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WORKING DOCUMENT

From: General Secretariat of the Council
To: ERAC Standing Working Group on Gender in Research and Innovation

Subject: Draft policy brief - Tackling gender bias in research evaluation: Recommendations for action for EU Member States

Please find annexed to this note the ERAC SWG GRI draft policy brief on "Tackling gender bias in research evaluation: Recommendations for action for EU Member States".

Delegations are kindly requested to send their comments to the Secretariat by **Monday, 27 August COB.**

Standing Working Group on Gender in Research and Innovation

Policy Brief
August 2018

Tackling gender bias in research evaluation: Recommendations for action for EU Member States

“When various informal structures or unstated assessment criteria have an influence on the evaluation process, this has an adverse effect on gender equality.” (Ahlqvist et al. 2015)

Studies reveal the persistence of implicit gender bias in research evaluation. This is a serious problem given the increasing importance of competitive funding, particularly in the early career stages. The failure to tackle gender bias jeopardises policy efforts to advance gender equality and retain women in research. National authorities in cooperation with Research Funding Organizations (RFOs) play a crucial role. ERA National Action Plans and Strategies (NAPS) rarely address the topic. Based on an exchange at its second meeting, the Standing Working Group on Gender in Research and Innovation presents recommendations for national authorities and RFOs on gender bias, to move forward on ERA Priority 4 Gender equality and gender mainstreaming.

Key points

- Research reveals persistence of gender bias in research evaluation.
- Gender bias jeopardises the efforts to promote excellent researchers, men and women.
- Gender bias is rarely addressed in the NAPS and major differences exist in the EU.
- National authorities and Research Funding Organization must step up concrete actions to tackle gender bias to achieve ERA Priority 4.

Gender bias compromises meritocracy

Assessing quality has long been a central concern in research and has gained in importance with the recent proliferation of research assessment systems. The received notion is that what matters in research is quality, not sex and other socially ascribed characteristics, that research assessment is value-free, impartial, and untainted by social factors. This meritocratic ideal continues to be a widely accepted truism in much of the research community and among policy makers, and the opinion often prevails that excellence is self-evident.

This standard notion is undermined by a growing body of research across disciplines and countries that show the pervasiveness of various types of gender bias in research assessment. Gender bias is related to the perceived characteristics and competences of women as well as the ascribed gender roles. These studies demonstrate the negative impact on women’s careers in research, and provide at least a partial explanation for why women continue to be severely under-represented in high-ranking and managerial positions in research and higher education and why they leave research.

What studies tell us about gender bias in research¹

a) Women and men are valued differently

Research shows that the work of men is consistently judged as superior, by both men and women, even when the only thing that differs is the name. Studies also show that women must have higher performance to be evaluated equally to men with lower performance scores.

b) Women are not perceived as leaders

Research also shows perceived incongruity between the feminine gender role and leadership. What we tend to value in women is likeability. If they display qualities typically expected in leadership positions, they receive a penalty, being seen as aggressive and bossy. This may negatively affect women in prestigious competitions with personal interviews in final stages.

c) Notions of excellence are gendered

Academics often associate excellence with qualities associated with men: uninterrupted career, full concentration on work, mobility and willingness to move, and temporal availability (working on weekends, long hour's culture).

d) Gender bias demonstrated by women and men

Both women and men display gender bias when they evaluate others. Gender balance on evaluation panels and among evaluators will therefore not guarantee a change in and of itself.

e) Perceived differences in cognitive styles between women and men

Despite neuroscience research to the contrary, some studies demonstrate that people continue to have stereotypes about cognitive styles of women and men. Men's cognitive styles are regarded as allegedly synthetic and visionary, whereas women are regarded as analytical, focused on detail and meticulous in nature.

f) Letters of recommendation for women and men differ

Letters of recommendation for women and men differ. Men are more often described as brilliant and as risk-takers and the letter focus on their research. In contrast, women are often praised for their likeability and social skills, and their research is mentioned less frequently.

