

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).

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).

- The gathering momentum of engagement with Athena SWAN and other equalities charters, being used as a trigger for change
- Publication of gender pay analysis
- Introduction of GAP –Little direct impact yet but longer term, mandating GAP and being measured against action plan deliverables will ensure delivery of impactful activities

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).

Entrenched gender-stereotypical attitudes and unconscious bias

Simplistic thinking about gender needs to be challenged by marshalling high quality social science and history

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).

Joined up strategy is essential- this encompasses the aspect of influencing the influencers.

Athena SWAN/universal minimum level of performance - Making Athena SWAN and other equalities charters/a universal minimum a condition of eligibility for research grant funding would provide the necessary incentive for commitment to prioritising E,D&I.

Data – improving quality of access to data will help the sector to make the issues visible and start the informed conversations required to effect change.

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).

- Athena SWAN and other equalities charters appear to have an understanding of culture change that would benefit from being reformed using high quality research and critical social science to make significant improvements
- Publication of career progression data, alongside pay analysis
- Provision of high quality, accessible E,D&I, unconscious bias and bystander intervention training.

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.*

We all face similar issues. Small changes can be accomplished well locally but for a global change we need to work collaboratively.

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?*

Positive - Government and legislation, equalities charters, funding bodies, willingness to effect change HR professionals and bodies such as CIPD, BiTC and CMI

Negative – lack of resource, limited understanding, low priority of gender equality work

Q8 *To what extent do 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?*

There is a great willingness to “make things better” but at times there is uncertainty about how to do this, sometimes the challenge to “change culture” is insufficiently understood.

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?*

- Careers advisers can be incredibly influential. They should be trained in unconscious bias and in avoidance of advising based on gender-stereotyping.
- Curricula can be designed to be more inclusive and attractive to people of all genders.
- Visibility of role models can be increased.
- Addressing the gender imbalance in education, childcare and nursing student populations with an eventual improved gender balance entering the professions might improve messages about gender stereotyping to children from a very young age.
- More advanced teaching techniques in all subjects

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?

Universities are places of research and, in general, colleagues respect research in areas they are not expert in. Gender and equality more generally are areas in which there is a substantial amount of research, most of which is not made use of. More should be made of relevant research, reproduced for non-experts, to help people get a better insight into the real issues. Funding the collation and translation of relevant research would be of great benefit.

Cultural Change

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

Leadership is not restricted to any particular organisational form. The emphasis should be on good practice where ever it occurs and all being willing to learn.

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?*

There is no simple answer to this. It is important to understand culture properly and many well-intentioned efforts to change culture actually replicate it, for example by making assumptions based in a mechanistic or systemic metaphor. Change can be enabled but it requires a fuller approach not limited to on issue such as gender or one area such as STEMM.

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

Culture change cannot be 'measured' in a realist epistemology because if change has occurred the basis by which one would measure has also changed.