

Chapter 2

A Review of Irish National Strategy for Gender Equality in Higher Education 2010–2021



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Abstract This chapter provides a narrative of the key policies, initiatives and actions that have transformed both the landscape of gender equality in Higher Education in Ireland, and the role of gender equality in research policy and public engagement in STEM over the last decade. It aims to provide leaders committed to gender equality with examples of good practice within the EU-Irish context. The first part of the chapter focuses on the EU gender equality strategies for Higher Education. It explains the review of gender equality undertaken by the Irish Higher Education Authority (HEA), the significant findings, and the National Gender Action Plan designed to address the issues identified. It contains examples of high-level initiatives implemented to deliver on key actions. These include centres of excellence for Gender Equality, and affirmative actions taken to address imbalance at senior levels in the Irish Higher Education system. It also provides an account of Irish participation in the UK Advance Higher Education (*Advance HE*) gender supports including the women's leadership programme 'Aurora', and the 'Athena SWAN' charter that provides an accreditation framework for auditing, supporting and transforming gender equality in Higher Education Institutions. For context, some examples of implementing these in an Irish Institution are provided. The chapter then reviews the gender equality strategies and policies of the main research funding organisations in Ireland, namely Science Foundation Ireland (SFI), and the Irish Research Council (IRC). It indicates how gender equality manifests in achieving gender balance in the Irish research community; and in funding applications and consequently in research design to embed the gender element. It also provides an

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overview of recent national studies carried out to analyse the Irish public's perceptions and awareness of STEM in society, and factors leading to career and study choices by young Irish people. It signposts to the recent actions to address gender equality provided under SFI's remit for public engagement in STEM.

Keywords Gender equality policy · Ireland · European union (EU) · Higher education · Research funding · Advance HE

2.1 Introduction

Despite equality legislation and equality policies, gender inequality persists in Ireland and globally in many sectors of society. A World Economic Forum report on gender gaps in health, education, work and politics states it will take 99.5 years to close these gaps (World Economic Forum, 2019). In relation to the gender income gap, they found that women are heavily under-represented in technology (12%), engineering (15%), data and AI (26%). These are sectors which have experienced substantial wage increases in the last decade. The European Commission's She Figs. 2021 shows women are under-represented in technical professions with women representing 24.9% of self-employed professionals in Science and Engineering (S&E) and Information & Communication Technologies (ICT). In addition, women are under-represented in the highest academic levels (26.2%) and at the highest decision-making levels (26.2%) in academic institutions. This reflects the global issue of gender inequality in Higher Education research and innovation (Commission, 2021). Gender equality is an important ethical, legal and performance issue for Higher Education. Ethically, the United Nations Sustainable Development Goal 5 calls for Gender Equality and the right for women and girls to have equal participation in all aspects of society. Legally, many countries have equality legislation that prevents gender discrimination. In Ireland for example, the Employment Equality Act 1998 specifically legislates for the prevention of gender discrimination in the fair and equal access to employment and promotion opportunities (Employment Equality Act, 1998). In terms of overall performance, research shows that diversity is a key strength. Gender balance on executive boards is positively correlated with increased performance of organisations (Gratton et al., 2007; Carter & Wagner, 2011; Reinert et al., 2016) and research publications from ethnically diverse research teams are more highly cited than those published by ethnically homogenous teams (Hunt et al., 2015). Diversity brings different perspectives that increases creativity and innovation (Gassmann, 2001; Dai et al., 2019).

European Union Gender Equality Strategy.

Gender equality is a core principle of the European Union, but it is not yet a reality. In business, politics and society as a whole, we can only reach our full potential if we use all of our talent and diversity. Using only half of the population, half of the ideas or half of the energy is not good enough.

President of the European Commission, Ursula von der Leyen.

The European Commission states that ‘the under-representation of women threatens the goals of science in achieving excellence, as well as being wasteful and unjust’ (European Commission, 2000). Building on the strengths and lessons learned from the Strategic Engagement for Gender Equality 2016–2019 (Publications Office of the European Union, 2020a) and to address the persistent under-representation of women and girls in the labour market, the European Commission (2020b) developed the Gender Equality Strategy 2020–2025.

The European Commission Gender Equality Strategy 2020–2025 has identified the following concrete actions to address the equal participation of women and girls in the economy and society:

- Improve the balance between women and men in decision-making positions, including on company boards and in politics. Adopt EU-wide targets on gender balance on corporate boards. Encourage the participation of women as voters and candidates in the 2024 European Parliament elections. As one of the first deliverables of the Strategy, the Commission will propose binding pay transparency measures. Encourage a more balanced participation of women and men in all work sectors for more diversity in the workplace.
- Promote the EU Platform of Diversity Charters in all sectors.
- Address the digital gender gap in the updated Digital Education Action Plan.
- Gender mainstreaming. Include a gender perspective in all policy areas, at all levels and at all stages of policymaking. For example: Specific needs, challenges and opportunities in different sectors, such as transport, energy and agriculture, will be addressed within the Commission’s gender mainstreaming actions.
- The Commission will address the gender dimension in its major initiatives responding to European challenges such as climate change and digitalisation.
- Intersectionality. All women are different and may face discrimination based on several personal characteristics. For instance, a migrant woman with a disability may face discrimination on three grounds. The intersectionality of gender with other grounds of discrimination will be addressed across EU policies.
- Dedicated funding for a gender-equal future. EU budget (2021–2027) will make funding available through a number of EU programmes for gender equality-related projects. For example, dedicated grants under the Citizens, Equality, Rights and Values Programme to the big structural, social and cohesive EU funds.

As part of the W-STEM project (García-Holgado et al., 2019; García-Peñalvo et al., 2019) TU Dublin staff from both professional services and academia have provided an overview of the gender equality policies and actions that have influenced the Irish context over the last decade. In the following sections, (1) the initiatives to support achieving gender equality in Irish Higher Education Institutions are discussed. These include undertakings by the Irish Higher Education Authority (HEA), specifically (1.1) a review of gender equality in Irish HEAs and (1.2) formation of a gender task force. The overview also includes (2) the UK-based

Advance HE and the support it provides to Ireland and elsewhere including (2.1) Athena SWAN and (2.2) Aurora Women's Leadership programme. Thereafter, (3) a discussion follows on gender equality within Irish Research Funding organisations including (3.1) the Irish Research Council and (3.2) Science Foundation Ireland. The chapter closes with some concluding remarks which may be useful to those interested in understanding the systematic approach taken by Ireland and the EU to advance gender equality in Higher Education.

