



PERSPECTIVES ON THE REFORM OF RESEARCH ASSESSMENT INITIATIVE: **SCIENCE EUROPE**

JAMES MORRIS
SCIENCE EUROPE

13 DECEMBER 2022

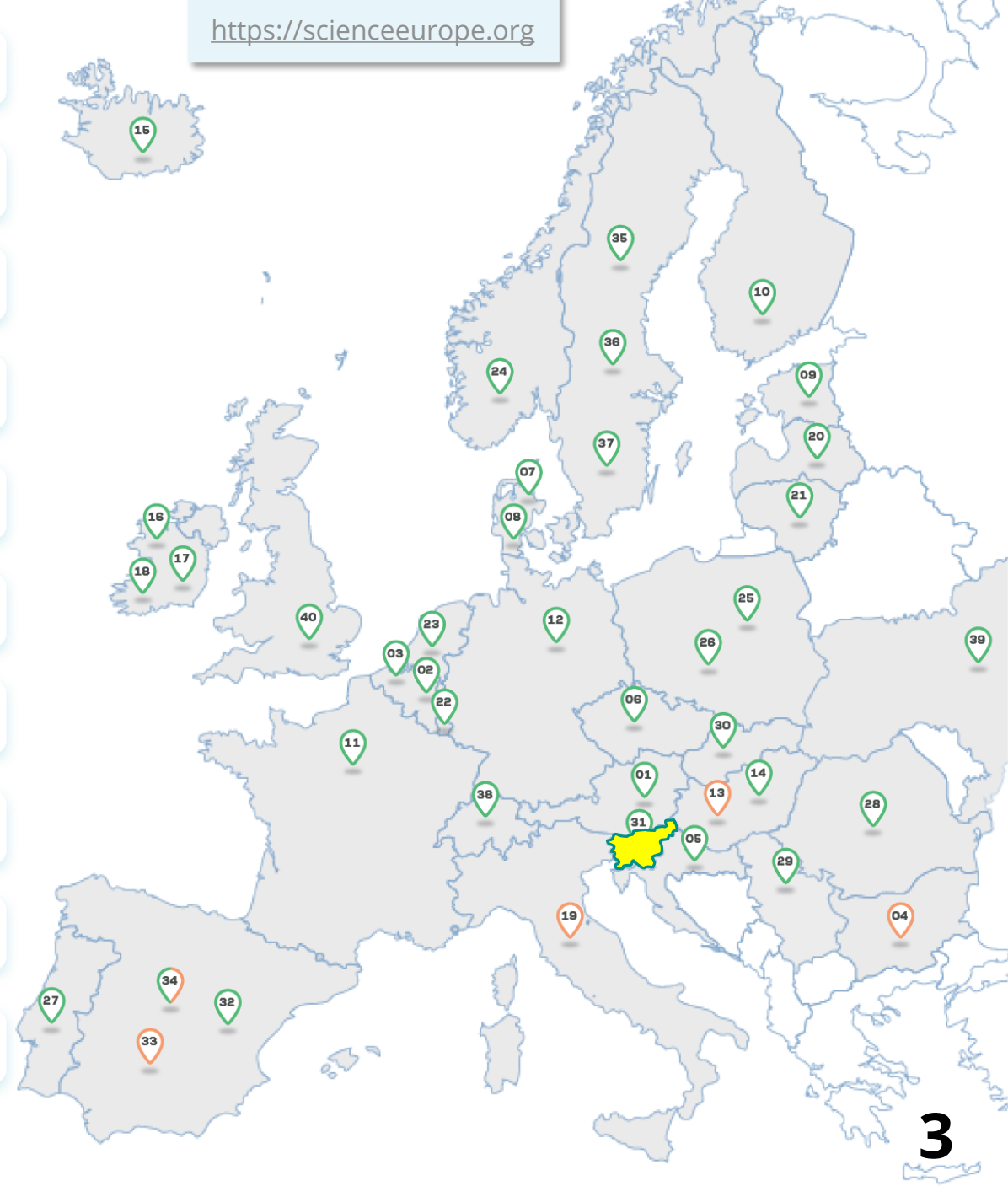
JAMES.MORRIS@SCIENCEEUROPE.ORG

[@JPMORRIS88](https://twitter.com/JPMORRIS88)

