The role of Funding Agencies in the promotion of Gender Equality in R&I

Gender Equality in the ERA Community to Innovate Policy Implementation

GENDERACTION is a Horizon H2020 project that supports mainstreaming gender equality in the European Research Area. The present Briefing Paper focuses on the role of Research Funding Organizations (hereafter RFOs) with the aim to inspire these key actors of the European R&I system to innovate policy design and implementation for gender equality.

Funding Agencies gain momentum in Europe

The European Commission has promoted for years the inclusion of the gender equality in the European research policy and its Framework Programmes. Although the emphasis has been on Research Performing Organizations (RPOs) such as universities and research centres, increasing attention is paid to Research Funding Organizations (RFOs) given their crucial role in shaping research careers and research priorities in each country.

Both the 2015 Resolution of the European Parliament on women's careers in science and universities and the 2015 Council Conclusions on advancing gender equality in the European Research Area (ERA) stressed the role of RFOs in supporting women's careers in science and gender equality in the ERA through the allocation of adequate resources for gender equality policies and the elimination of gender bias in research funding.

For instance, the European Parliament Resolution calls on RFOs and other stakeholders to allow more flexibility regarding women's research production following the birth or adoption of a child. The objective is to attain a consistent alignment between RFO's priorities and EU policy, including the ERA Roadmap priority 4 (*Gender equality and gender mainstreaming in research*).

Gender equality in R&I is also linked to participation and success rates in research funding and promotion systems. The success of researchers depends on the evaluation of researchers' grants, as well as on other scientific or scholarly achievements as indicated in a researcher's CV and track record (Science Europe, 2017: 8). The persistence of gender bias in research evaluation, as studies show, is a threat to the efforts to advance gender equality and retain women in research careers. Moreover, studies from different countries and disciplines show that men researchers receive more research funding than women researchers.

Only the most recent European Structural Change projects for gender equality in research institutions have included RFOs, either in the role of observers or as partners, since it became clear that structural change requires a coordinated policy with those institutions that fund Research & Innovation (R&I).

The Council invites Member States and research funding organisations to provide incentives to encourage research performing organisations, including universities, to revise or develop gender mainstreaming strategies, gender equality plans including the gender dimension in R&I content and programmes and mobilise adequate resources to ensure their implementation.

(Council Conclusions on Advancing gender equality in the ERA)

The Council of the EU has its own leading role in ensuring that National Action Plans and Strategies (NAPs) for the ERA Roadmap address gender



equality measures and its monitoring in the evaluation process to move forward ERA Priority 4 implementation and to improve coordination between national authorities and RFOs.

The potential of RFOs in shaping national RI ecosystems

National funding agencies are often the main source of resources for researchers in Europe, especially the public ones. RFOs activities usually focus on the following fields:

- Distribution of resources in R&I systems and thus, management of financing instruments;
- Scientific evaluation of proposals;
- Monitoring of funded projects.

Since most European funding agencies incorporate gender equality at the programmatic level in their core documents, the gender perspective should be considered in all their activities. As in RPOs, gender equality policies need to be professional, consistent, sustainable and tailored to each RFO and its context. Gender equality structures (e.g., gender equality officers, committees, unit, etc.) and mainstreaming, as well as organizational culture and training are priority areas on gender equality in RFOs that are shared with RPOs. However, there are other lines of action which are specific for RFOs, such as the distribution of resources, the scientific evaluation and the monitoring and evaluation of funded projects.

The distribution of R&I resources refers to the core activity of RFOs: managing funds and calls for proposals in scientific fields and societal challenges. This includes both adequate funding of specific interdisciplinary research on gender in order to provide answers to current inequalities between women and men as well as ensuring adequate integration of the gender dimension in the research content as a cross-cutting issue in all the research fields. Funding priorities in R&I should take into account different interests and needs of women and men according to a Responsible Research and Innovation perspective. The (RRI) balanced composition of committees and bodies also guarantees that women and men participate equally in the funding decision-making process.

The scientific evaluation of proposals submitted for applicants is another particular field for RFOs to regularly monitor for possible gender bias. The most important challenges in this regard are the introduction of gender-sensitive criteria to tackle the causes of the persistent leaky pipeline and the

> Integrating the gender dimension in R&I content increases the overall quality and relevance of R&I by avoiding biased studies based on gender stereotypes and on the male default model. It fosters responsible research for sustainable future by improving R&I methods and outputs that take into account the needs and interests of the whole population

(Helsinki Group on Gender in R&I, 2017)

promotion of the integration of the gender dimension into the funded research content to produce a high quality knowledge that takes into account sex and/or gender differences when appropriate.