2.2 Gender Equality in Irish Higher Education Institutions

To address the under-representation of women in senior levels across Irish Higher Education Institutions, several initiatives were implemented and are discussed in the following section.

2.2.1 The Higher Education Authority: National Review of Gender Equality in Irish Higher Education Institutions

The Higher Education Authority (HEA) conducted a National Review of Gender Equality in Irish Higher Education Institutions (Higher Education Authority, 2016). This expert review aimed to address the numerous factors within Higher Education Institutions (HEIs), conscious and unconscious, cultural and structural, that result in women facing barriers to progression which are not experienced to the same degree by their male colleagues. The review conducted an in-depth analysis of the gender balance of academic and non-academic (professional service and support staff) staff across all grades of employment as well as institutions' management teams, academic councils and governing boards.

Review Process

The review process began with the development of the Terms of Reference and appointment of the Expert Group. The approach taken in conducting the review involved the following stages:

- Policy context research.
- Literature review of the international and national challenges and emerging solutions.
- Data collection to establish figures on the gender breakdown of HEI staff—identifying gaps in the data gathered and analysis of the data available.

Table 2.1 HEA survey of staff in the Irish Higher Education Sector (n = 4,835): priority areas identified to address barriers to women's progression

Priority Areas
67% Promotion/progression criteria
61% Gender balance on senior management teams at institutional level
60% Overall culture
52% Career development opportunities
51% Transparent procedures/processes
51% Senior management's leadership on gender equality
50% Representation of men and women on key committees
50% Childcare/carers' provision and supports

- Collection of HEI institutional equality policies, and where applicable, HEI Athena SWAN applications or institutional statements on their gender equality initiatives.
- Wide consultation with stakeholders involving face-to-face meetings with the Expert Group, written submissions from interest groups, and a public online survey. See Table 2.1 for priority areas identified.
- Development of recommendations.
- Feedback from survey respondents (Table 2.1) and wider consultations informed the HEA recommendations to address gender inequality in Higher Education.

HEA recommendations were identified for four key stakeholder groups to drive positive change for gender equality:

- Higher education institutions.
- The Higher Education Authority.
- Research funding and related agencies.
- Wider Higher Education stakeholders.

A total of 22 recommendations were specifically identified for *Higher Education Institutions* and, for context, the TU Dublin response to implementing these recommendations is outlined in Table A.1 in the Appendix to this chapter. Key initiatives implemented by TU Dublin include:

- *Structural Changes*. All university committees with responsibility for operating and resourcing decisions must be gender balanced.
- *Cultural Changes*. To create an understanding of how unconscious bias can lead to stereotyping, prejudice and discrimination, unconscious bias training is provided for all staff and included in leadership development, performance management and interview skills training.
- *Policy Changes*. All recruitment and selection panels must be gender balanced and all panel members must complete unconscious bias training.

- *Career Development*. To support career development and progression, the university sponsors 20 women annually to attend the Advance HE Aurora Leadership Development Programme for Women to understand the barriers facing women in Higher Education. TU Dublin also assigns a mentor to all leadership development programme participants.

2.2.2 *The Department of Education & Skills Gender Task Force—Accelerating Gender Equality in Irish Higher Education Institutions—Gender Action Plan 2018–2020*

Following publication of the HEA National Review of Gender Equality (Higher Education Authority, 2016), the Department of Education and Skills (DES, 2018) identified the review as an important first step in highlighting gender inequality in our HEIs. However, in monitoring the implementation of the HEA 2016 recommendations (Higher Education Authority, 2016), concerns were raised that progress remained exceptionally slow.

Data trends in the universities over the period 2013–2017, show that there has been a consistently low rate of change year on year, only 1–2% each year at professor level, from a starting position of 18% female professors in 2013 to just 24% in 2017. The HEA Higher Education Institutional Staff by Gender report (2018) highlights that in 2017 only 24% of professor posts were filled by women as compared to 51% female lecturers, the entry level for academic posts in the university sector. While the number of female professors is just one metric, it is a key metric used internationally to compare countries, and it clearly highlights the extent of the problem in academia.

Minister for Higher Education Mary Mitchell O'Connor, Gender Action Plan 2018–2020, p.2 (Higher Education Authority, 2016).

Drawing on the work of the HEA Expert Group, a 'Gender Task Force' was established to help embed the recommendations. Specifically addressing HEA recommendation 1.21—To ensure a roadmap for attainment of gender equality is developed, each institution will implement a gender action plan, the Gender Task Force outlined a Gender Action Plan 2018–2020 that identified goals, actions and targets to be integrated into the institution's strategic plan.

Review Process

The Gender Equality Taskforce formally began their work in November 2017 following the development of their Terms of Reference. The approach taken by the Gender Equality Taskforce involved the following stages:

- Review of recruitment and promotion policies and practices in HEIs conducted by an external third party, Advance HE (please see below for further information).

- Consultation with stakeholders involving face-to-face meetings with the Gender Equality Taskforce, a stakeholder consultation event and analysis of the outcomes of the consultation process.
- Data analysis of academic staff recruitment and promotion by gender and identification of gaps in data collection, particularly in regards professional, management and support staff data.
- Progress reports from HEIs on the HEA Expert Group Report recommendations and analysis of progress made at sectoral level.
- Literature review of national and international practice including challenges and emerging solutions since 2016.

