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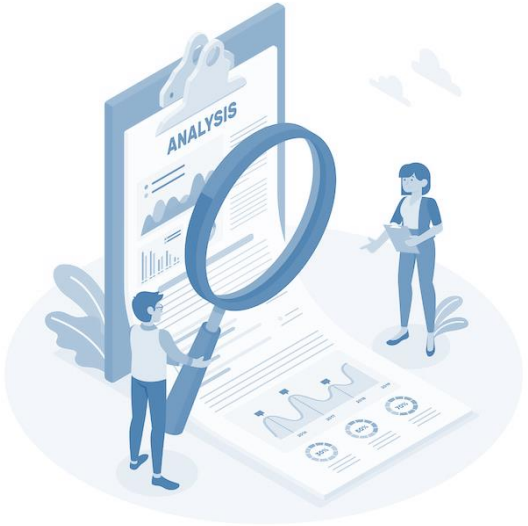
Open Science Workshops

Scientific Evaluation Workshop

Part B. Open Science and scientific evaluation: goals and difficulties



October 2023

Fidel Bellmunt, Knowledge Manager at IBEC

Engineering solutions for health

Summary

Part B. Open Science and scientific evaluation: goals and difficulties

- The origins: DORA declaration
- The European proposal: CoARA, a coalition on reforming research assessment
- The Spanish and Catalan reforms on Science and Universities laws
- Discussion: implications of these reforms on how Science is done
- IBEC on scientific evaluation

Open science is defined as an inclusive construct that combines various movements and practices aiming to make multilingual scientific knowledge openly available, accessible and reusable for everyone, to increase scientific collaborations and sharing of information for the benefits of science and society, and to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community. It comprises all scientific disciplines and aspects of scholarly practices, including basic and applied sciences, natural and social sciences and the humanities, and it builds on the following key pillars: open scientific knowledge, open science infrastructures, science communication, open engagement of societal actors and open dialogue with other knowledge systems.

UNESCO Recommendation on Open Science, 2021: https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en