g) The motherhood penalty

Mothers, but not fathers, who are researchers are under-valued, are seen as less competent and dedicated to their work. In contrast, researchers who are fathers are rarely faced with such prejudice. Career breaks often remain invisible in the evaluation process. Evaluators are rarely briefed on how to evaluate research performance in the case of career breaks and display bias against applicants who are mothers.

h) Gender-blind rules disadvantage parents

Evaluation systems and eligibility criteria often disregard parenthood as a potentiality in researchers' lives. RFOs may not address differences in research performance due to extended career breaks. Eligibility rules for junior researchers may set age limits that prevent parents with breaks from participating. For example, having an age limit of 35 without provisions for extended breaks will tend to bar women from participating. RFOs also may not have any rules for the transfer of the PI status after returning from a parental leave.

i) Impostor syndrome may discourage women from applying

The existing gender bias in perceptions of leadership and competence overall has an impact on how women may perceive their own skills and competences. The impostor syndrome demonstrates among groups that are under-represented in an area typically associated with the opposite sex. The impostor syndrome may lead women to opting out of prestigious competitions due to perceived inadequacy, despite proper qualifications.

¹ For references to relevant studies see section References and sources.

Gender bias: SWG GRI exchange on gender bias policies and actions in NAPS and beyond

This body of research and the support for cultural and institutional changes has led some countries and institutions to adopt concrete actions to tackle gender bias in research evaluation. Despite the growing awareness of the problem, gender bias is not addressed in policy documents of the most EU Member States (or is addressed implicitly). Discussion at the second meeting of SWG GRI on 19 April 2018 revealed differences among European countries, which can be clustered in the five groups listed below. A total of twenty Member States and Associate Countries contributed to the debate (AT, BE-FR, CZ, DE, DK, EE, FI, IE, IT, LT, MT, NL, PO, PT, SE, SI, SK, UK; CH, NO).

a) Little awareness, no policy or action

In some countries, the topic is not on the policy agenda at all and there is an elementary need to raise awareness about the existence of problem; in these countries, too, RFOs predominantly do not address the issue.

b) Some awareness, uncertainty as to actions to be taken

In other countries, awareness has increased in recent years (also due to membership in European umbrella organizations such as Science Europe). RFOs have started collecting and publishing statistics segregated by sex but uncertainty exists as to what action to take.

c) Awareness growing, measures under preparation

In a few countries, awareness has increased, and new policy developments are under way. These countries are often considering solutions already adopted in other countries.

d) Action taken by RFOs

Several countries report that quite comprehensive measures are taken directly by their national RFOs and RPOs but this is not coordinated with national authorities.

e) Coordinated action by RFOs and RPOs embedded in national policy

In a few countries, a complex set of measures has been introduced to address the issue where overarching national gender equality policy objectives are translated into concrete measures taken by RFOs and RPOs, with a push from the government.

An overview of measures taken by RPOs is included in Appendix 1.

Conclusion

Gender equality and gender mainstreaming constitute Priority 4 of the European Research Area. To achieve its objectives and to ensure that European researchers all enjoy the same access to fair, transparent and unbiased evaluation, an agreement on elementary measures should be reached by national authorities and RFOs, with a view to building a solid ground that will guarantee research evaluation free from gender bias across Europe.

Recommendations for action by national authorities and RFOs

The following recommendations from the SWG GRI are intended to give elementary pointers that should be guaranteed across the EU by national authorities and public RFOs:

- **Statistical data collection and monitoring:** Research Funding Organizations should be required to collect statistical information on an annual basis on the proportion of women and men among applicants and grant recipients by support programme and discipline (if relevant) as well as on the proportion of women and men on evaluation panels and among evaluators by support programme and discipline (if relevant). This information must be made public. Major gender disparities should require an explanation as part of reporting through chains of accountability.
- **Gender bias training for staff and evaluators:** Research Funding Organizations should be required to train their staff, particularly programme managers, and evaluators, particularly chairs of evaluation panels, to raise awareness about the issue and its impact on the evaluation process. Attention is to be paid to building a common understanding around key terms (e.g., leadership, merit) and that evaluators accept the instructions and guidelines underpinning the evaluation process.
- **Gender observers on evaluation panels:** Research Funding Organizations should put in place periodic gender observation to evaluate whether and how gender bias manifests in the discussion of proposals in evaluation panels. Recommendations from gender observers should be incorporated in the evaluation process design.
- **Formalization and transparency of the evaluation process:** Research Funding Organizations must adopt clear and publicly available evaluation guidelines and criteria and have a review system in place. The guidelines must address the issue of career breaks in the evaluation of applicants. The guidelines must equally provide a calibration for evaluation grades.
- **Gender balance on evaluation panels:** Research Funding Organizations should be required to introduce a 40:60 rule as a minimum on evaluation panels, to be achieved by 2020.
- **Gender mainstreaming of support programmes, particularly eligibility rules and evaluation criteria:** All newly developed support programmes should be checked to see whether the eligibility rules may not directly or indirectly disadvantage a particular group of applicants from applying (e.g., a cut-off age of 35 years of age or the requirement of a long-term mobility in grant competitions for early-career researchers). Similarly, evaluation criteria should be checked to eliminate any direct or indirect rules that may disadvantage a particular group of applicants (e.g. based on extended career breaks). Distinction must be made between individual grants and consortia based grants.
- **Gender-proofing of language of call texts:** Language is important and in more competitive, highly prestigious competitions women may be reluctant to apply. Before launching a call for proposals RFO staff should gender-proof the language.
- **Accountability matters:** Research Funding Organizations must be accountable to the responsible state administration body for reporting on actions and measures developed and implemented, including statistical information and explanation of disparities between women and men in application and success rates.

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Appendix 1: Overview of Measures Adopted by RFOs for Minimizing Implicit Gender Biases in Evaluations of Research Proposals

Unconscious bias trainings and awareness-raising workshops for various groups involved in the evaluation process

Swedish Research Council²:

- Trainings for panel chairs, agency staff
- Gender equality workshops for panel members or scientific boards
- Gender equality information to all panel members – Royal Society video on Unconscious Bias: <https://youtu.be/dVp9Z5k0dEE>

Netherlands Organisation for Scientific Research (NWO):

- (pilot) programme for evaluators aiming to avoid implicit gender biases in the evaluation process³: *The 30 min intervention currently tested with evaluators includes an Implicit Association Test (IAT) developed specifically for the NWO context, based on actual (gendered) evaluation materials, as well as other concrete activities to increase bias literacy and self-efficacy, using targeted examples of reference literature (e.g. on unconscious bias in CV evaluation, in interviews). The e-learning module also allows to measure participation and to follow the impact on evaluations procedures by e.g. analysing the awarding rates. Preliminary results show that the intervention is promising in creating awareness of implicit gender biases among evaluators, allowing them to correct for these biases, and thereby fostering the objectivity of the evaluation process.*

UK Royal Society – Unconscious Bias Programme⁴:

- Covers gender-based as well as other kinds of unconscious biases (ethnicity, disabilities, age, etc.), taking into consideration the intersectional nature of these biases. It includes a briefing based on scientific literature and a video animation, sent to panel members before the panel meeting. Face-to-face trainings are also offered to panel chairs. Video ‘Understanding unconscious bias’s was produced by the Royal Society in 2015 for this purpose: <https://youtu.be/dVp9Z5k0dEE>
- Trainings for agency staff

Austrian Science Fund (FWF)⁵:

- Diversity training in the context of research funding for board members and FWF staff.