Development of the three-year Gender Action Plan 2018–2020

The Gender Action Plan 2018–2020 (DES, 2018) identified specific actions and targets to accelerate progress in achieving gender equality in Irish HEIs:

1. Driving sustainable change in the form of a Centre of Excellence for Gender Equality:
 - Providing centralised support for HEIs.
 - Disseminate and share good practice and funding for innovative organisational and cultural change initiatives nationally through the HEA Gender Equality Enhancement Fund.
2. Institutional Gender Action Plans:
 - All HEIs shall submit their institutional gender action plan to the HEA and provide annual progress updates.
 - To accelerate gender balance, all HEIs shall set ambitious short-, medium- and long-term targets (1, 3 and 5 years) for the proportion of people of each gender which it aims to have at senior levels of academic and professional, management and support staff across the institution.
 - Each HEI will be held accountable for achieving their targets and performance will be incentivised through additional funding or funding consequences as appropriate, to ensure progress is constant and considerable.
3. Incentivised progress through funding mechanisms:
 - Government funding for Higher Education shall be linked to an institution's performance in addressing gender inequality.
 - To drive performance there shall be rewards for progress through funding incentives and consequences for lack of engagement or effort.
4. Recognising and embedding Gender Equality through the Athena SWAN Audit & Award:
 - HEIs shall apply for an Athena SWAN Institutional Bronze award by 2019.
 - Research Funding Institutions will require HEIs to have achieved an Athena SWAN Bronze award to be eligible to access funding.

5. Gender-proofing recruitment and promotion procedures and practices:
 - All HEIs shall ensure that there are concrete actions in their institutional gender action plans, elaborated where appropriate at discipline and business unit level, to bring their existing policies in line with good recruitment and selection practice.
6. Positive Action Interventions:
 - All HEIs shall strive for gender balance in the final pool of candidates for all competitions.
 - Each HEI is required to implement the flexible cascade model as a minimum (not a maximum) for both promotion and recruitment of academic staff and senior grades of professional, management and support staff.
 - Each HEI is required to set ambitious short-, medium- and long-term targets (1, 3 and 5 years), over and above the flexible cascade model for both promotion and recruitment of academic staff and senior grades of professional, management and support staff.
 - To enable HEIs to better monitor their progress and monitor patterns, data disaggregated by gender, contract type and broad discipline area or business unit should be collected on the number of applications, recruitments and promotions for all academic grades. This data should be submitted to the HEA annually for analysis at the sectoral and national level.
 - New and additional gender-specific posts, at appropriate levels, as well as other positive action measures, should be considered where they would be a proportionate and effective means to achieve rapid and sustainable change.
 - All HEIs shall ensure that there are concrete actions in their institutional gender action plan to address stereotyping of ‘female’ and ‘male’ roles.

The next section considers a specific example of positive action to address gender equality in senior leadership in the Irish Higher Education system, and was introduced by Minister Mary Mitchell O’Connor, who provided the foreword as part of the W-STEM project.

2.2.3 Senior Academic Leadership Initiative (SALI)

SALI is an innovative and transformational positive action initiative implemented in 2019 across Higher Education alongside the Gender Action Task Force and championed by the Minister for Higher Education. The Senior Academic Leadership Initiative aims to achieve equality of outcome in the Higher Education sector. New and additional senior academic leadership posts have been funded in areas where: there is clear evidence of significant gender under-representation; where this appointment will have significant impact within the faculty/department/functional unit and the HEI; where they would be a proportionate and effective means to achieve accelerated

and sustainable change within an institution. A total of 45 senior academic leadership initiative posts are being provided across sectors (e.g. university and institute of technology) over three cycles of awards. These posts are new and additional to the sector, i.e., they are in addition to the existing Employment Control Framework (ECF), and they are funded through new and additional funding provided specifically to help address the significant gender imbalance among academic staff at senior levels.

2.3 Advance Higher Education (HE)

Advance Higher Education (HE) is a member-led education sector charity, based in Ireland and the United Kingdom, that provides support to Higher Education institutions across the world. The main purpose of this organisation is to improve Higher Education for staff, students and society by addressing systematic inequality in the HE sector (Advance, 2021a, b). Advance HE stresses the importance of enhancing teaching and learning, effective governance and leadership development as key to tackling inequality. Thus, through its equality, diversity and inclusion (EDI) work, Advance HE provides support for Higher Education institutions that include charters, professional development programmes and events, fellowships, awards, student surveys, providing strategic change and consultancy services and services through membership (Advance, 2021a, b).

One of the most important services provided by Advance HE is the development of its Equality Charters which are frameworks used across the globe to support and transform equality within Higher Education (HE) and research. Charters include the Athena Swan Charter that focuses on gender equality in HE, Race Equality Charter that focuses on representation, progression and success of minority ethnic staff and students, and the International Charter that focuses on establishing equality frameworks like Athena Swan internationally that are globally comparable but also locally contextualised (Advance, 2021c) These Charters allow organisations to apply for an award recognising their commitment to, and progress on, equality and diversity. In Ireland, awards such as Athena Swan have been noted as essential for the success of European and international funding as it shows commitment to the delivery of UN Sustainable Development Goals of quality education and gender equality (Advance, 2021b). From these charters, Advance HE provides programmes and resources to assist organisations in achieving these awards by providing guidance on gender auditing an organisation, resources such as sample surveys, as well as templates and advice for leadership and development programmes.

With its successful programmes and awards, membership of Advance HE has become global, with over 380 members across the world (Table 2.2), including members in South America and Ireland (Advance, 2021b).

In Ireland, every Higher Education Institute (Institutes of Technology, Technological Universities, Universities) are international members and have relied on Advance

Table 2.2 Advance HE Membership 2020–21

Advance HE members 2020–21	Count of organisation
Beneficiary member	73
International global member	3
International member (inc ROI)	80
Research institute member - UK	28
UK affiliate member	112
UK member	155
Grand total	451

Source <https://www.advance-he.ac.uk/advance-he-members-2020-21>

HE for resources and support in developing their own framework for development of an equality and inclusion strategy. Technology University Dublin (TU Dublin) are international members of Advance HE and are actively engaged in undertaking awards such as Athena SWAN, thus we are given access to their professional development resources, assistance in developing academic leadership programmes for all interested staff and can sponsor staff for the Aurora leadership program. By providing a gender equality charter for Ireland, Advance HE was invaluable to TU Dublin in guiding our own strategy for equality, diversity and inclusion. Advance HE provided the structure of the Athena SWAN awards and the methodology to conduct a gender audit. It also provided access to additional resources and to networks through the Aurora Leadership Programme for Women in Higher Education and the development of our own leadership programme.