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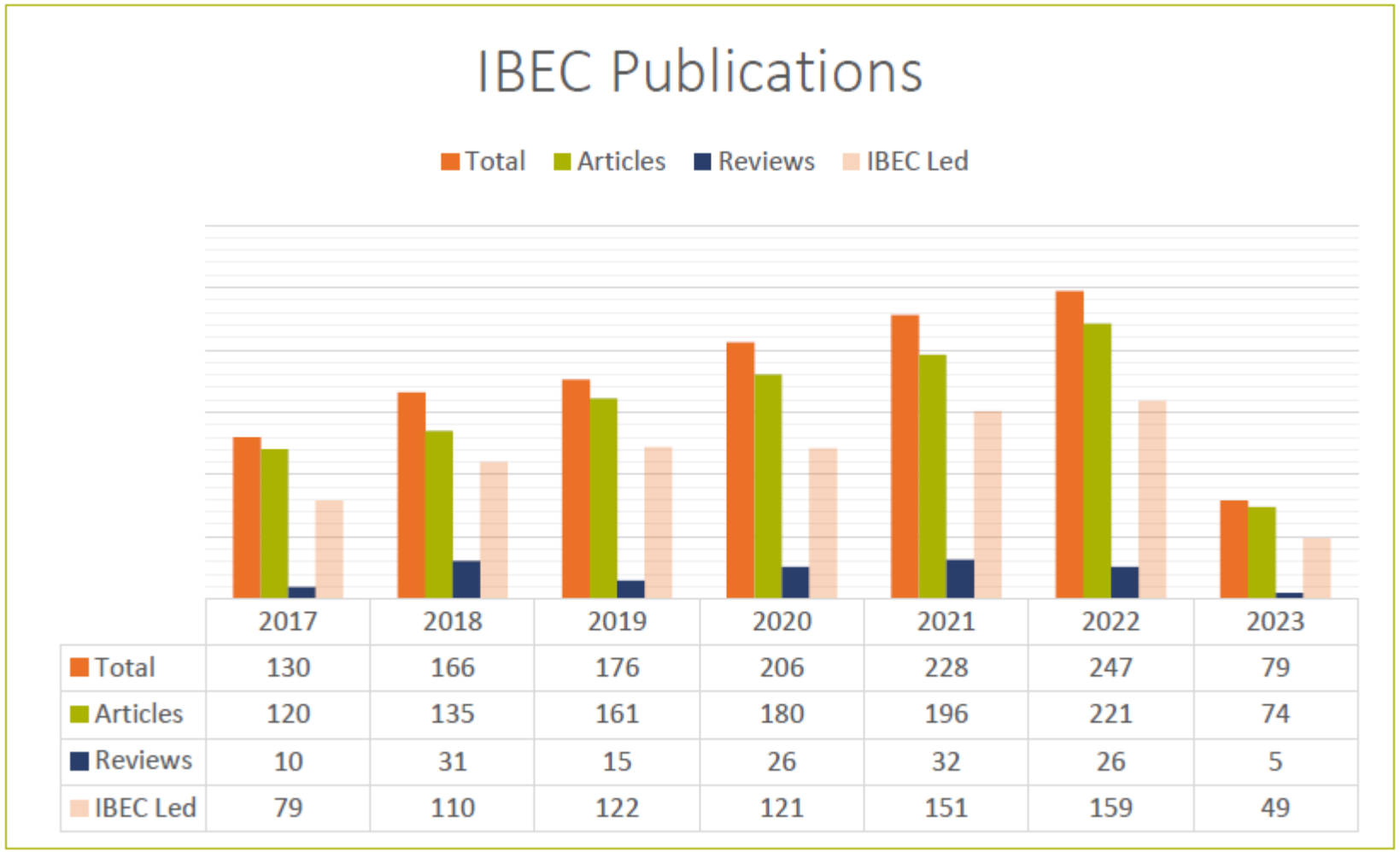
Why research evaluation is a barrier to open science?

- Open Access: Many prestigious journals (high Impact Factor) are not OA.
- Open Data: Resistance to sharing data because of the competition, and the data is not 'cited'.
- Open Source development: More tradition (Digital Commons), but no recognition.
- Collaboration with social agents, reproducibility, ethics, scientific communication: Less research time and lost competition, It is not recognized as a contribution.

Summary: **there is no recognition or incentive for collaboration, current research assessment systems don't value these activities**.

Publish or Perish?



	2017	2018	2019	2020	2021	2022	2023
Total	130	166	176	206	228	247	79
Articles	120	135	161	180	196	221	74
Reviews	10	31	15	26	32	26	5
IBEC Led	79	110	122	121	151	159	49

DORA declaration

The Declaration on Research Assessment (DORA) recognizes the need to improve the ways in which researchers and the outputs of scholarly research are evaluated.

The idea to write the declaration was developed in 2012 during at the Annual Meeting of the American Society for Cell Biology in San Francisco. It has become a worldwide initiative covering all scholarly disciplines and all key stakeholders including funders, publishers, professional societies, institutions, and researchers.
https://sfdora.org/

Later: The Leiden Manifesto for research metrics - https://www.nature.com/articles/520429a
Nature, 520: 429–431 (2015)
> Research evaluations are now routine and reliant on metrics

General Recommendation

1. Do not use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.

For funding agencies

2. Be explicit about the criteria used in evaluating the scientific productivity of grant applicants and clearly highlight, especially for early-stage investigators, that the scientific content of a paper is much more important than publication metrics or the identity of the journal in which it was published.

3. For the purposes of research assessment, consider the value and impact of all research outputs (including datasets and software) in addition to research publications, and consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.

For institutions

4. Be explicit about the criteria used to reach hiring, tenure, and promotion decisions, clearly highlighting, especially for early-stage investigators, that the scientific content of a paper is much more important than publication metrics or the identity of the journal in which it was published.

