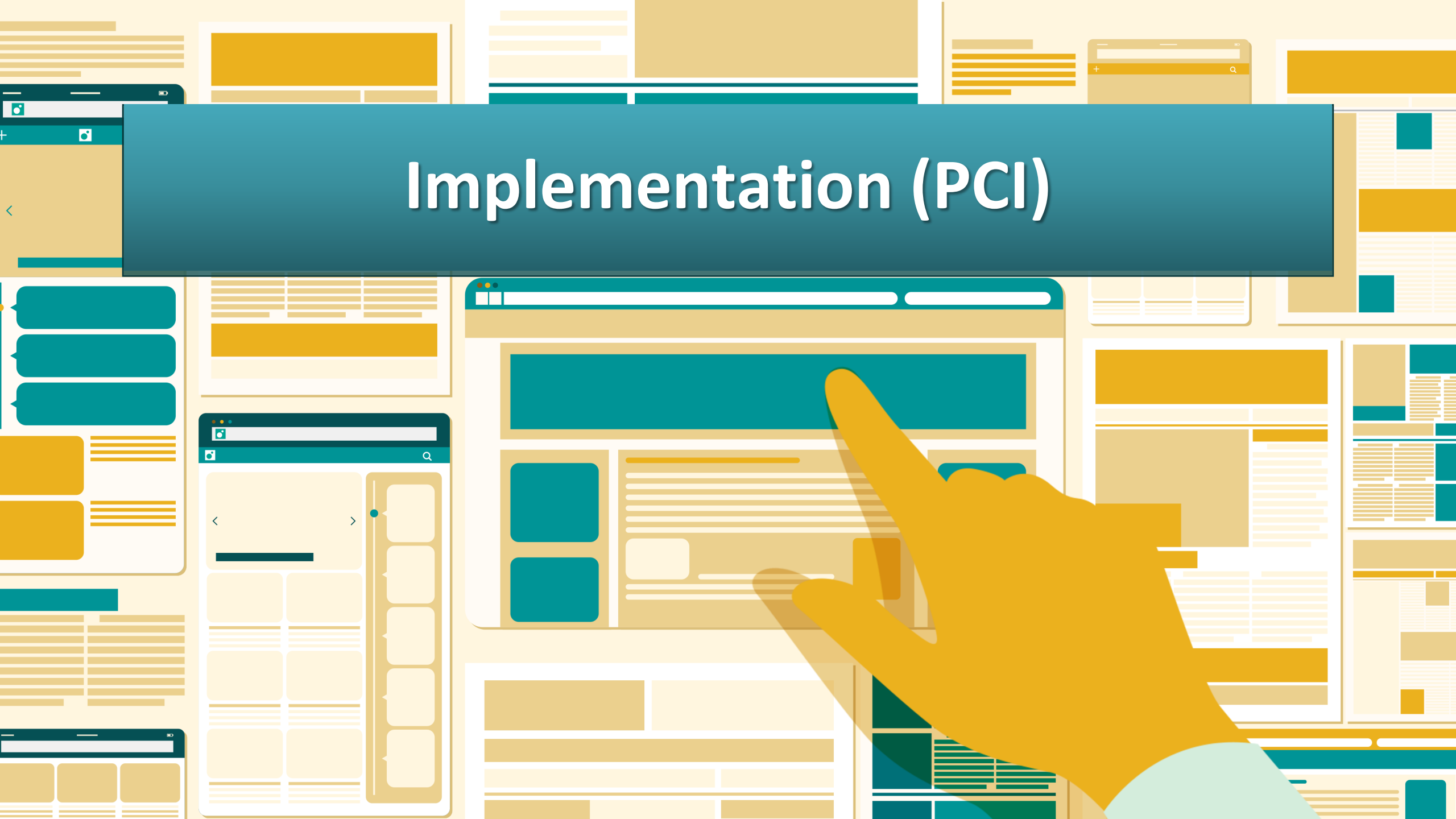
OSPP-M2 Indicators Task Force

1. Ensures research is ethical & conducted with integrity
2. Recognises diverse outputs & contributions
3. Recognises diverse communication channels
4. Facilitates access to & discoverability of research findings (such as publications, data, software and methods etc)
5. Actively supports open knowledge practices across the organisation (training, advocacy)
6. Actively engages with the public