2.3.1 *Athena SWAN and Athena SWAN Ireland*

The Athena SWAN Charter provides an accreditation framework for auditing, supporting and transforming gender equality in Higher Education Institutions. Established in 2005, the focus of the original Athena SWAN Charter was to encourage and acknowledge commitment by HE institutions to the advancement of women's careers in STEMM. Over time, the charter has evolved to go beyond STEMM areas, to include all areas of women's careers in HE such as academic and professional services roles and by focusing on representation, progression of students into academia, career journey and working environment (Advance, 2021d). At its core the Athena SWAN Charter has a series of goals:

- Helps institutions achieve their gender equality objectives.
- Assists institutions to meet equality legislation requirements, as well as the requirements and expectations of some funders and research councils.
- Uses a targeted self-assessment framework to support applicants identify areas for positive action as well as recognise and share good practice.

- Supports the promotion of inclusive working practices that can increase the retention of valued academics and professional and support staff, demonstrating an institution's commitment to an equitable working environment.

In order to provide a clear pathway and recognition of success, the Athena SWAN awards were created. By using the Athena SWAN award process, HE institutions use a targeted self-assessment framework to identify gender equality goals, areas of needed action and good practice, and provide actions to align with equality legislation as well as funding and research council requirements and promote inclusive work practices (Advance, 2021e) Different application routes apply for different levels of award (Bronze, Silver and Gold), depending on scale and size (e.g., Institution, department, small or specialised institute) and if located within/outside the United Kingdom.

The Bronze award is mainly about raising awareness and acknowledging the need for change in an organisation. The award affirms that a university or HEI is aware of gender inequality issues, has identified challenges, and has an action plan for these issues. A series of webinars about Athena SWAN are provided on the Advance HE website (<https://www.advance-he.ac.uk/equality-charters/athena-swan-charter>) that outlines what Athena SWAN is, how to get started, dealing with data, and undertaking gender analysis and a downloadable information pack is available on their website. Advance HE also provides information sessions and a detailed FAQs section that provides guidance to institutions on how to achieve an Athena SWAN Award. In June 2021, the Athena SWAN UK Charter has undergone further transformation to provide a new framework for new and existing members. This new charter supports greater inclusion for people in all roles, of all genders and intersectional identities (Advance, 2021e), provides greater clarification and expectations for each award level, more streamlined application, increased clarity and professionalisation of panel roles, and increased guidance and support for applicants.

In Ireland, the Higher Education Authority (HEA), mandated that all higher-level institutes in Ireland (Higher Education Authority, 2019) must apply for Athena SWAN Bronze award by end of 2019, reapply within 18 months of a failed Bronze award application, and attain Bronze award within 4 years of the first failed application. In order to achieve a Bronze award, a HEI must undertake an institutional gender self-assessment and propose a 3-year action plan based on the findings of this self-assessment. For example, for TU Dublin to be successful, it would be strongly dependent on the strength of the self-assessment which involved the support of the organisation, access to data and staff, quality of data gathered and clear interpretation of data that subsequently helped guide the future action plan. Strong support from senior levels of the organisation and beyond are essential. As noted, HEA (Higher Education Authority, 2019) issued a mandate that all institutes had to apply for Athena SWAN award, thus it was seen as an essential programme to undertake. Strong institutional support and senior management buy-in are essential for success as it signals to staff that gender equality is a strategic priority. Lack of said

support and buy-in can create significant difficulties and result in failure, thus TU Dublin approached different colleges/departments/faculty within the university to set up 'Athena SWAN Champions', senior-level individuals who would represent each department and discuss and advocate for Athena SWAN to the most senior levels of the organisation.

Unsuccessful Bronze award applications do not just result from lack of support but also from lack of qualitative data, lack of analysis and interpretation of data collected, not answering all questions or missing information, not using staff consultation to inform analysis and actions, and action plans not being SMART or data informed. Thus, it is important to create a self-assessment team (SAT) that can fulfil the criteria needed for the Bronze award. Members should include a mixture of individuals with different skillsets that can help at all stages of the process. Individuals should be interested in equality and change, with a proper representation of staff included (e.g., gender, ethnicity, mobility, age, etc.).

TU Dublin recruited SAT members by asking for expressions of interest which helped gather a diverse team of skilled individuals from all levels and areas in the institute. It is important to have a mixture of academic and professional, management, and support staff to help understand the formal and informal organisational structure and culture of the institute. In TU Dublin, a formal structure for SAT was created, with working groups for each area of the application. Working groups included:

- Working Group 1 Institutional Data Analysis: focused on gathering data from the organisation for example, number and percentage of men vs. women in lecturing roles for past 5 years; number/percentage men vs women who are junior members of staff or recently promoted.
- Working Group 2 Staff Consultation: focused on gathering quantitative and qualitative data from staff via a survey and focus groups.
- Working Group 3 Implementing Actions: considered data findings from Group 1 and 2 for possible actions for application
- Working Group 4 Communications and Outreach: promoting and raising awareness of the application, setting up a detailed website, repeatedly emailing staff and line managers to request staff to complete the survey or part take in focus groups, etc. Organising with Advance HE for seminars and workshops.

Members of each working group reported to a Group Chair, who then communicated to the overall project manager of the application. Efficient two-way communication is essential within working groups and in the overall team to identify issues and actions. Each working group had regular meetings, but also regular larger meetings were held with all working groups so progress could be reported, and future steps discussed in a transparent manner with all SAT members. Thus, effective project management for the self-assessment and action plan is essential, with clear guidance to each working group on their purpose, goals and how their contribution feeds into the application as each working group has an important part in the process.

For Working Group 1, it is important to have staff who can access institutional data such as staff from Human Resources, ICT, and/or senior management such as Office of the President (or equivalent). Data gathered in this group provides objective

information about the current status of the organisation in terms of staff statistics and comparison of the national average. In the case of TU Dublin, it helped identify several issues which were then examined in the staff survey and focus groups that consequently provided SMART actions for the future action plan.

