



GRECO



Open Science from a policy perspective: new indicators for research/ers assessment

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[@evamen](#)

uc3m

 Yerun
Young European Research Universities



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?

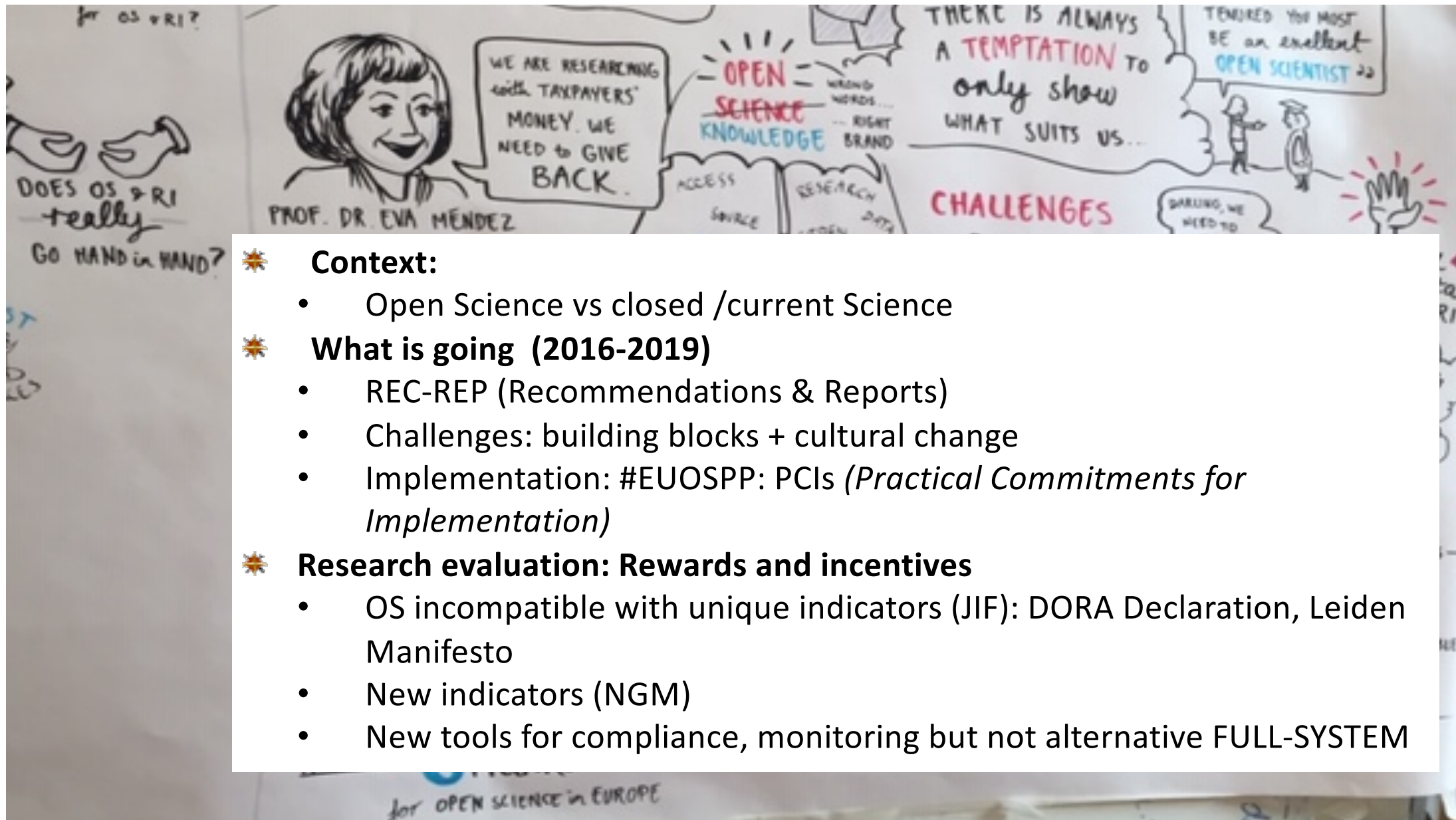
Where we have been: **Just another reminder!! ...**

THE RIGHT TO SCIENCE AND CULTURE

LEA SHAVER*

The Universal Declaration of Human Rights states: “Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.” This Article

DOI: <http://dx.doi.org/10.2139/ssrn.1354788>



Context:

- Open Science vs closed /current Science



What is going (2016-2019)

- REC-REP (Recommendations & Reports)
- Challenges: building blocks + cultural change
- Implementation: #EUOSPP: PCIs (*Practical Commitments for Implementation*)



Research evaluation: Rewards and incentives

- OS incompatible with unique indicators (JIF): DORA Declaration, Leiden Manifesto
- New indicators (NGM)
- New tools for compliance, monitoring but not alternative FULL-SYSTEM

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

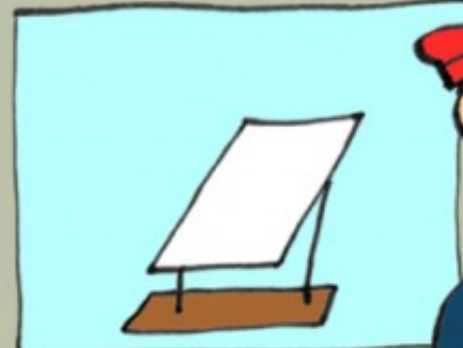
facebook.com/pedromics



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.

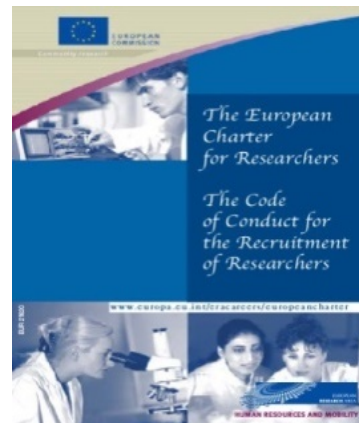
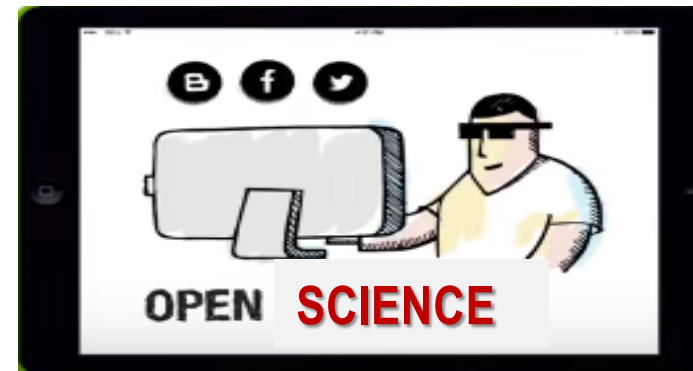
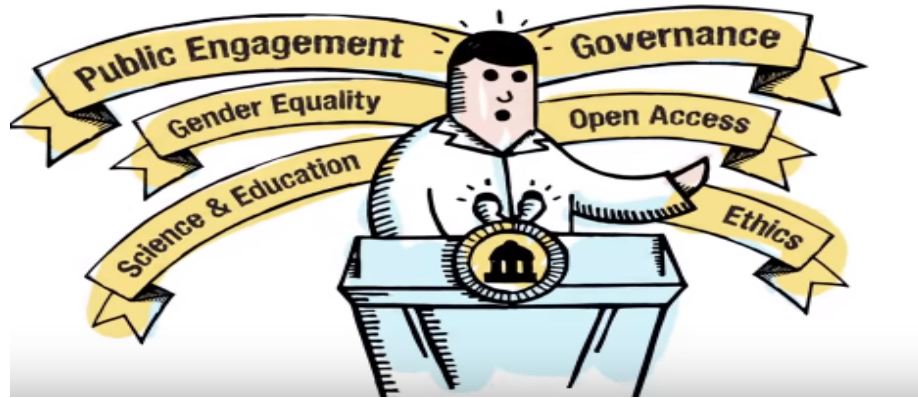


JOURNAL IMPACT FACTOR RANKING

<https://blogs.plos.org/absolutely-maybe/2018/07/30/europe-expanded-the-no-elsevier-deal-zone-this-could-change-everything>