01 FWF Der Wissenschaftsfonds.	02 fnrs LA LIBERTÉ DE CHERCHER	03 fwo Research Foundation Flanders Opening new horizons	04 
05 HRZZ Croatian Science Foundation	06 GAČR RESEARCH SCIENCE FOUNDATION	07 INDEPENDENT RESEARCH FUND DENMARK	08 Danmarks Grundforskningsfond Danish National Research Foundation
09 Estonian Research Council	10 ACADEMY OF FINLAND	11 anr agence nationale de la recherche	12 DFG Deutsche Forschungsgemeinschaft German Research Foundation
13 ELKH Eötvös Loránd Research Network	14 	15 rannís	16 HRB Health Research Board
17 IRISH RESEARCH COUNCIL An Chomhairle um Thuaghe in Éire	18 sfi Science Foundation Ireland For what's next	19 INFN Istituto Nazionale di Fisica Nucleare	20 
21 Lietuvos mokslo taryba	22 Luxembourg National Research Fund	23 NWO	24 The Research Council of Norway
25 FNP Foundation for Polish Science	26 NATIONAL SCIENCE CENTRE	27 FCT Fundação para a Ciência e a Tecnologia fct.pt/fundacao-ciencia-e-tecnologia	28 U&Fiscadi
29 Science Fund of the Republic of Serbia	30 SLOVAK RESEARCH AND DEVELOPMENT AGENCY	31 arrs SLOVENIAN RESEARCH AGENCY	32 
33 CSIC CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS	34 iñc Instituto de Salud Carlos III	35 FORTE Swedish Research Council for Health, Women's Life and Welfare	36 FORMAS
37 Vetenskapsrådet	38 Swiss National Science Foundation	39 NATIONAL RESEARCH FOUNDATION OF UKRAINE	40 UK Research and Innovation



01 FWF Der Wissenschaftsfonds.	02 fnrs LA LIBERTÉ DE CHÉRISSER	03 fwo Research Foundation Flanders Opening new horizons	04 
05 HRZZ Croatian Science Foundation	06 GAČR ČESKÁ VĚDECKÁ FONDACE	07 INDEPENDENT RESEARCH FUND DENMARK	08 Danmarks Grundforskningsfond Danish National Research Foundation
09 Estonian Research Council	10 ACADEMY OF FINLAND	11 anr agence nationale de la recherche	12 DFG Deutsche Forschungsgemeinschaft German Research Foundation
13 ELKH Eötvös Loránd Research Network	14 	15 rannís	16 HRB Health Research Board
17 IRISH RESEARCH COUNCIL An Chomhairle um Thuaghadh in Éirinn	18 sfi Science Foundation Ireland For what's next	19 INFN Istituto Nazionale di Fisica Nucleare	20 
21 Lietuvos mokslo taryba	22 Luxembourg National Research Fund	23 NWO	24 The Research Council of Norway
25 FNP Foundation for Polish Science	26 NATIONAL SCIENCE CENTRE	27 FCT Fundação para a Ciência e a Tecnologia fct.pt/fundacao-pciencia-e-tecnologia	28 <i>U&Fiscadi</i>
29 Science Fund of the Republic of Serbia	30 SLOVAK RESEARCH AND DEVELOPMENT AGENCY	31  arrrs SLOVENIAN RESEARCH AGENCY	32 
33 CSIC CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS	34 iñi Instituto de Salud Carlos III	35 FORTE Swedish Research Council for Health, Welfare and Life and Vårdal	36 FORMAS
37 Vetenskapsrådet	38 Swiss National Science Foundation	39 NATIONAL RESEARCH FOUNDATION OF UKRAINE	40 UK Research and Innovation



Why is research assessment important?

Research assessment represents a core activity of Research Funding and Research Performing Organisations. It shapes many aspects of the research landscape and exerts influence over how research is performed and disseminated.



Research Assessment has been a long-standing priority topic of Science Europe, explored through various topics including: Research Impact ([2017](#)), Peer Review ([2015](#) and [2018](#)), and Gender Equality ([2017](#)) among others

Why is research assessment reform needed?

Objective - to study how Science Europe Member Organisations (and invited external organisations) **select the best projects for funding and researchers for career progression** through their assessment processes, and whether these processes are **fair, transparent, effective, and efficient**.



Science Europe Study on Research Assessment Practices (2019)

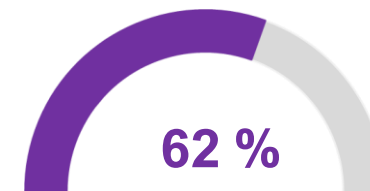
DOI: [10.5281/zenodo.4915998](https://doi.org/10.5281/zenodo.4915998)

