

Quo Vadis, research(er) career assessment?

Prof. D. Sc. Saša Zelenika

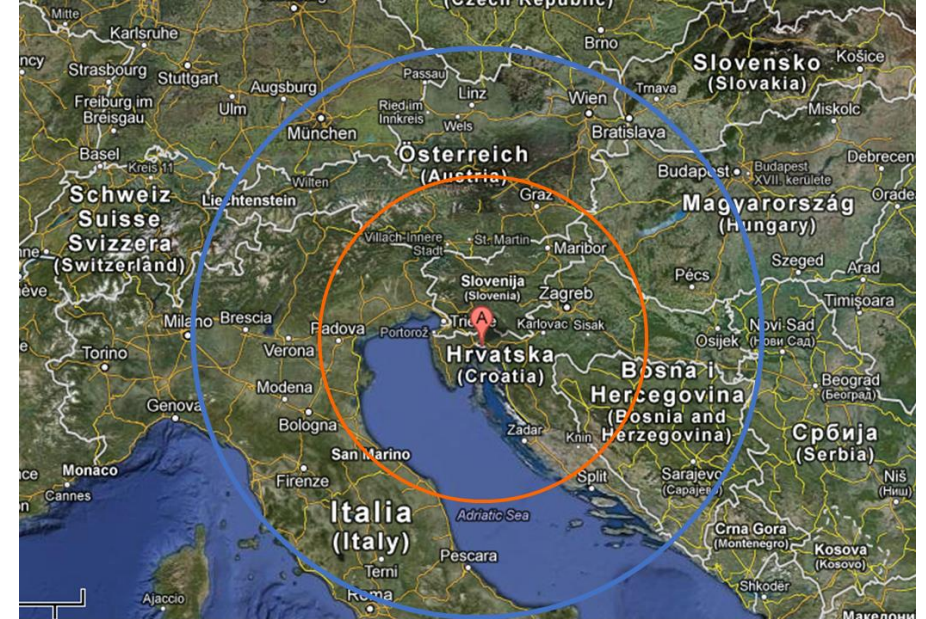
University of Rijeka, Croatia

Vice-rector for Strategic Projects



UNIRI





- Higher education (Jesuit college) since 1633 (390 years!)
- Modern university: 1973. (50 years); today: 15 faculties, art academy, 14 scientific-development centres, 16,150 students, > 250 study programs, 1.350 dorm beds, 1.100 faculty (ca. 900 FTE) + 800 admin. staff (FTE), ca. 900 referenced sci. publications (30% Q1, 10% Exc.) and ca. 20 Horizon/HRZZ projects per year

Scientific publishing today:

- ca. 30.000 journals;
- 4.700.000 papers per year (Elsevier seemingly has an 18% share);
- papers are written & reviewed (15.000 *person-years* per year are dedicated to *peer review*(?!)) and journals are edited by researchers, but the publishers have:
 - 25 billion USD (?!) revenues / year (Elsevier's revenues have grown in 2022 by 10% on 2,9 billion GBP);
 - net profit 36% (Elsevier 40%);
- WoS: 58 million bibliographical units but only 14.499 papers (0,025%) have more than 1.000 citations, half have ≤ 1 citations.

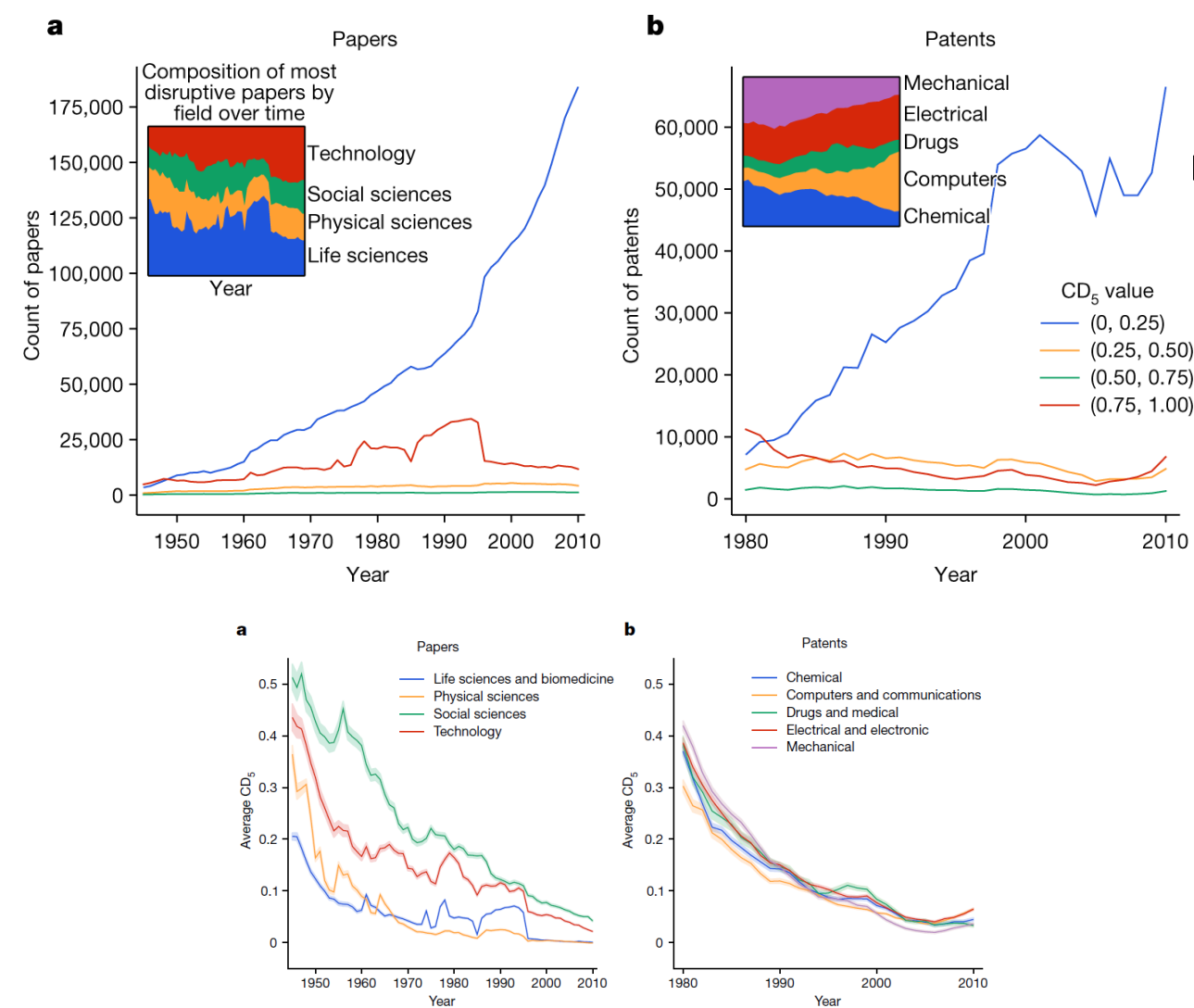


Fig. 2 | Decline of disruptive science and technology. a, b, Decline in CD₅ over time, separately for papers (a, $n = 24,659,076$) and patents (b, $n = 3,912,353$). For papers, lines correspond to WoS research areas; from 1945 to 2010 the magnitude of decline ranges from 91.9% (social sciences) to 100% (physical sciences). For patents, lines correspond to National Bureau of Economic Research (NBER) technology categories; from 1980 to 2010 the magnitude

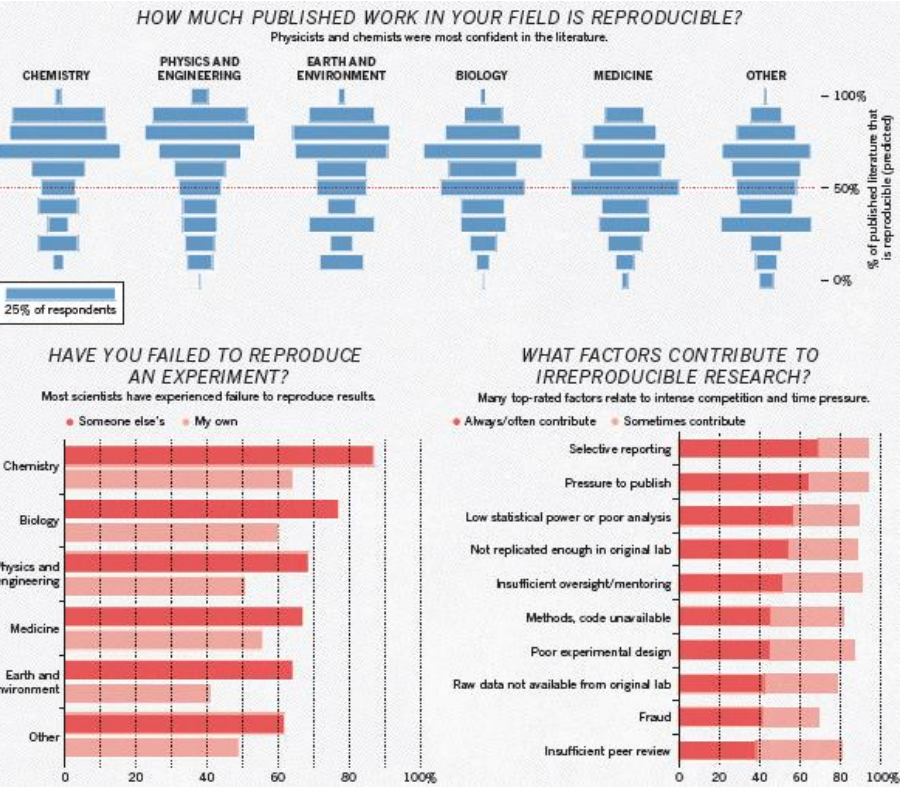
of decline ranges from 93.5% (computers and communications) to 96.4% (drugs and medical). Shaded bands correspond to 95% confidence intervals. As we elaborate in the Methods, this pattern of decline is robust to adjustment for confounding from changes in publication, citation and authorship practices over time.

[Park, Leahey & Funk, Nature, 613, 2023;
doi: 10.5281/zenodo.7258379]

1,500 scientists lift the lid on reproducibility

Monya Baker

Nature 533, 452–454 (2016) | [Cite this article](#)



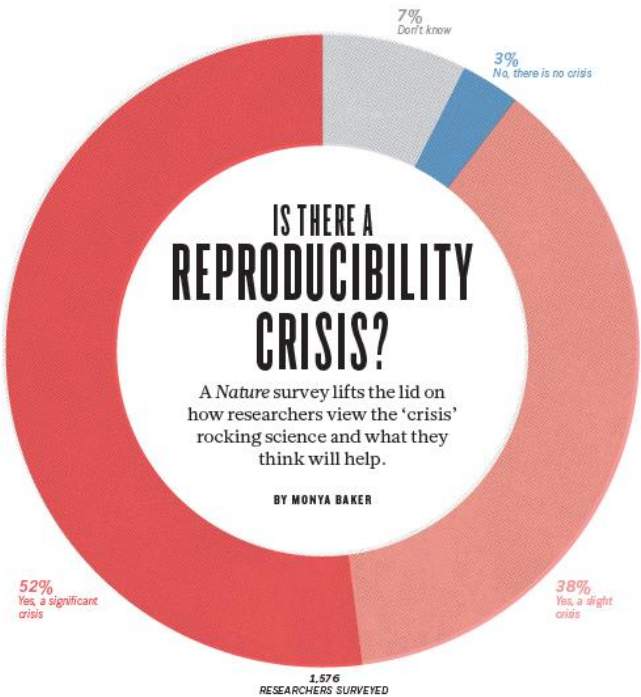
[nature](#) > [news](#) > [article](#)

NEWS | 06 November 2023

How big is science’s fake-paper problem?

An unpublished analysis suggests that there are hundreds of thousands of bogus ‘pay mill’ articles lurking in the literature.

[Richard Van Noorden](#)



Researchers who agree to manipulate citations are more likely to get their papers published

Data suggest that these researchers are more willing to publish in journals that participate in such coercion.