WWW.HILDABASTIAN.NET

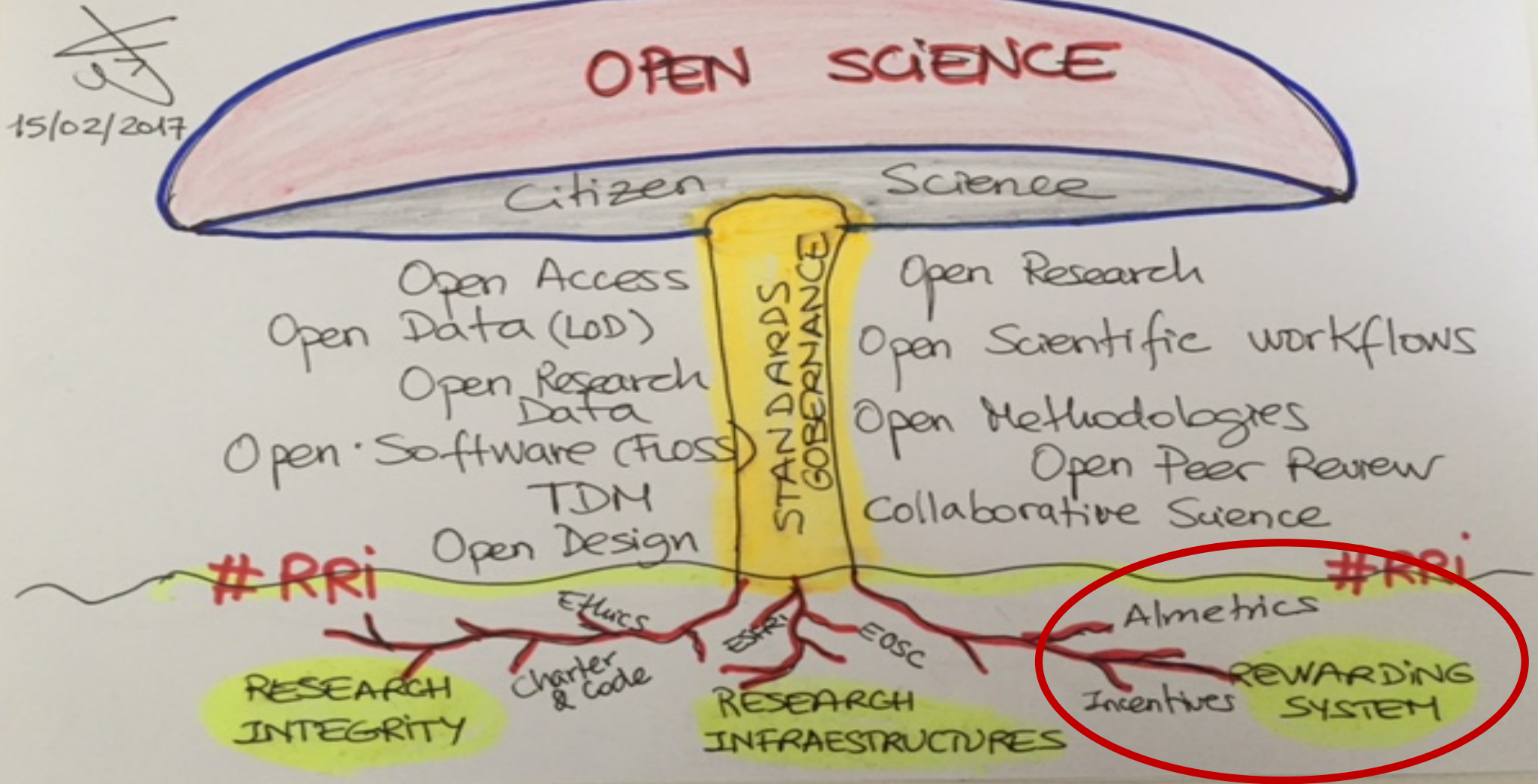
Bastian



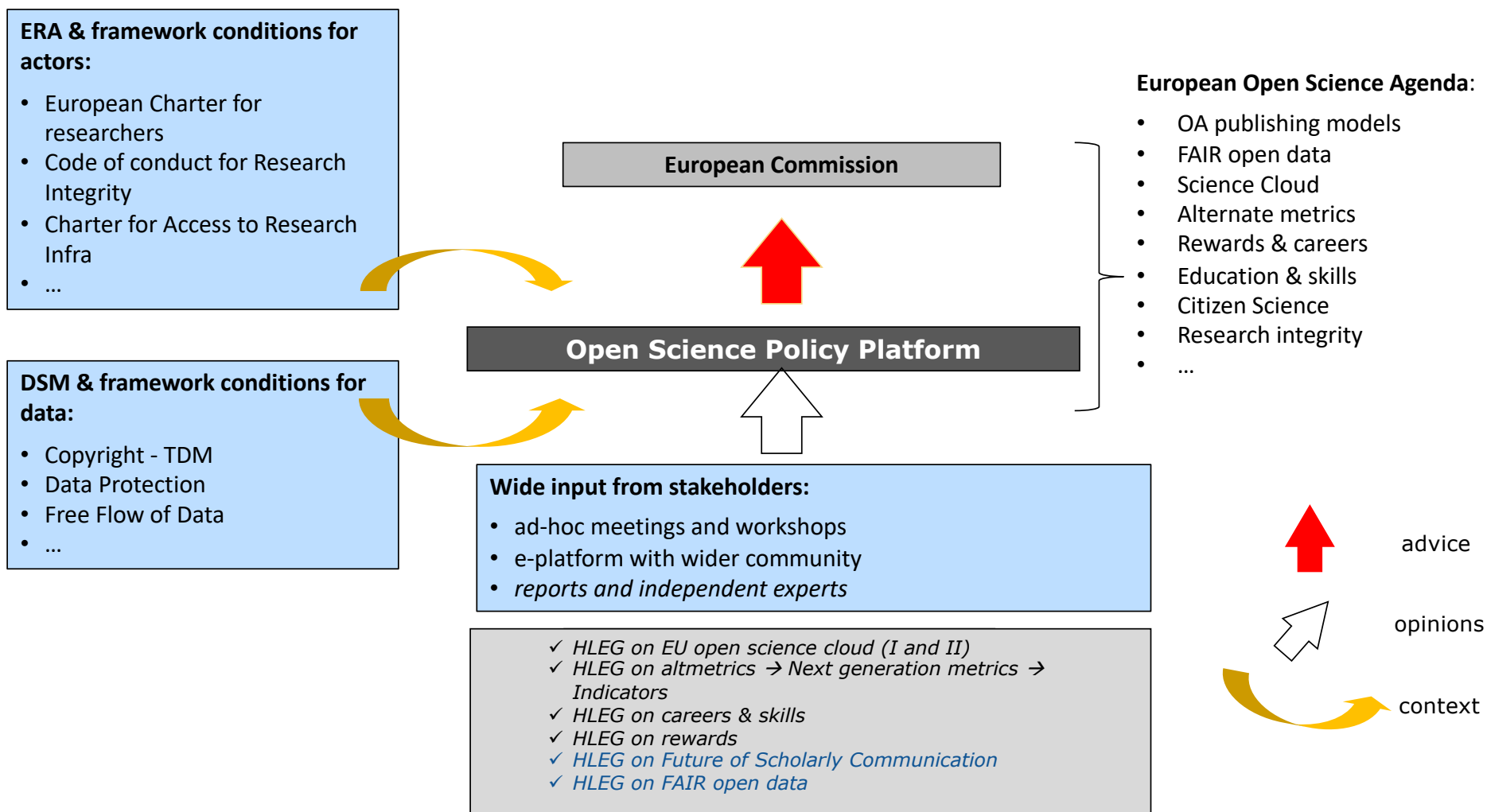
... Where **openness** and **transparency** are an integral component of the research and innovation process

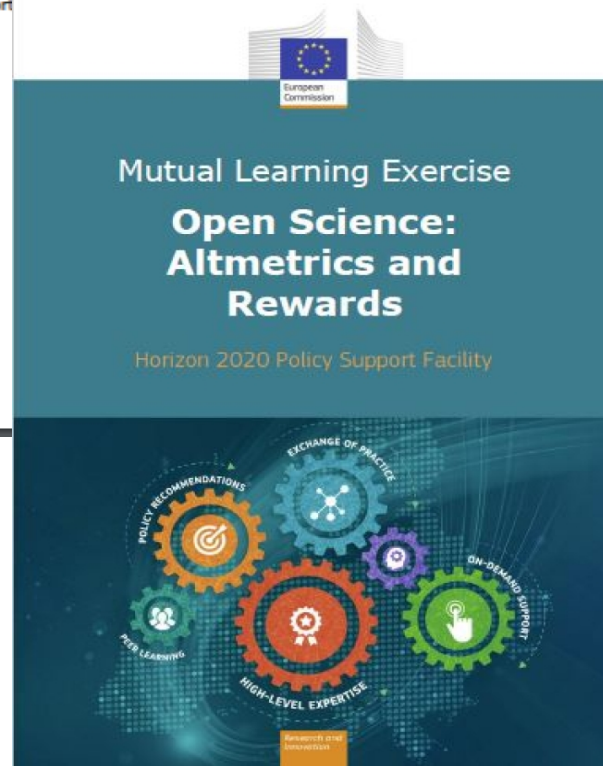
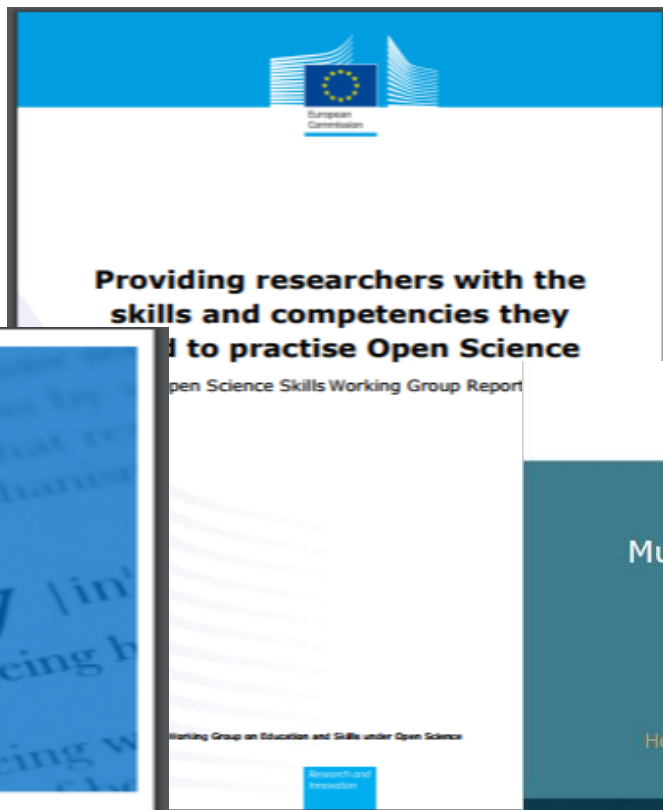


This picture is "in evolution" keep tuned [@evamen](#)



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





OPEN SCIENCE
TIME FOR ACTION
 (again)




N. FRANÇOIS ABRAMATIC

Mission terminée en 2020

← **EOSC** →

Lancé en NOV. 2018 (4 ans de travail par la Commission Europ.)

rencontre d'une VOLONTÉ et d'une TECHNOLOGIE
 POWER!  

