KRECon 2023 on Research(er) Assessment – Summary of Conference Contributions

The 11th Knowledge Research Education Conference – **KRECon 2023: The Future of Research(er) Assessment** organised by the National Library of Technology was held on 9–10 November 2023 in Prague under the auspices of the Ministry of Education, Youth and Sports and Government Council for Research, Development and Innovation of the Czech Republic. The Conference brought together international experts in research assessment, along with representatives of the national actors in the Higher Education and R&D&I sector as well as early-career researchers to discuss the future of research and researchers' assessment in the Czech Republic and Europe. Reforming research assessment is one of the priorities of the European Research Area and the newly formed international Coalition for advancing research assessment (**CoARA**).

The programme included pre-conference workshops, presentations and panel discussions. Conference sessions aimed to reform research assessment, research careers and grant applications. The open and final panel discussion brought reflections on different aspects of research assessments, its pitfalls and possible future developments in the Czech Republic and Europe. A lot of new questions arose as well. Video recordings and presentations from the **KRECon 2023** are on the conference website.

Targeted Audience: Governmental policymakers, higher education and research institution management, academics, and researchers at all career stages.

Conference Board: Tomáš Polívka (chair), Eva Dibuszová, Pavel Doleček, Eva Hnátková, Melita Kovačević, Martin Loebl, Gareth O'Neill, Martin Svoboda.

The organisation of the KRECon 2023 and program committee was coordinated by Eva Hnátková, Open Science coordinator at NTK. The whole conference was moderated by Gareth O'Neill, the Principal Consultant on Open Science at Technopolis Group.

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The conference started with an inspiring speech by Pavel Doleček. The main message he raised is summarised below and is followed by a summary of the participants' contributions.
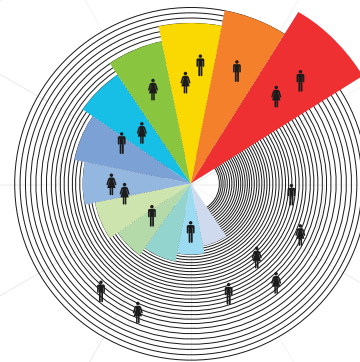
Pavel Doleček
Deputy Minister for Science, Research, and Innovation of the Czech Republic

- There is an information gap between policy, researchers and institutions. Clear communication and explanation of what (EU) policy means for both researchers and institutions is needed. Research assessment (RA) is quite complex given the different levels, demands and activities; context is important. There is a huge difference between the evaluation of research institutions at national level, and evaluation within the institutions or assessing the grants, research careers, whole systems or funders themselves.

- There are increasing demands on RA, on institutions and on researchers. There may be a growing tension due to inner hidden discrepancies or demands on resources such as manpower, funding, peer reviews and we have to tackle this carefully. We have to work together, to see each other's perspective and definitely strengthen the dialogue across the ecosystem, especially managers of the institutions and political level (co-creation approach). Leadership of the management of the institutions is a big topic and challenge for the whole research ecosystem.

- CoARA is a specific platform for improving RA and sharing good practices. Guiding principles/commitments are not imprinted in stone, they have to be applied and accepted on the level and on the activity that they meant for. Alignment with CoARA depends on different levels: (inter)national, institutional and individual. We need to focus not only on the institutional level but also on research careers. We also should grasp that RA is not just about practicalities of assessment itself but has political implications. It is connected with designing of funding on European and national level as well as it should be aligned with other major policies, mainly with open access.