For Working Group 2, it is important to include staff who are skilled in quantitative and qualitative analysis, preferably staff that also has expertise in gender research. Surveys should include validated/previously used Athena SWAN questions with Likert scales where possible. In TU Dublin, scales, such as Career Barriers Inventory (Higher Education Authority, 2019) were adapted for use. The TU Dublin Staff Survey and focus groups focused on attitudes towards a range of areas including gender inequality, career barriers (Swanson et al., 1996), promotion, training and performance reviews, work–life balance, stress at work, work environment, etc. Samples of surveys are available online which can be used as a template that can be tailored to your organisation. Contextually specific issues can also be included such as progression to Lecturer role, which was flagged as an issue by Working Group 1, which provided interesting findings and a specific action for the TU Dublin application. Data should be analysed using statistical programmes, like SPSS or R, by someone with statistical skill to examine and interpret whether statistically significant gender differences occurred in the data. Similarly for qualitative data, an individual who is skilled in facilitating focus groups and/or interviews and analysing data is important for complementary interpretation of the data. In TU Dublin, we had several individuals in Working Group 2 involved in survey design, collection and analysis, and involved in focus group design, facilitation and analysis of results. Data collection and dissemination of results to staff by Working Group 4 was fundamental to the success of Working Group 2, with Working Group 4 maintaining close contact with Athena SWAN champions and management in order to encourage staff participation.

Thus, the campaign by Working Group 4 and analysis by Working Group 2 using a mixed-method research approach provided a rich source of information for Working Group 3 to consider future actions. For Working Group 3, members with strategic focus are essential such as those in Human Resources, senior positions, etc., as well as those with expertise in gender and equality policies. For Working Group 4, a strong team with communication and marketing skills is essential. Members in TU Dublin were from Public Affairs unit and others including student academic affairs. As noted above, each working group is not a silo, and it is important that the dependency on each working group with each other is emphasised by the project manager.

TU Dublin holds a legacy award which was granted under the TU Legacy Award Process after a constitute HEI (DIT) was successful in the application of the Bronze award using the Athena SWAN Ireland Charter as a framework for our own process. The legacy award was received in recognition of TU Dublin's commitment to advancing gender equality. The university has undertaken a significant programme of work to raise gender awareness across TU Dublin and to help create equal opportunities for career advancement. Some highlights include:

- Appointing a Director of Equality, Diversity, and Inclusion (EDI).
- Establishing a gender-balanced senior leadership committee as the highest-decision-making committee in TU Dublin.
- Providing unconscious bias training for all senior leadership and all staff.
- Commissioning an external review of all HR policies and practices to ensure that diversity and inclusion are embedded in all stages of the recruitment, selection and retention process.
- Enhancing our Leadership programme offerings; This has been updated to include an equality and diversity dimension; TU Dublin sponsors 20 women each year to participate in the Aurora Leadership Development Programme for Women in Higher Education.

2.3.2 AURORA Leadership Programme and Other Leadership Initiatives

A part of TU Dublin's successful application was enhancing leadership programme offerings to include an equality and diversity dimension. The Aurora Leadership Programme for Women developed by Advance HE for women up to senior lecturer level or professional services equivalent in HE institutions aims to support women to understand and address the barriers to career progression identified in the HEA Review of Gender Equality in Higher Education (Higher Education Authority, 2016) and the Gender Task Force Action Plan (DES, 2018). Each year, TU Dublin sponsors 20 women to attend the Aurora Leadership programme to complete the following learning modules:

- Identity, Impact & Voice.
- Politics & Influence.
- Core Leadership Skills.
- Adaptive Leadership Skills.
- Action Learning Set.

Participants have the opportunity to build their professional network across the Higher Education sector with over 100 women from the sector attending the annual Aurora programme.

Each participant is also assigned a mentor for their continued personal and professional development after the formal programme is complete. The mentoring programme enables self-directed personal and professional learning, critical thinking and the transfer of valuable organisation knowledge. The HEA expert report on Gender (Higher Education Authority, 2016) and the Department of Education and Skills Gender Action Plan (DES, 2018) have identified mentoring as an important development initiative to address the under-representation of women in senior roles in Higher Education.

2.4 Gender Equality Strategies and Policies of Irish Research Funding Organisations

In recent times the strategies of the main funding organisations in Ireland have been developed to ensure the gender element is considered in the design of all funded research.

The two main funding agencies of research in Higher Education in Ireland are the Irish Research Council and Science Foundation Ireland.

2.4.1 Gender Equality Policy and the Irish Research Council

The Irish Research Council was formed in 2012, through the amalgamation of the Irish Research Council for Science, Engineering and Technology (IRCSET), established in 2000, and the Irish Research Council for the Humanities and Social Sciences (IRCHSS), established in 2002. It is an autonomous agency of the Irish Government's Department of Education and Skills, under the aegis of the Higher Education Authority (HEA). The IRC has a mandate to fund excellent research within, and between, all disciplines. Through a variety of funding schemes, including co-funding with enterprise partners, it supports the education and skills development of excellent individual early stage researchers and cultivates agile independent researchers and thinkers. It has a remit to enrich the pool of knowledge and expertise available for addressing Ireland's current and future needs, whether societal, cultural or economic, and to deliver for citizens through collaboration and enabling knowledge exchange with Government departments and agencies, enterprise and civic society. It also provides policy advice on postgraduate education, and on more general research matters, to the HEA and other national and international bodies. It gives particular attention to the Arts, Humanities and Social Sciences.

Meanwhile Science Foundation Ireland (SFI), established in 2000, is the Irish national foundation for funding STEM research and talent within Higher Education institutions and SFI Research Centres. It aims to improve Ireland's economic competitiveness, create employment, and enhance vital areas of society, including healthcare, environment, agriculture and education. Also of relevance is SFI's remit to promote and support STEM education and engagement and create public awareness and understanding of the value of STEM to society and to the growth of the economy.

Consequently, to ensure the gender element is considered within STEM research, Higher Education, and public engagement in Ireland, it is important that each organisation includes gender equality in its high-level strategic plans, and consequent action plans.

To progress this the IRC developed a Gender Strategy and Action Plan 2013—2020 (Irish Research Council, 2013). This strategy sought to address two main issues. Firstly, the under-representation of women in STEM leading to underutilising a significant population of highly talented researchers who could be vital assets in maximising collective research intelligence and optimising creativity and innovation potential. Secondly, the need to recognise the gender dimension in the definition of research projects including those which sex and/or gender may not be relevant in terms of the research content but may have poorer results and missed opportunities if there is a failure to integrate sex and gender analysis into the design, implementation, evaluation and dissemination of the research. Informed and supported by the EU policies on gender equality in research, and by ongoing initiatives between Irish organisations and Higher Education institutions and EU partners, the IRC's strategy and action plan centred around two key objectives:

- Supporting Gender Equality in Researcher Careers.
- Objective: The Council will encourage and implement initiatives which promote equality between women and men at all stages of the researcher's career.
- Integration of sex/gender analysis in research content.
- Objective: The Council will ensure that researchers have fully considered whether their research contains a sex and/or gender dimension and, if so, that they have fully integrated it into the research content.