² Jacobson, C. 2017. “Tackling implicit gender bias in peer review - Swedish Research Council”(presentation from the workshop *Implicit Gender Biases during Evaluations: How to Raise Awareness and Change Attitudes*, 30-31 May 2017, Brussels). Retrieved from: http://ec.europa.eu/research/pdf/workshop_igb/carl_jacobsson_tackling_implicit_gender_bias_in_peer_review.pdf

³ DG Research and Innovation. 2017. “Implicit Gender Biases during Evaluations: How to Raise Awareness and Change Attitudes” (report from the workshop held in Brussels, 30-31 May 2017). Retrieved from: http://ec.europa.eu/research/swafs/pdf/pub_gender_equality/report_on_implicit_gender_biases_during_evaluations.pdf

⁴ Cumberbatch, L. 2017. “Unconscious Bias at the Royal Society.” (presentation from the workshop *Implicit Gender Biases during Evaluations: How to Raise Awareness and Change Attitudes*, 30-31 May 2017, Brussels). Retrieved from: http://ec.europa.eu/research/pdf/workshop_igb/lenna_cumberbatch_unconscious_bias.pdf

⁵ Science Europe. 2017. *Practical Guide to Improving Gender equality in Research Organisations*. Retrieved from: https://www.scienceeurope.org/wp-content/uploads/2017/01/SE_Gender_Practical-Guide.pdf

The Irish Research Council⁶:

- Initial phase of face-to-face unconscious bias training completed for evaluators; the Council will implement a new round of training, working with other research funders.

CNRS⁷:

A specific committee was put into place in 2013. Its objectives are to review procedures and practices for the evaluation, recruitment and promotion of researchers at CNRS, with respect to gender equality. Among its actions so far have been: training on gender equality issues and unconscious bias; production of multi-annual, sex-disaggregated statistical factsheets used by panels; introduction of family-related career breaks in evaluation consideration; changes in the procedures for awarding CNRS medals; and involvement of external observers during the 2015 interviews for the CNRS entry and promotion panels. The production of recommendations for panel members is also foreseen.

German Research Foundation (DFG)⁸:

- Awareness-raising activities for the head office and review boards (including the topic of implicit bias).

The internal DFG Working Group 'equal opportunities in research and academia' has developed a training module for members of the head office. The first training included a scientific presentation by a renowned scientist on aspects of information processing, categorising, stereotypes and implicit bias. In a follow-up workshop, these aspects were further discussed in relation to practical aspects of the evaluation and decision processes at DFG. Concrete measures have been developed that could further avoid possible judgement and decision bias, and recommendations and guidelines for panels will serve as basis for further discussions with DFG review boards. (Review boards evaluate proposals to fund research projects and also monitor the review process to ensure that uniform standards are observed.) As a next step, these review boards will be asked to explicitly discuss aspects of implicit bias, paying particular attention to gender bias, in one of their forthcoming review meetings.

Science Foundation Ireland (SFI)⁹:

- Unconscious bias training

In 2016, all SFI staff, including the executive committee and the Board of Management, received sector-specific, data-driven unconscious bias training by an external provider. Feedback and lessons from the session have been fed into process improvements within the organisation, such as expanded briefing to peer reviewers and a reconsideration of the information provided to review panels.

Swiss National Science Fund (SNSF)¹⁰:

The Swiss National Science Fund has an international advisory board for gender equality. The members are internationally recognized gender experts and distinguished researchers.

⁶Irish Research Council. 2016. *Irish Research Council policies and practice to promote gender equality and the integration of gender analysis in research* (Progress Update). Retrieved from: http://research.ie/assets/uploads/2016/06/final-progress_report_on_gender.pdf

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⁹Science Europe. 2017. *Practical Guide to Improving Gender equality in Research Organisations*. Retrieved from: https://www.scienceeurope.org/wp-content/uploads/2017/01/SE_Gender_Practical-Guide.pdf

¹⁰Science Europe. 2017. *Practical Guide to Improving Gender equality in Research Organisations*. Retrieved from: https://www.scienceeurope.org/wp-content/uploads/2017/01/SE_Gender_Practical-Guide.pdf

This committee meets twice a year and makes sure that gender equality issues are addressed in the organisation on a regular basis. Committee members have given presentations on biases and stereotypes and their impact on the evaluation process to the SNSF research council members in 2015 and 2016.