- There are constantly more PhDs and more researchers. Intersectoral cooperation and recognition of diversity of careers should therefore be more stressed: many of the current PhDs will probably not pursue their own research. There are nevertheless many positions beyond academia or within the academic ecosystem so there are and will be different things and positions to hold and they should be recognised by merit not by the output of their research, but the service and support they provide. How to cope with that diversity in a research career and its consequences towards assessment and management?
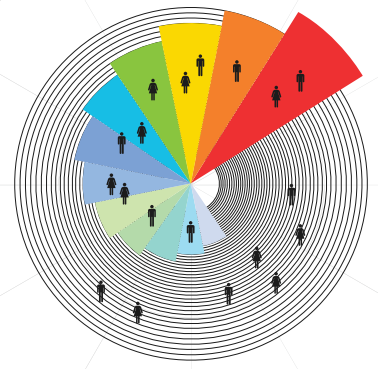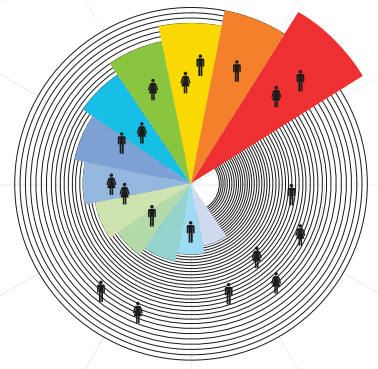
Petr Baldrian
President of Czech Science Foundation

- Project-based funding serves for support of ideas, individual researchers and their teams, but also adds values to institutions and research facilities. In Czechia, project-based funding is essential for scientific endeavours due to limitations of institutional funding.

- Maximising assessment quality is achieved by using tested procedures (such as the ERC model) through evaluation by experts in panels and using an efficient information system (automatic identification of CoI). To maximise fairness, evaluation considers career length/breaks, gender issues and tries to implement new trends in project assessment based on CoARA, but it is not always so easy.

- Different funding calls (e.g. excellent, young researchers, mobility) require specific assessment criteria. Assessment focuses on two main aspects: 1) scientific quality, novelty and potential impact and 2) the proposer's ability to achieve project goals. There are challenges on how to evaluate „soft" parts of the proposal - value for society, involvement of the public, communication with stakeholders. How to handle additional project requirements (gender, OS, outreach)? What to consider when assessing the applicant – it is difficult to say and how to convert it (like service to the community vs. productivity).

- Ensuring standardisation of assessment by external reviewers remains a key challenge. Panel members are educated to assess potential advancement rather than counting metrics. Future fair assessment would allow interviews (especially in case of ECRs) and possibly fully international members in panels, but both are connected to money.

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Martin Bunček
**Managing Director at Technology Agency
of the Czech Republic**

- We are losing focus on what's important during the project assessment. We are distracted by additional things to evaluate, like assessing DMPs at the proposal stage.

- Although the training of evaluators is important, it is the distraction from the essentials of the evaluation that confuses not only evaluators but the researchers as well.

- The best way to select the best projects is to assess the idea first, which is connected with the people, team, and industry involved. Removing proposals where ideas are out and from the rest make the lottery. It would be fast, transparent, and fair.
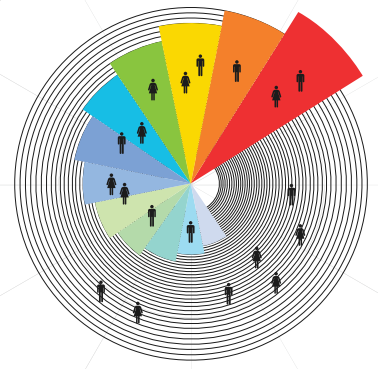
Brian Cahill
**Former Chair of Marie Curie
Alumni Association**

- RA significantly influences researchers' career paths, willingness to adopt Open Science practices, PhD defence requirements, relationships with supervisors and research funding for completing doctorates. Mental health issues, especially among PhD candidates acknowledging the pressure to publish.

- There is a gap between policies, declarations and reality. The issue is with hierarchical structures and publication pressures for young researchers. The involvement of industrial partners can result in sustainable research, which is essential to ensure sufficient funding for research careers.

- Suggested revision of reward systems, fair research evaluation, professionalising supervision, and recognizing academic services. Supporting supervisors is crucial, preferring a positive approach rather than punishment. Supervision is a management job with a larger role extending beyond supervision of a doctoral candidate. It involves diverse tasks with managing money, applying for funding, managing projects, which constitute a significant part of the supervisor's responsibilities.