Additionally, the IRC committed to a process of Internal Gender Proofing such that all efforts towards the two main objectives would be a shared, overall task for the organisation as a whole. This included internal training, review of funding policies and award assessment criteria and procedures, sex-disaggregated statistical data and analysis of funding trends.

Details of the specific actions under each objective can be found in the strategy document (Irish Research Council, 2013), and a progress update from 2016 is available (Irish Research Council, 2016). The IRC provided a short summary and update of its key actions in 2018, and this newly made reference to the Athena SWAN process, as well as a new collaborative fund with the EU, through the GENDER-NET PLUS programme, which specifically called for projects relating to the interactions and interdependencies between UN SDG 5 Gender Equality and other SDGs, specifically SDG 3 Good health and well-being; SDG 9 Industry, innovation and infrastructure; and SDG 13 Climate action (Irish Research Council, 2018).

The IRC has continued its commitment to gender equality, with inclusion of a key objective to 'Build on the IRC's leading track record in promoting gender equality and the integration of the gender dimension in research, in step with evolving international best practice' under a Strategic Goal to 'Enable excellence in people, skills and ideas across all disciplines for discovery and enterprise research' within its Strategic Plan 2020–2024 (Irish Research Council, 2020a). Further information can be found in the corresponding Implementation plan (Irish Research Council, 2020b).

2.4.2 *Gender Equality Policy and Science Foundation Ireland*

Meanwhile, in 2016, following the publication and recommendations laid out in the HEA National Review of Gender Equality in Irish Higher Education Institutions (Higher Education Authority, 2016), Science Foundation Ireland outlined its Gender Strategy 2016–2020 (Science Foundation Ireland, 2016). The strategy was built around three strands:

- Strand 1 focused 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.
- Strand 2 targeted female representation within the Science Foundation Ireland funded portfolio and Science Foundation Ireland review panels. Concrete measures to achieve these targets were outlined.
- Strand 3 aimed to ensure that gender perspectives are integrated into the research content of Science Foundation Ireland-funded research programmes.

Strands 2 and 3 resonate with the key objectives of the Irish Research Council. Of particular interest to readers of this book, Strand 1 was developed based on the findings of an SFI commissioned 2014 study into the career choices of young people in Ireland (Futures, 2014). (Note, the publication appendix includes the survey questionnaire used). The study examined the key influencing factors in course selection for a representative sample of first-year undergraduates and found that ‘fitting in’ and being able to identify themselves in a future role was the most important factor. Career opportunities and earning potential were also identified as important, but secondary. Information about a particular course or career would not even be sought by young people if they have no affinity with the associated stereotypes, which reinforced the importance of breaking perceived stereotypes. Consequently, Strand 1 sought to increase the participation and interest of girls in STEM-related activities, and thereby their confidence in the relevance of studying STEM subjects. Actions under this strand included developing partnerships with groups that support girls to explore STEM skills informally; ensuring gender parity is addressed in the role models profiled; and delivering training to avoid unconscious attitudes or statements that may impact on girls’ aspirations. Additionally, the ‘*SFI Discover*’ programme for public engagement in STEM would fund projects that aimed to increase the number of women pursuing STEM subjects and SFI would provide training in unconscious bias to *SFI Discover* supported education and public engagement projects. SFI also committed to ensuring its public engagement materials, activities and online content represented gender parity and challenged unconscious bias. The full list of actions relating to all three Strands are available (Irish Research Council, 2020b). These actions also resonate with the findings of another SFI study commissioned in 2015, ‘Science in Ireland Barometer An analysis of the Irish public’s perceptions and awareness of STEM in society’ (Futures, 2014). (Note, the publication appendix includes the research methodology used). This further explored Irish awareness and trust in STEM, interest in STEM careers, as well as understanding the disengaged

and disenfranchised members of the population. This study also found that the latter were more likely to be female.

The most recent SFI Strategy to 2025 (Science Foundation Ireland, 2015) focuses on three key areas, namely Excellent Research; Top Talent; Tangible Benefits. Within the ‘Top Talent’ area, there is an ongoing commitment to gender equality, captured within the expanded Equality, Diversity and Inclusion umbrella. Gender remains as a Key Performance Indicator, with targets of 35–40% females in STEM leadership and decision making, in keeping with Irish Government targets for gender representation for state organisations and agencies, including the Irish Research Council and the Higher Education Authority (Science Foundation Ireland, 2021).

2.5 Conclusion

Although, like elsewhere, gender equality is still a feature of the Irish Higher Education System, there have been numerous and significant policies and strategies aiming to balance gender participation in all levels and areas of the system over the last decade. In a top-down approach, commencing with EU policy, there has been a steady and perceptible increase in focus on gender equality in Ireland. Considerable leadership from the Irish Higher Education Authority has ensured that senior leaders in all Higher Education Institutions must consider gender equality as part of institutional strategic planning. The framework provided by Athena SWAN has allowed all Institutions to carry out a systematic gender audit, and to develop an action plan to address identified gender equality issues. The linking of research funding to the requirement for Athena SWAN awards has been particularly impactful.

There may often be a bottom-up approach to gender equality, with interested individuals carrying out impactful initiatives, including those involved in the W-STEM project. However, without a policy framework to address gender equality, and without meaningful engagement of senior leaders with these policies, it will not be possible to address systematic gender inequality within Higher Education in a sustainable manner—in Europe, Ireland, Latin America, or elsewhere.