Engagement

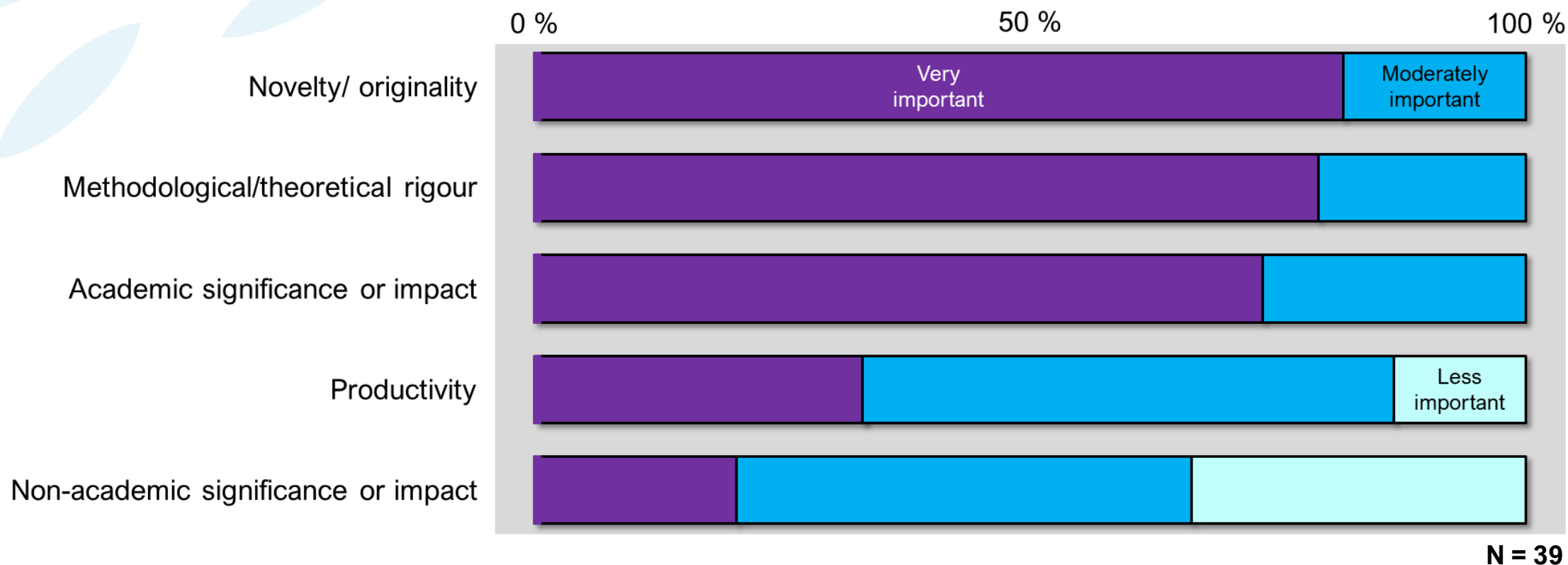
Organisation type	Response rate
Members	86% (32/37)
Non-members	86% (6/7) *
RFOs	97% (33/34)
RPOs	50% (5/10)
Total	86% (38/44)

* Participating external organisations: European Research Council (EU), Weizmann Institute of Science (IL), Wellcome (UK), Czech Academy of Science (CZ), National Institute of Health (USA), and European Molecular Biology Organisation (DE)

Question - How do organisations understand research quality?

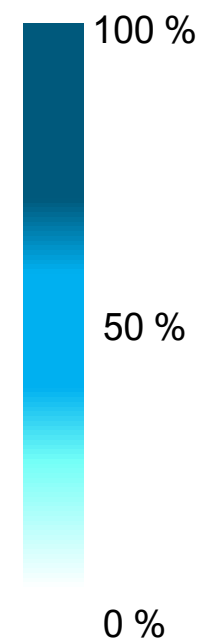


of organisations do not have a formal definition of research quality



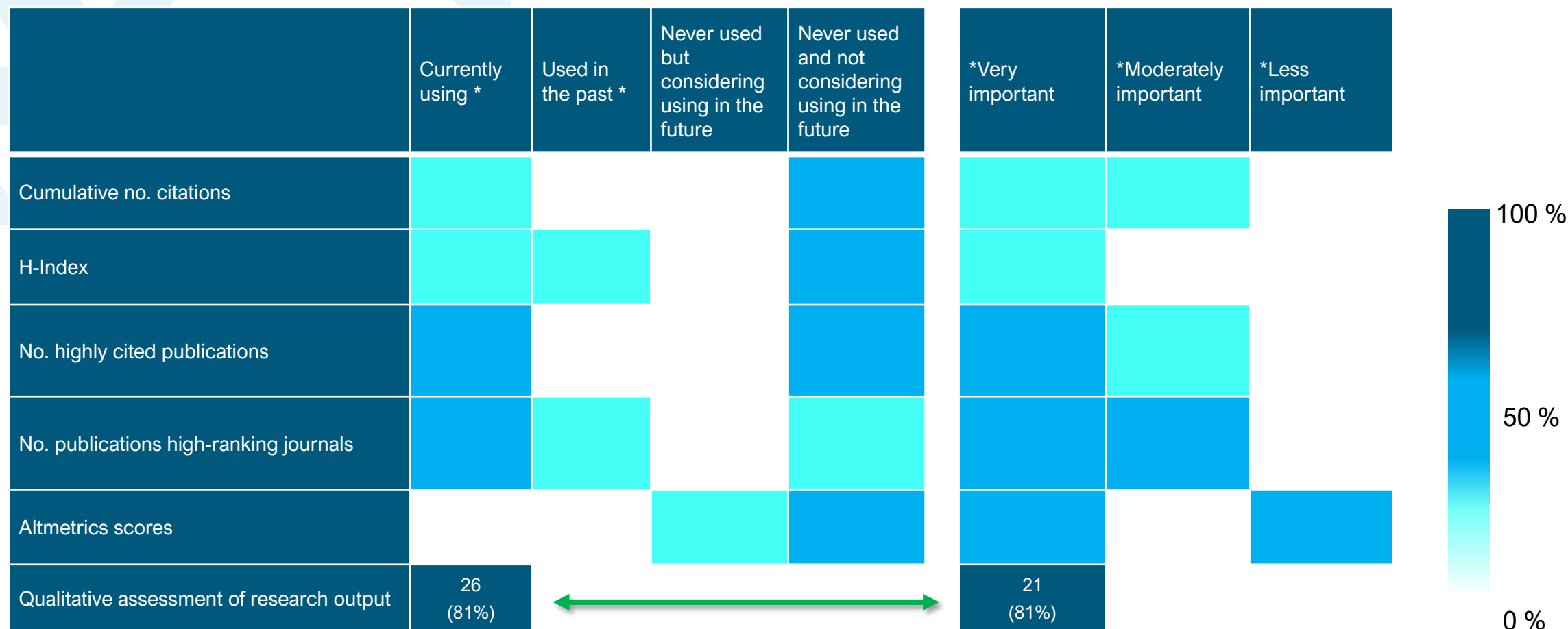
Question – What author-level approaches/tools are used by the reviewers? ... and how important are they?

