



Science Foundation Ireland

Gender Strategy 2016-2020

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1. Background

Published in 2012, Science Foundation Ireland's Agenda 2020 set out an ambitious plan to make Ireland a global knowledge leader. Amongst the targets set by the publication was the endeavour to reach 25% female award holders in Science, Technology, Engineering and Mathematics (STEM). Since this target has been achieved in 2016, it is now revised upwards to a new target of 30% female award holders within SFI's portfolio by 2020.

Science Foundations Ireland's Gender Strategy sets out the agency's roadmap to not only achieve this goal but to improve the representation and progression of women in all aspects of STEM careers in Ireland.

The underlying causes of the gender imbalance at decision-making levels across all sectors are numerous and complex. However, for the purpose of agreeing on the scope of this strategy, it may be beneficial to highlight the following:

- 1) Childbearing and caregiving are major determining factors for women leaving competitive STEM careers, but not the only factors; the lack of role models is also frequently cited and as such gender imbalance appears to be self-reinforcing;¹
- 2) The working environment in Research Bodies (RBs) is often perceived as unsupportive of female candidates at all levels of seniority;²
- 3) One of the sharpest declines in the percentages of women represented on the traditional academic research career track occurs between the graduate and tenure-track/permanent position career points (the so-called 'leaky pipeline').³

The above points can be addressed by a bottom-up approach, whereby the individual researchers are supported at the most critical junctures in their careers, and by a top-down approach, whereby the institutional culture can be made more aware of gender issues and become proactive in redressing the gender imbalance. The latter is being addressed by the Athena SWAN Charter in Ireland, launched in February 2015.

Following the recommendations laid out in the HEA National Review of Gender Equality in Irish Higher Education Institutions,⁴ the present document outlines the Science Foundation Ireland Gender Strategy 2016-2020.

- **Strand 1** will focus on gender equality across Science Foundation Ireland education and public engagement initiatives, with the aim of increasing the participation and interest of girls in STEM-related activities.

¹ Reaching Gender Equity in Science: The Importance of Role Models and Mentors, Science (Careers Magazine), Feb 2010

² Fix The System, Not The Women, Science (Careers Magazine), Jan 2011

³ <http://www.irishtimes.com/news/education/universities-sign-up-to-gender-equality-charter-1.2091578>

⁴ http://www.heai.ie/sites/default/files/hea_review_of_gender_equality_in_irish_higher_education.pdf

- **Strand 2** targets female representation within the Science Foundation Ireland funded portfolio and Science Foundation Ireland review panels. Concrete measures to achieve these targets are outlined.
- **Strand 3** will ensure that gender perspectives are integrated into the research content of Science Foundation Ireland-funded research programmes.

2. Scope and Structure

The Strategy will provide guidance on the implementation of policies that aim to achieve the following objectives:

- a) To achieve the revised target of *30% female award holders by 2020*.
- b) To increase the uptake of STEM subjects by female students at second and third level.
- c) To increase the proportion of women leading major STEM research initiatives in Ireland.
- d) To increase the proportion of women in the Science Foundation Ireland peer-review process.
- e) To ensure that the SFI peer-review process remains unbiased.
- f) To increase excellence in research and impact by requiring Science Foundation Ireland applicants to demonstrate that they have given full consideration to any potential gender dimension in their proposed research.
- g) To increase excellence in research and impact, by continuing to fund meritorious researchers regardless of their gender, while widening the pool of potential applicants.

The Strategy addresses the whole funding pipeline of programmes that fall under the Science Foundation Ireland remit.

Strand 1. Gender in Education and Public Engagement

Science Foundation Ireland is implementing a number of measures aimed at increasing the number of students studying STEM subjects at second and third level. In 2014 Science Foundation Ireland commissioned a study into the career choices of young people in Ireland.⁵ Looking at a representative sample of students in the first year of their undergraduate third level course the study examined the key influencing factors in course selection.

The study found that “fitting in” is most important to young people making qualification choices. Being able to identify themselves in a future role is the key influencing factor. Career opportunities and earning potential were also identified by the study as important, but secondary. Information about a particular course or career will not even be sought by young people if they have no affinity with the associated stereotypes. Parents were found to have an important role in influencing a child’s opinion on whether they ‘fit in’. This reinforces the importance of breaking perceived stereotypes amongst this group. Informed by this finding, Strand 1 will look to increase the participation and

⁵<http://www.smartfutures.ie/sites/default/files/resources/basic/SFI%20Smart%20Futures%20STEM%20research%20Final%20Report%202014.pdf>

interest of girls in STEM-related activities, and thereby their confidence in the relevance of studying STEM subjects.

Actions:

- i. Under the Smart Futures programme, Science Foundation Ireland will:
 - a. Develop partnerships with groups that support girls to explore STEM skills informally.
 - b. Commit to ensuring gender parity is addressed in the role models profiled through the programme.
 - c. Deliver training to volunteers addressing unconscious attitudes or statements that may impact on girls' aspirations.
 - d. Deliver a programme of parent intervention that addresses how unconscious statements impact on girls' aspirations.
- ii. The SFI Discover Programme will support projects that aim to increase the number of women pursuing STEM subjects. Such projects, that are evaluated as being excellent and impactful, will be supported where funding is available.
- iii. Science Foundation Ireland will publish evaluations of public engagement projects that address gender parity, to inform the broader public engagement community on best practice.
- iv. Science Foundation Ireland will ensure that our public engagement materials, activities and online content represent gender parity and challenge unconscious bias.
- v. Science Foundation Ireland will develop a toolkit on unconscious bias for education and public engagement initiatives and provide unconscious bias training to SFI Discover supported education and public engagement projects.

