



Women in Technology and Science

Máire Geoghegan-Quinn,
Chair of the Expert Group.
HEA Review of Gender-Equality in Irish Higher Education Institutions
Higher Education Authority
Brooklawn House
Shelbourne Road
Dublin 4.

Dear Ms Geoghegan Quinn

Thank you for inviting Women in Technology and Science to submit an opinion piece to the group. It is attached.

Please get back to me with any queries.

Regards

Marion Palmer

Dr Marion Palmer

WITS Chair 2016

www.witsireland.com

info@witsireland.com

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HEA Review of Gender-Equality in Irish Higher Education Institutions

Women in Technology and Science (WITS) has identified four actions that are vital to improving gender balance in science, technology, engineering, and maths (STEM) higher education. These actions are based on the National Women's Council of Ireland (NWC) Feminist Manifesto.

(1) Advance women's leadership and participation in decision making - local and national

by supporting women in STEM careers to stay in academia, and to progress to managerial and executive level. Women also need to be supported in research through gender fair review and evaluation processes. One mechanism that WITS suggests to achieve this is through women-only initiatives, such as the L'Oréal-UNESCO Women in Science Fellowships.

(2) End the gender pay gap and deliver decent work for women

by ensuring that women have access to STEM education at all levels, which will help women out of poverty by pursuing STEM careers. Support of active strategies to recruit women into STEM is also needed. Actions to encourage women to stay in STEM and show them the breadth of opportunities available in these careers are important. The gender pay gap should be addressed by ensuring transparency of contracts at all levels in STEM.

(3) Make early years education and childcare a priority

by taking into account the impact of maternity leave, childcare, and elderly parent care for women in STEM careers. A maternity allowance for research grants and academic positions should be introduced by all institutions and grant bodies in Ireland. Policies need to be implemented to encourage women back to work after maternity leave and child rearing, and help manage work-life balance to make this transition easier. WITS supports the proposed extension to paternity leave which will bring it up to two weeks' paid leave. Policies are needed so that researchers can have flexible working hours to fit in the care they may need to give to dependents, such as elderly parents or a disabled spouse.

(4) Strengthen social protection, training and employment supports

by supporting and encouraging mentoring projects such as REENTER and MinT, which are essential for women in STEM. Female-led enterprises have increased to 22% in 2015 but this is still low and more needs to be done to improve this area, especially in the STEM sector. Family friendly policies in STEM are needed to retain women. Support including networking, and events, is needed for women completing PhDs and postdocs in male-dominated STEM areas. More programmes such as the SFI Advanced Award Programme are vital to support women after career breaks. More training days and events, such as those offered by WITS, are vital for women in STEM to reach their full potential. The Ireland Athena Swan Awards project is an important initiative but institutions need support to take part.

WITS Response to the Stakeholder Questions

- Is gender equality at staff-level important for higher education institutions (HEIs) or not really? Why do you say that? What about for your own organisation?

Yes, essential, as it gives everyone a fair chance. Our organisation was set up to support women in STEM including those in higher education and continues to have members from academia, evidence of the need for such support. However it is more than a social justice/fairness issue. As the 2015 McKinsey report outlines there is a business case for diversity including gender equality. Diversity supports creativity and innovation and higher education, particularly research, is ultimately a highly creative endeavour.

- The figures show that women make up roughly half of those at the bottom academic grade but only roughly one in five of those at the top (i.e. full professor level). How do you explain that?

With great difficulty, it is illogical given women's initial participation in STEM but life patterns (caring duties) and systematic inequality including unconscious bias mediate participation. Issues such as women's response to job descriptions and advertisements, the association of women with pastoral roles in higher education, the gendered criteria by which academic excellence is judged and other work patterns influence the number going forward for promotion and thus the number promoted.

- Why do you think that women are not being promoted at the same rate as men? Has this anything to do with the structures in place in HEIs? With the criteria being used?

Please see above.