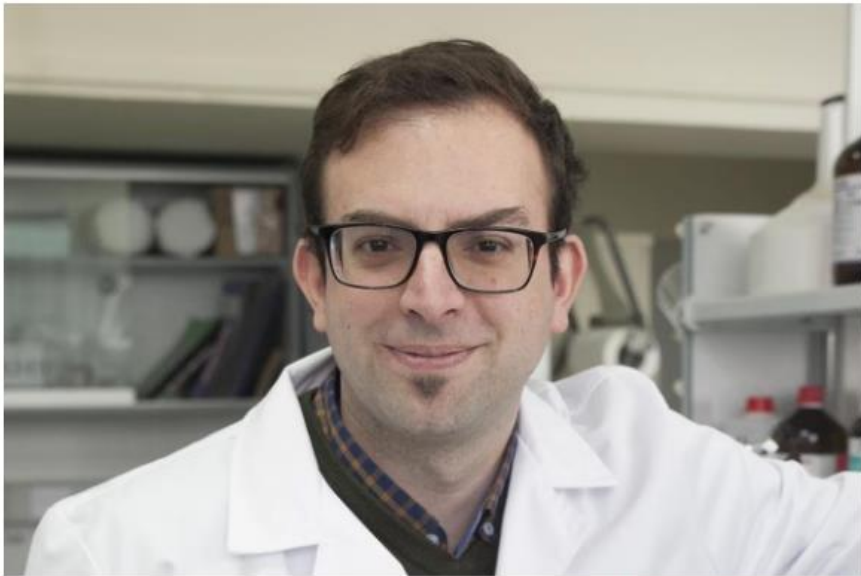
[Dalmeet Singh Chawla](#)

Science & Tech

SCIENTIFIC ETHICS >

One of the world’s most cited scientists, Rafael Luque, suspended without pay for 13 years

The prolific chemist, who has published a study every 37 hours this year, has been sanctioned by the University of Córdoba over his research work for other institutions in Russia and Saudi Arabia



Chemist Rafael Luque, in a laboratory at the University of Córdoba. UNIVERSIDAD DE CÓRDOBA



MANUEL ANSELE

APR 02, 2023 - 09:20 CEST

One publication every 37 hours??!

A very brief history of research waste

1994 - "huge sums of money are spent annually on research that is seriously flawed through the use of inappropriate designs, unrepresentative samples, small samples, incorrect methods of analysis and faulty interpretation"

Doug Altman, The Scandal of Poor Medical Research, *BMJ*.



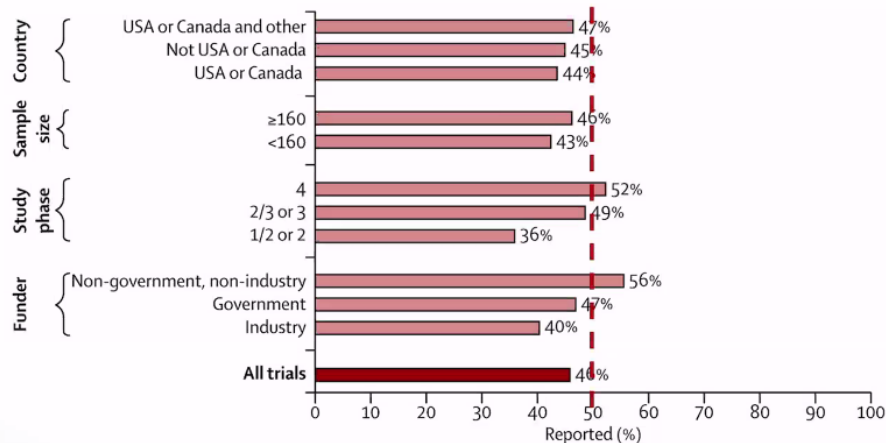
2009 – Chalmers & Glasziou, *Lancet*: ~85% research avoidably wasted; > \$100B

2012 Begley & Ellis - reproduced key findings from only 6/53 "top tier" publications

2014 *Lancet* 5-part series: *Adding Value, Avoiding Waste*

2014 Ensuring Value in Research (EVIR) funders forum initiated

50% of research is not published



Unreported studies

1. Invisible if unregistered
2. No protocol
3. No results
4. No data

Lancet 2014;383:257–66



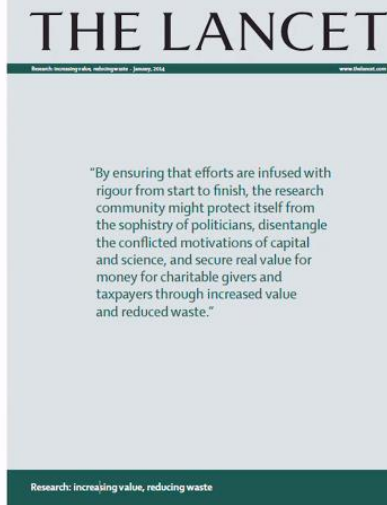
Annual avoidable waste in research estimated to be 85% from:

2. avoidable design flaws (50%),
4. non-publication (50%) and
5. unusable reports (50%)

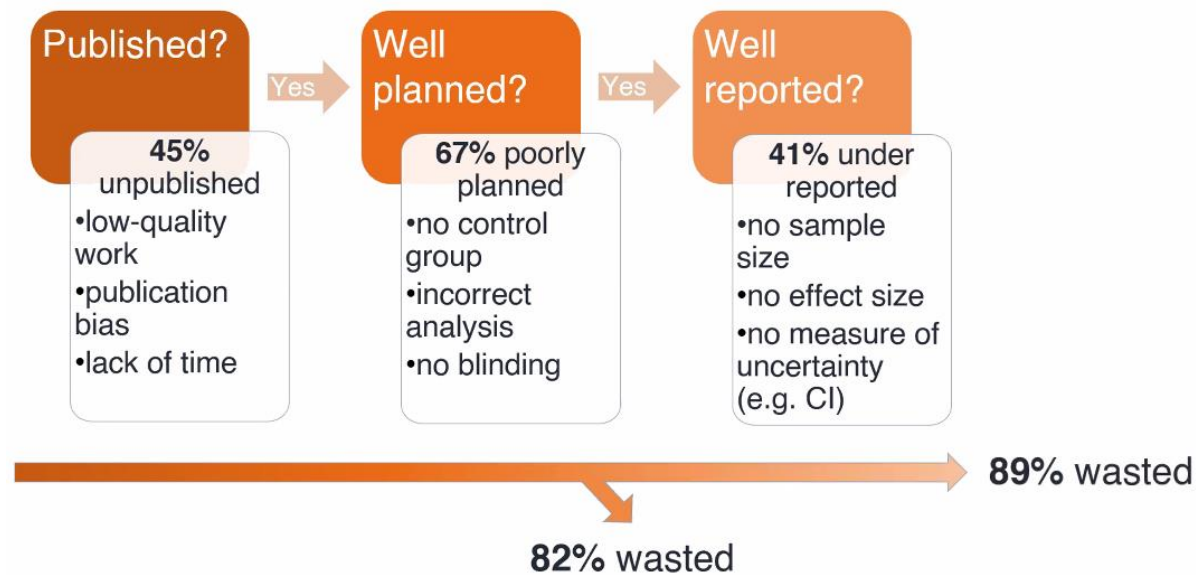
– for a global total of over \$140 Billion/year.

Calculation at: <http://blogs.bmj.com/bmj/2016/01/14/paul-glasziou-and-ian-chalmers-is-85-of-health-research-really-wasted/>

Adding Value, Reducing Waste;
Lancet Series 2014 (42 authors)
www.researchwaste.net



based on 10 464 studies



Books & arts



Peter Hotez speaks during a US congressional committee hearing in March 2020.

Vaccine specialist Peter Hotez: scientists are ‘under attack for political gain’

The physician-researcher says assaults on science are formidable – and getting worse.

For his work developing low-cost COVID-19 vaccines, Peter Hotez was nominated for the 2022 Nobel Peace Prize. But for speaking out against anti-vaccine misinformation, he has become a prominent target of harassment, receiving death threats and having stalkers appear at his home on Father's Day.

Nature spoke to the physician-scientist – who is dean of the School of Tropical Medicine at Baylor College of Medicine in Houston, Texas, and chair of Tropical Pediatrics at Texas Children's Hospital – about his book *The Deadly Rise of Anti-science*. He also discusses why he finds the current crop of well-funded anti-science aggression concerning and how researchers and others must combat it.

You prefer to say ‘anti-science aggression’ rather than ‘misinformation’. Why?
Misinformation makes it sound like it's random junk that appears out of nowhere on the Internet. It's not: it's an organized, well-financed, politically motivated campaign that's meant to tear down the fabric of science. And we have to frame it in that way.

Anti-science rhetoric is not new. What's changed?
Now, it's fully embraced by a major political party in the United States, and by authoritarian regimes in other countries such as Hungary and, previously, Brazil. It's sanctioned by elected leaders in the US Congress. It's reached a new level of organization and aggression

– it's starting to resemble the 1930s, when Joseph Stalin's regime in the Soviet Union portrayed scientists as enemies of the state. The point of the book is to draw a line in the sand and say, 'No, this must stop.'

How did you see this play out during the COVID-19 pandemic?
Some 200,000 Americans died because of anti-science aggression. They were victims of this coordinated campaign. That's why we need to care about it. It's horrifying. I want to honour the legacy of those victims. When I went into the more conservative, rural areas of east Texas, essentially everyone I talked to had lost a loved one because they refused a COVID-19 vaccine. In the

[PLoS One](#). 2010; 5(4): e10271.
Published online 2010 Apr 21. doi: [10.1371/journal.pone.0010271](#)

PMCID: PMC2858206
PMID: [20422014](#)

Do Pressures to Publish Increase Scientists' Bias? An Empirical Support from US States Data

[Daniele Fanelli](#) *
Enrico Scalas, Editor

[J Clin Invest](#). 2008 Jul 1; 118(7): 2368.
doi: [10.1172/JCI36371](#)

PMCID: PMC2439458
PMID: [18596904](#)

Publish or perish, but at what cost?

[Ushma S. Neill](#), Executive Editor

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Abstract

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The academic scientific enterprise rewards those with the longest CVs and the most publications. Under pressure to generate voluminous output, scientists often fall prey to double publishing, self plagiarism, and submitting the “minimal publishable unit.” Are these ethical gray areas, or true transgressions?

Peter Higgs: I wouldn't be productive enough for today's academic system

Physicist doubts work like Higgs boson identification achievable now as academics are expected to 'keep churning out papers'



📷 Peter Higgs: 'Today I wouldn't get an academic job. It's as simple as that'. Photograph: David Levene for the Guardian

PhDs: the tortuous truth

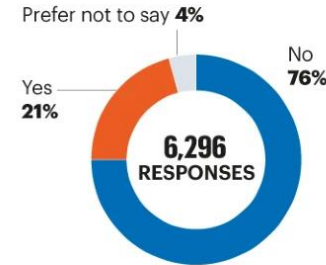
Nature's survey of more than 6,000 graduate students reveals the turbulent nature of doctoral research.

Chris Woolston

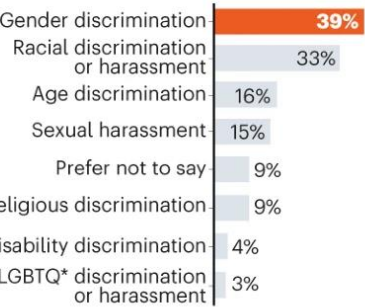
BAD BEHAVIOUR

Instances of harassment and gender or racial discrimination remain distressingly commonplace. The most frequently reported perpetrators are supervisors.

Q: Have you experienced discrimination or harassment in your PhD programme?



Q: If yes, which of the following have you experienced?



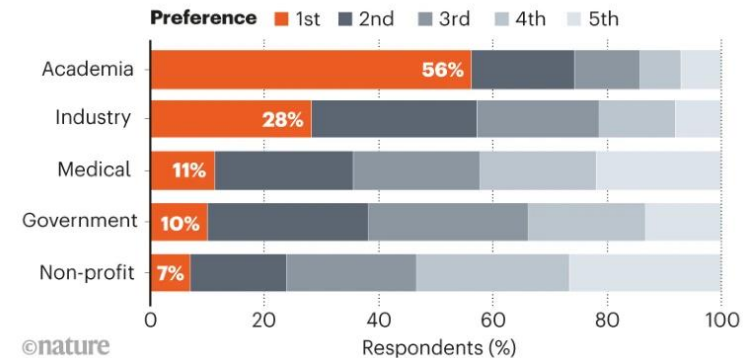
*People from sexual and gender minorities.

©nature

ACADEMIC DREAMS

PhD students around the world continue to aspire to careers in academia despite a global job crunch. Industry — a growing job sector for PhD scientists — rates a distant second.

Q: Which of the following sectors would you most like to work in (beyond a postdoc) when you complete your degree?

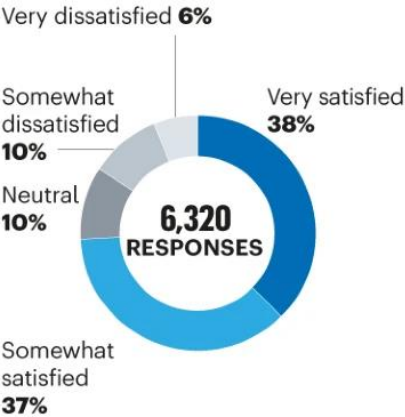


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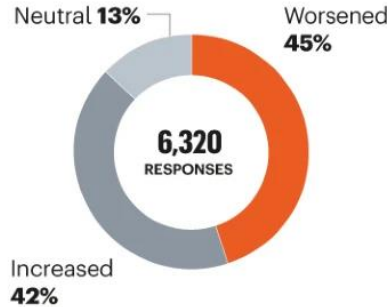
SUSTAINED SATISFACTION

A majority of respondents are still glad they decided to pursue a PhD, although the attitudes of some have worsened over time.