RAPPORT Turning Fair into reality

"faimisation des données"
 DONNÉE FÉRIQUE

TE disciplines unites ≠

Challenges

 OS is like a mushroom
 Bravo maintenant j'ai faim!

OS CHALLENGES
 Pillars in EUROPE



MOTIVATORS FOR ACADEMICS
 money  Law 
 ranking 
 seduction 


DÉSAMBIGUER
 1 seul ID. no objets multiples ou 1 seul objet et plusieurs ID

DATA IS MORE CHALLENGING
 BUT PUBLICATIONS ARE THE THING THAT MATTER TO RESEARCHERS

THE real CHALLENGE IS **CHANGE**

it's A **CULTURAL CHANGE!**
 You, at your level, what can you do for OS?
 oui, toi, là!

At the bottom of the PYRAMID there's **MAKE IT POSSIBLE**



CONSTRUIRE le WEB DU FAIR DATA



Executive board
 Plusieurs Groupes de TRAVAIL

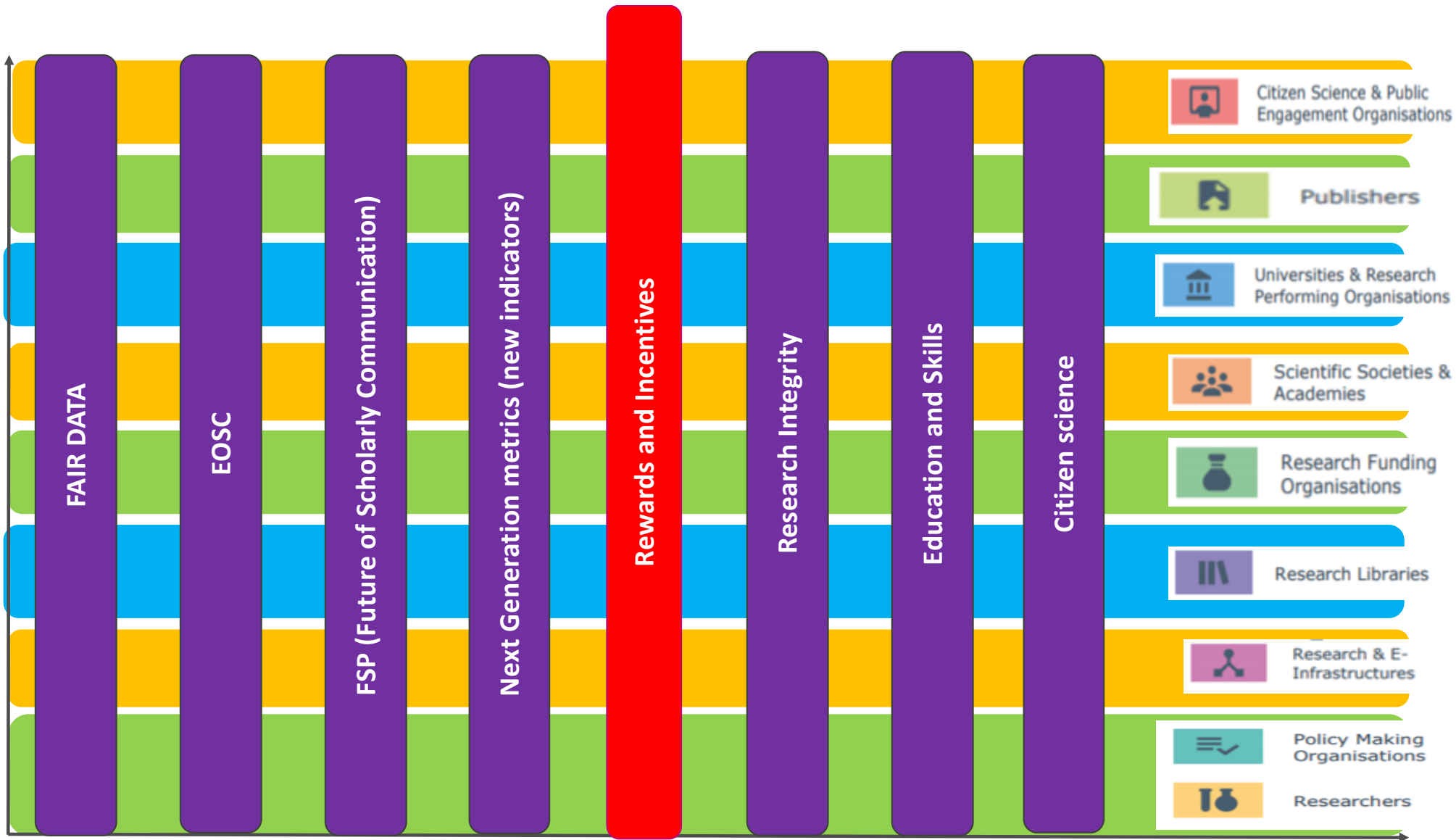
- ▶ landscape
- ▶ Sustainability
- ▶ rules of participation
- ▶ architecture
- ▶ FAIR



JNSO 2019

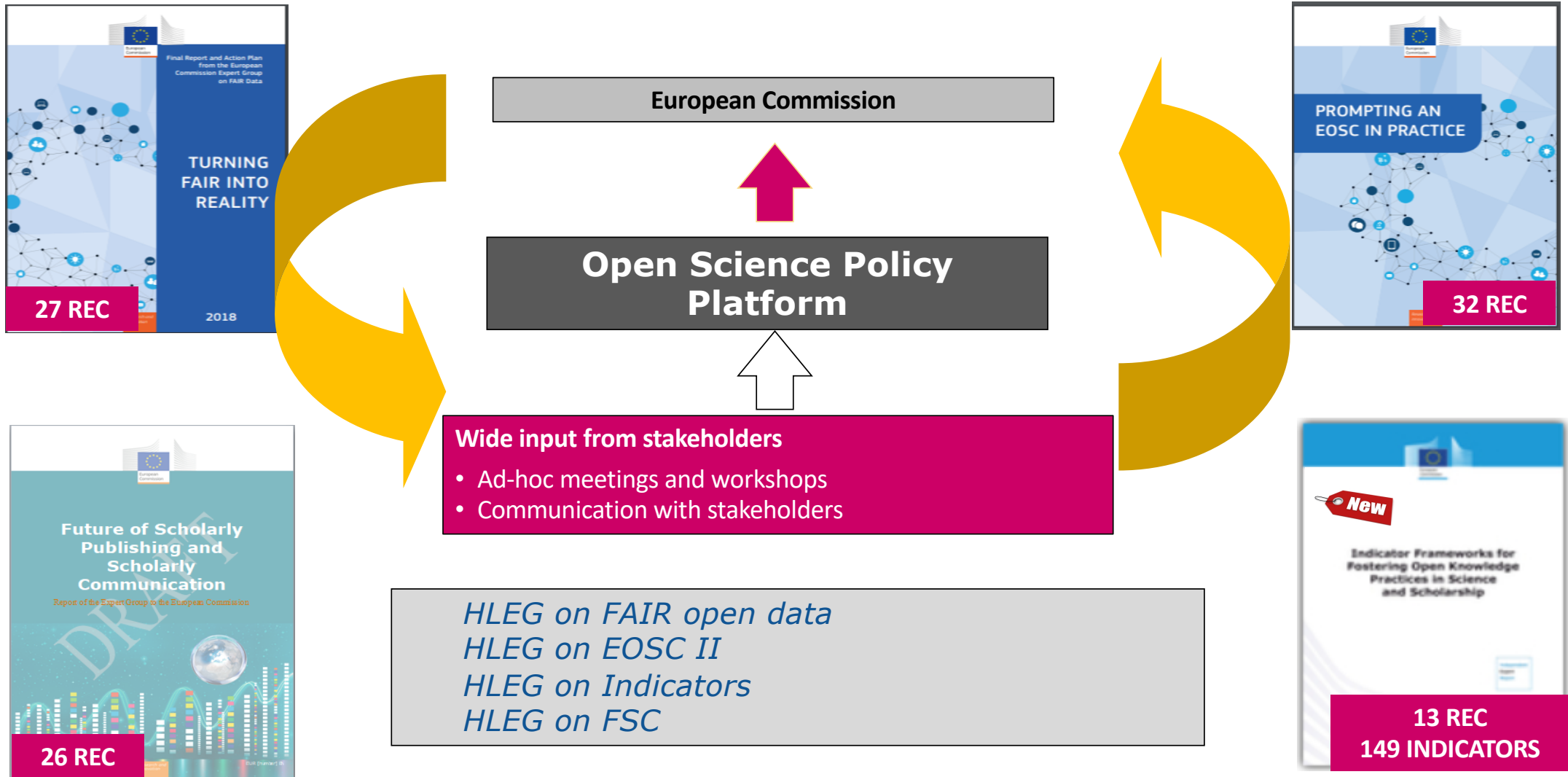
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Stakeholders / Actors of Open Science



Open Science challenges / pillars in EUROPE

Where we are? Again, among **RE**ports (4) & **RE**commendations (87)



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 INFLUENCE of **Open Knowledge**
- **Strategic alignment with** internal policies

New FP



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

requiring open access to publications
by EU funding.

