

## Response to Tapping All Our Talents Consultation

Heriot-Watt University

### Section 1: In brief

**Q1 Do you believe progress has been made towards achieving gender equality in the STEM workplace in Scotland since 2012? (Yes/no).**

Yes

**Q2 If yes, what action(s) do you believe have had the greatest impact on improving gender equality in STEM in Scotland? (List maximum of 3).**

1. Equality and Diversity being explicitly addressed by funders e.g. in the Outcome Agreements of Universities as required by the Scottish Funding Council; RCUK strongly encouraging Athena SWAN accreditation.
2. REF2015's approach to equality and diversity
3. Equate Scotland's approach of supporting women throughout their careers through education and into the STEM sector/industry

**Q3 Where you do not believe progress has been made, or could be improved upon, what do you believe have been the key limiting factors? (List maximum of 3).**

1. Low levels of STEM Education availability in early years and primary education that encourages and opens opportunities for all. We welcome the new STEM education and training strategy for Scotland and its approach to broader inclusion.
2. Difficulty in addressing issues relating to parenting and childcare and the continued societal reinforcement of women as the primary carer – (a) limited availability of affordable care, wraparound care and school holiday care; (b) lack of legislation to support and encourage a culture of active male parenting. Statutory paternity leave is currently a maximum of 2 weeks and shared parental leave is optional.

The House of Commons Women & Equalities Cte report 'Fathers and the Workplace', March 2018, recommends increasing statutory paternity leave to 12 weeks at 90% pay.

It is widely recognised that the current model of shared parental leave dis-incentivises the higher earner taking parental leave. Scandinavian countries offer examples of incentivised models of parental leave that support both parents to take time off work to bond with their child.

Scandinavian examples: Swedish 'daddy quota': time off specifically allocated to fathers on a use it or lose it basis; 'gender equality bonuses' awarded to couples who share parental leave more fairly; Icelandic 3-3-3 formula – 3 months for each parent and the remaining 3 shared.

**Q4 Which of the recommendations made in the 2012 Tapping All Our Talents report do you believe should be prioritised going forward? (List maximum of 3).**

1. To UK Government: employment law to reflect the equal responsibilities of both parents
2. To Scottish Government: improve the provision of high quality, affordable childcare
3. To business and industry: introduce quality part-time employment

**Q5 What further recommendations (if any) would you make to policy-makers, educators or employers to tackle gender inequality in STEM in Scotland? (List maximum of 3).**

1. Measuring on short time scales puts the focus on quick, potentially poorly considered interventions. Achieving gender equality is a slow process, salient to focus on sustainable culture change. Many small initiatives, can feel like tinkering. We might benefit from mapping these with a view to achieving an improved understanding of how horizontal projects (those targeting particular parts of the STEMM pipeline) can be linked together with vertical/crosscutting initiatives and consolidation of initiatives.
2. Design equality in from the start – Equality Impact Assessment is critical but seen as cumbersome and irrelevant, ‘an extra’. How do we change that mindset?
3. Don’t lose sight of intersectionality, e.g. The impact of improving the childcare offer on lower income female workers, the importance of STEM capital in engaging underrepresented groups of women in STEM – not only the city dwelling, able bodied, middle class kids.

**Section 2: In detail**

**Women in STEM in Scotland 2018**

**Q6 What lessons do you believe have been learned from initiatives undertaken since 2012 to tackle gender inequality in the STEM workforce across the public, academic and/or industry sectors? Examples of good practice would be useful.**

People are inherently good, but are not always informed, are short of resources e.g. time and money, and equality is not the sole consideration in delivery of their activities. Taking these things on board and making it as easy as possible for people to engage with the equality agenda makes culture change more likely to happen.

- Helping people become better informed: Working with professional bodies is a good inroad to changing broader culture that ultimately impacts on people in the study/workplace
- Helping people find time to consider equality: regardless of whether time and money is in short supply, prioritisation of impactful interventions is critical.
- Helping people consider equality when managing a broader range of considerations: building in formal consideration where possible and appropriate - embedding in policy and practice.

**Q7 In 2018’s economic, political and social context, what do you consider to be the key influencers (positive and negative) on gender equality in STEM in Scotland?**

1. Barriers to equality specific to Higher Education include:
  - The lack of a childcare budget for non-UG students i.e. PGT and PGR students
  - Fixed-term contracts particularly for post-doctoral researchers funded by external funding bodies continue to be a barrier to retaining women in STEM research – it is difficult to plan a family without guarantee of maternity leave and pay etc. and people leave the sector in search of a secure contract.
2. The equality agenda has been raised by the global ‘MeToo’ movement, with both positive and negative consequences, but a space for discussion has been created.
3. Legislation requiring public reporting of the gender pay gap, and the subsequent increased public interest in the gender pay gap is welcome.

4. Brexit has an impact on our non-UK potential/current employees and those with non-UK family members. These groups are having to consider their futures. This is a gendered issue: Women in STEM are more likely to have partners in STEM and women are more likely to follow their male partners for career purposes. The uncertainty about rights is also impacting, as women are unsure of their future entitlement to maternity leave and other personal and family care.