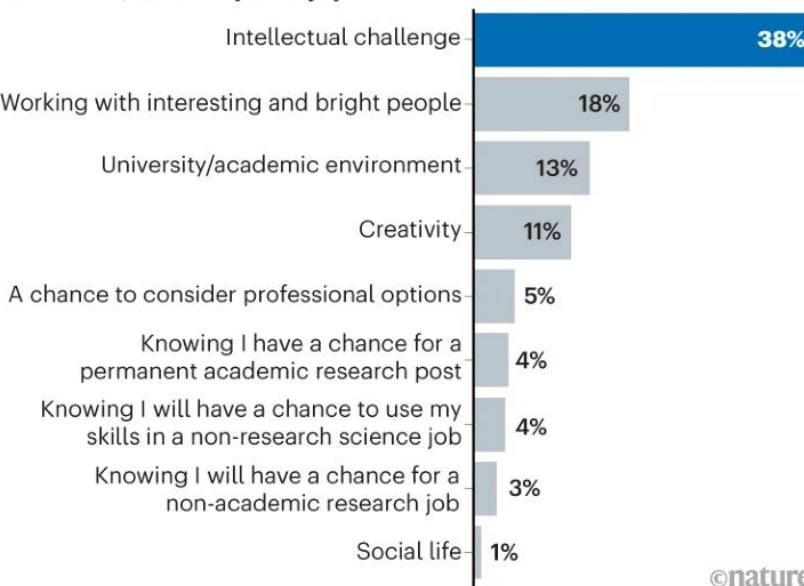
Q: How satisfied are you with your decision to pursue a PhD?



Q: Since the start of your graduate school experience, has your level of satisfaction increased, worsened or remained the same?



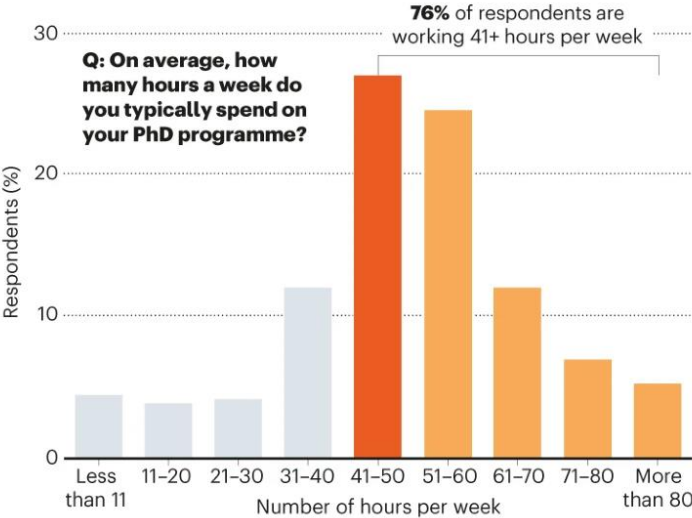
Q: Overall, what do you enjoy most about life as a PhD student?



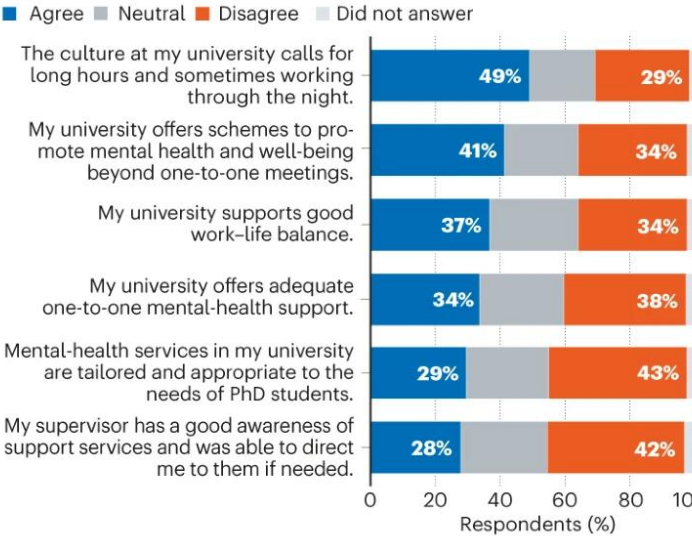
©nature

OVEREXTENDED AND STRESSED

Long hours in the laboratory and other demands have taken a toll on PhD students' well-being and mental health.



Q: Do you agree or disagree with the following statements?



36% of respondents have sought help for anxiety or depression caused by PhD studies. One-third of them sought help from places other than their institution, and 18% sought help at their institution but didn't feel supported.

©nature

Falling behind: postdocs in their thirties tire of putting life on hold

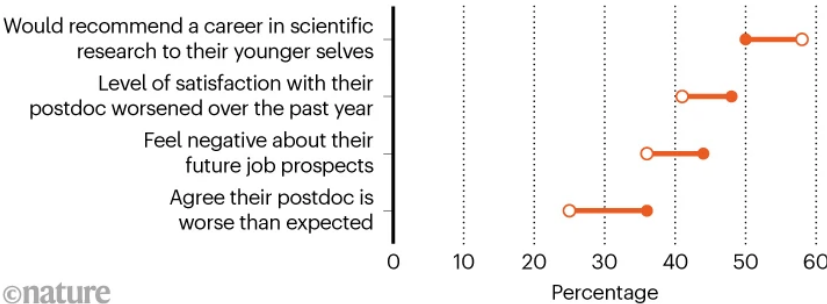
Temporary contracts, low salaries and cost-of-living hikes force many researchers to put off parenthood and other big decisions.

[Linda Nordling](#)

POSTDOC DISENCHANTMENT

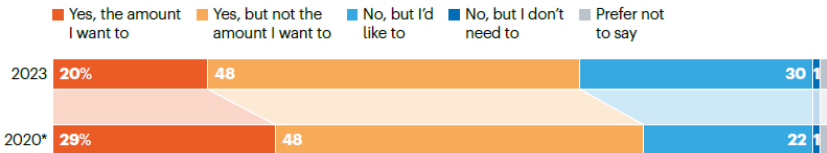
Survey respondents aged 31–40 had a more negative outlook than did their younger counterparts.

○ Under 30 ● 31–40



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Can you currently save/put money aside from your salary?



Does your overall salary/benefits package include the following?



*Percentages don't add up to 100 owing to rounding.

Postdocs are pushing back against low pay and conditions – more institutions must take heed

Postdoctoral dissatisfaction about pay, job security and career progression cannot continue. Institutions must up their game or risk losing the next generation.

Mental health of graduate students sorely overlooked

Too few resources exist to help early-career scientists deal with the stresses encountered in today's 'publish or perish' culture.

[Nikki Forrester](#)

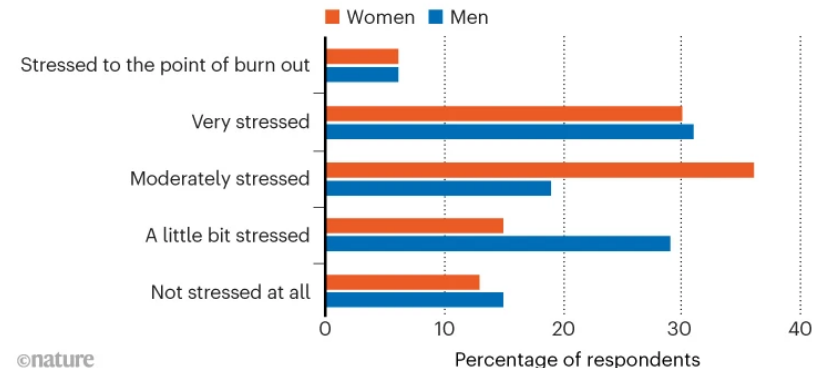
Why science needs a new reward and recognition system

Researchers with children or carer roles have struggled more than others during the pandemic, amplifying existing inequalities, argue Edyta Swider-Cios and colleagues.

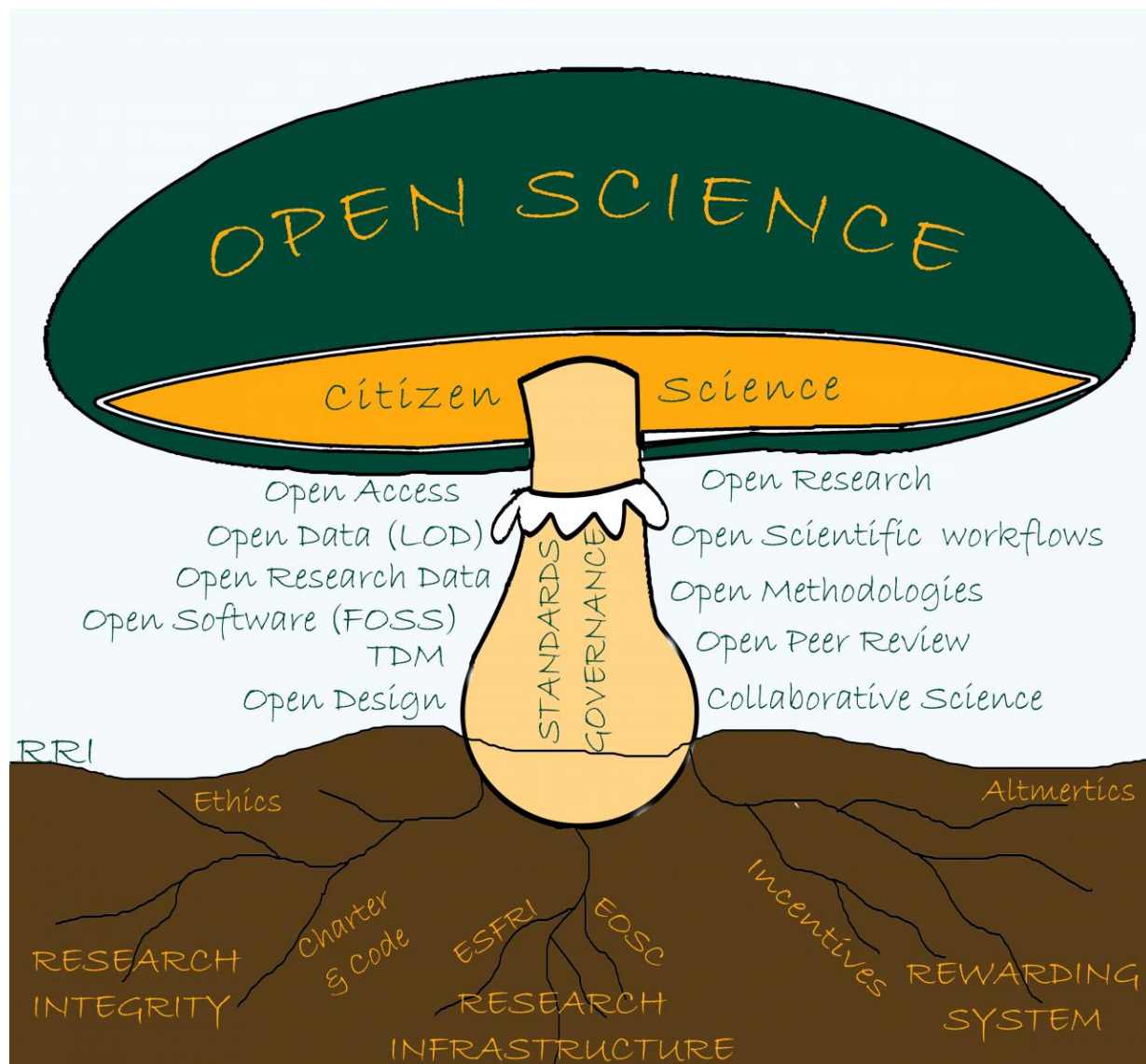
[Edyta Swider-Cios](#), [Katalin Solymosi](#) & [Mangala Srinivas](#)