Pillar 1
Open Science

European Research Council

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

Pillar 3
Open Innovation

European Innovation Council

European innovation ecosystems

European Institute of Innovation and Technology

CO-DESIGN
VIA WEB OPEN CONSULTATION
Summer 2019

Strengthening the European Research Area

Sharing excellence

Reforming and Enhancing the European R&I system

Commissioner for "Research, Innovation, Education, Culture & Youth"

New Commissioner
(1 December 2019)



Commissioner-designate
Gabriel

EP Hearing (30/09/19)

"The **Open Science** issue is [...] **an issue that is dear to my heart**"

"Today, more than ever, **we need researchers to share the results of their projects with others, and to capitalize on the research of others**"

"I will insist on having **data that are [...] reusable, accessible, of quality**"

"There will be no strong European Union without our **European citizens understanding, supporting and sharing our common goals**"

Slide taken from EC Open Science Unit



Spain: National Plan R&D 2017-2020

<http://www.idi.mineco.gob.es/stfls/MICINN/Prensa/FICHEROS/2018/PlanEstatalIDI.pdf>

- ACCESO ABIERTO A RESULTADOS Y **DATOS** DE INVESTIGACIÓN de las actividades de investigación subvencionadas con recursos públicos. Los trabajos publicados en revistas científicas financiados a través del Plan Estatal se depositarán en repositorios, institucionales y/o internacionales, en abierto teniendo en cuenta las características específicas de las distintas materias, en cumplimiento de lo establecido en el Artículo 37 de la Ley 14/2011, de 1 de junio, de la Ciencia, la Tecnología y la Innovación y de las recomendaciones vinculadas a la agenda europea en materia de acceso abierto y ciencia en abierto¹⁹. Con el fin de impulsar el acceso a datos de investigación, los proyectos de I+D+i financiados podrán incluir, con carácter optativo, un plan de gestión de los datos de investigación que se depositarán en repositorios institucionales, nacionales y/o internacionales tras la finalización del proyecto y trascurrido el plazo establecido en las correspondientes convocatorias²⁰. No obstante, se respetarán todas las situaciones en las

¹⁹ <https://ec.europa.eu/research/openscience/index.cfm>

²⁰ Principios FAIR –Findable, Accessible, Interoperable and Reacheable- internacionalmente reconocidos y adoptados por la comunidad científica <https://www.force11.org/group/fairgroup/fairprinciples>



Spain: National Plan R&D 2017-2020

<http://www.idi.mineco.gob.es/stfls/MICINN/Prensa/FICHEROS/2018/PlanEstatalIDI.pdf>

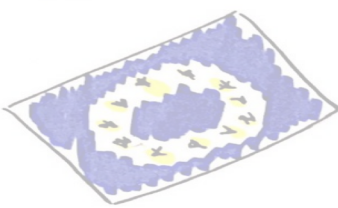
PLAN ESTATAL DE INVESTIGACIÓN CIENTÍFICA Y TÉCNICA Y DE INNOVACIÓN 2017-2020

que los mismos han de protegerse por razones de confidencialidad, seguridad, protección, etc. o cuando los mismos sean necesarios para la explotación comercial de los resultados obtenidos. Finalmente, en la evaluación curricular de los investigadores así como en la evaluación ex post de las actuaciones financiadas se tendrán en cuenta los trabajos publicados en abierto en repositorios institucionales y temáticos, nacionales y/o internacionales, y la puesta de los datos de su investigación en abierto, de modo que puedan ser utilizados para replicar y reproducir los análisis y resultados de investigación.

JNSO
2019

OPEN SCIENCE, TIME FOR ACTION (AGAIN)

par EVA MENDEZ et Jean-François ABRATTATIC



OSPP Open Science Policy Platform
EOSC European Open Science Cloud
European Commission



EOSC = lancé en novembre 2018
faire de la science ouverte

Implementation (PCIs)