**Q8 To what extent to you believe that the issue of gender inequality in STEM is being recognised as a priority and to what extent do you believe that rhetoric is being met with action?**

Within Higher Education there has been a step change in recognition of the issue of recruiting and retaining Women in STEM. Following that up with implementation and embedding of good practice takes time; the challenge is that progress is so slow that it is difficult to maintain people's focus on this as a priority when other strategically important elements come to the fore. Legislative and regulatory levers have assisted societal attitudes: continued intention and attention are required to see the culture change move from one of positive support when prompted to default best business practice, no prompt required.

**Education**

**Q9 What do you believe should be done to encourage more girls and young women to engage with STEM subjects in early years, primary and secondary education?**

The STEM Education and Training Strategy for Scotland consulted on this in 2017 and representatives from Higher Education including Heriot-Watt University participated in a gender equality workshop. The strategy offers a holistic plan which we are supportive of. Plans to address the dearth of women in STEM are backed by evidence from the Institute of Physics 2015 report, *Opening Doors: a guide to good practice in countering gender stereotyping in schools*, which reported that addressing gender stereotyping in schools, and also in the home, is the missing piece of the jigsaw for attracting and retaining girls in STEM, when combined with current outreach work.

Other actions we suggest include:

1. A focus on skills rather than subjects when encouraging non-traditional groups to participate in STEM
2. Targeted recruitment of female Physics teachers to provide role models as well as a more female-friendly environment to feed through into physics and engineering disciplines.

**Q10 What innovative or impactful practice do you know of or believe should be taking place in universities and colleges to tackle issues of gender disparities in STEM subjects? What do you think can be done to embed STEM gender equality thinking across universities and colleges? Cultural Change**

1. HEFCE's pilot transition courses allowing UG students to transition into engineering and computer science from other disciplines are a very exciting prospect. We await the outcome of the pilots.
2. Graduate Apprenticeships could be utilised to encourage more women into SET but not sure they are being utilised to deliver this
3. Responsible use of metrics in appointment and promotion – providing a personal circumstances option for people to include any circumstances that impact on the quantity (not quality) of any metrics influencing promotion and hiring decisions.
4. Breastfeeding facilities to allow women to return to work or study when they wish.
5. Childcare a permissible expense when working out of normal hours
6. Loosening controls over childcare costs as a taxable expense (not just through voucher scheme) so including relatives etc.

7. Improved consideration of the gender dimension of research i.e. stimulating excellence in STEM by integrating sex and gender analysis into research (<http://genderedinnovations.stanford.edu/>; [http://ec.europa.eu/research/science-society/gendered-innovations/index\\_en.cfm](http://ec.europa.eu/research/science-society/gendered-innovations/index_en.cfm)).

**Q11 In what ways do you believe industry can lead by example to tackle inequality within workplace culture?**

Generally, the private sector has a strong understanding of the business case for equality, and the competitive advantage of selecting from the largest pool of candidates. It has demonstrated that it can be more nimble and responsive in finding ways to recruit and retain the best staff – the Family Friendly Working Scotland award winners demonstrate this in abundance. Case studies here:

<https://www.familyfriendlyworkingscotland.org.uk/news-films/>

They are often more flexible in how they recognise merit and more readily take up innovative solutions when problems are identified, less likely to be encumbered with the hierarchical patriarchal custom and practice of Higher Education.

They are also aware of the competitive advantage of reflecting the diversity of their intended client base diversity in their staff – the 2013 BIS report outlines this:

<https://www.gov.uk/government/publications/the-business-case-for-equality-and-diversity-a-survey-of-the-academic-literature>

**Q12 What do you believe are the most effective ways to challenge and change deep-rooted attitudes and institutional culture in order to improve gender equality in STEM?**

1. Utilising the win/win aspect: (gender) equality benefits everyone. Make sure people understand this and see it in action.
2. Spreading awareness of the issues: ensuring that E&D knowledge we are asking people to learn is relevant to the task in hand, rather than isolated/siloed/'other'ed.
3. Designing in equality from the start: Equality Impact Assessing every single strategic project, review, practice and policy that affects people.
4. Backing up requests for behaviour change with peer reviewed evidence
5. Providing the additional resources required to embed equality is critical or people become jaded and frustrated at the additional burden.
6. Understanding privilege: helping people, including women, to understand that their life journey isn't everyone else's. Harnessing empathy.
7. Challenge stereotypes – ensure non-traditional role-models are visible.

**Q13 How do you suggest culture change can be measured in a meaningful way?**

Perhaps measure the degree to which:

1. we have a joined up approach to STEM education from primary to tertiary which ensures that STEM career opportunities are open to all
2. we have a working environment that recognises the pressures of a successful career and family life
3. caring and domestic labour are no longer gendered
4. the outputs of research reflect that 50% of the population are female
5. women are part of social dialogue and public life
6. gender stereotypes are no longer prevalent