	Currently using *	Used in the past *	Never used but considering using in the future	Never used and not considering using in the future	*Very important	*Moderately important	*Less important
Cumulative no. citations	10 (31%)	5 (16%)	1 (3%)	16 (50%)	5 (33%)	5 (33%)	0 (0%)
H-Index	11 (34%)	7 (22%)	0 (0%)	14 (44%)	6 (33%)	3 (17%)	2 (11%)
No. highly cited publications	14 (40%)	5 (14%)	2 (6%)	14 (40%)	9 (47%)	5 (26%)	0 (0%)
No. publications high-ranking journals	17 (50%)	8 (24%)	0 (0%)	9 (26%)	12 (48%)	5 (20%)	0 (0%)
Altmetrics scores	2 (7%)	0 (0%)	9 (30%)	19 (63%)	1 (50%)	0 (0%)	1 (50%)
Qualitative assessment of research output	26 (81%)	0 (0%)	2 (6%)	4 (13%)	21 (81%)	4 (15%)	1 (4%)



N = 39

Question – What author-level approaches/tools are used by the reviewers? ... and how important are they?



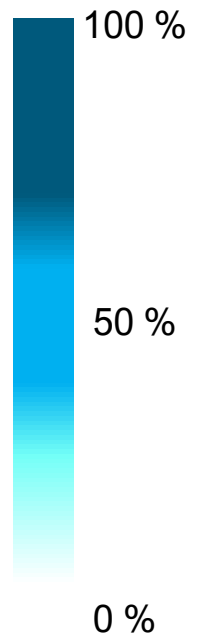
Qualitative assessment is used by most and deemed very important

N = 39

Question – What author-level approaches/tools are used by the reviewers? ... and how important are they?

	Currently using *	Used in the past *	Never used but considering using in the future	Never used and not considering using in the future
Cumulative no. citations	10 (31%)	<div>There is a split in organisation approaches to the use of tools</div>		16 (50%)
H-Index	11 (34%)			14 (44%)
No. highly cited publications	14 (40%)			14 (40%)
No. publications high-ranking journals	17 (50%)			9 (26%)
Altmetrics scores				
Qualitative assessment of research output				