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Sebastian Dahle
President of the European Council for Doctoral Candidates and Junior Researchers

- Relying on a single metric, or few, like journal IF and its derivatives, as the measure of quality leads to distorted assessments and gamification of the system. A broader approach is necessary, using multiple assessment measures while avoiding overburdening of researchers, also to avoid fallacies such as Goodhart's law.

- Efforts like Narrative CVs and revised track record formats aim to address bias of prestige of reputation. Founders can provide CV guidelines reducing the number of outputs that one has to present.

- Objectivity and biases in qualitative assessment remains a concern, training the evaluators can reduce biases. Peer review and assessment as a crucial part of research should be also systematically included in doctoral training.

- Clear and transparent communication of the goals helps to better define the assessment procedures and criteria, while providing a better basis for the applicants and reviewers.

Reda Cimmperman
Scientific Secretary of the Research Council of Lithuania

- The Research Council of Lithuania conducted an extensive qualitative assessment involving 83 European experts who evaluated research institutions. Six groups of experts visited universities, worked with teams and assessed their research work over the last five years.

- Based on the results, they will decide on budget allocation for the next five years. The qualitative evaluation will influence 70% of the budget allocation, while the remaining 30% is based on annual quantitative evaluation relying on metrics such as the number of publications.

- The qualitative evaluation was both challenging and costly, requiring a significant investment of over €0.5M and the dedicated work of 5 to 7 people over two years. After analysing the results, there is a plan to discuss lessons learned and consider potential changes for the future.
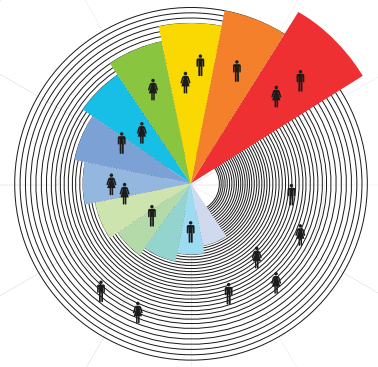
Jean-Emmanuel Faure

Team Leader on Research Assessment at the Unit for Open Science and Research Infrastructures, DG RTD, European Commission

- RA means assessments of researchers, research proposals, research teams or research institutions, so a very broad definition, with different levels and specificities, that need to evolve in a coherent way. The role of the EC is to facilitate the RA reform.

- Motivations to improve RA: Research processes are evolving due to digital transition. There is increased demand for research and broader diversity of research contributions. Moving away from inappropriate use of journal- and publication-based metrics. Keeping the research environment attractive for young researchers.

- Part of a solution for assessing research quality can be a trusted community driven infrastructure that will provide data for indicators.
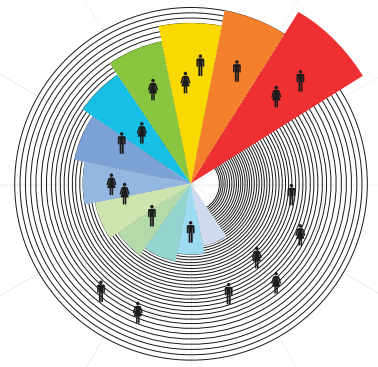
Luisa Henriques

Senior Policy Analyst and Advisor to the Board of Directors at and Sponsor of ERA Action 4, Portugal

- Academia has limitations in absorbing all PhD holders. Only 10% of PhD holders will stay in academia and career paths are now not linear any more. There is a need to prepare better early career researchers and to promote their transition to other sectors, like business, public administration and other areas.

- Assessment of researchers is crucial for their career progression. Fostering qualitative evaluation and responsible use of metrics and recognizing intersectoral mobility can enhance flexibility and diverse career options. So people can move from one career to another (interoperability of research careers).

- The problem of focus on publications is linked with incentives, because people are evaluated by the number of publications. The system also looks to those TOP 10% principal investigators, but what about the other 90% good researchers in the system?