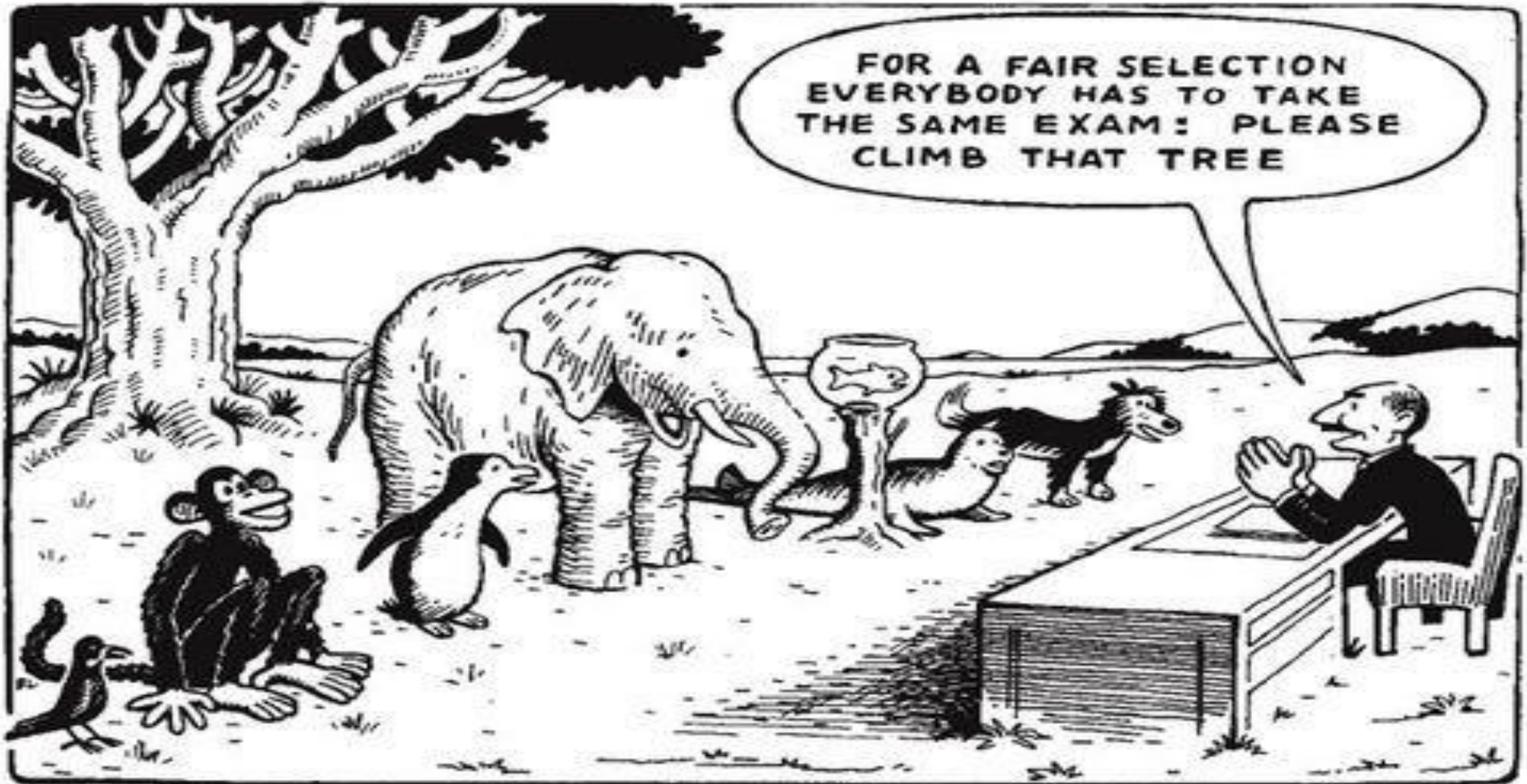
More openness
improves
every dimension
intelligent openness

Implementation (PCI)



Research assessment / evaluation

... *One size does not fit 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>

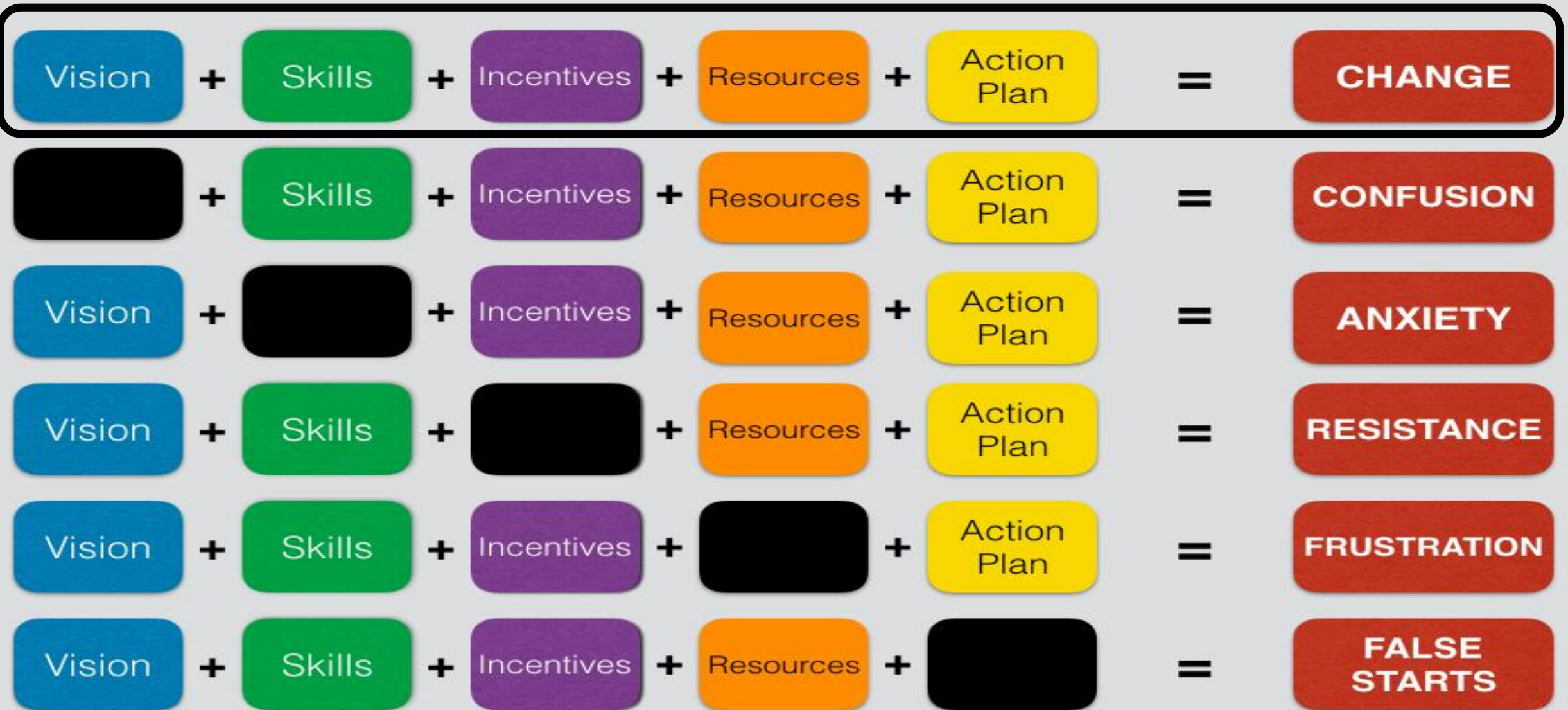
Open Science @Universities: HOW?