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Appendix

Table A.1 HEA Recommendations (2016), Gender Action Plan 2018–2020 recommendations and the actions taken by TU Dublin to address these recommendations

HEA & Gender		Task Force Recommendations for Higher Education Institutions			Tu Dublin implementation
HEA Objective	HEA (2016) recommendation	Lead stakeholder	Time-line/KPIS	Gender equality task force - gender action plan 2018-2020	
Leadership of higher education institutes					
1.1 To foster gender balance in the leadership of HEIs	At the final selection step, in the appointment process for new presidents (or equivalent), in so far as possible, the final pool of candidates will comprise an equal number of women and men. HEIs From 2016 (including competitions already under way) If it has not been possible to achieve gender balance at the final selection step, the interview panel will account to the governing authority or equivalent for why this was not possible	HEIs	From 2016 (including competitions already under way)	To accelerate gender balance, all HEIs shall set ambitious short, medium and long-term targets (1, 3 and 5 years) for the proportion of people of each gender which it aims to have at senior levels of academic and professional, management and support staff across the institution All HEIs shall strive for gender balance in the final pool of candidates for all competitions Each HEI is required to implement the flexible cascade model as a minimum (not a maximum) for both promotion and recruitment of academic staff and senior support staff Each HEI is required to set ambitious short, medium and long-term targets (1, 3 and 5 years), over and above the flexible cascade model for both promotion and recruitment of academic staff and senior grades of professional, management and support staff	Each HEI is required to implement the flexible cascade model as a minimum (not a maximum) for both promotion and recruitment of academic staff and senior grades of professional, management and support staff. P.13 'New data analysis conducted by the Gender Equality Taskforce on the estimated rate of change for the future suggests that the adoption of a flexible cascade model approach alone (as recommended by the HEA Expert Group) could take more than 20 years to achieve gender balance at professor level (i.e. minimum 40% female professors). If the vision that 'by 2026 Ireland will be a world leading country for gender equality in higher education' is to be realised, we need to look at the problem of gender diversity in academia in a new way, transformational positive action measures need to be implemented' -p.2 The HEA Expert Group recommended the HEIs adopt a flexible cascade model, whereby the proportion of men and women to be recruited or promoted to a certain level is based on the proportion of each at the career level directly below. While there are some exceptions (e.g. senior lecturers in the university sector and senior lecturer 2 in the IoT sector), HEIs are broadly adhering to this model for academic staff. However, none of the HEIs have significantly exceeded the flexible cascade model threshold. Analysis shows that achieving gender balance at senior level in the university sector could take 20 years if the flexible cascade model approach alone is implemented. The introduction of a later retirement age could also slow down staff turnover. The Gender Equality Taskforce therefore recommends HEIs should ensure the flexible cascade model is used as a minimum, not as a maximum, and set ambitious short, medium and long-term targets (1, 3 and 5 years), over and above the flexible cascade model, for both promotion and recruitment of academic staff, and senior grades of professional, management and support staff. P.8

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Leading cultural change		HEIs	Effective immediately				
1.2 To ensure HEI leaders foster a culture of gender equality in their HEI	In the appointment process for a new president, a requirement of appointment will be demonstrable experience of leadership in advancing gender equality	HEIs	Effective immediately			TU Dublin Recruitment, Selection & Appointment Policy	
1.3	In the appointment process for a new vice-president, a requirement will be demonstrable experience of leadership in advancing gender equality	HEI Presidents	Effective immediately			TU Dublin Job Description Essential Criteria 'Demonstrable experience of leadership in advancing gender equality'	
1.4 To lead cultural and organisational change in their area of responsibility	The deans and heads of school/ department, divisional directors and section/unit managers will be responsible for integrating gender equality in all processes and decisions made Evidence of leadership in advancing gender equality will be taken into account in appointments to these management positions	HEIs	Effective immediately			TU Dublin Job Description Essential Criteria 'Demonstrable experience of leadership in advancing gender equality'	

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(continued)	1.5 To achieve gender equality in each HEI	Each HEI will, through a publicly advertised competitive process, appoint a vice-president for equality who will be a full academic member of the executive management team and who will report directly to the president	HEIs	From 2017		TU Dublin Directorate Equality Diversity & Inclusion Prof. Yvonne Galligan, VP for Equality, Diversity & Inclusion
1.6 To ensure gender balance on all key decision-making bodies	Key decision-making bodies (concerned with resource allocation, appointments and promotions) in HEIs will consist of at least 40% women and at least 40% men	HEIs	From 2016		From 2016 TU Dublin require gender balance on all university decision-making committees	
1.7 To ensure gender balance on all key decision-making bodies	At least 40% of the chairs of key decision-making bodies (concerned with resource-allocation, appointments and promotions) across the HEI will be of each gender in any given year. It is expected that over a three-year period the ratio would be 50:50 women and men chairs	HEIs	By 2018		Implemented by TU Dublin 2017	

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(continued)		TU Dublin Equality, Diversity and Inclusion Committee	
1.8 To provide strategic oversight of organisational processes and policies in relation to gender equality	<p>A gender equality sub-committee of the governing authority/body should be established</p> <p>The minutes of the sub-committee will be published within the HEI</p>	HEIs	By 2017
Embedding gender equality in organisation culture	Embedding gender equality in organisation culture	HEIs	
1.9 To support the mainstreaming of gender equality across the HEIs	Each HEI will establish an independent, academically-led gender equality forum, chaired by the vice-president for equality and comprising staff members drawn from across the HEI with sufficient influence and motivation to effect change	HEIs	By 2017
			<p>A new 'Gender Equality Enhancement Funding Call' should be set up to support innovative organisational and cultural change initiatives nationally</p> <p>A Centre of Excellence for Gender Equality, with a dedicated resource, shall be established by the Department under the auspice of the HEA</p> <p>The Centre of Excellence for Gender Equality will support the sharing of good practice by HEIs across the sector</p> <p>The Centre shall ensure sustainable acceleration towards gender equality in HEIs by:</p> <ul style="list-style-type: none"> foster HEI collaboration and disseminate good practice; provide centralised support for HEIs; report regularly to the Minister in relation to performance of the system New Gender Equality Taskforce <p>Objective to ensure sustainable acceleration towards gender equality in the institutions</p>
			TU Dublin Athena SWAN Self Assessment Team Athena SWAN Charter
			(continued)

