Policy Brief
December 2022

# Improving gender-inclusive research programmes and funding

The aim of this policy brief is to offer policy recommendations and strategic actions to promote gender equality and equity in research funding processes, programmes, and research funding organisations (RFOs). It addresses national RFO stakeholders of the European Union and their associated countries at all levels of implementation – individual, institutional, regional, national, and beyond. The recommendations are based on the results of the European Horizon2020 project CHANGE (2018-2022) which deals with gender-inclusive research and academia under the H2020 directorate of "science with and for society (SwafS)" (European Commission 2020a, 2020b).

The situation regarding gender-inclusive research programmes and funding was analysed and evaluated for RFOs of the six participating countries Austria, Germany, Israel, Portugal, Slovakia and Slovenia. In the framework of this analysis and evaluation, CHANGE team members conduced expert interviews, drafted strategies and performed stakeholder workshops supported by stakeholder mapping, thereby obtaining an overview of the gender dimension in research funding in their countries. This process resulted in the identification of measures to mitigate gender gaps and imbalances thus fostering more accessible, diverse, equitable and socially responsible research funding mechanisms at all systemic levels. A detailed report has been published at the project website (CHANGE 2022), as well as a handbook providing further information (Dahmen-Adkins & Thaler, 2022).

**The complexity of the research landscape.**

**RFOs are key actors in determining research topics, programmes, and even types and methods based on the needs defined by the scientific community and governments. Therefore, it is of great importance that all relevant stakeholders who engage in research funding – policymakers, legislators, ministries, RFOs, etc. - are provided with policy guidelines and practical tools to equitably allocate the funding to improve gender equality and thus maximise benefit for society.**

**The research landscape is very complex, and more often is market and competition driven. Evidence shows that in many cases women, as well as other groups of researchers, are prevented or excluded from research funding opportunities. Meaning, the research funding system is less accessible for certain types of researchers, hence is less equitably allocated.**

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**Research** can make a significant contribution to economic growth and prosperity, meet national needs and global challenges, and improve overall societal well-being (OECD 2015).

**Research funding** is a major steering instrument to facilitate scientific research, therefore essential for the benefit and prosperity of societies. Additionally, it is a key element to support individual researchers in their career paths and to enable them personal development and professional promotion.

In general, the research landscape is very diverse and has multiple research funding structures and mechanisms embedded in different traditions, cultures and national contexts:

- The activities of research and development (R&D) are divided into basic research, applied research, and experimental development, (OECD 2015). Each type of research produces different scientific outputs and contributions, e.g. basic knowledge, professional practice and expertise, patents or actual products. Each type of research entails different scientific fields (STEM, SSH[1]), research methodologies (quantitative, qualitative, mixed) and could be conducted in various approaches (monodisciplinary, multidisciplinary, interdisciplinary).
- There are many different organisations, which engage in research funding. These organisations are classified into the following sectors: Business enterprise (BE), Higher education (HE), Private non-profit (PNP) and Government (GOV) (ibid). Each sector might have different research needs or resources, thereby is likely to promote different types of research in different areas, approaches and methodologies.
- There are multiple funding instruments to support scientific work of researchers, mainly individual scholarships and grants or institutional research projects, each of which entails different requirements in the application and evaluation process.
- In each country and within each research performing sector, research is considered differently with regard its interrelations with career progression or other aspects of scientific acknowledgement. In some instances, research productivity is regarded as the most important criterion for professional promotion while other contributions or career trajectories are less valued as such.

As demonstrated in numerous indicators along decades, gender inequalities in science and research persist (cf. SHE Figures, 2021 – p. 18).

[1] STEM – science, technology, engineering and mathematics; SSH – social sciences and humanities.

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Women make about half (or sometimes more) of PhD graduates, but much less than that in senior academic staff members or researchers. They are less likely than men to be authors of scientific publications, and in most cases are less likely than men to receive research funding when they apply for it (ibid, pp. 27, 194, 138, 259). Something in the research system seems just not to work for women as it does for men. Although the complex research landscape should suit different kinds of researchers, research funding is often more accessible to only certain types of researchers. Hence it is less equitably allocated.