Strand 2. Gender Balance in Research Teams

This Strand aims to tackle the under-representation of women in the STEM research sector, by implementing policies aimed at increasing the proportion of women in the Science Foundation Ireland funded portfolio, thereby contributing to attain the Science Foundation Ireland revised target: *30% of female award holders by 2020*. Strand 2 will also aim to increase the number of women in the organisation's peer-review process, by setting targets for female representation within the agency's review panels, and concrete measures to attain those targets. The policies and programmes under this Strand may be grouped into two areas:

1) Actions to increase the number of women within the Science Foundation Ireland funded portfolio

Under Strand 2 of the SFI Gender Strategy 2016-2020, Science Foundation Ireland will:

- i. Provide incentives for the research bodies to submit applications from female researchers to various programmes. An example of such an incentive is the SFI SIRG programme, where the institutional cap was recently increased from 6 to 12 applications where at least 50% of the applicants were women. Introducing such measures across SFI's programme range would be

- based on the expectation that the eligible research bodies are working towards the winning of an Athena SWAN Silver Award, where applicable.
- ii. Within three years, require HEIs to have attained an Athena SWAN Bronze Institutional Award to be eligible for funding. Within seven years, Science Foundation Ireland will require HEIs to have attained an Athena SWAN Silver Institutional Award to be eligible for funding.
 - iii. Implement progressive measures, such as the Athena SWAN Programme, to achieve gender balance within the SFI Research Centres.
 - iv. Develop targeted gender initiatives, informed by annual gender-disaggregated statistics and the monitoring and analysis of the gender-balance of applicants and awardees.
 - v. Improve the Science Foundation Ireland call documents and programmes, in areas such as eligible costs, time flexibility and eligibility criteria, which would facilitate and/or encourage caregivers to undertake or remain in a STEM research career.
 - vi. Set and monitor targets for gender balance in research teams within relevant Science Foundation Ireland Programmes, with the aim of ensuring that research teams and PIs are comprised of at least 40% women and at least 40% men.
 - vii. Design and implement specific grant management policies to deal with the needs of female researchers during periods of maternity/adoptive leave.
 - viii. Consider including gender as a ranking criterion at review stage, in line with practices already established by the European Commission (H2020) and other international funders.
 - ix. Provide effective unconscious bias training to all reviewers. All SFI Staff and the SFI Board have already received face-to-face unconscious bias training.

2) Actions to increase the number of female reviewers within the Science Foundation Ireland process

Under Strand 2 of the SFI Gender Strategy 2016-2020, Science Foundation Ireland will:

- i. Achieve 40% representation of panellists of each gender (in both sitting and remote panels, and among postal reviewers) by 2020.^{6,7}
- ii. Upgrade Science Foundation Ireland's online grant management database SESAME to facilitate increased diversity within review panels.
- iii. Upgrade Science Foundation Ireland's IT tools to facilitate the remote participation of panel reviewers who cannot travel, for either family commitments or other impediments such as age or disability.

⁶ http://www.heai.ie/sites/default/files/hea_review_of_gender_equality_in_irish_higher_education.pdf

⁷ http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/gender/h2020-hi-guide-gender_en.pdf

Strand 3. Integrating Gender in Research and Innovation

Research generates knowledge that serves as the basis for social development, policy formulation and the development of services and products. It is crucial that this knowledge benefits all individuals in society, regardless of gender. Both in ERA and Horizon 2020 it has been pointed out that gender perspectives are not a sufficiently integral part of research and innovation (R&I). This applies in Ireland as well. By increasing the relevance of basic and applied research endeavours to both men and women, the integration of gender perspectives in the research programmes would improve both the scientific quality and the impact of the Science Foundation Ireland outputs and outcomes. Neglecting the gender dimension in research can lead to false conclusions, inapplicable results and withdrawal of commercial products. While it is perfectly acceptable that research programmes in specific fields might not need to consider gender aspects within the project design, it is critical that researchers assess if that is the case, and if so, that they justify the rationale for exclusion of gender aspects in their experimental design. The Strategy will work to ensure that gender is integrated as a perspective in all the research Science Foundation Ireland funds, when this is relevant. The integration of gender/sex in the research programme may be manifested in the research questions raised and the theoretical approaches and methods used. While it might be argued that the review process should already consider this aspect within the research 'excellence' criterion, this is not always the case. It is therefore crucial that funding agencies drive behaviour and raise awareness in the research community, by asking reviewers to consider if and how gender perspectives are included in the R&I design. Examples of gender integration in research can be found on the EU Gendered Innovations website⁸.

Actions:

- i. Science Foundation Ireland will request applicants to demonstrate that they have given full consideration to any potential gender aspects in their proposed research programme. Guidance for reviewers and applicants will be developed.
- ii. Science Foundation Ireland will consider making 'gender in research' training for Science Foundation Ireland funded researchers an eligible programme cost.

⁸ http://ec.europa.eu/research/science-society/gendered-innovations/index_en.cfm

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