ERC¹¹:

- The Institució CERCA video is now shown to panel members (<https://www.youtube.com/watch?v=g978T58gELo>), and training on unconscious gender biases for programme officers is being launched.
- Briefing of panel members BEFORE starting the remote evaluation and DURING meetings in Brussels.

Canadian Institutes of Health Research (CIHR)¹²:

- CIHR has adopted Gender Equity Framework which includes gender equity challenges, including unconscious bias. As part of this, unconscious bias training module for peer reviewers: <http://www.cihr-irsc.gc.ca/lms/e/bias/>

Collecting, monitoring and publishing

Gender-disaggregated analysis of application rates, success rates, share of women among PIs and/or participants of funded projects, requested amounts should be a regular procedure in any public Research Funding Organization. Regular monitoring should be put in place in order to trace possible effects of awareness-raising activities.

Swedish Research Council¹³:

Gender equality presentations to peer review groups.

Each Scientific Council presents to the Board the outcome of the annual calls for proposals regarding the operative goals of the strategy.

The Irish Research Council¹⁴:

- The production of annual gender-disaggregated statistics and monitoring and analysis of the gender-balance of applicants and awardees.

German Research Fund (DFG)¹⁵:

- Reports annually on the number and the proportion of women researchers submitting

¹¹Alves de Jesus, C. 2017. "European Research Council: Overview of the Evaluation Process." (presentation from the workshop *Implicit Gender Biases during Evaluations: How to Raise Awareness and Change Attitudes*, 30-31 May 2017, Brussels). Retrieved from: http://ec.europa.eu/research/pdf/workshop_igb/erc_evaluation_process.pdf

¹² <http://www.cihr-irsc.gc.ca/e/50238.html>

¹³ Jacobsson, C. 2017. "Tackling implicit gender bias in peer review - Swedish Research Council" (presentation from the workshop *Implicit Gender Biases during Evaluations: How to Raise Awareness and Change Attitudes*, 30-31 May 2017, Brussels). Retrieved from: http://ec.europa.eu/research/pdf/workshop_igb/carl_jacobsson_tackling_implicit_gender_bias_in_peer_review.pdf

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¹⁴ Irish Research Council. 2016. *Irish Research Council policies and practice to promote gender equality and the integration of gender analysis in research* (Progress Update). Retrieved from: http://research.ie/assets/uploads/2016/06/final-progress_report_on_gender.pdf

¹⁵ http://www.dfg.de/en/research_funding/principles_dfg_funding/equal_opportunities/monitoring_equal_opportunity/index.html

proposals to the DFG and on the success of these proposals

Science Foundation Ireland (SFI)¹⁶:

- Annual gender-disaggregated analysis of the success rates of all funding programmes

FWO (Fonds voor Wetenschappelijk / National Fund for Scientific Research)¹⁷:

- Permanent monitoring of participation and success rates of male and female applicants

Gender equality observations in evaluation panels:

Swedish Research Council¹⁸:

- Gender observation was introduced in 2008 on selected evaluation panels. The objective of gender equality observations in evaluation panels is to examine and unveil any differences in the evaluation process for funding applications with regard to gender, since they are often subtle and difficult to identify. The purpose of the observations is not to reveal how particular panels or individual panel members behave and relate to gender issues but to discern significant patterns. To date, observations have led to the production of a series of recommendations on how the evaluation process can be developed and improved in order to attain a higher level of gender equality. Furthermore, the reports from the gender equality observations are used in the training for review panels, by decision-making bodies, and by research council staff.¹⁹

Gender-balanced composition of evaluation panels and bodies that take funding decisions

Gender balanced on boards and panels is an indirect tool to advance gender equality, due to the fact that both men and women manifest gender bias. A slight increase in the proportion of women therefore does not guarantee elimination of gender bias.

- Swedish Research Council: 50 % in research council boards, gender equal

¹⁶ Science Europe. 2017. *Practical Guide to Improving Gender equality in Research Organisations*. Retrieved from: https://www.scienceeurope.org/wp-content/uploads/2017/01/SE_Gender_Practical-Guide.pdf

¹⁷ GENDERACTION. 2018. *Report on national roadmaps and mechanisms in ERA priority 4* (public deliverable).