**Imbalances and biases in the funding procedure**

**Along the generic funding procedure, women often face biases and barriers, thus eventually drop out or are excluded from the system. Consequently, the scientific capacity of women is not fully materialised, thereby benefit for society is not maximised.**

**Some of the biases and barriers in funding procedures stem from shortcomings in research performing organisations (RPOs) or social and cultural structures, while others may result from lack of awareness, misconceptions or rigid structures within RFOs. One major reason for resistance and antagonism towards gender equality and equity in research funding is the perception of meritocracy as the sole assessment criterion, and of gender equality as incompatible to academic excellence.**

**All in all, research funding systems are at large still conservative, and less flexible or adaptable to contemporary trends and evolutions in the diverse research arena.**

Most funding processes are quite generic in structure, comprising a few distinct phases as shown in figure 1. In this process, women often face biases and barriers, thus eventually drop out or are excluded from the system (Sato et al., 2020). This situation results in a vicious cycle of less research productivity thus less promotion, less funding opportunities in the future and so forth. In sum, for various reasons research funding is not always equally accessible to all qualified researchers, consequently the scientific capacity and talent of women and other groups of researchers is not fully materialised, thereby benefit for society is not maximised.

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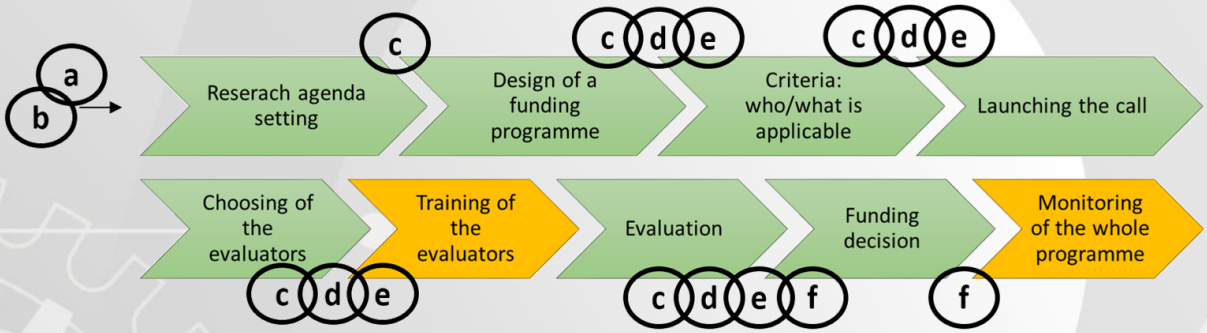


**Figure 1: General sequence (green) and optional sections (orange) in a generic research funding procedure, with biases and barriers – indicated by letters**

In the framework of CHANGE, barriers and biases were recurrently identified along funding procedures in all investigated countries, although their extent varies among countries, or even among different regions, organisations, or sectors within the same country. These biases and barriers could explain gender gaps and imbalances, which are reflected in various quantitative indicators over decades (cf. SHE Figures):

(a) Low percentages of women in certain scientific domains (e.g. STEM)

(b) Lack of supportive instruments or work environments in research performing organisations (RPOs) in contrast to work overloads, home-life imbalances and precarious work conditions which sometimes prevent women or other groups equal opportunities to apply for funds and engage in research

(c) Excellence and meritocracy as a dominant assessment criterion, determined mainly by 'research productivity'. Moreover, gender equality is often perceived as incompatible to academic excellence

(d) Biased prerequisites and evaluation processes, non-transparent or unclear criteria

(e) Lack of gender awareness, training, and expertise of evaluators

(f) Lack or scarcity of gender policies or legal instruments

As shown in figure 1, some of the identified biases and barriers (a-b) are independent of the funding procedures, and stem from shortcomings in RPOs or social and cultural structures, while other biases and barriers (c-f) may result from lack of awareness, misconceptions or rigid structures within RFOs.

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A most common thread among RFOs is explicitly regarding meritocracy ('c' in figure 1) as a dominant assessment criterion, while implicitly perceiving gender equality as incompatible to academic excellence. This rooted conception is often followed by resistance and antagonism towards the inclusion of gender equality and equity as a crosscutting theme in the funding process.

The key message is, that the current hegemonic research funding procedure seems not yet been adapted to contemporary trends and evolutions in the diverse research arena. Consequently, various modes of research and different types of researchers are prevented from equal funding opportunities. Therefore, this brief provides alternative and more flexible perspectives, which are highly recommended to be integrated in RFOs, for a more inclusive and diverse research funding system. The inflexible system needs to be adapted to diversity.