STRESS FACTOR

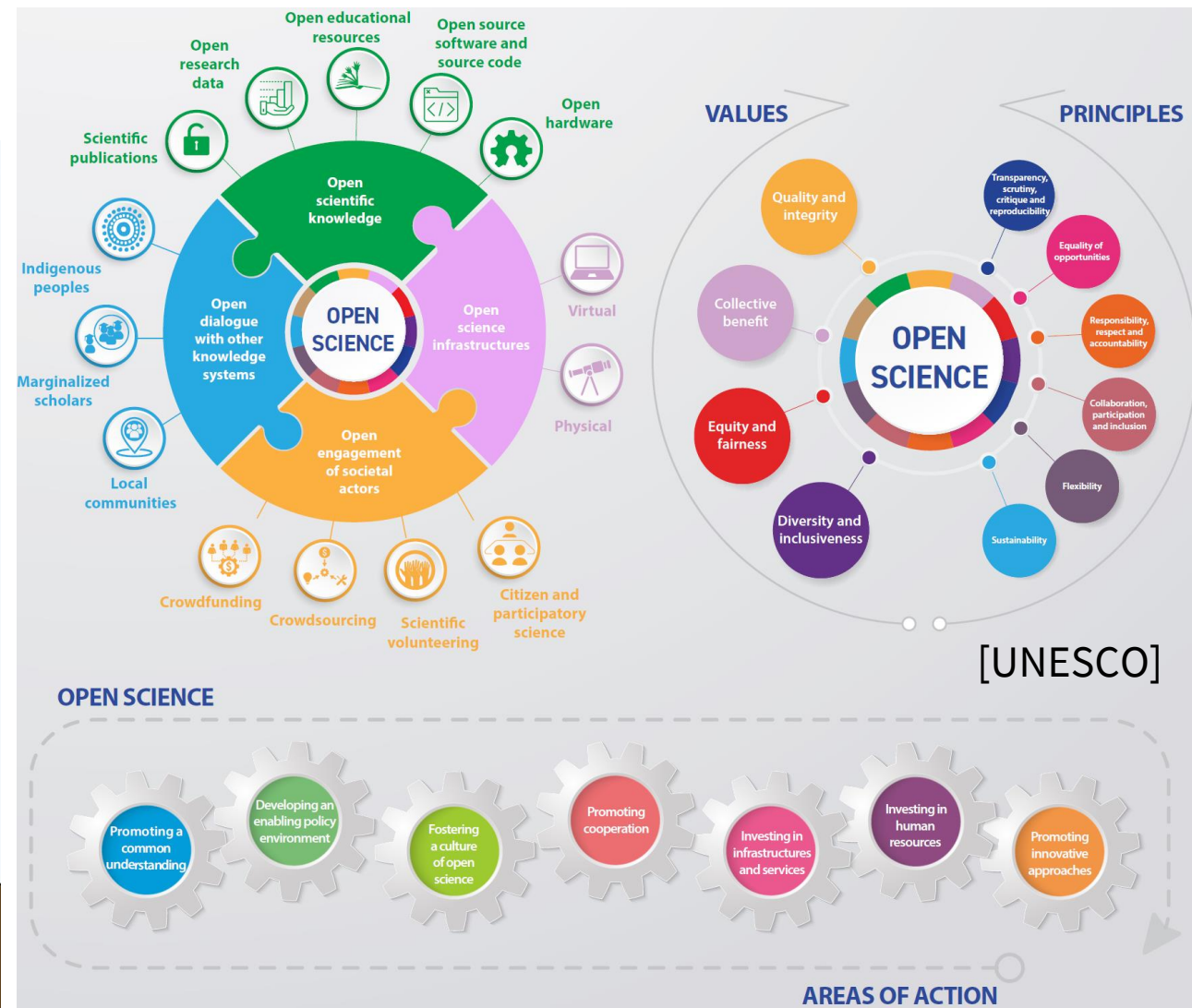
Women and men were equally likely to report feeling very stressed or burnt out. They were also equally likely to report not being stressed at all. But differences become apparent between those two extremes: women were more likely to report feeling 'moderately' stressed, whereas men were more likely to report being 'a little bit' stressed.



©nature



[Eva Medez, UC3M]



Why (else) do we need the reform of research assessment?

- Research assessment is a crucial **quality assurance process** that guarantees the creation of new knowledge as well as economic and societal development.
 - Assessment has to be **responsible, equitable, transparent, efficient & sustainable**.
 - The **current system is based on assessing the quantity and the publication vehicle** and not of the quality or real usefulness & does not take into account all aspects of research activities, including social & public responsibility.
 - The **systems is not aligned with the development of Open Science and of the digital transition, as well as the need to develop transferrable skills** (communication, leadership, teamwork, management, organisation) – having especially in mind the **precarity of ECRs' careers & the evident development of multi-, inter- and transdisciplinarity + intersectoral mobility**.
- ⇒ **A systemic (evolutionary) change of the assessment practices is needed; it is to be based on a paradigm (cultural) shift of the researchers themselves but also of RFOs. Being part of the process (i.e., „at the decision table”) is crucial in this endeavour.**



(2012., 23.200+ signatories,
12% institutions, 88%
individuals)

HONG KONG PRINCIPLES

RoRI Working Paper No.3
The changing role of
funders in responsible
research assessment:



The Metric Tide



LEIDEN MANIFESTO FOR RESEARCH METRICS





RECOMMENDATIONS ON RESEARCH ASSESSMENT PROCESSES

POSITION STATEMENT

July
2020

www.scieur.org/assessment



Towards a reform of the research assessment system

Scoping Report

November - 2021

Research and
Innovation

[https://op.europa.eu/en/publication-detail/-
/publication/36ebb96c-50c5-11ec-91ac-01aa75ed71a1](https://op.europa.eu/en/publication-detail/-/publication/36ebb96c-50c5-11ec-91ac-01aa75ed71a1)

Competence Framework developed by the JRC

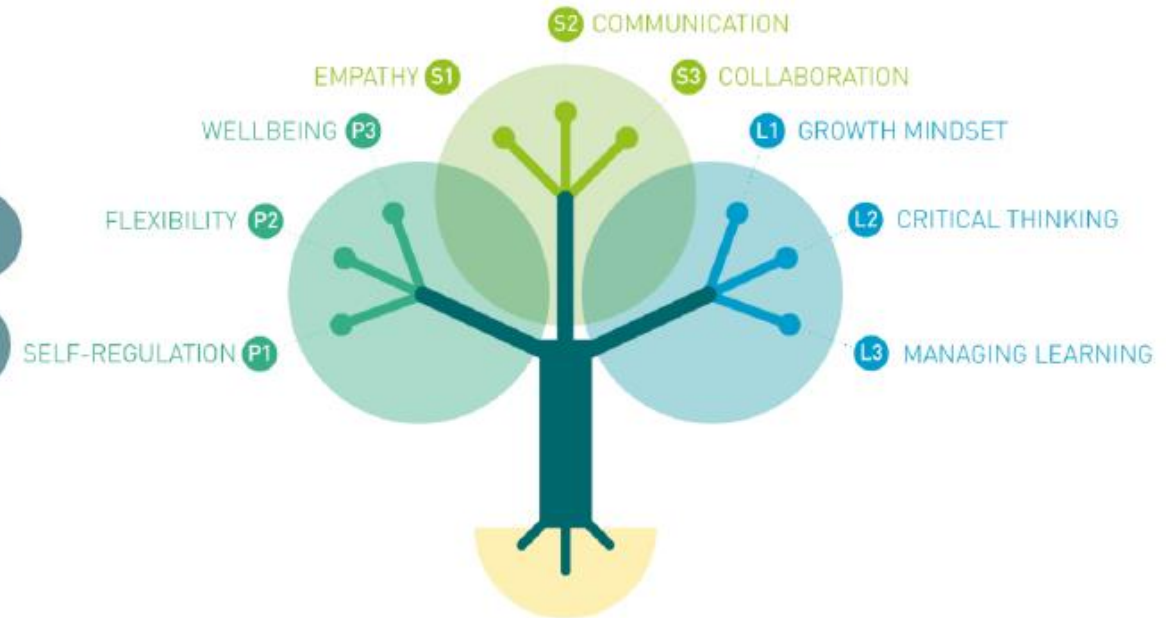
- DigComp, 2013



- EntreComp, 2016



- LifeComp, 2020



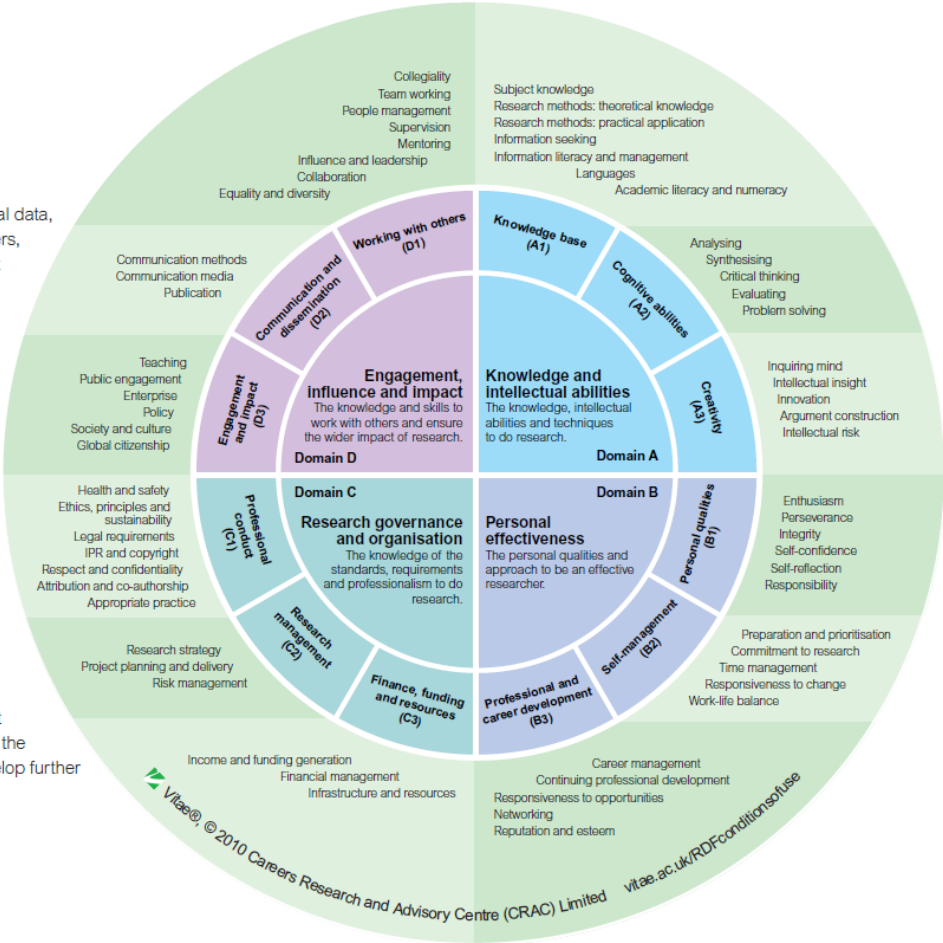
- DigComp 2.0, 2016
- DigComp 2.1, 2017
- DigComp 2.2.. 2022

Vitae Researcher Development Framework, 2011

Structure

The RDF has been created from empirical data, collected through interviewing researchers, to identify the characteristics of excellent researchers expressed in the RDF as 'descriptors'. The descriptors are structured in four domains and twelve sub-domains, encompassing the knowledge, intellectual abilities, techniques and professional standards to do research, as well as the personal qualities, knowledge and skills to work with others and ensure the wider impact of research. Each of the sixty-three descriptors contains between three to five phases, representing distinct stages of development or levels of performance within that descriptor.

The RDF has been incorporated into a downloadable Professional Development Planner to enable researchers to identify the areas in the framework they want to develop further and to create an action plan.



Domain A: Knowledge and intellectual abilities

This domain contains the knowledge and intellectual abilities needed to be able to carry out excellent research.

Sub-domains and descriptors	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
A1 Knowledge base					
1. Subject knowledge	Has, at least, core knowledge and basic understanding of key concepts, issues and history of thought. Knows of recent advances within own research area and in related areas. (A3)* Is working towards making an original contribution to knowledge. Is developing a broader awareness of international and non-academic aspects of knowledge creation.	Develops detailed and thorough knowledge/understanding of own and related subject areas – and becomes familiar with associated areas in other disciplines/research areas. Demonstrates link between own research and real world affairs. Situates knowledge in international context.		Stimulates new knowledge; may make outstanding breakthroughs. Considers multiple perspectives. Has deep and holistic understanding of strategic direction and intellectual developments of discipline/research area and its inter-relatedness with other disciplines/research areas. Uses this knowledge to enrich own discipline/research area. Contributes to the integrity and future vibrancy of the discipline/research area. Exercises international influence.	
2. Research methods – theoretical knowledge	Understands relevant research methodologies and techniques and their appropriate application within own research area. (A4)* Justifies the principles and experimental techniques used in own research. (B6)*	Appreciates the value of a range of standards and methods/techniques for information/data collection and analysis; assesses and demonstrates usefulness and validity of information/data in the context of a specific problem/question.	Combines and justifies methods/techniques designed specifically for an investigation in a flexible and vigorous manner.	Recognises the value of alternative research paradigms and is able to work in, and support others working in, an inter-disciplinary way.	
3. Research methods – practical application	Uses a range of research methods linked to study area; documents own activity. Shows growing competence in own subject area and is developing awareness of alternative methods and analysis techniques.	Develops research approach and applies a range of appropriate methods and techniques with confidence. Documents and evaluates research processes, using statistics where appropriate.	Educates and guides others in the appropriate selection and use of research design, information/data collection, information/data management, analysis and methods/techniques.	Creates new models and hypotheses, research designs, data collection and analysis techniques. Sets expectations for application of methods locally, nationally and internationally.	