make OPEN SCIENCE = réductive

change DECLARATION to IMPLEMENTATION

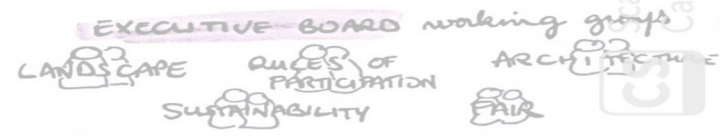
Practical
Commitment
Implementation

NAE **PLAN S**

 ouvrir la science

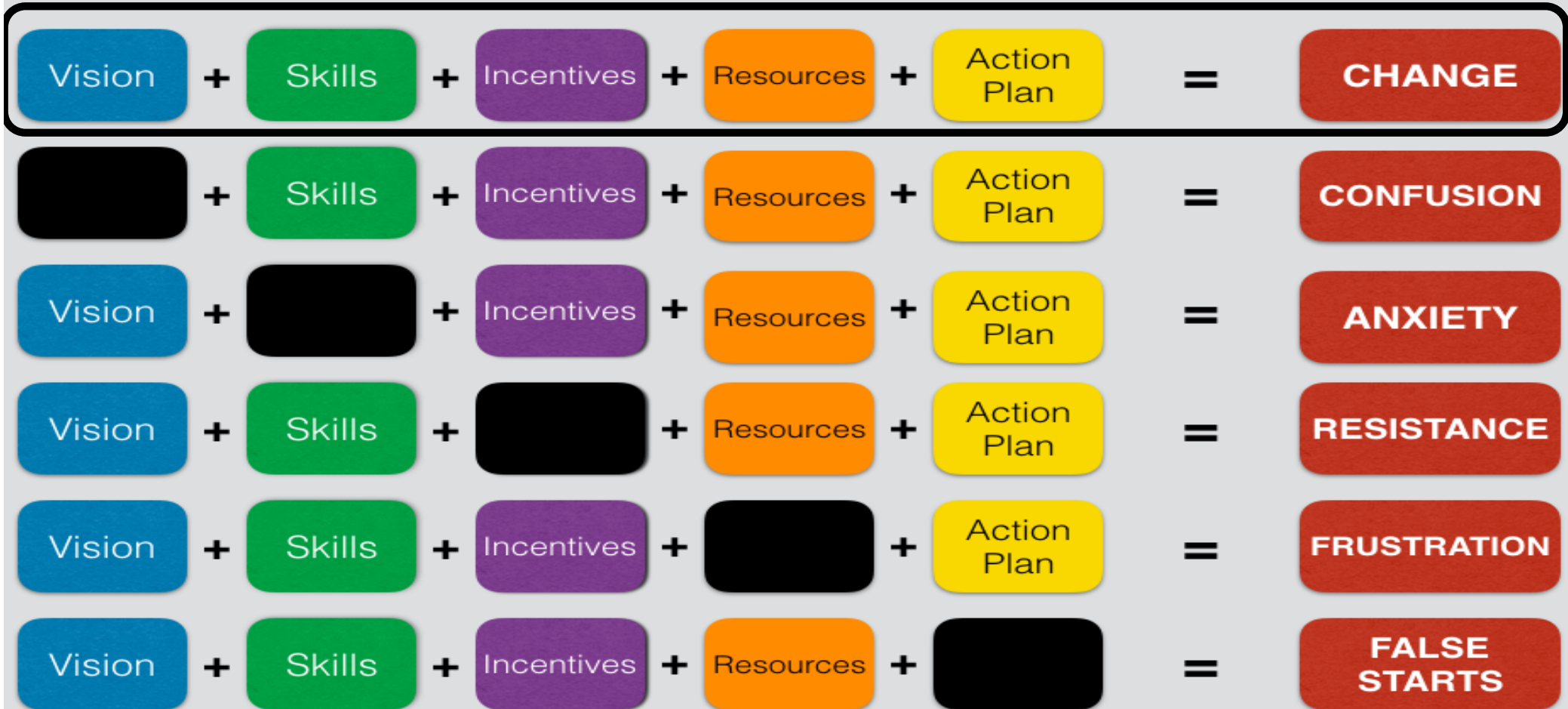
⊕ PRACTICAL

turning fait into reality



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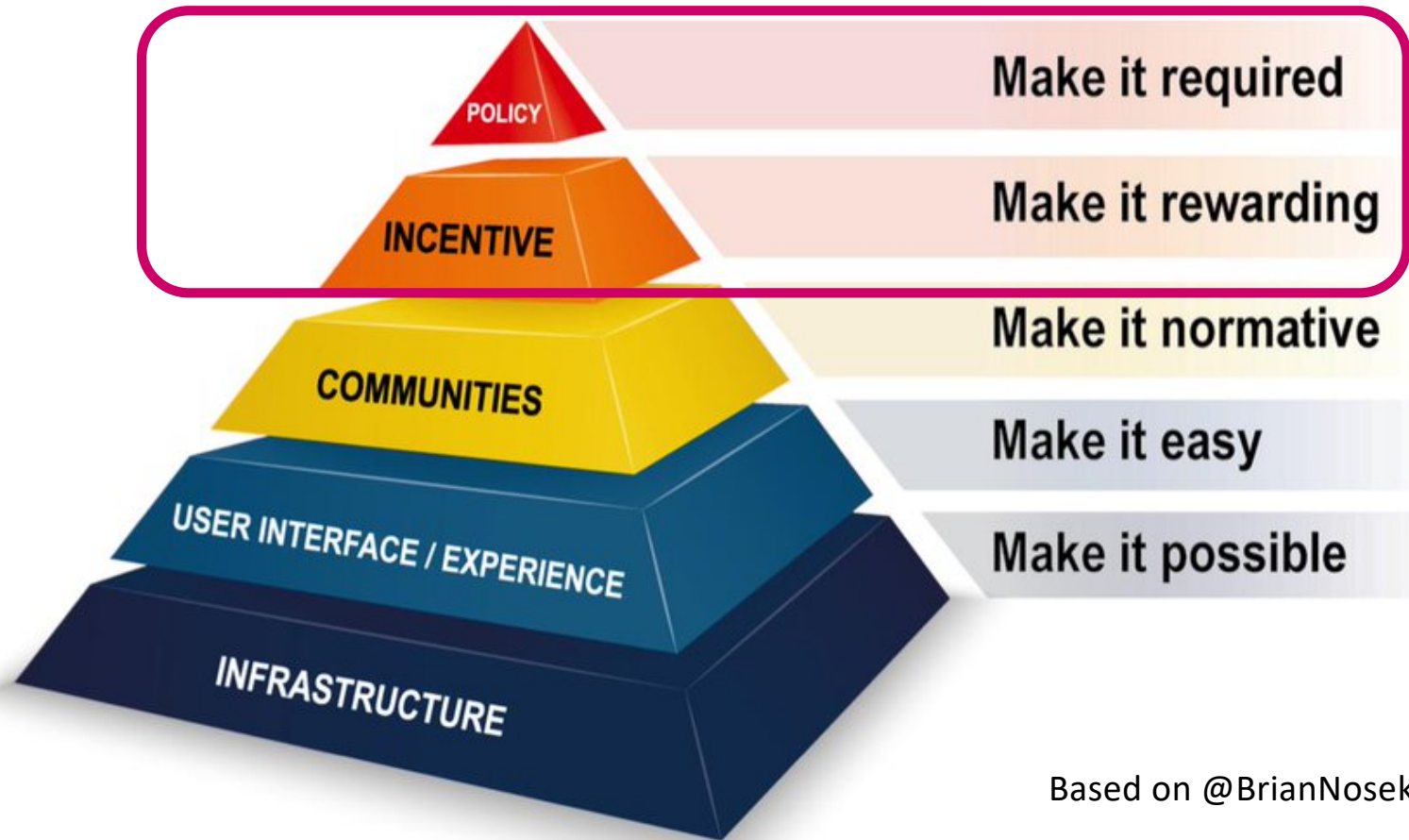
Managing Complex Change



Adapted from A Framework for thinking about systems change (2000) Knoster, T, Villa R, & Thousand J

Based in Knoster Model

Open science is a cultural change



Based on @BrianNosek (OSF)



Motivators of will... (for academics)



SEDUCTION



Make it very easy...
Motivate...
Help...
Give credit...
Let researchers... enjoy & believe





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



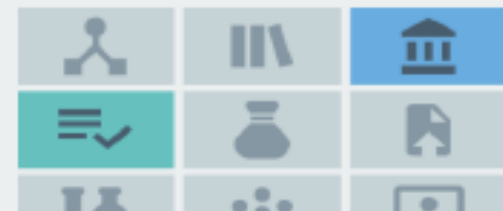
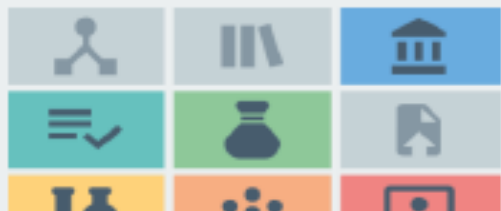
Rewards and Incentives

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 OS-CAM 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



Moving to a more holistic & balanced research evaluation system



DORA

sfdora.org



@DORAssessment

Signed by >500 organizations and >12,500 individuals

Supporting organizations



Good Practices

Research Institutes



DORA's ultimate aim is not to accumulate signatures but to promote *real* change in research assessment. One of the keys to this is the development of robust and time-efficient ways of evaluating research and researchers that do not rely on journal impact factors. We are keen to gather and share existing examples of good practice in research assessment, including approaches to funding and fellowships, hiring and promotion, and awarding prizes, that emphasize research itself and not where it is published.

If you know of exemplary research assessment methods that could provide inspiration and ideas for research institutes, funders, journals, professional societies, or researchers, [please contact DORA](#).

University of California, Berkeley

Department of Molecular and Cell Biology & Helen Wills Neuroscience Institute

Applications for assistant professor positions were designed to highlight the significance of an applicant's accomplishments rather than default to using journal-based metrics as a substitute for research quality. The [advertisement](#) asked applicants to summarize their major research accomplishments, ongoing and planned research program, and contributions to diversity. Applicants were also asked to select three significant articles from their list of publications and describe the impact of each.

University College London

University College London (UCL) released its [Academic Careers Framework](#), which

Funders

Professional Societies

[Research Institutes](#)

Examples include:

- **CRUK** - describe significance and impact of 3-5 key research achievements:
preprints, training delivered, contribution to consortia, patents, and sharing of key datasets, software, novel assays and reagents, and research publications
- **FWF** - up to 10 most important scientific/scholarly research achievements – beyond publications:
e.g. awards, conference papers, keynote speeches, important research projects, research data, software, codes, preprints, exhibitions, knowledge transfers, science communication, licenses, or patents.
- **EMBO** - Applicants asked to not use Impact Factors.
- **NIH** - Use bio-sketches: summary of impacts of contributions.
- **University Medical Center Utrecht** - Involve all career-stages to co-develop policies to measure societal impact / research excellence – signifies agreement to be judged by the criteria.

A new system needed



Italian academic turned minister signals shift away from metrics

Lorenzo Fioramonti wants to 'put his ideas to the test' and end the country's brain drain

November 20, 2019

By [Jack Grove](#)

Twitter: [@jgro_the](#)

Lorenzo Fioramonti did not intend to spend more than a decade abroad when he left Italy to start his academic career.

But despite a formidable publication record, including 10 well-received books





CAM

Evaluation of Research Careers fully acknowledging Open Science Practices

Rewards, incentives and/or recognition for researchers practicing Open Science

https://ec.europa.eu/research/openscience/index.cfm?pg=rewards_wg

Research and Innovation

Open Science Career Assessment Matrix (OS-CAM)	
Open Science activities	Possible evaluation criteria
RESEARCH OUTPUT	
Research activity	Pushing forward the boundaries of open science as a research topic
Publications	Publishing in open access journals Self-archiving in open access repositories
Datasets and research results	Using the FAIR data principles Adopting quality standards in open data management and open datasets Making use of open data from other researchers
Open source	Using open source software and other open tools Developing new software and tools that are open to other users
Funding	Securing funding for open science activities
RESEARCH PROCESS	
Stakeholder engagement / citizen science	Actively engaging society and research users in the research process Sharing provisional research results with stakeholders through open platforms (e.g. Arxiv, Figshare) Involving stakeholders in peer review processes
Collaboration and Interdisciplinarity	Widening participation in research through open collaborative projects Engaging in team science through diverse cross-disciplinary teams
Research integrity	Being aware of the ethical and legal issues relating to data sharing, confidentiality, attribution and environmental impact of open science activities Fully recognizing the contribution of others in research projects, including collaborators, co-authors, citizens, open data providers
Risk management	Taking account of the risks involved in open science
SERVICE AND LEADERSHIP	
Leadership	Developing a vision and strategy on how to integrate OS practices in the normal practice of doing research Driving policy and practice in open science Being a role model in practicing open science
Academic standing	Developing an international or national profile for open science activities Contributing as editor or advisor for open science journals or bodies
Peer review	Contributing to open peer review processes Examining or assessing open research
Networking	Participating in national and international networks relating to open science
RESEARCH IMPACT	
Communication and Dissemination	Participating in public engagement activities Sharing research results through non-academic dissemination channels Translating research into a language suitable for public understanding
IP (patents, licenses)	Being knowledgeable on the legal and ethical issues relating to IPR Transferring IP to the wider economy
Societal impact	Evidence of use of research by societal groups Recognition from societal groups or for societal activities
Knowledge exchange	Engaging in open innovation with partners beyond academia
TEACHING AND SUPERVISION	
Teaching	Training other researchers in open science principles and methods Developing curricula and programs in open science methods, including open science data management Raising awareness and understanding in open science in undergraduate and masters' programs
Mentoring	Mentoring and encouraging others in developing their open science capabilities
Supervision	Supporting early stage researchers to adopt an open science approach
PROFESSIONAL EXPERIENCE	
Continuing professional development	Investing in own professional development to build open science capabilities
Project management	Successfully delivering open science projects involving diverse research teams
Personal qualities	Demonstrating the personal qualities to engage society and research users with open science Showing the flexibility and perseverance to respond to the challenges of conducting open science

#COKI #MOKI

PROGRAMS

- Digital Disability
- Digital Culture and New Media
- Innovation in Knowledge Communication**
- The Curtin Open Knowledge Initiative (COKI)**
- Cultural Science
- Indigenous Culture and Digital Technologies
- Posthumanism-Animality-Technology
- Digital China Lab

Home > Programs > Innovation in Knowledge Communication > The Curtin Open Knowledge Initiative (COKI)

The Curtin Open Knowledge Initiative (COKI)

Universities exist to support the creation and transfer of knowledge. Efforts by universities to enable open knowledge have the potential to broaden the impact of higher education and research institutions. Our team is exploring the mechanisms that will allow universities to work more effectively with local and global communities in the production of knowledge; as well as those that will allow for the application both within



Scholia relies on Wikidata, and Wikidata contains only a limited albeit growing subset of the corpus of scholarly literature, its authors and citations. Read more about the limitations in the [FAQ](#).

Search

Search for a scientist, paper, organization, venue, event, topic, etc.

Examples

Profiles

Denny Vrandečić

View the researcher profile for the Semantic Web researcher Denny Vrandečić. It shows his papers, co-authors, etc.