5. For the purposes of research assessment, consider the value and impact of all research outputs (including datasets and software) in addition to research publications, and consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.

For publishers

6. Greatly reduce emphasis on the journal impact factor as a promotional tool, ideally by ceasing to promote the impact factor or by presenting the metric in the context of a variety of journal-based metrics (e.g., 5-year impact factor, EigenFactor, SCImago, h-index, editorial and publication times, etc.) that provide a richer view of journal performance.

7. Make available a range of article-level metrics to encourage a shift toward assessment based on the scientific content of an article rather than publication metrics of the journal in which it was published.

8. Encourage responsible authorship practices and the provision of information about the specific contributions of each author.

9. Whether a journal is open-access or subscription-based, remove all reuse limitations on reference lists in research articles and make them available under the Creative Commons Public Domain Dedication.

10. Remove or reduce the constraints on the number of references in research articles, and, where appropriate, mandate the citation of primary literature in favor of reviews in order to give credit to the group(s) who first reported a finding.

For organizations that supply metrics

11. Be open and transparent by providing data and methods used to calculate all metrics.

12. Provide the data under a license that allows unrestricted reuse, and provide computational access to data, where possible.

13. Be clear that inappropriate manipulation of metrics will not be tolerated; be explicit about what constitutes inappropriate manipulation and what measures will be taken to combat this.

14. Account for the variation in article types (e.g., reviews versus research articles), and in different subject areas when metrics are used, aggregated, or compared.

For researchers

15. When involved in committees making decisions about funding, hiring, tenure, or promotion, make assessments based on scientific content rather than publication metrics.

16. Wherever appropriate, cite primary literature in which observations are first reported rather than reviews in order to give credit where credit is due.

17. Use a range of article metrics and indicators on personal/supporting statements, as evidence of the impact of individual published articles and other research outputs.

18. Challenge research assessment practices that rely inappropriately on Journal Impact Factors and promote and teach best practice that focuses on the value and influence of specific research outputs.

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March 2023

Signatory of DORA

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The European proposal:
A coalition on reforming research assessment

Towards a new *modus operandi* for Science

Current System (dominant)		Open Science	
Excellence defined largely on the basis of *where* scientists publish		Composite definition of excellence	
Incentivises researchers to produce specific outputs (*mainly publications*) and to publish as much and as fast as possible (*publish or perish!)*	Use of quantitative metrics	Incentivises researchers to share knowledge/data early and openly, to collaborate, and to increase quality and impact; While considering diversity of outputs and research cultures	Use of qualitative and quantitative metrics
Rewarding individual competing scientists - gaining scientific prestige		Rewarding team work, collaboration and sharing to achieve societal impact (e.g. Covid-19)	

European Commission

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Reforming the research assessment system

You get what you reward

- Objective of the Commission: facilitate and speed up reforms to research assessment
- Towards a research assessment system that:
  - Promotes qualitative judgement with peer-review, supported by a more responsible use of quantitative indicators;
  - Considers the value and impact of a diversity of research outputs;
  - Incentivizes open collaboration and early knowledge and data sharing;
  - Rewards the diversity of tasks of researchers, and supports team science.
- Not a new objective but a new initiative
- Coherence between research and academic assessments is necessary

European Commission

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A way forward - A stakeholder-owned initiative

An **alliance/coalition** of funders, research performing organisations (including universities) and their associations, national/regional assessment authorities and agencies, as well as learned societies, all willing to take the lead in reforming the current research assessment system

- Agreement on **principles** and **actions** between funders and performers;
- Building on DORA and other declarations;
- **Committing signatories to act** according to a roadmap for delivery;
- **Joint ownership** of the initiative by the participating organisations;
- **Role of the Commission**: facilitate the establishment of an alliance/coalition, and participate as a R&I funder

European Commission

The European proposal:
Process towards an agreement on reforming research assessment

16/12/2021 – *The Commission launches a Call for interest - Towards an agreement on reforming research*. Leaded and prepared by a team composed of representatives from the European University Association (EUA), Science Europe, the European Commission.