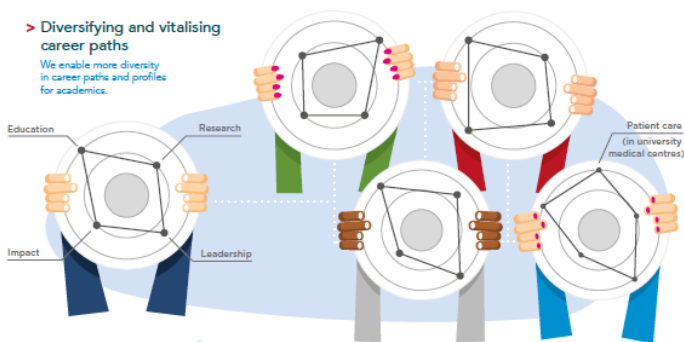
NL

Room for everyone's talent

towards a new balance in the recognition and rewards of academics

> Diversifying and vitalising career paths

We enable more diversity in career paths and profiles for academics.



> Achieving balance between individuals and the collective

We assess academics based on both their individual and their team performance.



> Focusing on quality

In our assessments of academic performance, we increasingly focus on quality, content and creativity.

> Stimulating open science

We encourage academics to share their research outcomes with society.



> Stimulating academic leadership

We stimulate good academic leadership at all levels.



RECOGNITION & REWARDS
ROOM FOR EVERYONE'S TALENT

PRACTICES ▾ E-MAGAZINE STORIES ▾ NEWS ▾ FESTIVAL ABOUT ▾ CONTACT

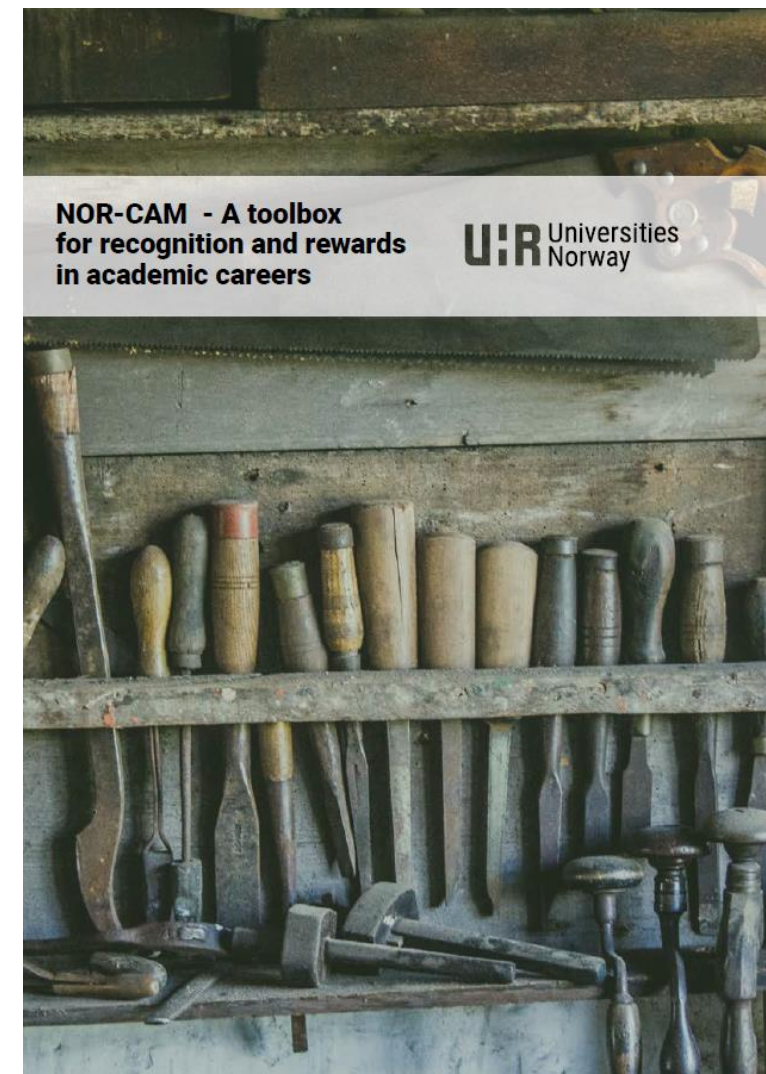
LOGIN

PRACTICES

In this section of the website, we highlight good practices and best principles of Recognition and Rewards in institutions. Because implementing Recognition & Rewards is an exploration of possibilities. Every institution can learn from the other institution's implementation.

FI

NOR-CAM (Norwegian Career Assessment Matrix - Uni Oslo)



GOOD PRACTICE IN RESEARCHER EVALUATION. RECOMMENDATION FOR THE RESPONSIBLE EVALUATION OF A RESEARCHER IN FINLAND

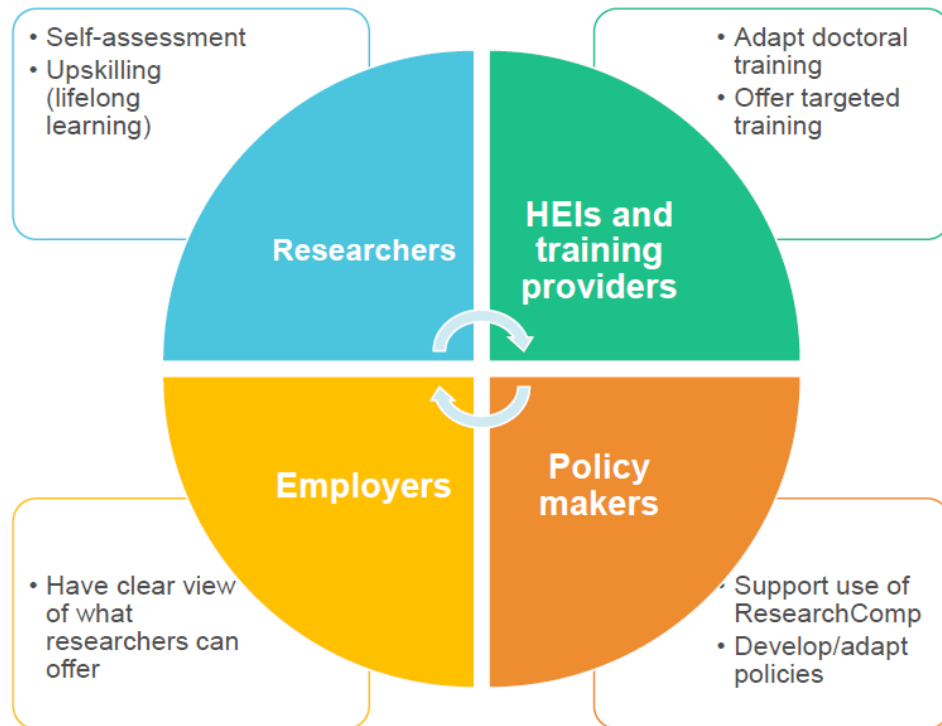
Prepared by a working group set up by The Federation of Finnish Learned Societies. Adopted on 4.2.2020.

→ 2023



[<https://op.europa.eu/en/publication-detail/-/publication/94a6a2ca-00c1-11ed-b94a-01aa75ed71a1/language-en>]





Definition of competence areas, specific competencies, as well as expertise level for each of them (foundational, intermediate, advanced, expert) such as e.g.:

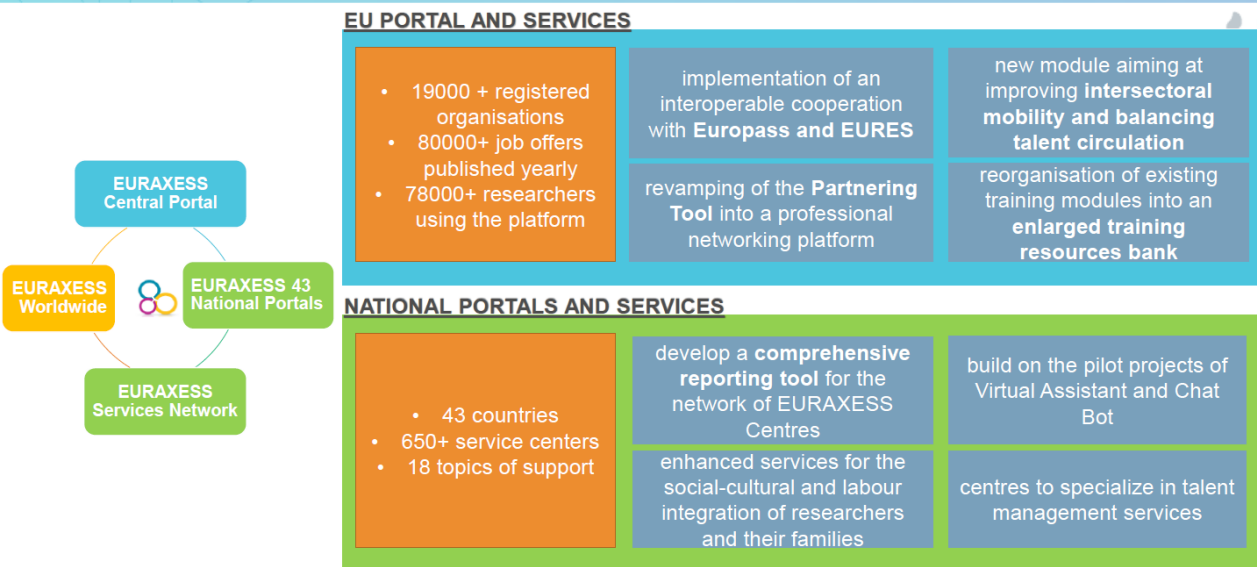
7. Promote the transfer of knowledge

Deploy broad awareness and knowledge of processes of knowledge valorisation aimed to maximise the two-way flow of tools, content material, technology, intellectual property, expertise and capability between the research base and relevant stakeholders within the research field.

- | | | | |
|--|---|--|--|
| <ul style="list-style-type: none">• Understands the process of commercial exploitation of research results.• Recognises the value of embedding academia in innovation communities.• Appreciates the importance of knowledge exchange within society. | <ul style="list-style-type: none">• Develops research ideas with the aims to commercialise them.• Contributes to knowledge exchange within society.• Is aware of different methods to commercialise research. | <ul style="list-style-type: none">• Turns research into ventures.• Advocates for increased engagement with the innovation community.• Builds networks to influence change through knowledge exchange.• Recognises research projects' potential for new products and novel applications. | <ul style="list-style-type: none">• Provides strategic leadership and support to others' commercialisation projects.• Has reputation for successful engagement with innovation stakeholders.• Stimulates, creates and builds extensive relationships in entrepreneurial/business/ commercial context.• Has a track record of successful adoptions of new technologies and/or new ideas. |
|--|---|--|--|

ERA Talent Platform

EURAXESS extended



Important for:

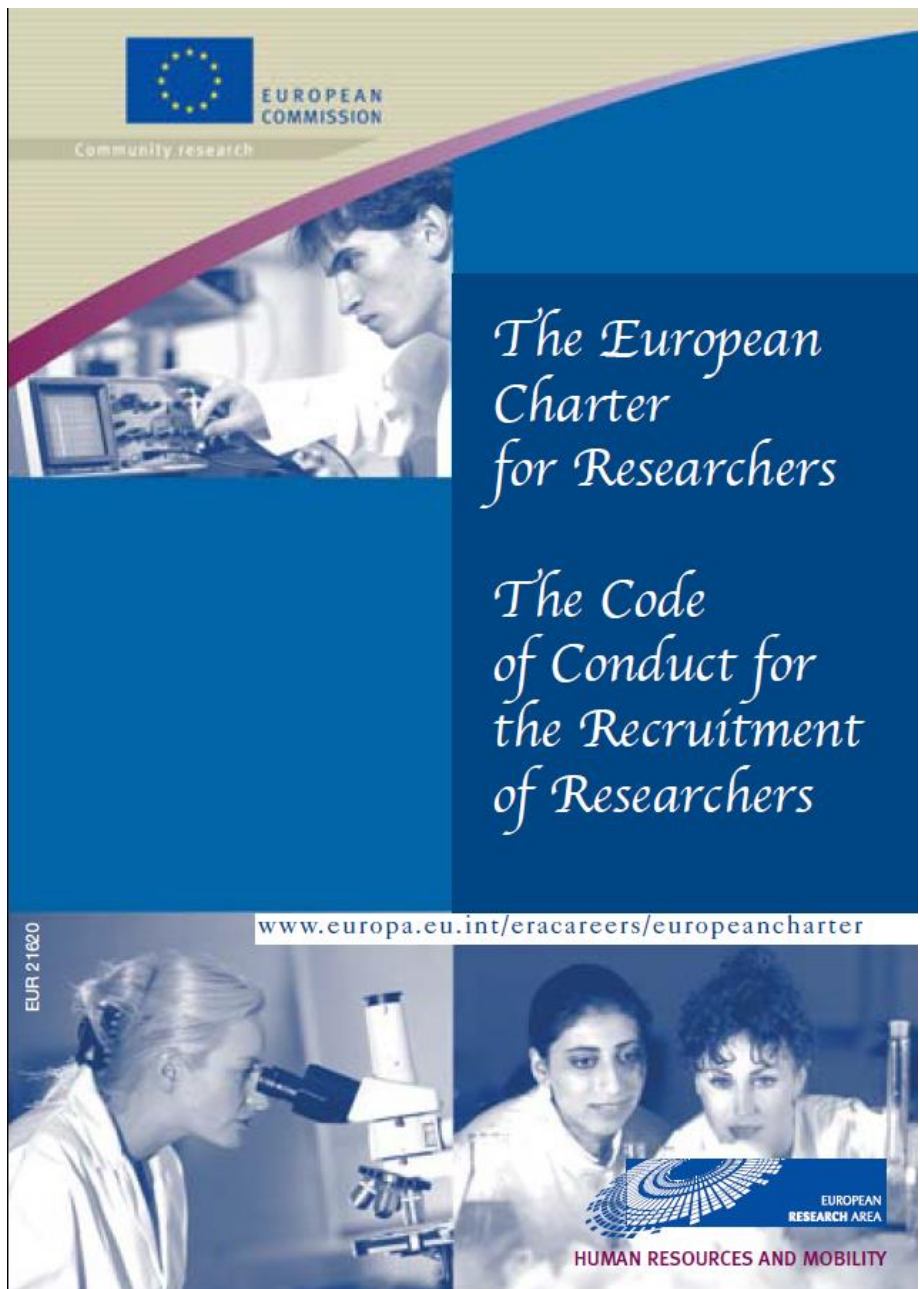
- recognition of titles/employability;
- cooperation with external stakeholders & knowledge (and career!) valorisation;
- RESAVER pension fund: already in AU, HU, CY, BE, IT, FR, ES, DK, IE, CZ, GR, LU, NL, NO, UK, ...
- **will be implemented by 2024!**
- **one of the ERA priorities for 23 MS!!**

ERA Talent Platform one-stop-shop

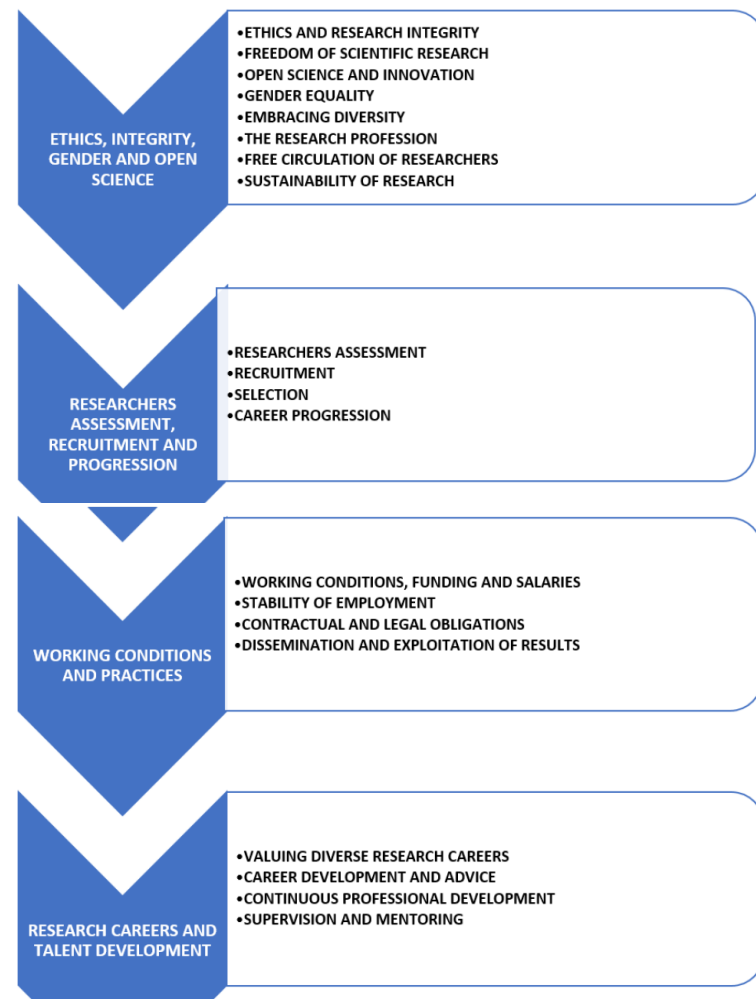
- **ERA Talent Platform** project will cover both existing and new initiatives/modules
 - Existing initiatives: EURAXESS, HRS4R, RESAVER
 - New initiatives: Research Careers Observatory, Foreign Interference one-stop-shop



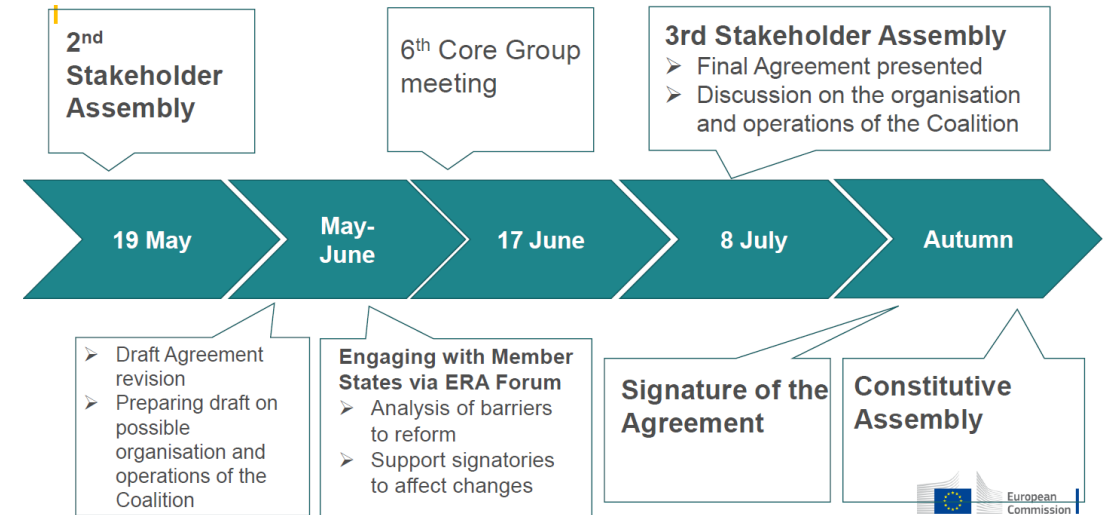
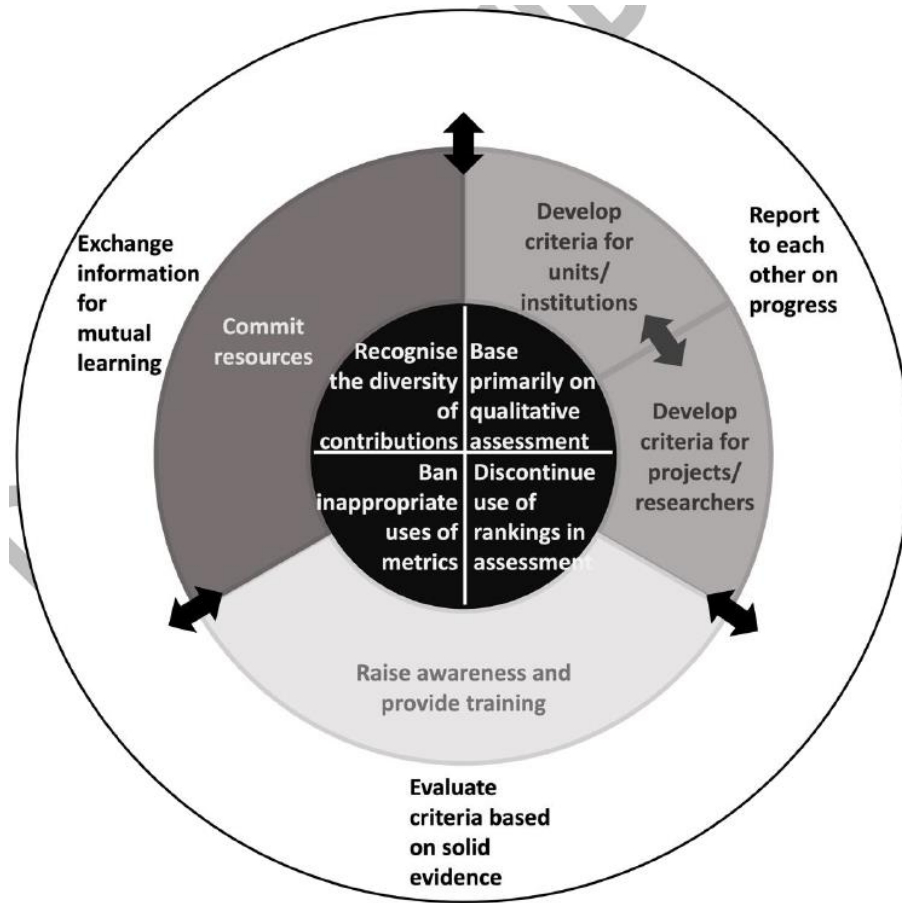
- Aims to create interoperability and synergies between the initiatives, resulting in a higher value for the user and better alignment of IT developments



Revision in course:



<https://coara.eu/>



EU R&I Days, September 28, 2022

#RiDaysEU | European initiative for reforming research assessment

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RESEARCH &
INNOVATION DAYS**

MORE VIDEOS

EUROPEAN RESEARCH & INNOVATION DAYS
VIRTUAL EVENT

51 early signatories:

CORE COMMITMENTS (WHAT)

1. **Recognise the diversity of contributions** to, and careers in, research, in accordance with the needs and the 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 the inappropriate uses in research assessment of journal- and publication-based metrics**, in particular the inappropriate uses of journal impact factor (JIF) and h-index
4. **Avoid the use of rankings of research organisations** in research assessment

SUPPORTING COMMITMENTS (HOW)

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

December 1, 2022.: Coalition for Advancing Research Assessment (CoARA) constitutive assembly

A participant has enabled Closed Captioning. Who can see this transcript?

MEMBERSHIP OF COARA

- 399 validated signatures of the Agreement on Reforming Research Assessment, by 17 November midnight
- Consequently, 399 organisations invited to the CoARA Constitutive Assembly
- 344 organisations registered for the meeting, requested a proxy vote, or confirmed their membership to the coalition without attending the Constitutive Assembly meeting
- Consequently, 344 member organisations of CoARA, as of today
- 320 organisations registered for the meeting or requested a proxy vote
- For today's Constitutive Assembly, we have the Quorum (50%; $320/344 = 93\%$)



Constitutive Assembly – 1 December 2022

10

Adoption of governance structure (general assembly (signatories), SB, secretariat, WGs) and corresponding rules (coara.eu/coalition/coalition/)

4A. RESULTS FROM ELECTION OF VICE-CHAIR(S) AND OTHER STEERING BOARD MEMBERS

CoARA Steering Board:

Letschert, Rianne	Chair
Gadd, Elizabeth	Vice-Chair
Stroobants, Karen	Vice-Chair
Borrell-Damian, Lidia	SB member
Boyle, Paul	SB member
Flores Bueso, Yensi Alejandra	SB member
Koenig, Matthias	SB member
Méndez, Eva	SB member
Rizzi, Menico	SB member
Rousset, Sylvie	SB member
Susi, Toma	SB member

✓ Type of organisation:	UNI	Universities, and their associations	3
	RPO	Research centres, research infrastructures, and their associations	1
	ACA	Academies, learned societies, and their associations, and associations of researchers	3
	FUN	Public or private research funding organisations and their associations	2
	AUTH	National/regional authorities or agencies	1
	OTH	Other relevant not-for-profit organisations involved with research assessment, and their associations	1
✓ Gender:	Women	Men	
	7	4	