- Suggested to have teams in research rather than focus solely on top individual researchers, as well as to reconsider the organisation of research system structure and incentives. New European framework for research careers and revision of research assessment can help to change the system.

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Jiří Homola
Vice-chair of Czech RDI Council and Vice-Director of the Institute of Photonics and Electronics of the Czech Academy of Sciences (CAS)

- There is a need for qualitative feedback. A common goal is to reduce the stress with evaluation, with the aim of transparent communication of criteria and expectations to alleviate some pressure on the system.

- CAS has evaluated 52 institutions in cycles and there is a complexity resulting from the diverse disciplines. After the evaluation they seek feedback from international evaluators, institute directors, and insiders, carefully examining each evaluation and directly linking funding allocation to outcomes. For a new cycle, they are seeking input from the community on barriers to evaluation and future trends, and are working to move towards a more quantitative, peer-reviewed approach while valuing qualitative findings.

- In the research sector, there is so much evaluation on individual/team/institutional level and then at national level. Why so much evaluation? They are taking the time of people who would do research instead and are taking resources for research. We need some evaluation, but we overdo it in the current system for sure. How to connect evaluations and make them low-cost, effective and useful.

- Defining the quality of research is a very difficult topic. Science it's basically a highly creative activity, which leads to new and often unexpected results. It's very difficult to measure creativity and how advanced the idea is.
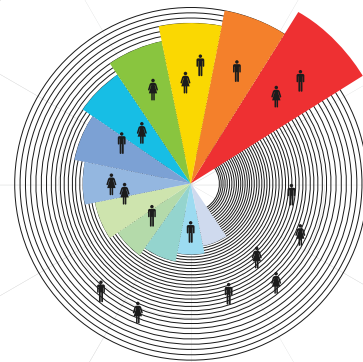
Alina Irimia
Open Science Projects Coordinator at Executive Agency for Higher Education, Research, Development & Innovation in Romania

- In Romania, OS practices and FAIR research data management (RDM) requirements and related assessment criteria are currently piloted in a new funding instrument with a total budget of up to €20M. For the granted projects, DMP is required within the first 6 months of project implementation.

- There are challenges for the national funder to implement policy. It requires a lot of steps, especially for DMPs (technical IT solution within the funder system for submission/monitoring), training of officers who deal with funding programmes.

- Challenges on how to support research teams, especially with DMPs. Providing guidance and resources on DMP/RDM for researchers.

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Jana Klánová
Director of RECETOX and leader of multiple large-scale EU projects

- Need to distinguish between project types and simplify proposal requirements to remove the burden on researchers.

- Soft elements like DMPs, Open Science and communication plans should be conditions of project signing.

- We need better national and institutional systems to support Open Science and responsibility at that level rather than burdening individual researchers.
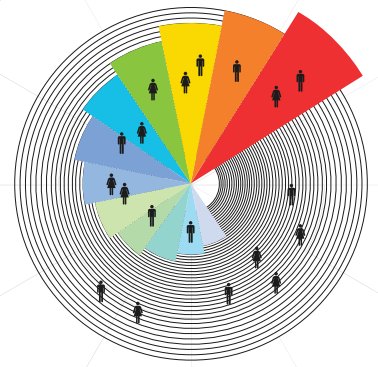
Jan Konvalinka
Director of the Institute of Organic Chemistry and Biochemistry of the Academy of Science of the Czech Republic

- Topics of RA and research career are closely connected. The national assessment scheme is not actually tailored for individual personal (or research team) assessments by its definition. Czech research institutions use data (from the national scheme) for their internal evaluation because it is easier. There is a need for a tailored internal research assessment system, independent of the national one, that serves their specific needs.

- A lot of focus is put on young scientists, but we need also to think about what to do with people who are not performing well, and those at the end of their scientific career. Establish a system where they do not stay in the pipeline forever and give the young researchers opportunities for new independent positions.

- Evaluation of supervisors is a very important point.