*Very important	*Moderately important	*Less important

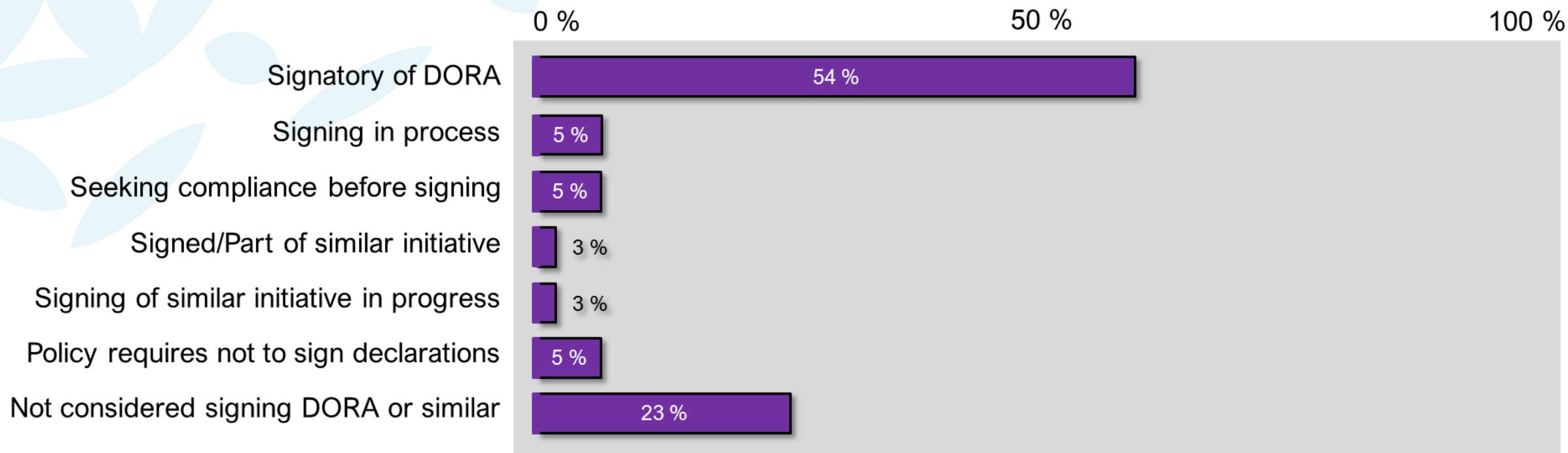


N = 39

Question – What challenges face research organisations in the implementation of research assessments?

1. Research organisations describe the need for **continued effort in combating all forms of bias, discrimination, and unfair treatment**
2. Pressure exerted on assessment systems by **limited funds** and/or positions makes distinguishing and ranking proposals/applicants of **similar quality** (particularly around funding thresholds) more difficult.
3. The **cost and efficiency** of assessment systems is a major challenge (particularly for those that have moved towards more **qualitative assessments**).
4. Balancing the **effort and time burden of both applicants and reviewers** was also a common challenge described.

Question – Has your organisation joined/supported any initiatives related to research assessment?



N = 39

A shift in reducing reliance on quantitative metrics may be partly driven by community-level actions and declarations and initiatives



Science Europe Position Statement on Research Assessment Practices (2020)

DOI: [10.5281/zenodo.4916155](https://doi.org/10.5281/zenodo.4916155)



TRANSPARENCY

Assessment processes must be clear and transparent at all stages



EVALUATING ROBUSTNESS

Assessment processes should be monitored and evaluated, and best practices shared



BIAS, DISCRIMINATION & UNFAIR TREATMENT

Research organisations should publicly show how they address bias, discrimination and unfair treatment



COST, EFFICIENCY & APPLICANTS' EFFORT

Assessment processes should be streamlined and standardised to improve efficiency for all involved



BROADENING THE POOL OF REVIEWERS

Research organisations should consider broader selection criteria for reviewers and suitably recognise their work



QUALITATIVE ASSESSMENTS

Assessment processes should enable evaluations to focus on content and consider a wide range of research outputs and activities



NOVEL APPROACHES

Research organisations should consider novel approaches to assessments in an evidence-based manner and share their experiences

Study & Recommendations summary

Assessment processes implemented by research organisations are mostly seen as effective, but with many known issues and challenges.

In the face of the many challenges expressed, from bias mitigation, to inefficiencies, and limited funding/over-competition, changes to policies and practices are periodically made and appraised.

Changes to assessment processes take place slowly and incrementally.

Many good practices exist, however, the system is under a lot of strain, and **broader reform, at all levels, is needed, and this requires collective action.**

Common understanding of the challenges and opportunities:



LEIDEN MANIFESTO FOR RESEARCH METRICS



HONG KONG PRINCIPLES

The Metric Tide



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



...



Study & Recommendations summary

Assessment processes implemented by research organisations are mostly seen as effective, but with many known issues and challenges.

In the face of the many challenges expressed, from bias mitigation, to inefficiencies, and limited funding/over-competition, changes to policies and practices are periodically made and appraised.

Changes to assessment processes take place slowly and incrementally.

Many good practices exist, however, the system is under a lot of strain, and **broader reform, at all levels, is needed, and this requires collective action.**

GOOD PRACTICE EXAMPLE
FROM SCIENCE EUROPE MEMBER ORGANISATIONS

TRANSPARENCY



Research Foundation
Flanders
Opening new horizons

FWO has implemented a two-week rebuttal phase in its project funding schemes, during which applicants can respond to comments of reviewers. This gives them the chance to clear up any misunderstandings or counter unfounded assessments.




BELGIUM

Read more on the **FWO** example: <https://scieur.org/ra-fwo>
Discover all our recommendations on Research Assessment Processes: <https://scieur.org/assessment>

@FWOVlaanderen @ScienceEurope


GOOD PRACTICE EXAMPLE
FROM SCIENCE EUROPE MEMBER ORGANISATIONS

EVALUATING ROBUSTNESS



Foundation for
Polish Science

FNP periodically evaluates its funding programmes in 3 ways: via self-monitoring, internal evaluation, and external evaluation. The evaluation reports are made publicly available.



POLAND

Read more on the **FNP** example: <https://scieur.org/ra-fnp1>
Discover all our recommendations on Research Assessment Processes: <https://scieur.org/assessment>

@FNP_org_pl @ScienceEurope

GOOD PRACTICE EXAMPLE
FROM SCIENCE EUROPE MEMBER ORGANISATIONS

NOVEL APPROACHES



Der Wissenschaftsfonds.

FWF recently piloted a hybrid double-blind assessment/random-allocation system as a new way of effectively and efficiently conducting assessments for funding allocation. This was part of their '1000 Ideas' programme.