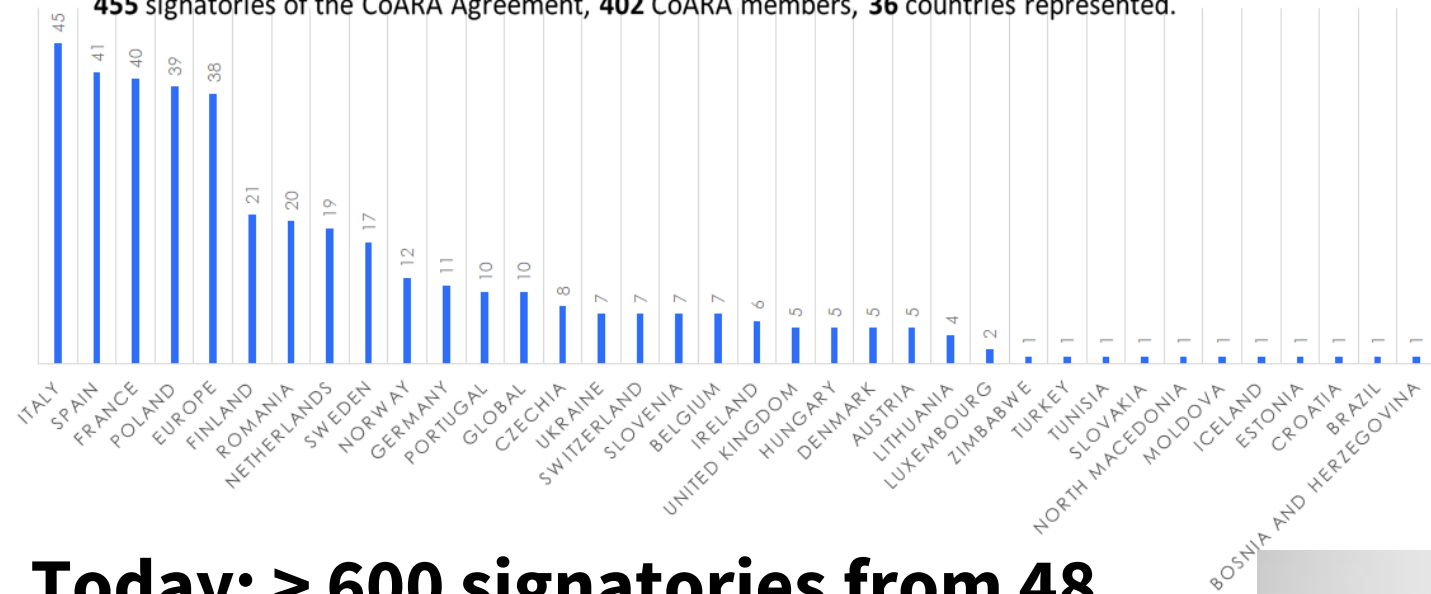


Constitutive Assembly – 1 December 2022

42

CoARA member organisations per countries – 27.01.23

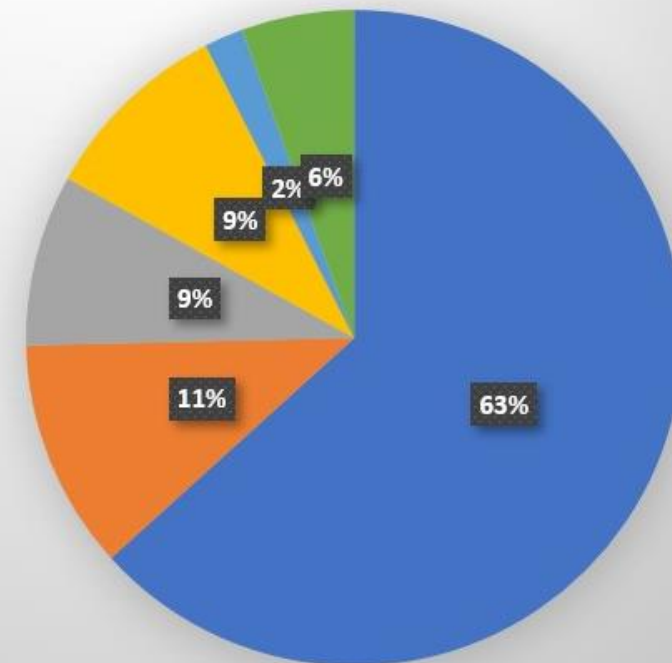
455 signatories of the CoARA Agreement, 402 CoARA members, 36 countries represented.



Today: > 600 signatories from 48 countries (EC, ERC, COST, EUA, EUA-CDE, Eurodoc, MCAA, CERN, Science Europe, EU alliances and networks (YERUN), national foundations (DFG, SNSF), rectors' conferences, EARMA, Uni. Ljubljana, Maribor, Trieste, Padua, POLITO, Antwerp, Maastricht, UC3M, UEF, Torun, **Rijeka, Jožef Štefan, ...)**

Distribution of CoARA membership per types of organisations

- Universities and their associations
- Research centres, research infrastructures, and their associations
- Academies, learned societies, and their associations, and associations of researchers
- Public or private research funding organisations and their associations
- National/regional authorities or agencies that implement some form of research assessment and their associations
- Other relevant non-for-profit organisations involved with research assessment, and their associations



CAREER NEWS | 08 June 2022

Swiss funder unveils new CV format to make grant evaluation fairer

The Swiss National Science Foundation's 'narrative' template seeks evidence of applicants' wider contributions to science.

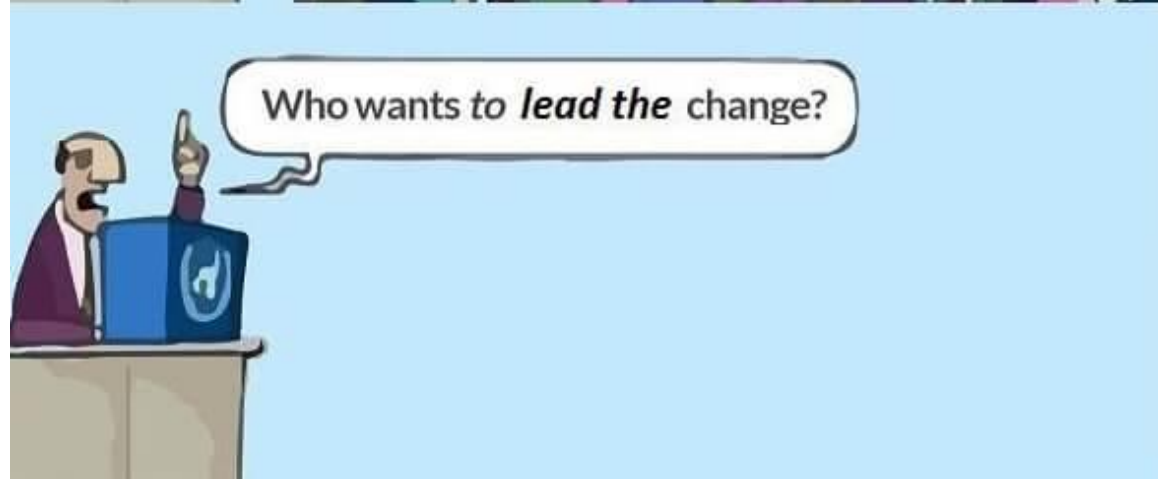


DFG Deutsche
Forschungsgemeinschaft

- https://twitter.com/dfg_public
- https://www.instagram.com/dfg_public/
- <https://www.youtube.com/user/DFGScienceTV>

Information for Researchers No. 61 | 1 September 2022
Package of Measures to Support a Shift in the Culture of Research Assessment

DFG changes proposal forms and introduces mandatory CV template / The aim is to support a shift in the culture of research assessment / Improvement of equal opportunity practices



YUFE Competence Framework for Researchers:

The competence areas are (with competencies and respective descriptors):

- Research
- Learning and Teaching
- Networking and Team Working
- Profile and Career Development

Recognition, rewarding, ...



YUFERING Project
YUFE TRANSFORMING R&I THROUGH EUROPE-WIDE
KNOWLEDGE TRANSFER



Call: H2020-IBA-SwafS-Support-1-2020
Topic: IBA-SwafS-Support-1-2020
Funding type: Coordination and Support Action Lump Sum
Grant agreement No. 101016967

D 4.1: Competence Framework for Researchers
and development offers based on the framework

December 2022

This project has received funding from the European Union's Horizon 2020 research
and innovation programme under the grant agreement No. 101016967
D 4.1: Competence Framework for Researchers and development offers based on the
framework Page 11

Rethinking
Academic careers



CULTURAL CHANGE AS A
KEY BOTTLENECK
TO BE ADRESSED



YERUN paper „Rethinking **academic careers assessment** (research, teaching, leadership and service to society): cultural change as a key bottleneck to be addressed”:

- (i) identify what is not working well and adequately delineate the key objectives to achieve
- (ii) engage with different actors
- (iii) communicate, listen and learn to deal with resistance
- (iv) build competence for change and intervene when appropriate
- (v) make change last.

HE project „OPUS: Open and Universal Science“ (WIDERA call „Support to changes in the assessment of research and researchers to reward the practice of open science“) - <https://opusproject.eu/>: 2 M€, 3 years (since 1. 9. 2022.), 18 partners (UNESCO, Eurodoc, MCAA, YERUN, ...); **coordination and support measures to reform the assessment of research and researchers at Research Performing Organisations (RPOs) and Research Funding Organisations (RFOs) towards a system that incentivises and rewards researchers to practise Open Science**



HE project „Sustainable Careers for Researcher Empowerment (SECURE)“ (HE WIDERA call „Improve career development and solve part of the precarity of research careers in academia“) - <http://secureproject.eu/>: 1,32 M€, 2 years (since 1. 1. 2023.), 17 partners (Eurodoc, MCAA, YERUN, EUROSCIENCE, VDI/VDE, ...); **coordination and support measures to create, trial, implement, and mainstream a common Research Career Framework that offers options in the recruitment, employment, training, development, progression, and mobility of researchers with the aim of improving research careers and reducing career precarity**

Working Group: Reforming Academic Career Assessment

Contact: Rita Morais rita.morais@eua.eu

Introduction

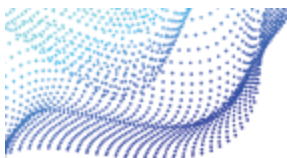
Objectives:

The Working Group on Reforming Academic Career Assessment (ACA) is based on the premise that ACA systems should adequately reflect the different tasks, functions and roles academics fulfil over the course of their career. The aim is to broaden the reflection on research assessment to ACA, taking into account the full range of work conducted by academics in research, teaching and learning, innovation, management/leadership and service to society.

The WG brings together a critical mass of academic stakeholders to 1) define the objectives and principles of reforming ACA, from the perspectives of institutions and academic staff being assessed, and to 2) develop an adaptable toolbox for ACA, considering all university missions and the broad scope of activities, skills and competences of academic staff at different stages of their career. The toolbox will be flexible, sustainable and cater for different institutional profiles and national contexts. It will also provide room for a diversity of career focuses and trajectories.

This WG allows for comprehensive and systematic dialogue on the objectives and principles of reforming ACA, with a large number of organisations with different profiles, from different countries, with varying degrees of autonomy and at different stages in their career assessment reform. The group comprises over 30 members representing the diversity of stakeholders involved in reforming ACA (e.g. national and European university associations, individual universities, researchers' organisations, learned societies, research centres, agencies for the evaluation of universities, research institutes). This WG is a collegial and safe environment for organisations to share experiences, best practices, challenges and unexpected outcomes when reforming ACA.

The Working Group is co-chair by the European University Association (EUA) and the Young Academy of Europe (YAE).



Please note that both the EoI and Full Proposal will be submitted via an online form with text fields, without the option to upload a file. Access to the EoI form will be provided from 06-04-2023 onwards by the CoARA secretariat to your Point of Contact. Same procedure for the Full Proposal form at a later date.

Annex I – Application template – Call for Working Groups

Please note: Fields marked with an asterisk (1-13) need to be completed at the Call for Expression of Interest stage. The remaining fields will need to be completed for full proposals.

<i>Only for full proposals: Title of the submitted Expression(s) of Interest related to this proposal</i>	- Assessment of Early-and-mid-Career Researchers (EMCRs) - Giving Research Culture a Voice – Involving people in Culture Change
1. Working Group title *:	Early-and-mid-Career Researchers (EMCRs) – Assessment and Research Culture
2. Issues to be addressed*: 325/330 characters max.	EMCRs are subject to precarity & hypercompetition, and most affected by culture & assessment practices. Change must involve all; assessment procedures need to be intl. recognised, monitored, and accompanied by training & consultation, to positively shape careers, ensure inclusive change, and help EMCRs navigate the process.

Članak 8.