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Melita Kovačević
**Vice-Chair of PRIDE Network – association
for professionals in doctoral education and professor
at University of Zagreb, Croatia**

- Europe still lags far behind the US or Japan in terms of the ratio between the total population and those with a PhD or classified as researchers. Problem is not the number of researchers or doctoral candidates, but the expectations we have on them in terms of productivity. Challenges persist for PhD candidates due to high demands for publishing within a limited timeframe leading to discrepancies in completion times. There are a number of good policies and recommendations on Doctoral Education, but implementing them faces resistance across various institutions.

- CoARA is a very good initiative, but we need to think about why we did leave peer review in the past to be prepared and ready not to be in the same position again. Signing up to initiatives such as CoARA is not enough; wider recognition and action is needed. In the European context, some universities have the autonomy to make changes in RA without the involvement of national bodies, while others lack this autonomy.

- We still have a parallel system with institutions saying let's increase the number of PhD candidates, this will bring more research productivity and papers to get a better position on the ranking. Some institutions and individuals were very much in favour of quantitative measures some years ago. Now there are the same people or institutions signing the CoARA. Did they change the code? Or are they fully committed to content change?
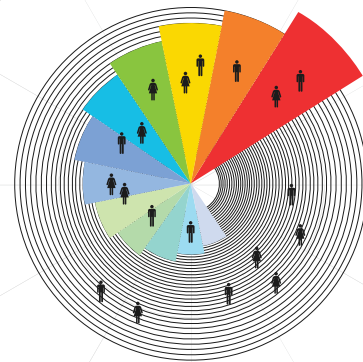
Martin Loebl
Vice-chair of Learned Society of the Czech Republic

- A critical issue in research assessment is certification of quality of research which at present suffers from a monopoly of a few big publishers. Breaking this monopoly requires a complex global change.

- Envisions a change in the certification process which will be a solution to issues like exploitation of research funding by big publishers, overproduction and questionable practices in research outputs.

- Proposed the creation of a forum of European (global) level dedicated to exploring alternatives for certification of research quality. This forum would invite suggestions from individuals and institutions for new certification alternatives.

- In the context of career assessment, highlighted the need for more flexible and fluent research careers for young researchers, encouraging transitions across sectors.

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Tomáš Polívka
**Vice-chair of Czech Research, Development,
and Innovation Council**

- Described the development of the Czech national system for the evaluation of research performing organisations. Serious problems persist in assessing applied and interdisciplinary research. Peer review has a cost and there are not enough people and resources. Peer review is subjective by definition.

- Overpublishing is the biggest problem, to manage resources, maintain research integrity and preserve quality, the only solution is to stop publishing too much!

- The aim of a research assessment is feedback for research organisations to see their progress. The evaluation is not supposed to be a direct tool for allocation of funding (even if it should provide important information to do it).

Šárka Pospíšilová
**Vice-rector for research and doctoral studies
at Masaryk University**

- For Masaryk University, the results from external peer review visits (so called „MEP" as part of the M17+ national evaluation of universities in 2020) were not detailed enough. Therefore, we have organised the „Internal Evaluation of Research and Doctoral Studies" in 2022 and invited nearly 100 international evaluators covering all major research fields performed at Masaryk university. This deep evaluation process helped us to get detailed research assessment results below the faculty level down to the research teams. Such results are very useful for strategic decisions not only on the university level but also within the faculties and institutes. The evaluation process adopted the new ways of internal assessment in line with CoARA.

- Pointed out that some European as well as national grants have established an evaluation criteria involving a certain number of publications, which forces researchers to publish more publications, even with lower quality. Such requests often lead to the preference of lower quality outputs above the high quality publications in the top journals.

- There is a potential for improvements of the follow-up Czech research evaluation Methodology 2025+ at governmental level.
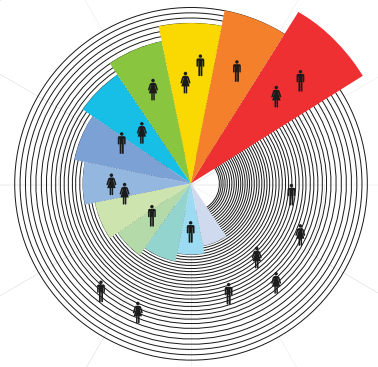
Isabel Rocha
Vice-rector at NOVA University of Lisbon, Portugal

- Raised concerns of imbalance between the high number of researchers with temporary contracts and the limited availability of permanent positions, impacting career aspirations and demotivating prospective academics.