(continued)	<p>1.10 To enhance the provision of support for staff members with caring responsibilities</p>	<p>Each HEI will establish a cross institutional working group to develop a funded structure of family leave (inclusive of maternity, paternity, parental, adoptive, and carer's leave) and develop mandatory guidelines to underpin this</p>	HEIs	By 2017		<p>Athena SWAN Ireland National Committee & Practitioner Network</p>
<p>1.11 To increase gender awareness among staff</p>	<p>The HEI will adopt measures aimed at actively developing gender awareness among all staff</p>	HEIs	By 2016		<p>TU Dublin Women Leaders in Higher Education Network TU Dublin Mentoring Programme Aurora Leadership Development Programme for Women TU Dublin Leadership Development Programme</p>	
<p>1.12 To embed the gender dimension in teaching and learning and quality review processes</p>	<p>The gender dimension will be fully integrated into undergraduate and postgraduate curricula HEI Ongoing Face-to-face, unconscious-bias training will be fully integrated into initial teacher education At department level, self-assessment (departmental reviews) will include consideration of the gender dimension HEIs will include consideration of the gender dimension in the institutional quality assurance report</p>	HEI	Ongoing		<p>Gender equality dimension has been included in the new School review process of the TU Dublin Quality Framework TU Dublin Quality Framework The Institutional Quality Assurance Report is determined by Quality and Qualifications Ireland (QQI), there is a template which must be completed by all HEIs and this includes Equality, Diversity & Inclusion (EDI) reflections and considerations which include a measure of gender balance QQI Quality Assurance Report</p>	

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(continued)						Researcher Career Development Framework
1.13 To embed the gender dimension in research content	Ensure that the gender dimension is integrated into all research content and provide training and support for research staff on how to do this (Schiebinger, L. et al., (eds.) (2011–2015) Gendered Innovations in science, health and medicine, engineering, and environment)	HEI	Ongoing			
1.14 To ensure transparent distribution of work	Ensure HEI workload allocation models are transparent and monitored for gender bias on an annual basis HEIs From 2016 Evidence of this will be taken into account in the performance development reviews of managers/ supervisors responsible for setting staff workloads	HEIs	2016			TU Dublin Strategic Priority 'Establish a workload model by 2021 that enables staff to easily engage in the full breadth of the University's activity'
1.15 To enable gender disaggregated data-driven decision making	A comprehensive gender disaggregated data collection system will be in place in every HEI	HEIs	2016	To enable HEIs to better monitor their progress and monitor patterns, data disaggregated by gender, contract type and broad discipline area or business unit should be collected on the number of applications, recruitments and promotions for all academic grades This data should be submitted to the HEA annually for analysis at the sectoral and national level. Similar data should also be included for senior professional, management and support staff		Annual Gender Equality Data submitted to the HEA Higher Education Data by Gender 2020

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Recruitment & promotion practices		HEI	2016	A report on the recruitment, selection and promotion procedures and practices must be submitted to the EDI sub-committee of the governing authority at least once annually, and should include statistical analysis of applications, recruitment, and progression for all academic and professional, management and support staff Relevant HEA Expert Group Objective :- To gender-proof recruitment, selection and promotion procedures and practices	HR completed an external review of recruitment and selection policy and practices to inform the TU Dublin TU Dublin HR Policies
1.16 To gender-proof recruitment, selection and promotion procedures and practices	The recruitment, selection, and promotion procedures currently used, will be reviewed to ensure that they are gender-sensitive	HEI	2016		
1.17 To drive change through the use of positive action interventions for academic staff	Each HEI will introduce mandatory quotas for academic promotion, based on the flexible cascade model where the proportion of women and men to be promoted/recruited is based on the proportion of each gender at the grade immediately below	HEIs	From 2016		

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(continued)						HEA Senior Academic Leadership Initiative (SALI) TU Dublin Senior Academic Leadership Initiative (SALI)
1.18 To drive change at professor level through the use of positive action interventions	A minimum of 40% women and 40% men to be full professors, at the appropriate pay scale	HEIs	Achieved by 2024			
1.19 To drive change through the use of positive action interventions for non academic staff	At the final selection step in the appointment process for non academic positions where the salary scale reaches or exceeds €76,000, in so far as is possible, the final pool of candidates must comprise an equal number of women and men If it has not been possible to achieve gender balance at the final selection step, the interview panel must account to the Governing Authority or equivalent for why this was not possible	HEIs	From 2016 (including competitions already underway)	New and additional gender-specific posts, at appropriate levels, as well as other positive action measures, should be considered where they would be a proportionate and effective means to achieve rapid and sustainable change All HEIs shall ensure that there are concrete actions in their institutional gender action plan to address stereotyping of 'female' and 'male' roles		
1.20 Combat stereotyping of 'female' and 'male' roles and horizontal segregation among non-academic staff	Overtime, achieve greater gender balance at all career levels (pay grades) within the institution	HEIs	From 2016			

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Requirement for a gender action plan & to conduct athena swan gender audit	HEIs	From 2016	All HEIs shall submit their institutional gender action plan to the HEA and provide annual progress updates. Funding for Higher Education Institutions will be linked to an institution's performance in addressing gender inequality through the Strategic Dialogue process and System Performance Framework	Higher Education National Gender Action Plan 2018-2020 Irish Funding Bodies to Require Athena SWAN Gender Equality
1.21 To ensure a roadmap for attainment of gender equality is developed in each institution	HEIs	From 2016	All HEIs shall submit their institutional gender action plan to the HEA and provide annual progress updates. Funding for Higher Education Institutions will be linked to an institution's performance in addressing gender inequality through the Strategic Dialogue process and System Performance Framework	Higher Education National Gender Action Plan 2018-2020 Irish Funding Bodies to Require Athena SWAN Gender Equality
1.22 To support and recognise the embedding of gender equality across all aspects of the work of HEIs	HEIs	By 2019	HEIs shall apply for an Institutional Bronze award by 2019. HEIs should retain their Bronze award until such time as they obtain a Silver award. HEIs working towards TU status will be required to show evidence to the HEA, annually through their institutional gender action plans, that they are working together to build gender equality into their merger process. Once a TU has been established, it shall be required to achieve a TU bronze award within three years.	Athena SWAN Charter Athena SWAN Good Practice Initiatives Example - TCD Athena SWAN Gender Audit & Action Plan TU Dublin Athena SWAN

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