08/07/2022 - *Final version of the agreement* was presented at a Stakeholder Assembly bringing together the 350+ organisations from 40+ countries, it founds the:

CoARA: Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators.

https://coara.eu/

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The Agreement

Based on 10 commitments, establishes a common direction for research assessment reform, while respecting organisations' autonomy. The Agreement on Reforming Research Assessment sets a shared direction for changes in assessment practices for research, researchers and research performing organisations, with the overarching goal to maximise the quality and impact of research.

CoARA Commitments

1. Recognise the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research.

2. Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators.

3. Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular inappropriate uses of Journal Impact Factor (JIF) and h-index.

4. Avoid the use of rankings of research organisations in research assessment.

5. Commit resources to reforming research assessment as is needed to achieve the organisational changes committed to.

6. Review and develop research assessment criteria, tools and processes.

7. Raise awareness of research assessment reform and provide transparent communication, guidance, and training on assessment criteria and processes as well as their use.

8. Exchange practices and experiences to enable mutual learning within and beyond the Coalition.

9. Communicate progress made on adherence to the Principles and implementation of the Commitments.

10. Evaluate practices, criteria and tools based on solid evidence and the state-of-the-art in research on research, and make data openly available for evidence gathering and research.

The European proposal

Título	Líder (Proponente)
Apoyar la alineación de los sistemas de evaluación de la investigación con CoARA en disciplinas biomédicas a través de reformas administrativas y de gobernanza.	**Miriam Kip** Charité Universitaetsmedizin Berlin
Hacia infraestructuras abiertas para la evaluación responsable de la investigación	**Natalia Manola** OpenAIRE
Mejorar las prácticas en la evaluación de propuestas de investigación	**Michael Arentoft** European Commission
Reforma de la Evaluación de la Carrera Académica (ACA)	**Rita Morais** European University Association (EUA)
Investigadores jóvenes (EMCR) – Evaluación y cultura de investigación	**Sebastian Dahle** Eurodoc
Experimentos en Evaluación: generación de ideas, co-creación y pilotaje	**Sean Sapcariu** Luxembourg National Research Fund
Reconocer y recompensar el peer-review	**Johan Rooryck** cOAlition S
Multilingüismo y sesgos lingüísticos en la evaluación de la investigación	**Janne Pölönen** Federation of Finnish Learned Societies
Métricas e indicadores responsables	**Katarzyna Nawrot; Felix Schönbrodt** Poznan University of Economics and Business; German Psychological Society
Hacia transformaciones: transdisciplinariedad, investigación aplicada/basada en la práctica e impactos	**Marc Wolfram; Raimund Bleischwitz; Thomas Brunotte; Martin Jaekel** Leibniz Institute of Ecological Urban and Regional Development; Leibniz Association; Hochschullehrerbund Bundesvereinigung; Zurich University of Applied Sciences

CoARA Working Groups (10+)

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The Spanish and Catalan reforms on Science and Universities laws

Ley 17/2022, de 5 de septiembre, por la que se modifica la Ley 14/2011, de 1 de junio, de la Ciencia, la Tecnología y la Innovación.
https://www.boe.es/eli/es/l/2022/09/05/17/con

"Evaluación" 115 times // "Abiert*" 30 times

PREÁMBULO - II
El nuevo sistema de evaluaciones externas promueve la excelencia y la transparencia en la selección y promoción del personal investigador, de acuerdo con los criterios OTM-R (Open, Transparent and Merit-Based Recruitment of Researchers, Working Group of the Steering Group of Human Resources Management Under the European Research Area, julio 2015) sobre selección y evaluación del personal investigador, y los incluidos en la Declaración de San Francisco sobre evaluación en la investigación (Declaration on Research Assessment, DORA, 2012), a la que se ha adherido la Agencia Estatal de Investigación a principios de 2021.