[Technical University of Denmark](#)

Comparisons

Scholia can show multiple items together.

Technical University of Denmark and UCL

Compare two or more organizations. Here a comparison between two universities with collaborating

Redirects

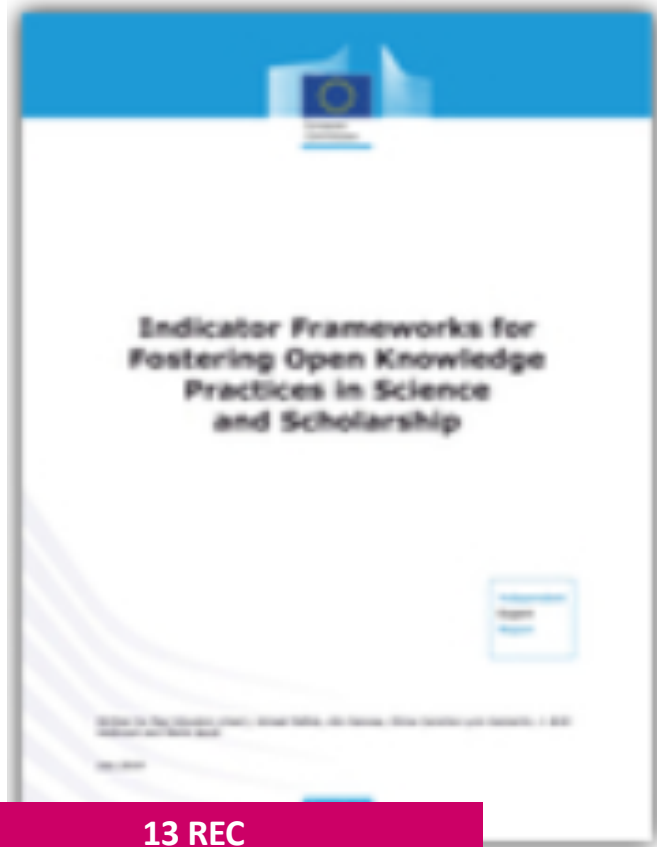
If you know the external identifier of a concept, then Scholia can make a lookup based on it:

twitter/utafriith

Look up by Twitter username @utafriith. This will identify the

#SCHOLIA

New indicators framework



Indicator Frameworks for Fostering Open Knowledge Practices in Science and Scholarship

Expert Group on Indicators for Researchers' Engagement with Open Science
(Paul Wouters, Ismael Ràfols, Alis Oancea, Shina Caroline Lynn Kamerlin, J. Britt Holbrook, Merle Jacob)

Key points:

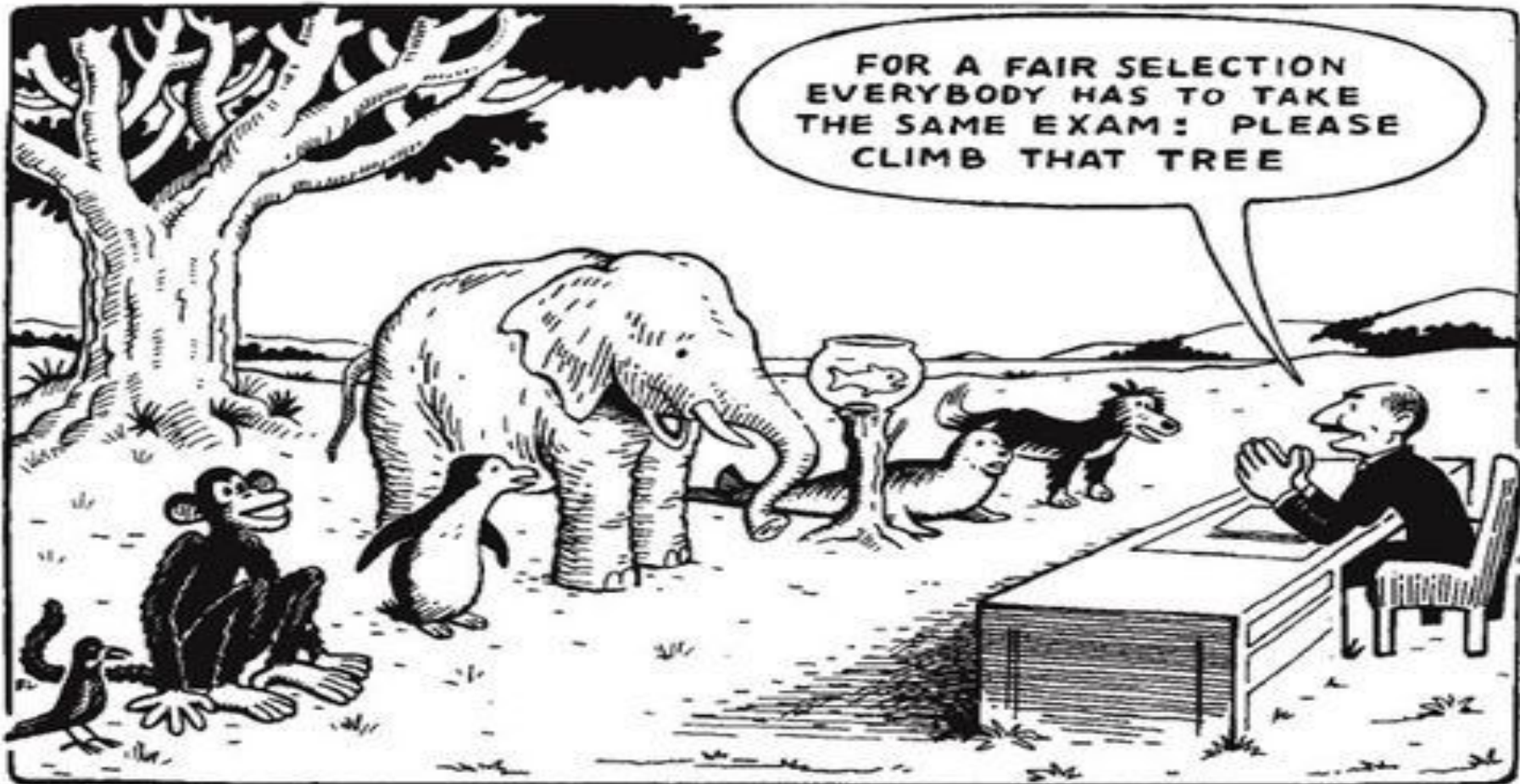
- Manage and plan for unintended consequences and/or 'steering' effect of indicators
- Don't create incentives for only tokenistic / superficial change in behaviours
- Tailor suite of indicators to field, project, type of entity measuring etc

13 REC
149 INDICATORS



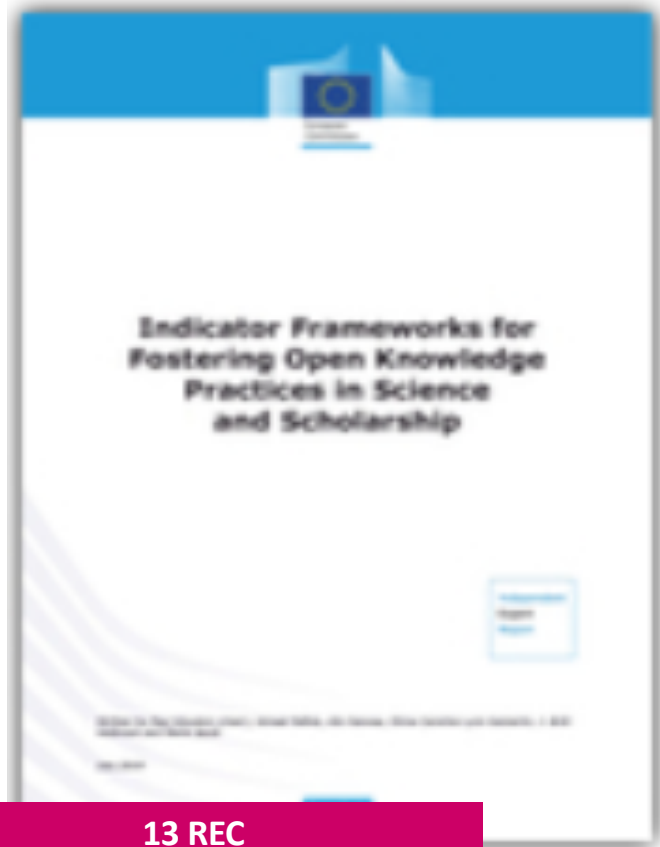
Research assessment / evaluation

... *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>

Focus of the report



New

13 REC
149 INDICATORS

- **Three levels** for indicator use regarding Open Science:

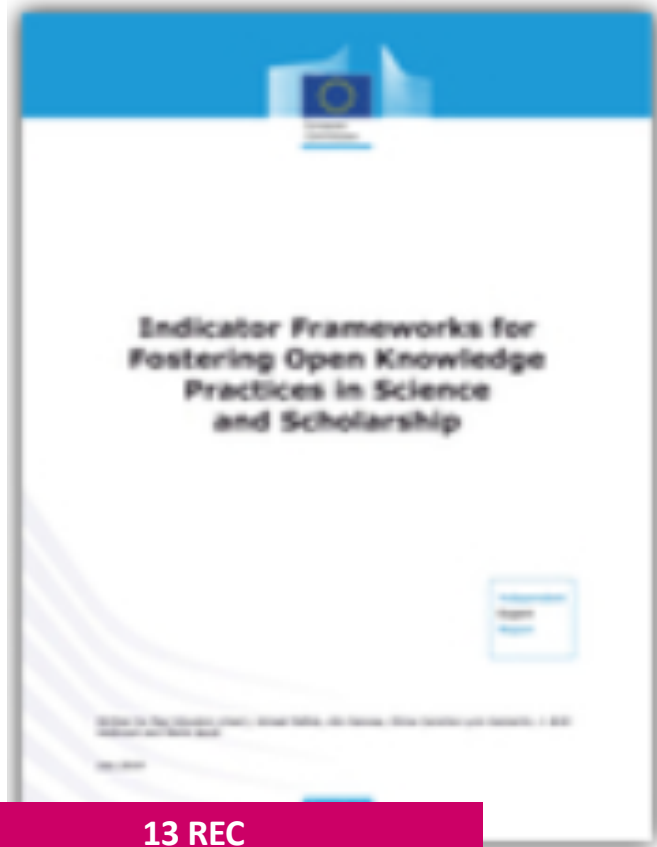
1. scientific system as a whole, including the infrastructures that are required for open science;
2. research performing organization and research funding organization; and
3. individual researcher or research group.