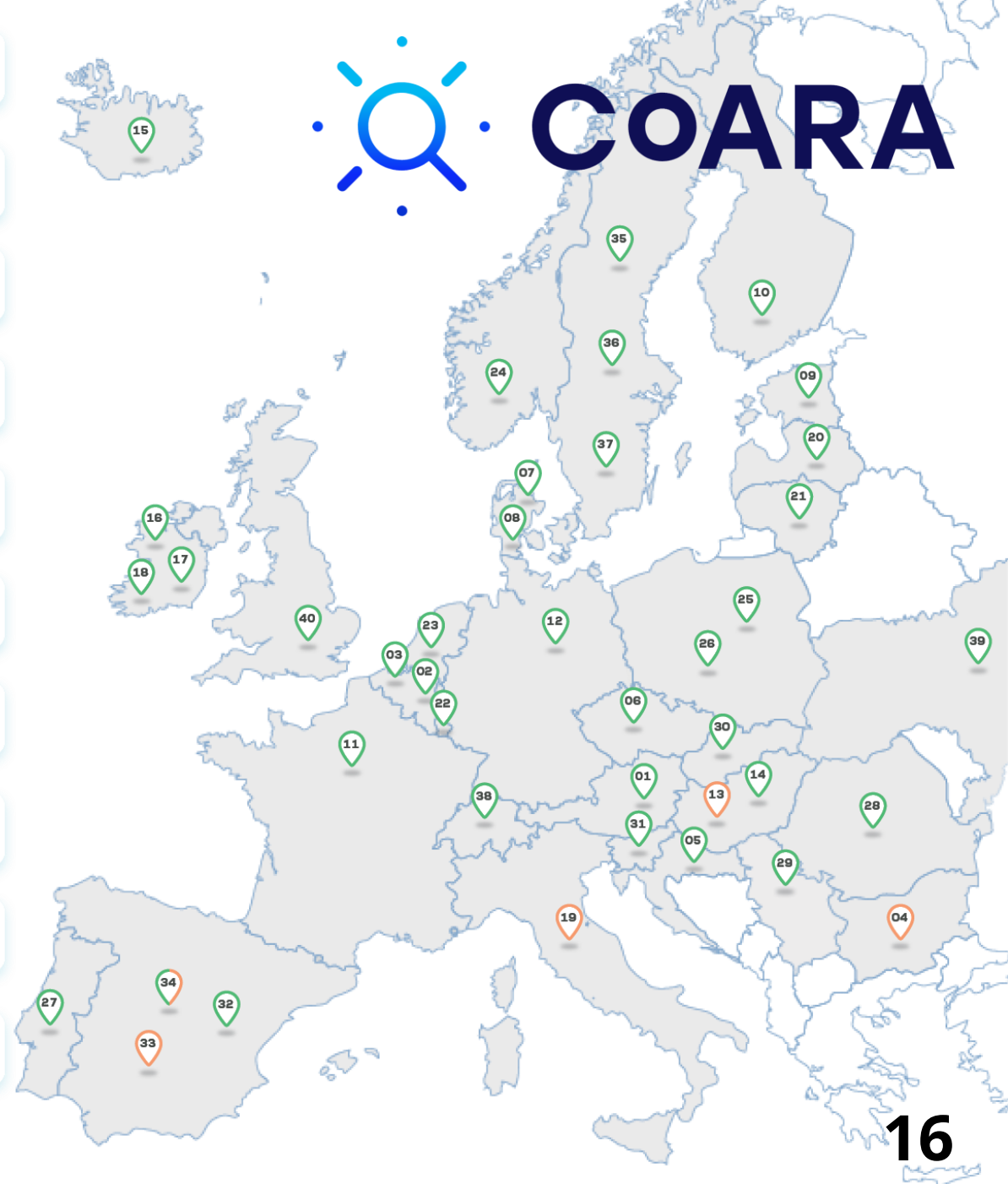
AUSTRIA

Read more on the **FWF** example: <https://scieur.org/ra-fwf2>
Discover all our recommendations on Research Assessment Processes: <https://scieur.org/assessment>