[…]

Treinta y nueve. Se modifica el artículo 37, que queda redactado en los siguientes términos

4. Los resultados de la investigación disponibles en acceso abierto podrán ser empleados por las Administraciones Públicas en sus procesos de evaluación, incluyendo la evaluación del mérito investigador

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LLEI 9/2022, del 21 de desembre, de la ciència.

https://portaljuridic.gencat.cat/eli/es-ct/l/2022/12/21/9

"Avaluaci*" 97 times // "Obert" 43 times

Article 6 Principis ordenadors

1. L'activitat dels agents del sistema de recerca, desenvolupament i innovació del sector públic de la Generalitat es regeix pels principis ordenadors següents:

...

g) L'avaluació externa independent, la transparència i el retiment de comptes.

...

l) La promoció de la ciència oberta.

Article 8 Els instruments d'ordenació

Els instruments d'ordenació del sistema d'R+D+I de Catalunya són:

a) La planificació.

b) El finançament.

c) L'avaluació sistémica > Article 11, L'avaluació sistèmica

Article 34 Avaluació externa

1. AQU Catalunya aprova, convoca, organitza i gestiona els processos de valoració o avaluació externa per a l'obtenció de la credencial dels departaments, instituts de recerca propis o centres adscrits amb activitat de recerca, desenvolupament i innovació que participin en el Pla estratègic universitari en recerca d'excel·lència, i també els de la seva renovació.

2. AQU Catalunya ha d'aprovar uns indicadors objectius, coneguts, mesurables i internacionalment homologables per a la valoració o avaluació dels departaments. En la valoració o avaluació d'instituts de recerca propis i de centres adscrits amb activitat de recerca, desenvolupament i innovació, AQU Catalunya ha de seguir els paràmetres habituals en avaluacions de centres de característiques similars a escala internacional. La valoració o avaluació d'AQU Catalunya pot correspondre a la Comissió d'Avaluació de la Recerca o qualsevol altra comissió creada per AQU Catalunya d'acord amb el seu marc legal.

3. AQU Catalunya atorga les credencials del Pla estratègic universitari en recerca d'excel·lència per a un període de cinc anys, renovable per períodes iguals, amb la condició de la superació prèvia d'una valoració o avaluació positiva per a la renovació.

The Spanish and Catalan context

Ley Orgánica 2/2023, de 22 de marzo, del Sistema Universitario.

https://www.boe.es/eli/es/lo/2023/03/22/2/con

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20/10/2023 - ANECA actualiza los principios y los criterios de evaluación de los sexenios de investigación
https://www.aneca.es/web/guest/-/aneca-actualiza-los-principios-y-los-criterios-de-evaluaci%C3%B3n-de-los-sexenios-de-investigaci%C3%B3n

Así, se está procediendo a la modificación del preámbulo de la Resolución y a una actualización de los criterios generales que se establecen para todos los campos (sección I), con el objetivo de introducir los principios de la LOSU que llevan, entre otras modificaciones, a **aceptar una mayor diversidad de aportaciones**, a avanzar hacia nuevas formas de evaluación que se centren en la **relevancia e impacto de cada aportación** y no en el medio de difusión, a promover el acceso abierto y el uso de repositorios institucionales y temáticos, o a valorar positivamente las investigaciones multidisciplinares e interdisciplinares.

Además, dando cumplimiento a los compromisos adquiridos por ANECA con su adhesión a la San Francisco Declaration on Research Assessment (**DORA**) y a la Coalition for Advancing Research Assessment (**CoARA**) el pasado mes de abril, la Agencia integra ya en esta convocatoria las orientaciones del movimiento internacional de reforma de la evaluación de la investigación. Para ello, se está trabajando en una revisión profunda del Apéndice de la Resolución, de forma que se facilite la identificación de herramientas y métricas para avalar la relevancia y el impacto de las aportaciones presentadas, que en ningún caso se podrán limitar a la indexación en una base de datos en particular.

EXENIOS

desarrollo tecnológico.

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Where are the reforms going?