- **Key dimensions** of an indicator framework:

- Goal of monitoring/evaluation
- Mission of research
- Level of assessment
- Disciplinary structures, epistemic cultures and research approaches
- Stakeholders, audiences and beneficiaries
- Research environment



4 Open indicators toolboxes



New

13 REC
149 INDICATORS

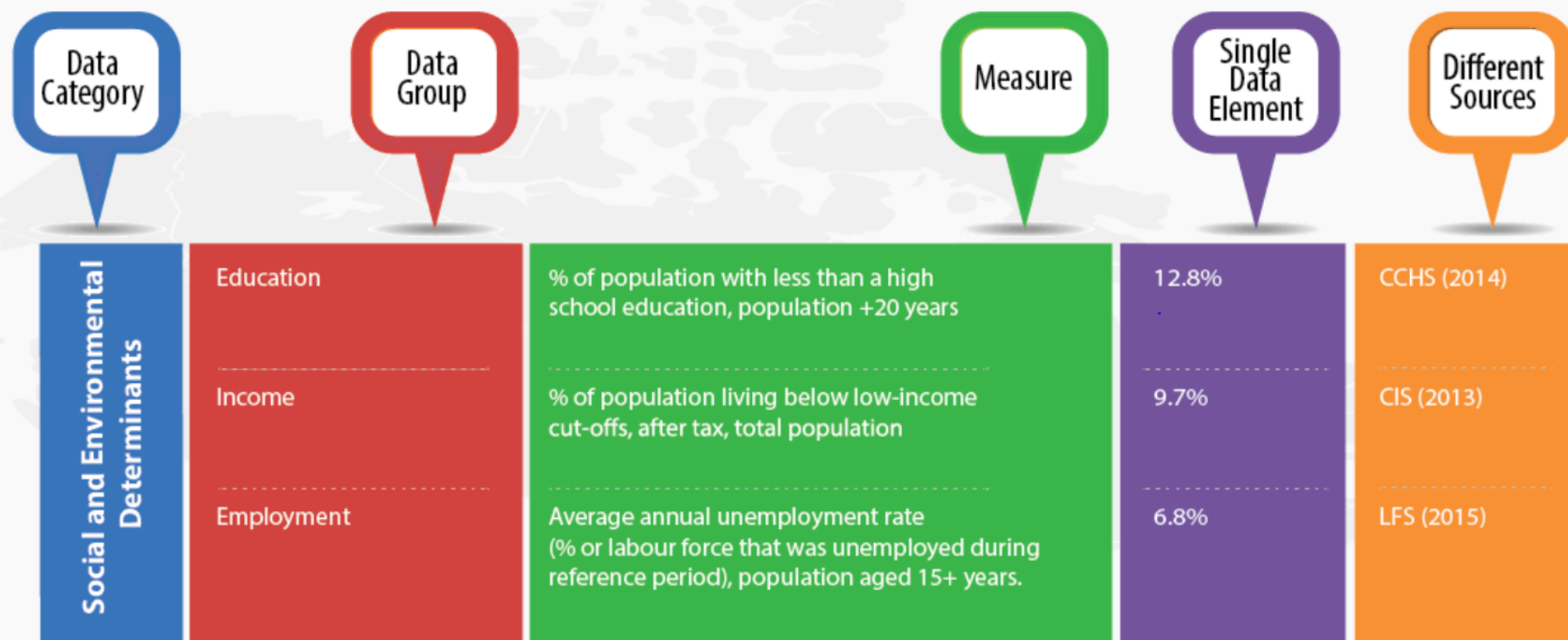
Indicators to measure:

1. **Open knowledge infrastructures** at national, international and disciplinary levels
2. **Open knowledge capabilities** in research communities (incl support personnel)
3. **Pioneering open knowledge practices** – qualitative, case-study based – to garner support from research communities
4. **Individual-level** for careers – based on principles of responsible metrics e.g. [Metric Tide](#), [Leiden Manifesto](#) and [DORA declaration](#).

+ long list of indicators, tools to measure them, strengths, weaknesses, potential, risks etc



ANATOMY OF AN INDICATOR FRAMEWORK



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
66	Nr institutes with funding for op	Open Science implementation	Y	Y	EXEMPLARY CAS	N	Surveys					Suggested by Open Science Policy Platform				
67	Nr institutes with open science	Open Science implementation	Y	Y	EXEMPLARY CAS	N	Surveys					Suggested by Open Science Policy Platform				
68	Nr institutes with open science	Open Science implementation	Y	Y	EXEMPLARY CAS	N	Surveys					Suggested by Open Science Policy Platform				
69	% researchers with open scienc	Open Science implementation	N	Y	EXEMPLARY CAS	Y	Surveys					Suggested by Open Scie	Open Science Monitor			
70	Nr institutes with open science	Open Science implementation	Y	N	EXEMPLARY CAS	N	Surveys					Suggested by Open Scie	Only from a paid subscription to either WoS or Scopus			
71	Nr institutes with open science	Open Science implementation	Y	N	EXEMPLARY CAS	N	Surveys					Suggested by Open Scie	na			
72	Nr of global open science partn	Open Science implementation	N	N	EXEMPLARY CAS	Y	Surveys					Gold, E. Richard, Sarah E	Open Science Monitor			
73	Nr institutes with open science	Open Science Rewards	Y	N	EXEMPLARY CAS	N	Surveys					Suggested by Open Scie	https://journals.plos.org/plosone/s/authorship ; https://journals.plos.org/plosone/s/authorship			
74	Nr institutes recognizing contrit	Open Science Rewards	Y	N	EXEMPLARY CAS	N	Surveys					Suggested by Open Science Policy Platform				
75	Nr. of days spent by external (nc	Openness to non-academic sta	N	N	EXEMPLARY CAS	Y	Surveys	Identifies dema	Difficult to collect.	The qualities of the co		Molas-Gallart et al. (2002, p. 73)				
76	No. of students in sandwich cor	Openness to non-academic sta	Y	N	EXEMPLARY CAS	Y	Surveys	No. appearances by university academics in regional, n				Molas-Gallart et al. (2002, p. 76); Ramos-Vielba & Fernandez-Esquinas (2012); Fue				
77	Nr. of refereed publications aut	Openness to non-academic sta	N	N	EXEMPLARY CAS	Y	WoS, Scopus	Identifies subst	The indicator says little about the quality.			Molas-Gallart et al. (2002, p. 75); Hewitt-Dundas (2012); Tijssen, (2006); Hughes & L				
78	No. of non-academic organisat	Openness to non-academic sta	N	N	EXEMPLARY CAS	Y	CORDIS, Dimensi	Reflects the de	The number of partners alone does not c			Molas-Gallart et al. (2002, p. 75)				
79	No. of faculty members taking i	Openness to non-academic sta	N	N	EXEMPLARY CAS	Y	Surveys	Reflects a high	Difficult to collect.			Molas-Gallart et al. (2002, p. 76)				
80	Nr. mentions in policy documer	Openness to non-academic sta	N	N	EXEMPLARY CAS	Y	Altmetrics.com (C	Data is availab	It only covers mentions explicitly to the p			Cited in many Almetric articles, e.g. Wouters, P.; Zahedi, Z.; Costas, R. (2018). *Soci				
81	Nr of non-acad conference participants	Openness to non-academic sta	N	N	EXEMPLARY CAS	N	Surveys	Values knowle	Difficult to collect.	Easy o gam		Molas-Gallart et al. (2002, p. 72)				
82	Nr. of days spent by external (nc	Openness to non-academic sta	N	N	EXEMPLARY CAS	N	Surveys	Identifies dema	Difficult to colle	Data collection can be p		Molas-Gallart et al. (2002, p. 73); Ramos-Vielba & Fernandez-Esquinas (2012); Tjjs:				
83	Nr. of invitations to advisory cc	Openness to non-academic sta	N	N	EXEMPLARY CAS	Y	Surveys	Values knowle	Difficult to collect.			Molas-Gallart et al. (2002, p. 72)				
84	Nr of participants in social netw	Participation of researchers and	N	N	EXEMPLARY CAS	Y	Social media surv	Monitors frequency of mediated social networking								
85	Nr of social recommendation s	Quality control and Science com	Y	N	EXEMPLARY CAS	N	Web surveys	Monitors infrastru	cture for collaboration			Wouters, Paul, Zohreh Zahedi, and Rodrigo Costas. 2018. *Social Media Metrics for				
86	% of researchers active in soci	Quality control and Science com	Y	N	EXEMPLARY CAS	N	Social media surv	Monitors socia	Difficult to collect.			Wouters, Paul, Zohreh Zahedi, and Rodrigo Costas. 2018. *Social Media Metrics for				
87	Quality of metadata (versioning	Quality of Metadata	Y	Y	EXEMPLARY CAS	N	Publishers, Rese	Increases easy accessibility.				Lampert et al., fteval Journal, 44 (2017), 50.				
88	Nr institutes with responsible m	Responsible metrics policies	Y	Y	EXEMPLARY CAS	N	DORA signatories	Monitors evaluation practices								
89	Nr institutes with science comn	Science communication	Y	Y	EXEMPLARY CAS	N	Surveys						Only from a paid subscription to either WoS or Scopus			
90	Nr institutes with communicati	Science communication	Y	Y	EXEMPLARY CAS	N	Surveys						Only from a paid subscription to either WoS or Scopus			
91	Nr institutes with science comn	Science communication	Y	Y	EXEMPLARY CAS	N	Surveys						CWTS Leiden Ranking website			
92	% researchers with science com	Science communication	N	Y	EXEMPLARY CAS	Y	Surveys		Difficult to collect.							
93	Nr. events run and organised fo	Science communication	N	N	EXEMPLARY CAS	Y	Surveys	Reflects activities carried out to contribute to local comn				Molas-Gallart et al. (2002, p. 73)				
94	No. appearances by university s	Science communication	N	N	EXEMPLARY CAS	Y	Surveys	Can be used as a proxy indicator of dissemination outsid				Molas-Gallart et al. (2002, p. 78)				
95	No. of times university or its far	Science communication	N	N	EXEMPLARY CAS	Y	Specialised news	Reflects attention given to research in media				Molas-Gallart et al. (2002, p. 78)				
96	No. of non peer-reviewed public	Science communication	N	N	EXEMPLARY CAS	Y	Surveys	Reflects efforts	Difficult to collect.			Molas-Gallart et al. (2002, p. 78)				
97	Nr. mentions in news of referee	Science communication	N	N	EXEMPLARY CAS	Y	Altmetrics.com (C	Data is availab	It only covers mentions explicitly to the p			Cited in many Almetric ar	Altmetrics.com (Dimensions), Plum X Metrics (Scopus)			
98	Nr. mentions in blogs	Science communication	N	N	EXEMPLARY CAS	Y	Altmetrics.com (C	Data is availab	It only covers mentions explicitly to the p			Cited in many Almetric ar	Altmetrics.com (Dimensions), Plum X Metrics (Scopus)			
99	Nr. publications mentioned in tv	Science communication	N	N	EXEMPLARY CAS	N	Altmetrics.com (Dimensions), Plu	Priorizes hype over quality	"Fake News"	Open Science Monitor.		Open Science Monitor				