@FWF_at @ScienceEurope

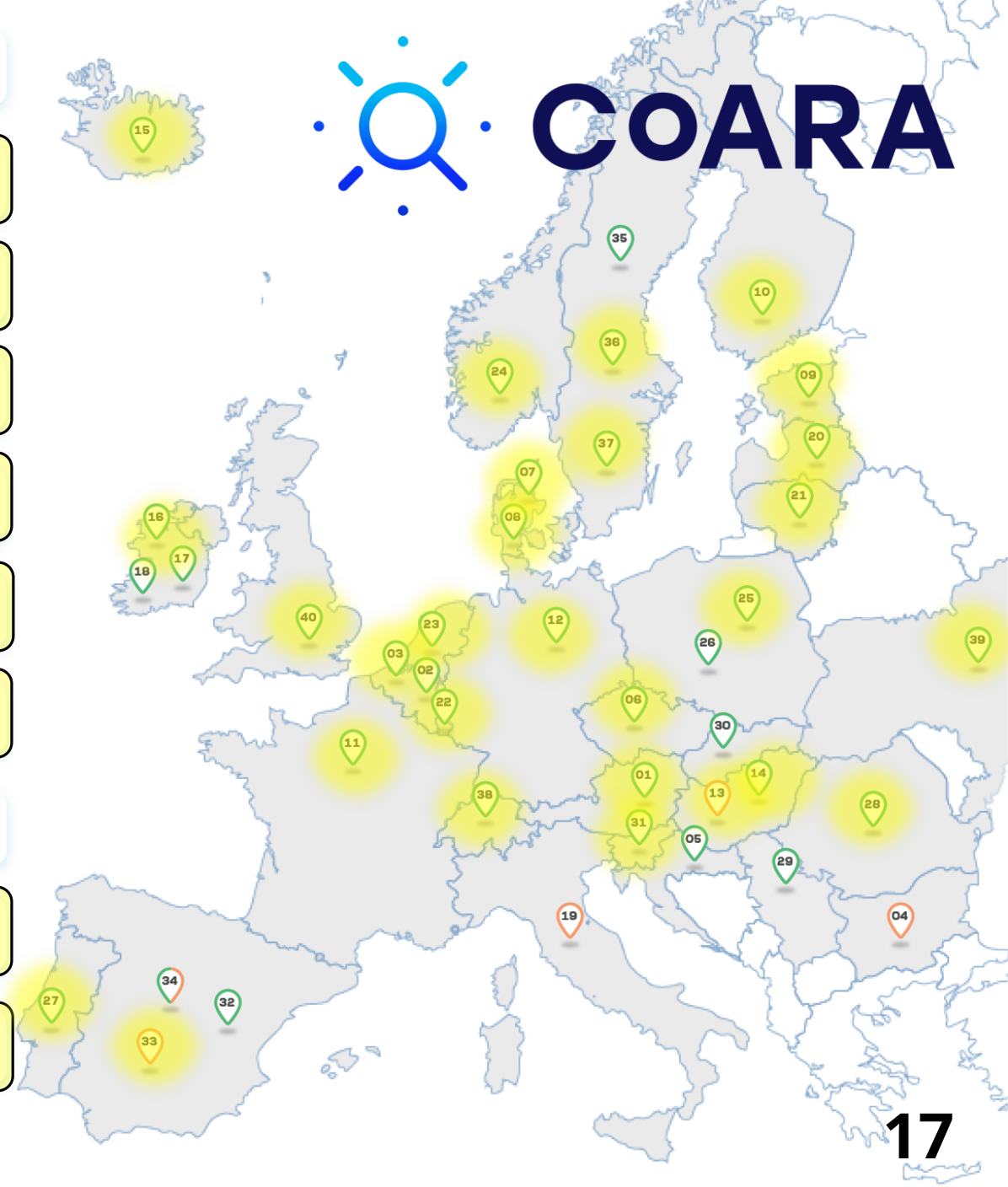
01 FWF Der Wissenschaftsfonds.	02 fnr's LA LIBERTÉ DE CHERCHER	03 fwo Research Foundation Flanders Opening new horizons	04 
05  HRZZ Croatian Science Foundation	06  GAČR Czech Science Foundation	07  INDEPENDENT RESEARCH FUND DENMARK	08  Danmarks Grundforskningsfond Danish National Research Foundation
09  Estonian Research Council	10  ACADEMY OF FINLAND	11 anr [®] agence nationale de la recherche	12 DFG Deutsche Forschungsgemeinschaft German Research Foundation
13  ELKH Eötvös Loránd Research Network	14 	15  rannís	16 HRB Health Research Board
17  IRISH RESEARCH COUNCIL An Chomhairle um Thagairt in Éirinn	18  sfi Science Foundation Ireland For what's next	19  INFN Istituto Nazionale di Fisica Nucleare	20 
21  Lietuvos mokslo taryba	22  Luxembourg National Research Fund	23  NWO	24  The Research Council of Norway
25  FNP Foundation for Polish Science	26  NATIONAL SCIENCE CENTRE	27 FCT Fundação para a Ciência e a Tecnologia funder@fct.pt	28 U&Fiscadi
29  Science Fund of the Republic of Serbia	30  SLOVAK RESEARCH AND DEVELOPMENT AGENCY	31  ARRS SLOVENIAN RESEARCH AGENCY	32 
33  CSIC CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS	34  ISC Instituto de Salud Carlos III	35 FORTE Swedish Research Council for Healthy, Wellbeing Life and Welfare	36 FORMAS
37  Vetenskapsrådet	38  Swiss National Science Foundation	39  NATIONAL RESEARCH FOUNDATION OF UKRAINE	40  UK Research and Innovation