**Policy recommendations**

**The effective adaptation of gender-inclusive good practices in RFOs should not be voluntary, random, or sporadic. Rather, it should be a consequence of a well-established rationale and principles embedded in organisational policy and procedures.**

**Therefore, this section provides four recommendations to be integrated into policies of RFOs, RPOs, policymakers, legislators, and other relevant stakeholders who engage in research funding, for an effective and sustainable inclusion of the gender perspective in their procedures and cultures:**

1. **Gender equality plans as a national eligibility criterion and gender equality as a quality marker for RFOs and RPOs**
2. **Communication and collaboration mechanisms amongst RFOs and RPOs**
3. **A mix of different types of measures implemented along all phases of the funding process at all systemic levels**
4. **Multiple assessment criteria to support diverse research paths**

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## 1. Gender equality plans as a national eligibility criterion and gender equality as a quality marker for RFOs and RPOs

Gender equality has been recognized as a key goal in the European Research Area (EC, 2020). Respectively, as of 2021 gender mainstreaming has been initiated through determining institutional Gender Equality Plans (GEPs) as an eligibility criterion for public bodies, public and private research organisations and public and private higher education establishments applying for Horizon Europe research funding programmes (EIGE, 2022).

The CHANGE team recommends:

- Expand the requirement for institutional GEPs as an eligibility criterion to other national, regional and institutional funding programmes (in addition to Horizon Europe).
- Determine a mandatory requirement for GEPs in public RFOs, make RFOs accountable for the implementation and promotion of gender awareness in their organizational procedures and cultures.
- Incentivise private as well as public RFOs to implement institutional GEPs by establishing them as a quality marker for socially responsible institutions, e.g. in corporate social responsibility rankings or certification of award schemes.
- Gender equality should be included, managed, mainstreamed, and monitored as a cross-cutting theme in funding procedures and at all research projects, by professional gender equality experts, and by trained RFO staff and evaluators.

## 2. Communication and collaboration mechanisms amongst RFOs and RPOs

Scientific research and research funding are highly intertwined in scientific career paths of men and women in higher education, industry and other research-oriented organisations. Access of researchers to funds often depends on their affiliation to and support by their RPOs, e.g. a common prerequisite in many basic research funds is being a senior staff member in a higher education institution. Therefore, research funding processes are not stand-alone but rather a continuation of a pre-submission phase in RPOs. RFOs often have limited awareness of reciprocal implications and

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impacts of the pre-application phase on applicants. In addition, they can benefit from sharing knowledge and good practices with other RFOs facing the same challenges.

The CHANGE team recommends:

- Establish regular communication and collaboration mechanisms among RFOs and RPOs within Communities of Practice (CoPs) – RFOs and RPOs, and RFOs amongst themselves.
- Instruct organisations to share knowledge to identify gender gaps, biases and barriers within their procedures and to share good-practice examples with each other.
- Uncover and eliminate preconditions or matching points between RPOs and RFOs where women face more challenges, respectively adapt and gender sensitise the procedures.
- Initiate and promote measures beyond the institutional level, by constant communication with other organisations.

### 3. A mix of different types of measures implemented along all phases of the funding process at all systemic levels

Although in theory strategies or good practices are often discussed separately, only one type of practice or strategy cannot guarantee transformation or change unless implemented with additional strategies or organisational tools at all systemic levels (Benschop and Verloo 2011). The gender equality policy for SwafS in the European Research Area (ERA) also stresses the need for a systemic approach to tackle gender inequalities through institutional change (EC, 2020a). In the framework of CHANGE a typology of six groups of gender-inclusive good practices was suggested and analysed in terms of aims, i.e targeted solutions to certain gaps along the funding procedure, and level of implementation or impact area, i.e whether the tool is practiced on individual, institutional, regional, or national levels. Each type entails numerous strategies or actions, which can be selected and adapted or re-shaped according to the local context of each institution (CHANGE, 2022).