¹⁸ Jacobsson, C. 2017. "Tackling implicit gender bias in peer review - Swedish Research Council" (presentation from the workshop *Implicit Gender Biases during Evaluations: How to Raise Awareness and Change Attitudes*, 30-31 May 2017, Brussels). Retrieved from: http://ec.europa.eu/research/pdf/workshop_igb/carl_jacobsson_tackling_implicit_gender_bias_in_peer_review.pdf

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¹⁹ Söderqvist, L., P. Baard, A. Hellström, C. Kolm. 2017. *A GENDER-NEUTRAL PROCESS? Gender equality observations in the Swedish Research Council's review panels 2016*. Stockholm: Swedish Research Council. Retrieved from: https://publikationer.vr.se/en/product/a-gender-neutral-process-gender-equality-observations-in-the-swedish-research-councils-review-panels-2016/?_ga=2.10410940.881237013.1525553198-383385548.1525553198

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distribution in evaluation panels²⁰

- UK Royal Society²¹
- Irish Research Council²²
- FFG, Austria has the goal of more than 30% of women on evaluation committees by 2020²³

Targets/quotas for gender equality in bodies involved in evaluation and funding decisions:²⁴

- Denmark: The gender equality act – boards of public councils (e.g. boards of research funders) that are appointed by a minister should have a gender balance of men and women.
- Finland: The Equality Act includes a quota provision (at least 40 % of either men or women) that applies to state administration committees, advisory boards, working groups and other similar bodies.
- Iceland: The Gender Equality law of 2008 stipulates that each board, formal advisory group and the like constituted by a public entity shall comprise at least 40 % of each sex (including boards of research funds appointed by a minister).
- Spain: The Organic Law for effective equality between women and men of 2007 stipulates that public institutions must promote gender balance (40-60 %) in selection and evaluation committees. The science, technology and innovation law (No 14/2011) requires gender balance in all research and innovation decision-making bodies.
- NordForsk: Within research-funding organisations, all committees, groups and panels appointed by NordForsk must have at least 40 % of minority gender.
- The Irish Research Council aims for 40 % of each gender to be represented in the membership of all assessment, advisory and management boards, committees, workshops and focus groups. Science Foundation Ireland has committed to achieving 40 % of representation of each gender on assessment panels by 2020.
- The Swiss National Science Foundation introduced a 40 % quota for women in its Foundation Council responsible for key regulations and the service agreements with the federal government.
- In the United Kingdom, the research councils have made a commitment to ‘manage Council appointments to achieve at least 40 % of the under-represented gender on each Council’.

²⁰Jacobsson, C. 2017. “Tackling implicit gender bias in peer review - Swedish Research Council” (presentation from the workshop *Implicit Gender Biases during Evaluations: How to Raise Awareness and Change Attitudes*, 30-31 May 2017, Brussels). Retrieved from: http://ec.europa.eu/research/pdf/workshop_igb/carl_jacobsson_tackling_implicit_gender_bias_in_peer_review.pdf

²¹Cumberbatch, L. 2017. “Unconscious Bias at the Royal Society.” (presentation from the workshop *Implicit Gender Biases during Evaluations: How to Raise Awareness and Change Attitudes*, 30-31 May 2017, Brussels). Retrieved from: http://ec.europa.eu/research/pdf/workshop_igb/lenna_cumberbatch_unconscious_bias.pdf

²²Irish Research Council. 2016. *Irish Research Council policies and practice to promote gender equality and the integration of gender analysis in research* (Progress Update). Retrieved from: http://research.ie/assets/uploads/2016/06/final-progress_report_on_gender.pdf

²³GENDERACTION. 2018. *Report on national roadmaps and mechanisms in ERA priority 4* (public deliverable).

²⁴Directorate-General for Research and Innovation. 2018. *Guidance to facilitate the implementation of targets to promote gender equality in research and innovation*. Luxembourg: Publications Office of the European Union.