PCIs... to change Rewards Systems

- **Commitments**
- Actual, **realistic** and **affordable**... in a level where the proponent has “jurisdiction”
- **Alignment** at MS level → National policies
- **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**)

OSPP next steps: PCIs

- OSPP working with major initiatives to coordinate set of pilots using new approaches to assessment at:
 - Stakeholder / Institutional level e.g. university associations
 - National level
 - Domain-specific level
 - Researcher- level (YERUN)
- Ensure open evaluation of these pilots and dissemination of results
- Use successes to support uptake and broader adoption by others, including work required by other stakeholders

Need top-down + bottom up

Frameworks

LEIDEN MANIFESTO FOR RESEARCH METRICS

Home Video version Translations Blog

10 principles to guide research evaluation with 23 translations, a video and a blog

RESPONSIBLE METRICS About The Metric Tide

The Metric Tide

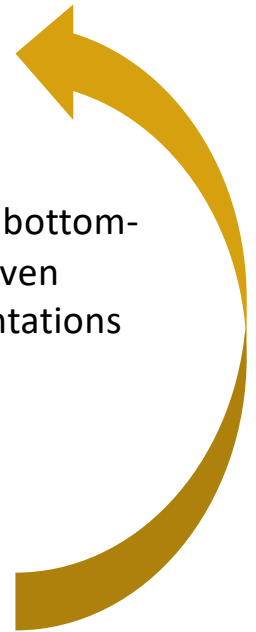
**Next-generation metrics:
Responsible metrics and evaluation for open science**

Report of the European Commission Expert Group on Altmetrics

James Wilson, Professor of Research Policy at University of Sheffield (UK)
Judit Bar-Ilan, Professor of Information Science at Bar-Ilan University (IL)
Robert Frodeman, Professor of Philosophy at the University of North Texas (US)
Elisabeth Lex, Assistant Professor at Graz University of Technology (AT)
Isabella Peters, Professor of Web Science at the Leibniz Information Centre for Economics and at Kiel University (DE)
Paul Wouters, Professor of Scientometrics and Director of the Centre for Science and Technology Studies at Leiden University (NL)

Now need bottom-up driven implementations

Need to make it easy for researchers:
Research funders need to fund development of infrastructure + skills training
Back to considering what research for, what it delivers, and designing connected ecosystem



When Motivators of will (ED1024/2019) < meet > PCIs

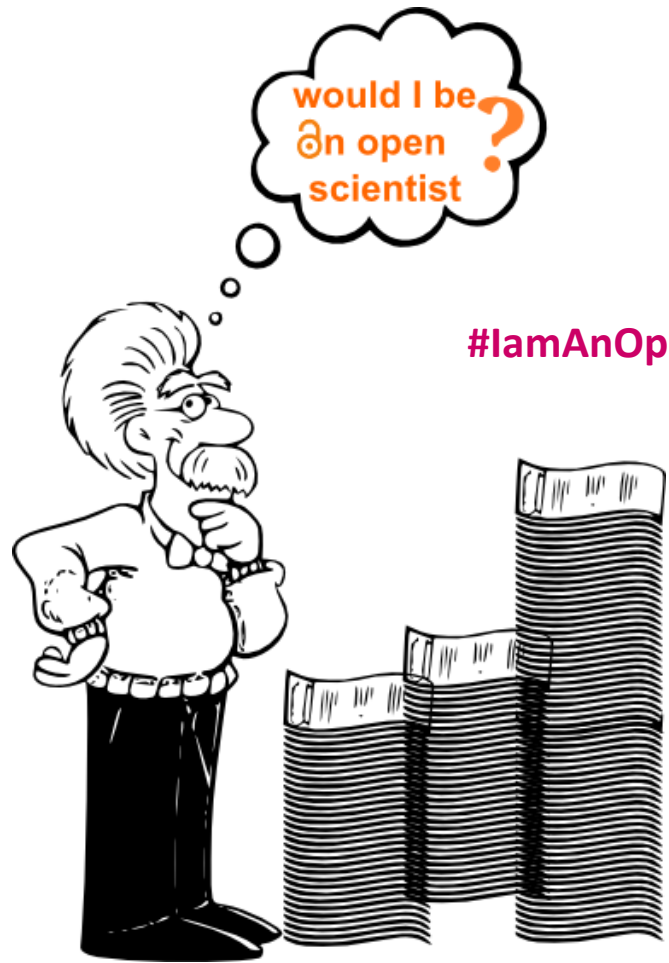


Article 10. *Research data*:

"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".

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

<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1561563110433&uri=CELEX:32019L1024>



#IamAnOpenScientistBecause



maki @maxi_ki

177d

#IamAnOpenScientistBecause this approach enables free and worldwide scholarly communication without artificial barriers.

Details



Dr Henry Knipe @DrHenryK

177d

#IamAnOpenScientistBecause #MedEd should be available to everyone everywhere #FOAMrad #FOAMed

Details



Eva Méndez @evamen

177d

Yes... this was a very good one!! #IamAnOpenScientistBecause...

Priya @PL_Priya

#IamAnOpenScientistBecause I don't think learning should be restricted by paywalls.

Details



Anne Baillot @AnneBaillot

177d

#IamAnOpenScientistBecause anything else is intellectual dictatorship.

Details



Science



The poster features a yellow background with a blue and white logo in the top left corner. The text is arranged in a vertical column. On the right side, there is a circular graphic composed of 17 colored segments, representing the Sustainable Development Goals. Below this graphic is a dark blue box containing event details.

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CONFERENCE**

**Towards Global
Open Science:
Core Enabler of
the UN 2030 Agenda**

**19 NOVEMBER 2019
9 A.M. – 6 P.M.**

**UNITED NATIONS
HEADQUARTERS,
NEW YORK**

CONFERENCE ROOM 12

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DOES OS & RI really GO HAND IN HAND?



PROF. DR. EVA MÉNDEZ

WE ARE RESEARCHING with TAXPAYERS' MONEY. WE NEED TO GET BACK.

Thank you!!

MANY HATS!
I AM PART of the SYSTEM AND I AM TRYING to CHANGE IT.

Culture CHANGE

OPEN SCIENCE

PRRI
RESEARCH INTEGRITY
INFRASTRUCTURE

RRRI
REWARDS SYSTEM

WHAT ARE YOU GOING TO DO?

THERE IS ALWAYS A TEMPTATION TO show US...

THINKED YOU MOST BE an excellent OPEN SCIENTIST

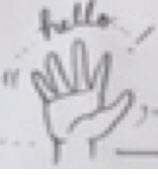
Building Blocks

- 1 REMOVE BARRIERS
 - 2 DEVELOP INFRASTRUCTURE
 - 3 SCIENCE IN SOCIETY
- CULTURE
SKILLS
ATTITUDE

INCENTIVISING Systemic CHANGE

87 RECOMMENDATIONS

3 MOTIVATORS and Seduction...



F FINDABLE
A ACCESSIBLE
I INTEROPERABLE
R REUSABLE
data

8 PILLARS for OPEN SCIENCE in EUROPE



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