As shown in figure 2, certain types of good practices can mitigate gaps in certain phases along the research funding process. Moreover, only some of the practices are aimed at the individual level of

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researchers (mainly type no. 1) whereas most of the practices are aimed at the institutional level and beyond. Therefore, it is argued that only the implementation of a combination of practices of all six types along all phases of the funding process and at all systemic levels could promote a comprehensive and sustainable change towards a more gender equal and gender balanced research landscape.

1. Special support instruments for researchers
2. Gender experts and trainings
3. Gender mainstreaming and sensitisation
4. 'Fair play': organisational transparency
5. Gender balance in decision-making bodies
6. GE Policy, budget, regulation and monitoring

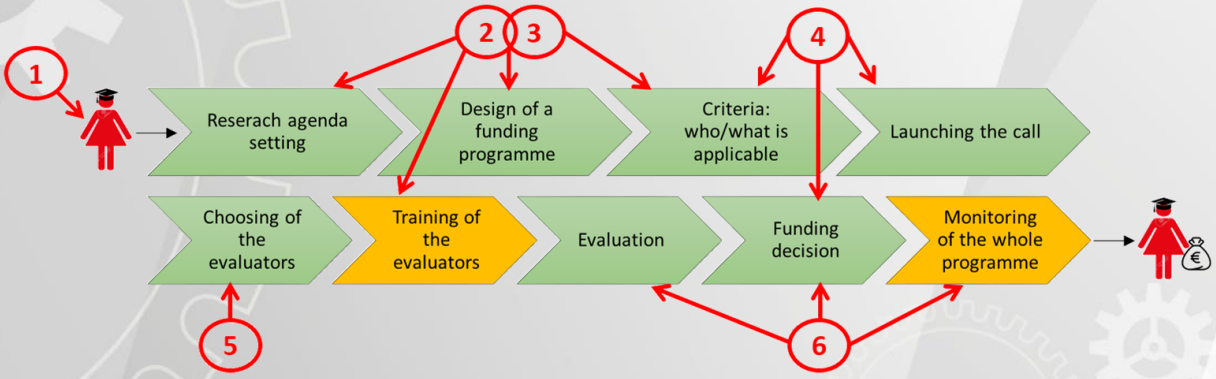


**Figure 2: The CHANGE six types of gender-inclusive good practices along the research funding process**

The CHANGE team recommends:

- Prior to the implementation of measures, it is recommended to consider their aim, target audience and systemic level or level of implementation and impact.
- RFOs should initiate, promote, and implement a combination of several gender-inclusive measures of all six types, along all phases of the funding process, tailored to the specific needs of each organisation and within their impact area.
- Special attention should be put on GEP regulation and monitoring throughout the whole research cycle. In case of non-compliance with a GEP, payments should be blocked until corrective measures are applied.

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## 4. Multiple assessment criteria to support diverse research paths

The concept of research can be perceived and assessed in multiple ways. Nonetheless, not all features and outputs of scientific work are equally assessed, evaluated, and consequently funded. Some modes of research or scientific work are regarded less valued. Respectively, some groups of researchers, in many cases women researchers, are prevented or excluded from funding opportunities.

The CHANGE team recommends:

- Discuss and challenge the concepts of meritocracy, power and capital. Questions that should be raised are: What does 'excellence' mean? What does it entail? Who is the 'ideal researcher'? What is the 'ideal research'? Can only metric-based publications of basic research be considered excellent research?
- Establish two compatible aspects of assessment and evaluation for 'socially responsible science': scientific impacts and societal impacts.
- Expand the assessment methods in RFOs and enable alternative parameters as eligible criteria for application and promotion in addition or instead of basic research productivity.
- Include gender awareness and sensitisation in the assessment and evaluation criteria.
- Low-status, time-consuming, largely invisible academic housekeeping service for the RPO functioning need to be equally acknowledged as eligible research, e.g., y organisation of events, science communication using other channels than peer reviewed open access articles, video creation or interviews, appearance in media etc.
- Acknowledge different modes of academic achievements, contributions and career trajectories, e.g interdisciplinary and applied research, professional practice, scientific publications in various languages and platforms, inter- or transdisciplinary mobility between different professional fields along academic careers, number of submitted proposals as principal investigator, or other academic contributions.
- Develop multiple types of funding which are suitable for diverse and multiple types of researchers and research modes within the same RFO. It should be emphasized, that gender-inclusiveness must not be tackled by splitting institutions, but by enabling diversity within the same institution.

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