- Recognize the **diversity** of contributions in accordance with the needs and nature of the research.
- Base evaluation primarily on **qualitative methods** (peer review is essential), supported by responsible use of quantitative indicators.
- Abandon **inappropriate uses of metrics** based on journals and publications.
- **Narrative** CVs, activity portfolios.
- But: the evaluation models of **Spain** (centralized, bureaucratic, individual and based on indicators) are very **difficult to adapt to this vision**.

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Practice

Join in groups of 3 or 4 to discuss for 10 minutes:

How do you think it should be evaluated research work in an open science context?

Make a list of items or criteria that you have agreed.

Each group will share its ideas that we'll discuss all together.

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Figure 1. Open Science Career Assessment Matrix (OS-CAM) representing the range of evaluation criteria for assessing Open Science activities

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

Evaluation of Research Careers fully acknowledging Open Science Practices; Rewards, incentives and/or recognition for researchers practicing Open Science (2017). Working Group on Rewards under Open Science. https://op.europa.eu/en/publication-detail/-/publication/47a3a330-c9cb-11e7-8e69-01aa75ed71a1/language-en

graspos
open research assessment dataspace

Open Universal Science
OPUS

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Conclusions

For the practice of Open Science to become mainstream, it must be embedded in the evaluation of researchers at all stages of their career (R1-R4). This will require **universities** to **change** their approach in career assessment for recruitment and promotion. It will require **funding agencies** to **reform** the methods they use for awarding grants to researchers. It will require **senior researchers and Research Performing Organizations** to **review** how they assess researchers when employing on funded research projects. This is about changing the way research is done, who is involved in the process and how it is valued; evolving from a closed competitive system to one that is more open and collaborative. Overall, a cultural change is needed in organizations and in the research community for the promotion of and engagement in Open Science.

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IBEC ongoing measures on scientific evaluation to syntonize with Open Science

→ Endorsement of DORA and CoARA.

→ IBEC includes both qualitative and quantitative data in selection and evaluation processes.

→ The presence of an external committee facilitates the acceptance of qualitative indicators and decisions.

→ Diversity and open science have been incorporated in evaluation processes at senior level.

→ At Organization level, IBEC has created an Open Science Strategic axis, with an OS Policy approved June 2023.

→ IBEC has reinforced the administration staff with a Knowledge Manager to support transition towards open science practices.

→ IBEC has incorporated training on evaluation and open science.

→ New qualitative data for publications have been included in our periodic reports, such as open access, internal collaborations within IBEC groups, international collaborations, clinical and industrial collaborations and publications led by women.

→ In addition to the existing Committee for Research Integrity, a new one on Open Science was created in March 2023.

IBEC approved Policy on Open Science

https://ibecbarcelona.eu/wp-content/uploads/2023/07/IBEC_Policy_OpenScience_v20230627.pdf

8. RESEARCH ASSESSMENT AND EVALUATION

IBEC commits to:

1. Endorse and implement the Declaration on Research Assessment (DORA) and the agreement of the Coalition for Advancing Research Assessment (CoARA) principles to improve the ways in which researchers and the outputs of scholarly research are evaluated.

2. Developing in cooperation with funding agencies, institutional departments, and other appropriate units, a framework for research assessment and evaluation that incentivizes research quality and Open Science behaviors and practices. Such systems should take into consideration disciplinary differences and their impact on researchers at different career stages.

3. Setting up reward mechanisms for researchers using Open Science practices (e.g., sharing provisional results through open platforms, using open software and other tools, participation in open collaborative projects (citizen science), sharing data, etc.); adopt open science metrics and 'responsible metrics', along with ways of rewarding the full diversity of outputs and of recording the broader social impact of research ('next generation metrics').

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Evaluation processes at IBEC

A) To incorporate/retain new talent

B) To evaluate/recognise internal talent

A) To incorporate/retain new talent

- Master programme
- PhD programme
- Postdoctoral programme
- Talent retention programme
- Visiting programme for external outstanding researchers
- Junior group leader programme

→ Evaluation committees (external or internal depending on the career level:

1) For junior positions, we use internal committees, composed by our group leaders.
2) For senior positions, we use our International Scientific Committee

→ Evaluation is always qualitative, although supported by quantitative information about outputs: publications, projects...