Monitoring of funded projects from a gender perspective is becoming a focus of attention. Gender indicators can be used as powerful monitoring tools both on the appropriate integration of gender analysis into research content where relevant, and on gender equality issues such as gender balance among main speakers in project dissemination and communication activities, proportion of women as first authors of research papers, work-life balance measures for team members, etc.

Finally, there is also a new field where Funding Agencies can foster gender equality - **the business enterprise sector**. Public research funding goes to corporations where the proportion of women is lower than in universities and the public research sector, as shown in *She Figures 2015*. Additionally, the role played by women as users and consumers, is too often neglected in the co-creation processes. This lack of gender diversity in the European

Innovation sector requires a great deal of attention and action through public research funding.

Therefore, RFOs have a key role to foster participatory innovation projects that guarantee gender diversity and allow all segments of population benefit from innovation processes and outputs.

"Think equal, build smart, innovate for change".

Innovation and technology provide unprecedented opportunities [...]. From mobile banking to artificial intelligence and the internet of things, it is vital that women's ideas and experiences equally influence the design and implementation of the innovations that shape our future societies.

<u>UN Women theme for International Women's</u> <u>Day 2019</u>

Furthermore, evidence shows that firms with more balanced gender composition are more likely to innovate compared to those with high concentration of one gender.

Promising practices among RFOs

Different funding agencies in Europe have pioneered the introduction of gender equality policies in their funding activities and scientific evaluation. A study conducted by Science Europe on the peer review processes and grant management practices in fifteen European RFOs has collected promising practices already in place:

- Gender-balanced composition of scientific evaluation panels and other bodies that take funding decisions.
- Advice by international gender experts to mainstream gender in the organization as well as external observers on evaluation panels, also known as "gender equality observations".
- Unconscious bias training addressing scientific evaluation panels.
- Monitoring the success rates of men and women applicants among other gender indicators tailored to RFOs.

 Targets for women award holders and positive action ensuring that half of eligible applicants are women.

The Irish Research Council (IRC) has become a reference model for gender equality policies in RFOs. The idea behind this initiative is that gender equality will ensure excellence and maximise creativity and innovation in Irish research. The IRC Gender Strategy & Action Plan 2013-2020 focuses on four main lines of action: support for gender equality in research careers; integration of sex/gender analysis in research content; fostering structural change for gender equality; limiting the potential effect of unconscious gender bias on internal processes. In addition, the IRC is tying its funding for RPOs to holding the Athena Swan Bronze Institution Awards that recognizes a solid foundation for eliminating gender bias and developing a gender-sensitive, inclusive organizational culture, i.e. gender equality plan, diagnosis and structures.

The promotion of gender-diverse composition and balanced distribution of responsibilities and activities within research teams applying for project grants is another measure introduced by the Technology Agency of the Czech Republic through a so-called Gender-Matrix which has shown a positive impact.

Gender equality observations in evaluation panels were introduced in 2008 by the Swedish Research Council, leading to specific gender recommendations on the evaluation process.

Another recommended practice is the design of gender diagnosis reports tailored to RFOs as the one recently conducted by the Spanish State Research Agency with a mix-methods approach that combines documental, qualitative and quantitative data with a resulting proposal of fields of action for designing its own gender equality strategy.

The European Research Council (ERC) shows the <u>Institució CERCA video</u> on unconscious bias to panel members and provides a briefing before remote evaluations and during in person meetings.

Moreover, the ERC has adopted positive action concerning maternity and paternity leaves: the eligibility window in case of mothers is extended by 18 months per child but for fathers it is only the period actually taken.

Beyond Europe, the Canadian Institutes of Health Research introduced years ago a mandatory requirement for applicants to explain the integration of sex/gender analysis into research (IGAR) in the content of submitted proposals. As a result, the CIHR found an increase in the IGAR performance of the health research they fund.

With regard to the innovation sector, the Swedish Innovation Agency VINNOVA has adopted a gender sensitive assessment process to ensure the highest level of innovation quality and relevance. Women's participation in innovation projects promoted through the overall target of 40% and preference to projects with similar ratings that show a better understanding of gender equality in the whole innovation cycle.

Recommendations for Funding Agencies

RFOs are in a privileged position to introduce measures with the aim to accelerate change in the three priority areas of the EC (research careers, decision-making and the integration of the gender dimension into research content). RFOs in Europe are expected to develop their own gender equality structures and strategies and to consider gender equality in their international cooperation agreements and activities.

Recommendations to address RFOs structures and decision-making:

- To establish sustainable and professional gender equality structures and to adopt comprehensive gender equality strategies with the advice of gender experts.
- To guarantee gender balance in funding decision-making bodies and scientific evaluation panels.
- To conduct gender equality impact reports and gender-sensitive budgeting.