- (1) Inovacijska djelatnost Sveučilišta uključuje valorizaciju znanja kao aktivnosti koja, na temelju istraživačke djelatnosti i tako kreiranog znanja te umrežavanjem različitih dionika i područja u tzv. peterostrukoj inovacijskoj uzvojnici (engl. *pentalex innovation framework*) – koju čine partneri iz akademske zajednice, gospodarstva, lokalne samouprave, civilnog sektora i šire zajednice, stvara ekonomske, društvene i druge vrijednosti kao i politike značajne za društvo te koje doprinose rastu i razvoju regionalnih inovacijskih ekosustava. Ona se obavlja u suradnji sa zajednicom te zadovoljava potrebe građana i donosi rješenja za društvene izazove.
- (2) Regionalni inovacijski ekosustav podrazumijeva povezivanje dionika iz *pentahelix* modela na provedbi inovacijskih aktivnosti na određenom teritoriju koji ne mora biti ograničen na upravne jedinice (gradove/županije) niti obuhvaćati teritorij samo jedne države. Temelji se na pametnim specijalizacijama koje omogućavaju državama/regijama da se fokusiraju na svoje prednosti.
- (3) Valorizacija znanja obuhvaća transfer znanja i društveno angažirano istraživanje te transfer tehnologija, društvene inovacije te druge aktivnosti razvoja inovativnih koncepata, prototipova i proizvoda kao i inovativnih usluga veće dodane i/ili društvene vrijednosti, uz poticanje svih oblika zaštite intelektualnog vlasništva (patent, žig, zaštićeni industrijski dizajn, oznaka zemljopisnog podrijetla i oznaka izvornosti, zaštićena topografija poluvodičkih proizvoda, priznata biljna sorta).
- (4) Transfer znanja obuhvaća suradnju i interakciju te dijeljenje znanja, tehnologija i drugih intelektualnih ishoda istraživačke i inovacijske djelatnosti Sveučilišta s dionicima izvan akademske zajednice, a posebno s privatnim sektorom te javnom upravom, a koji rezultiraju društvenom i ekonomskom koristi. Transfer znanja oblikuje se putem:
 - poslovne suradnje,
 - inovacijskih projekata,
 - razvoja tehnoloških rješenja (novih ili značajno unaprijeđenih proizvoda i usluga (inovacija), proizvodnih procesa vezanih uz novorazvijena ili unaprijeđena tehnološka rješenja, zaštitu intelektualnog vlasništva vezanog uz inovacije te komercijalizaciju inovacija).
- (5) Poseban oblik transfera znanja je tzv. obrnuti transfer znanja (potaknut potražnjom vanjskih dionika slijedom principa otvorenih inovacija) koji je dvosmjern, orijentiran na stvaranje vrijednosti uz uključivanje društvenih i gospodarskih subjekata u zajednički stvaralački proces pronalaženja rješenja, inter- i transdisciplinaran je, te uključuje razmjenu ideja, dokaza, iskustava i vještina.
- (6) Transfer tehnologije dio je transfera znanja koji se odnosi na komercijalizaciju i tržišnu eksploataciju rezultata istraživačke i stručne djelatnosti te inovacija. Dubokotehnološkim (engl. *deep-tech*) se inovacijama u tom okviru označavaju inovacije koje se temelje na vrhunskoj znanosti te imaju potencijal stvaranja transformacijskih i visokorizičnih rješenja i inovacija za globalne društvene izazove.
- (7) Društvene inovacije obuhvaćaju razvoj i primjenu novih rješenja koja uključuju promjenu u konceptima, proizvodima, procesima i uslugama ili u organizaciji te koje teže poboljšanju dobrobiti i blagostanja pojedinaca i zajednica.
- (8) Inovacijska se djelatnost Sveučilišta pobliže definira Inovacijskom politikom, Pravilnikom o gospodarenju intelektualnim vlasništvom i drugim općim aktima Sveučilišta koje usvaja Senat. Sveučilište pritom temelji inovacijsku djelatnost na svojim pametnim specijalizacijama koje periodično, na prijedlog rektora, Senat uskladuje s europskim, nacionalnim i regionalnim pametnim specijalizacijama.
- (9) Za razvoj i promociju inovacijske djelatnosti na Sveučilištu zadužen je Sveučilišni centar za istraživanje i inovacije u koordinaciji s prorektorom zaduženim za inovacijsku djelatnost.

Na temelju članka 12. stavka 3. točke 12., članka 39. stavaka 1. i 3., članka 40. stavka 6., članka 42. stavka 3. i članka 43. stavaka 4. i 5. Zakona o visokom obrazovanju i znanstvenoj djelatnosti (Narodne novine 119/22), članka 34. točaka 1.-2. i 25.-27., članka 55. stavaka 1. i 4., članka 56. stavka 2., članka 58. stavka 3. i članka 59. stavaka 2. i 3. Statuta Sveučilišta u Rijeci (KLASA: 030-01/23-01/05, URBROJ: 2170-137-01-23-1 od 21. ožujka 2023. godine) te članka 12. Pravilnika o znanstvenoj, umjetničkoj i inovacijskoj djelatnosti na Sveučilištu u Rijeci, Senat Sveučilišta u Rijeci na svojoj 85. sjednici održanoj dana 22. rujna 2023. godine donosi

SMJERNICE ZA DODATNE KRITERIJE ZA IZBOR NA ZNANSTVENO-NASTAVNA, UMJETNIČKO-NASTAVNA, NASTAVNA, SURADNIČKA I STRUČNA RADNA MJESTA NASTAVNIKA SVEUČILIŠTA U RIJECI I SASTAVNICA SVEUČILIŠTA

Elementi vrednovanja

Opći elementi vrednovanja dodatnih kriterija za izbor na znanstveno-nastavna, umjetničko-nastavna, nastavna, suradnička i stručna radna mjesta na Sveučilištu odnosno sastavnici Sveučilišta u pravilu će se svrstati u sljedeće kategorije:

- akademska znanja i vještine pristupnika;
- vještine i norme akademskog i institucijskog ponašanja;
- osobne kvalitete, znanja i vještine.

Akademska znanja i vještine u pravilu će obuhvatiti:

- kvalitativnu razinu znanstvenih publikacija koja se ne može ocijeniti bibliometrijskim pokazateljima, uključujući kvalitetu rezultata i kvalitetu korištene metodologije istraživanja;
- poznavanje metodologije i tehnologije istraživačkog rada;
- rad na multidisciplinarnim, interdisciplinarnim i transdisciplinarnim istraživanjima i projektima;
- predanost internacionalizaciji istraživačkih i nastavnih aktivnosti;
- predanost instrumentima otvorene znanosti: objava radova u skladu s FAIR principima, otvorenost vlastitih istraživačkih podataka, nastavnih resursa, projektnih prijava, softvera, kôdova i hardvera, istraživačkih metoda, evaluacija, otvorenost znanstvene infrastrukture, rad na otvorenim inovacijama, otvoreni angažman u zajednici i sl.;
- nastavne kompetencije: planiranje, provođenje i razvoj nastave i nastavnih materijala - uključujući studije na stranom jeziku, razvoj kurikula i izvedbenih planova, razvoj modula mikrokvalifikacija, kvaliteta mentorstva, rad na unapređenju vlastitih nastavnih i metodoloških kompetencija, korištenje (otvorenih) alata e-učenja, razvoj prenosivih vještina studenata;
- upravljanje istraživanjima: planiranje, prijava i provedba kompetitivnih znanstvenih i umjetničkih projekata, planiranje i provedba istraživačkih i stručnih projektnih aktivnosti, praćenje razvoja karijere mladih istraživača, upravljanje rizicima, aktivnosti istraživačkog (*peer review*) vrednovanja publikacija, projekata, studijskih programa i kvalitete institucija;
- financiranje: privlačenje financiranja za istraživanje, komercijalizacija znanja, upravljanje financijskim sredstvima, pribavljanje i upravljanje istraživačkom infrastrukturom, osiguravanje sredstava za ljudske resurse (posebno mlade istraživače);

- djelovanje u zajednici: sklonost poduzetnosti, poduzetništvu i transferu znanja, razvoj inovacija i kulturnih vrijednosti, društvene inovacije te inovacije u javnom sektoru, rješavanje društvenih izazova, doprinos razvoju regionalnih inovacijskih ekosustava, poticanje građanske znanosti, poznavanje europskih i drugih međunarodnih vrijednosti i politika.

Vještine i norme akademskog i institucijskog ponašanja u pravilu će obuhvatiti:

- profesionalnost u radu: predanost normama akademskoga integriteta te rad na razvoju i primjeni akademske čestitosti, prepoznavanje autorstva svih suradnika koji su doprinijeli istraživačkim rezultatima, doprinos mjerama rodne ravnopravnosti, rad na području zaštite intelektualnog vlasništva i autorskih prava, povjerljivost;
- liderske vještine: uspješnost upravljanja institucijom i/ili ustrojbenim jedinicama, kvaliteta upravljanja akademskim mrežama, istraživačkim skupinama i projektima, uspješnost upravljanja panelima i povjerenstvima, prepoznavanje talenata, upravljanje izvan akademskog sektora, rad na razvoju inovacijskih centara (*hubova*) te doprinos umrežavanju s dionicima iz gospodarskog, javnog i nevladnog sektora te iz šire zajednice;
- rad na razvoju i implementaciji institucijskih politika, uključujući doprinos institucijskim, regionalnim i nacionalnim pametnim specijalizacijama;
- doprinos postizanju globalnih ciljeva održivog razvoja Ujedinjenih nacija, ciljeva akcija Europskog istraživačkog prostora i ciljeva Europskog prostora visokog obrazovanja te doprinos institucijskim mjerama zaštite na radu;
- timski rad: poštovanje kolega i suradnika, kolegijalnost, upravljanje ljudima, uspješnost u vođenju (međunarodnih, interkulturalnih, interdisciplinarnih) timova, suradničke i pregovaračke kompetencije, poticanje različitosti i uključivosti;
- komunikacijske vještine: međunarodno i globalno djelovanje u istraživačkim, nastavnim i institucijskim aktivnostima, suradnja s dionicima u i izvan akademske zajednice, uključivanje u svoj rad društvenih i gospodarskih dionika, svi oblici dijaloga i suradnje sa širom zajednicom i građanima, izgradnja povjerenja s društvenim dionicima.

Osobne kvalitete, znanja i vještine će u pravilu obuhvatiti:

- temeljna znanja: najvažnija i najnovija znanja u istraživačkom području, temeljna teorijska znanja, umijeće primjene znanja, sposobnost traženja i usvajanja informacija, upravljanje informacijama i podacima, znanje stranih jezika, akademska pismenost;
- entuzijazam, upornost, integritet, samopouzdanje, samokritičnost, odgovornost i neovisnost, prilagodljivost i fleksibilnost, umješnost u rješavanju konflikata;
- kognitivne vještine: vještine analize i sinteze, apstraktno i kritičko mišljenje, strateško i sistemsko razmišljanje, sposobnost suočavanja sa te rješavanja problema i izazova;
- stručni i karijerni razvoj: upravljanje vlastitom karijerom i planiranje njezinog razvoja, međunarodna, međuinstitucijska i međusektorska mobilnost, stalno usavršavanje u struci i nastavi, stručno umrežavanje i uspostava profesionalnih mreža, profesionalni ugled;
- upravljanje osobnim resursima: postavljanje prioriteta, predanost profesiji, upravljanje vremenom, razmjerno usklađivanje poslovnih i obveza iz privatnog života u skladu s načelima rodne ravnopravnosti i uvažavanja različitosti;
- kreativnost: intelektualna radoznalost, originalnost, inovativnost, argumentiranost, spremnost na intelektualne rizike, istraživačka samostalnost;
- razumijevanje različitih društvenih i kulturnih konteksta u vlastitoj te u međunarodnoj zajednici, svijest o važnosti djelovanja u svrhu opće društvene koristi.

* Pojam „istraživanje” i „istraživač” te korištene izvedenice preduimaju u ovom dokumentu sve aktivnosti koncipiranja i stvaranja znanja (stvaranje koncepata, teorija, modela, tehnika, instrumenata, softvera, operativnih metoda ili kreativnih ostvarenja), i u znanosti i u umjetnosti.

uniri



PRAVILNIK O ZNANSTVENOJ, UMJETNIČKOJ I INOVACIJSKOJ DJELATNOSTI NA SVEUČILIŠTU U RIJECI

Rijeka, rujan 2023.

Challenges



- **Inertia/unwillingness/resistance to change.**
 - **Lack of awareness/training (research culture!) but also of rewards/incentives.**
 - **Different treatment of established vs. ECRs and of various sci. disciplines.**
 - **Quality of publications, data safety & time concerns.**
 - **Large part of measures are at the level of national (regional) bodies vs. academic freedom and institutional autonomy.**
 - **Big diversity among EU MS (& intersectoral) implementations .**
 - **National policies trail behind EU/EC ones.**
 - **Peer review: quality (especially in small and closed research communities) & peer review fatigue.**
- ⇒ **A systemic (evolutionary) change of the assessment practices is needed; it is to be based on a paradigm (cultural) shift of the researchers themselves but also of RFOs. Being part of the process (i.e., „at the decision table”) is crucial in this endeavour.**

Thank you!

#UniRiThePlaceToBe

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Vice-rector for Strategic Projects

szelenika@uniri.hr

50 YEARS OF
THE **NESS**
UNIVERSITY
OF RIJEKA



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 **YUFE**

 Yerun