- What do you think needs to be done in order to create gender equality in the short term in HEIs? Medium term? Longer term (5 years +)? By whom?

Requiring all higher education institutions to achieve Athena Swan awards as a condition of funding and supporting them to do so would have an immediate impact. The process requires a self-evaluation that starts the discussion about gender equality as well as a review of policies and procedures for systematic bias. This is an issue for the HEA, the institutions as well as staff in higher education. Developing and implementing strong policies about mutual respect is a key part of this process.

- What behaviours have you witnessed in your organisation that support gender equality? What behaviours have you witnessed in your organisation that do not support gender equality?

As a voluntary organisation founded to support women in STEM we try to ensure that we are fair, women and men can become members, attend meetings and take part in the organisation. In higher education family friendly meeting times, valuing of teaching and

caring for students along with research and publications are key strategies for gender equality.

Sexual harassment and microaggressions are increasingly being reported across STEM. The article by Jahren has received considerable attention in social media. Margaret Harris in the current issue of *Physics World* talks about 'A thousand tiny cuts' and their impact in physics.

- What do you think would make HEIs more 'woman-friendly'?

Please see our actions items above. Reviewing the system and identifying the unconscious assumptions about women and higher education - the role of unconscious bias is crucial here. Staff development to mitigate such unconscious bias is crucial. Support for women returning after maternity/adoptive/carers leave e.g. a term or a year's sabbatical with relief from teaching and admin so that they can concentrate on their research would have an enormous impact.

- What ideas do you have to promote the advancement of women in your organisation? And in Ireland's higher education sector?

WITS has been working for 26 years to make women in STEM and academia visible and valued through a wide range of projects. All these help support women in their workplace.

- Who should monitor and evaluate change?

The cycle of self-evaluation and consultation with stakeholders model already part of higher education whether curricular or institutional could be used to monitor and evaluate change. Gender equality could be a key element of QQI cyclical institutional review. Maintaining an Athena Swan award requires this approach and if required as part of funding then will be done.

Harris, M. (2016). A thousand tiny cuts. *Physics World* 29(3), 45-48.

Hunt, V., Layton, D. and Prince, S. (2015). *Diversity Matters*. McKinsey & Company.

Jahren, H. (2016, March 4). She Wanted to Do Her Research. He Wanted to Talk 'Feelings'. *The New York Times*. Retrieved from http://www.nytimes.com/2016/03/06/opinion/sunday/she-wanted-to-do-her-research-he-wanted-to-talk-feelings.html?_r=1

Savonick, D. and Davidson, C. N. (2016). *Gender Bias in Academe: An Annotated Bibliography of Important Recent Studies*. Retrieved from <http://blogs.lse.ac.uk/impactofsocialsciences/2016/03/08/gender-bias-in-academe-an-annotated-bibliography/>.

About WITS

Women in Technology and Science (WITS) is an independent, voluntary membership organisation set up in November 1990 to actively promote women in science, technology, engineering and maths (STEM).

Our VISION is a world where women have the freedom to reach their full potential through informed choices.

Our MISSION is people in STEM supporting women in STEM to reach their full potential through informed choices.

Our VALUES are fair play and sharing.

Full Membership is open to women and men from all areas of science and technology in Ireland. We have corporate members – including Silicon Republic, The Science Gallery, Accenture and the ESB. Students can be affiliated members for free. Members range from the country's most senior scientists, technologists and academics to start-ups and students.

We run events for members from Unconscious Bias and other skills development workshops to briefings and social events.

Projects have included a Talent Bank of expertise, return-to-work schemes, and 'role model' programmes for second-level school students. WITS is a strong advocate for celebrating the past and current successes of women in STEM through our books about historic Irish women scientists Stars, Shells and Bluebells (1997) and Lab Coats and Lace (2008) and our promotion of plaques for women scientists most recently Matilda Knowles at the Botanic Gardens (2014).

WITS was awarded the 2014 top role model for advocacy by Silicon Republic Women Invent Tomorrow campaign in June 2014.

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