Recommendations to avoid gender bias in the research evaluation process:

- To tackle the ideal of "objective" evaluators acting on rational arguments without cognitive bias by conducting regular training on gender stereotypes and unconscious bias and its monitoring and evaluation.
- To review the gender proofing of language of call texts with the aim to avoid sexist language and include gender-sensitive and work-life balance provisions.
- To explore how/if the use of new metrics impacts men and women researchers at different career stages and disciplines differently.
- To adopt multi-dimensional evaluation criteria that enhance openness and transparency (including visibility and open access to those research outputs with a gender dimension), and contribute in mitigating against gender bias in research assessment/evaluation procedures.
- To adopt evaluation criteria that take into account parenthood as a potentiality in researchers' lives.
- To foster women Principal Investigators of R&I projects through temporary special measures.
- To critically assess the negative impact on women researchers of informal practices and unstated evaluation criteria.
- To consider the adoption of double-blind review processes where possible in order to avoid gender bias in people-based funding mechanisms, instead of the best project.
- To collect sex-disaggregated data on applicants, average size of grants and review panels by scientific field and funding scheme as well as on the composition of funding decision-making bodies, as recommended by Science Europe (2017).
- To ensure a gender balance among the nominees in prizes/scientific awards.

Recommendations to promote gender in research and innovation content:

 To allocate funds for specific programs on gender studies, aimed at fostering the production of new knowledge for a better understanding of gender issues.

- To require grant applicants to indicate whether sex and/or gender are relevant to their research proposal and how the gender perspective will be integrated into the entire research or innovation cycle. When sex/gender analysis is not relevant for the field of study, an explanation should be given by applicants.
- To disseminate guidelines for grant applicants and peer reviewers/evaluators on the integration of the gender analysis into research content, and to support their engagement with gender experts.

H2020's approaches to gender mainstreaming and incorporating gender perspectives in research should be promoted as good practice in RFOs, RPOs and other international collaborations.

(ERA Roadmap 2015-2020)

The European Commission is the main R&I funder in Europe. Researchers from all EU countries are encouraged to participate in research project calls. Further recommendations for the European Commission to become a reference model and supporter of gender equality policies in national funding agencies include, as recommended by the former Helsinki Group (now ERAC Standing Working Group on Gender in Research and Innovation):

- Increasing gender knowledge and capacity building for key actors in the R&I funding process (advisors, National Contact Points, applicants, evaluators...).
- Monitoring of all gender-related actions and measures used in the Framework Programme.

Conclusions

GENDERACTION is committed to the creation of an ERA community to innovate policy implementation for gender equality. The RFOs are key agents in such a community.

Addressing gender bias in research evaluation is not just a matter of avoiding persistent unconscious bias by evaluators because how women's competences are perceived in the evaluation process is crucial. Funding agencies as organizations, and not only individuals as evaluators, are co-responsible actors in achieving gender equality and thus need to address structural changes in their processes, practices, cultures and structures.

Moreover, RFOs have a critical role in fostering responsible research for sustainable future by ensuring that the methods and outputs of funded projects integrate gender analysis and take into account the needs and interests of the whole population.

References



Horizon 2020 Project info@genderaction.eu

Athena Swan. Institution Application Bronze and Silver Award.

Council of the EU (2015). <u>Council Conclusions on Advancing gender equality in the European Research Area</u> (14486/15 RECH). Council of the EU (2015). <u>Council Conclusions on the ERA Roadmap 2015-2020</u> (8975/15 RECH) <u>ERAC Opinion on the European Research Area Roadmap 2015-2020</u> (ERAC 1208/15)

European Commission (2017). <u>Implicit gender biases during evaluations. How to raise awareness and change attitudes.</u> European Parliament (2015) <u>Resolution on women's careers in science and universities, and glass ceilings encountered</u> (2014/2251(INI).

GENDERACTION (2018). Gender in open science & open innovation (Briefing paper n.5)

GENDERACTION (2018). <u>Report on Strategic advice for enhancing the gender dimension of Open Science and Innovation</u> <u>Policy</u>

GENDER-NET (2016). Manuals with guidelines on the integration of sex and gender analysis into research contents, recommendations for curricula development and indicators.

Helsinki Group on Gender in Research and Innovation (2017). <u>Position paper on H2020 Interim Evaluation and preparation of FP9</u>

Irish Research Council. Gender Strategy & Action Plan 2013-2020.

Science Europe (2017). Practical Guide to Improving Gender Equality in Research Organizations. D/2017/13.324/2

Swedish Research Council (2017) <u>A gender-neutral process – gender equality observations in the Swedish Research Council's</u> review panels 2016

Vinnova. Swedish Innovation Agency: <u>https://www.vinnova.se/en/</u>