#IAmAnOpenScientistsBecause...



- 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**? (skills)
 - How does it affect to our researcher's **behavior** (research integrity)
- Public Institutions + **Transparency**

Managing Complex Change



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

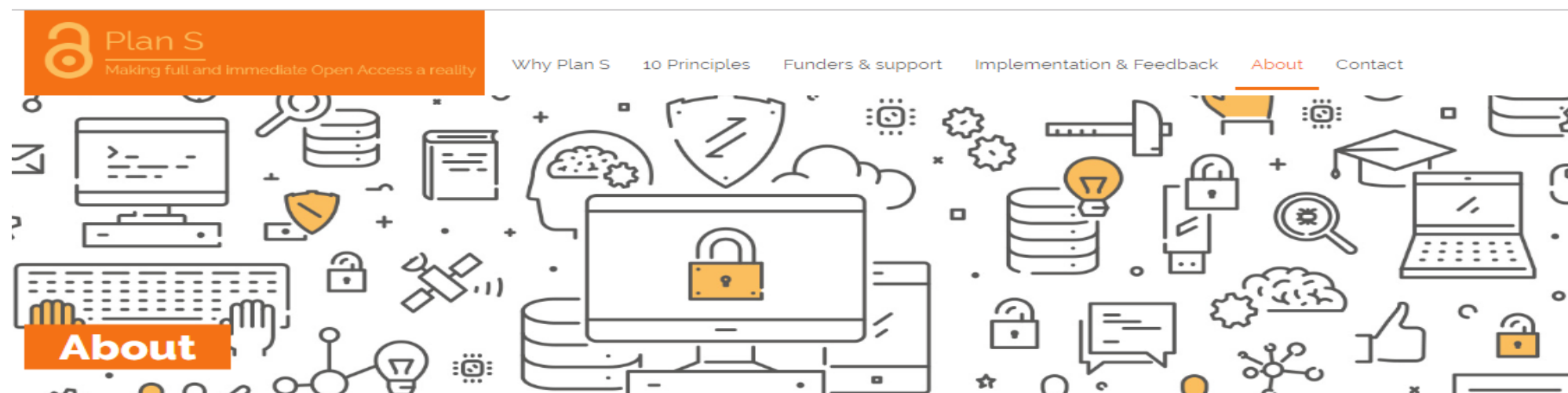
- You, at your institution, at your office, with your attributions, etc. **what can you do for Open Science?** (regarding the 8 challenges, and taking into account your condition as stakeholder...)
 - I am a researcher....
 - I am a policy maker...
 - I am a publisher...
 - I am a research infrastructure manager...
 - I am a librarian, etc.
 - I am the rector/president...

What are PCIs... to change Rewards System

- **Commitments**
- Actual, **realistic** and **affordable**... in a level where the proponent has “jurisdiction”
- **Alignment** at MS level →
- **Effect** → real **implementation**
- Answer to the question: *What **CAN** I do to... change the reward system, to apply new indicators, etc.*
- Open science at “action level” (**practical**)

PCIs example: PlanS (founders)

<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: 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

PCIs example: INSTITUTION

uc3m

Join us! Let's make it happen



- **UniOS (Join us!): Open Science Unit** An operational unit to support and help OS @UC3M = seduction
 - Library + Research & Innovation Service +TI Service
 - + Researchers (including ECR)
- **Bottom-up approach: FOS pilot** (Full Open Science Research Groups): Volunteer → process → badge

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