B) To evaluate/recognise internal talent

- Doctoral certificate of excellence
- Doctoral award
- Junior group leader evaluation
- Group leader evaluation

Doctoral certificate of excellence and Doctoral award

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To be eligible, you need to have a minimum of quantitative requirements:

1. **Three months on an international research placement.**
2. **One indexed peer reviewed international publication** as the first author (with IBEC affiliation), or alternatively, one contribution to a patent as an inventor.
3. **Two oral participations at an international meeting as presenting author.**
4. **Attendance in the following courses** on:
   - One course on writing skills
   - Presentation skills
   - Good practices in a multi-disciplinary laboratory
   - One course on technology Transfer and/or IP rights.
   - Research Integrity.
   - One additional optional course
5. **Participation in outreach activities** (minimum 10 hours).
6. **Attendance at Seminars:** A minimum of 20 scientific seminars must be attended.
7. **Attendance at IBEC PhD Discussions:** A minimum of 15 IBEC PhD Discussions must be attended.
8. **Lecture in a PhD Discussion.**
9. **The PhD thesis must be submitted within 4 years**

All candidates that received a Doctoral Certificate of Excellence will be eligible for a **Doctoral Award**.

The awardees will receive a prize of 500€ in an award ceremony at the IBEC Symposium.

Each year, an interdisciplinary committee composed by IBEC Deputy Directors, and the Heads of Strategy and Human Resources will be in charge of selecting the awardee/-s based on scientific results according to San Francisco Declaration on Research Assessment (DORA), that will consider the scientific content of research outputs, rather than publication metrics or the identity of the journal in which they were published, as well as other merits and contributions to the IBEC Community.

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Junior group leader evaluation

https://ibecbarcelona.eu/ca/careers-at-ibec/opportunities-for-pis-and-senior-researchers/

Candidates will be evaluated by the IBEC International Scientific Committee (ISC) based on their scientific quality, the feasibility of the proposed scientific approach, the potential impact of their research, the added value to the current IBEC research programme and structure, and their ability to carry out efficient leadership and management.

Desirable competencies and skills are: Leadership; critical judgment in the identification and execution of research activities; strategic vision on the future of the research field; proven record in securing research funding / budgets / resources; team building and collaboration; excellent communication and networking skills.

Successful candidates will be appointed for an initial 4-year period with possibility of renewal. At the end of the fourth year, the Junior Group Leader will be evaluated by the ISC. A positive evaluation will allow the candidate to become a consolidated Group Leader.

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Group leader evaluation

Performed by IBEC International scientific committee every 4 years:

- Self report (similar to the junior group leader one)

- IBEC Balanced scorecard, including quantitative indicators:

GROUPS		TOTAL PAPERS	INDEXED PAPERS	AVG IF	1Q	1D	THESIS	PATENTS	INCOME POSTED	TOTAL ACTIVITY COSTS	ACTIVITY MARGIN	% OVH	TOTAL FIXED COSTS	START UP INVESTMENT	GROUP MARGIN	% G.OP.COVER

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Principles of the Selection Process

https://ibecbarcelona.eu/ca/human-resources-strategy

IBEC is committed to the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (The Charter & Code) and one of it's main pillars is the Open, Transparent and Merit based Recruitment principles (OTM-R).

……

IBEC, as a signatory of the San Francisco Declaration on Research Assessment (DORA), will consider, especially for early-stage investigators, much more the scientific content of research outputs, than publication metrics or the identity of the journal in which it were published.

Thank you.

www.ibecbarcelona.eu

Generalitat de Catalunya

UNIVERSITAT DE BARCELONA

UNIVERSITAT POLITÈCNICA DE CATALUNYA BARCELONATECH