 **RESEARCH FUNDING ORGANISATION**
 **RESEARCH PERFORMING ORGANISATION**



COARA

01 FWF Der Wissenschaftsfonds.	02 fnrs LA LIBERTÉ DE CHÉRISSER	03 fwo Research Foundation Flanders Opening new horizons	04
05 HRZZ Croatian Science Foundation	06 GAČR Czech Science Foundation	07 INDEPENDENT RESEARCH FUND DENMARK	08 Danmarks Grundforskningsfond Danish National Research Foundation
09 Estonian Research Council	10 ACADEMY OF FINLAND	11 anr agence nationale de la recherche	12 DFG Deutsche Forschungsgemeinschaft German Research Foundation
13 ELKH Eötvös Loránd Research Network	14	15 rannís	16 HRB Health Research Board
17 IRISH RESEARCH COUNCIL An Chomhairle um Thuaghadh in Éirinn	18 sfi Science Foundation Ireland For what's next	19 INFN Istituto Nazionale di Fisica Nucleare	20
21 Lietuvos mokslo taryba	22 Luxembourg National Research Fund	23 NWO	24 The Research Council of Norway
25 FNP Foundation for Polish Science	26 NATIONAL SCIENCE CENTRE	27 FCT Fundação para a Ciência e a Tecnologia	28 U&Fiscati
29 Science Fund of the Republic of Serbia	30 SLOVAK RESEARCH AND DEVELOPMENT AGENCY	31 arrs SLOVENIAN RESEARCH AGENCY	32
33 CSIC	34 ISC Instituto de Salud Carlos III	35 FORTE Swedish Research Council for Health, Veterans Life and Welfare	36 FORMAS
37 Vetenskapsrådet	38 Swiss National Science Foundation	39 NATIONAL RESEARCH FOUNDATION OF UKRAINE	40 UK Research and Innovation



Science Europe & CoARA moving forwards

Maintain the momentum

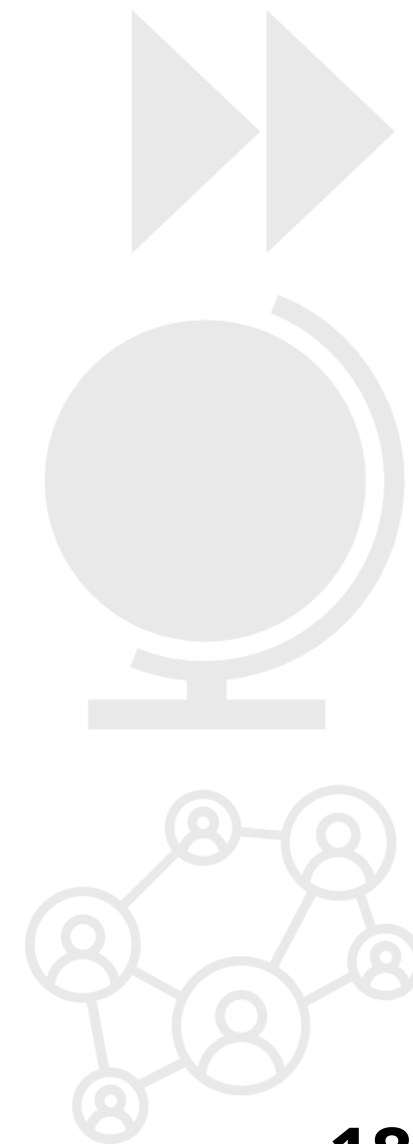
Science Europe will continue to advocate for CoARA

Expand the membership globally

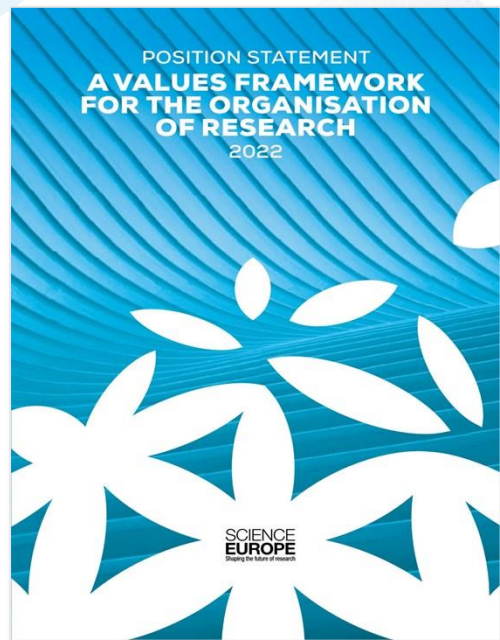
Science Europe works closely with the Global Research Council

Think about research culture

One of three strategic priorities for Science Europe, and a key enabler of the CoARA commitments



Values at the core of what we do



Research
management and
governance

OPENNESS AND
TRANSPARENCY

AUTONOMY/
FREEDOM

CARE AND
COLLEGIALITY

The research
process, activities,
outputs and
outcomes

INTEGRITY
AND ETHICS

COLLABORATION

EQUALITY,
DIVERSITY AND
INCLUSION

**THANK YOU FOR
YOUR ATTENTION**

JAMES.MORRIS@SCIENCEEUROPE.ORG
[@JPMORRIS88](#)