- NOVA University introduced new regulations and incentives aligned with CoARA to attract and retain talented researchers. A new RA system is based on qualitative aspects like impact, ethics, Open Science and interdisciplinary work alongside quantitative indicators, determining career progression, contract renewals or payment increases for those on temporary contracts.

- Designed an innovative program involving international experts to encourage writing narratives of research projects. The narratives are part of research evaluation. The aim is to recognize and incentivize researchers' contributions beyond academic publications. It is also important for the university to show what it does for society. Society does not care how many papers we publish.

Martin Svoboda
Director of the National Library of Technology, Czech Republic

- Pointed out the problem of over-publishing and excessive production of new journals while new knowledge stagnates.

- It is important to raise the issue of the future assessment of research and researchers to find breakthrough solutions.

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Clifford Tatum
Researcher at the Centre for Science and Technology Studies at Leiden University

- Researchers face a lot of challenges and stress, assessment is a part of it.

- Proposed team-based evaluation. To evaluate teams as a whole and individuals based on their contributions to the team. Teams would include all participants, researchers along with data stewards, software developers, etc.

- The problem is public trust and the quantity of publications. We can incentivise different kinds of behaviour, but the current system incentivises the salami slicing system. To reduce the incentives for salami slicing we need to move away from bibliometric assessment. It will help us as a research community and culture.
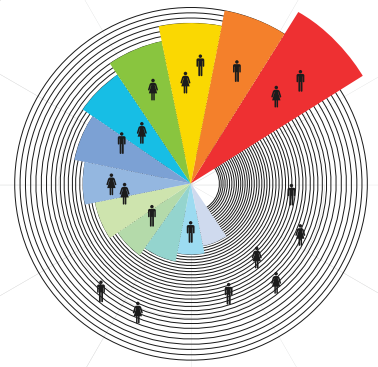
Radka Wildová
Director General Higher Education, Science and Research Section at the Ministry of Education, Youth and Sports (MEYS) of the Czech Republic

- Achieving comprehensive RA reform requires a systematic approach involving multiple stakeholders. It is a gradual and complex process that requires ongoing discussions. The transition to Open Science also requires changes in assessment.

- To improve academic culture, current institutional practices for recruitment, promotion, and resource allocation need a better balance between qualitative (peer review) and quantitative (indicators) evaluation.

- Further RA reforms should recognize skills acquired outside academia and promote inter-sectoral mobility.

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Saša Zelenika

Vice-rector at the University of Rijeka, Croatia

- The system is broken due to fake papers, manipulation of citations and production of 5 million papers per year. Current RA is primarily based on publication quantity and their venues and is not aligned with the development of Open Science, nor with incentives/rewards for transferable skills or intersectoral mobility.

- Systemic changes in evaluation procedures mean a shift in the culture of researchers, institutions and research funders. Including a profound rethinking of doctoral training structures, prioritising the quality over quantity and taking also care of mental health and wellbeing of researchers.

- University of Rieka restructured internal processes with new criteria for evaluation careers. Challenges: resistance to change, lack of awareness and rewards, treatment among senior and early-career researchers, concerns about the quality of publications/data security, measures at the national level vs. academic freedom and institutional autonomy, and issues concerning peer review quality and fatigue.

- Supervision is critical for the success rate of PhD candidates. Being a good researcher doesn't grant that it is a good supervisor/teacher. We need to rethink the model and help supervisors to learn how to be a good supervisor and incentives this time of job, which requires a lot of work.

Topic of research assessment was discussed in all its complexity and at all levels. There is really a lot of food for thought for the next debate.

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