

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. Athena Swan as a driver for accountability
2. Gender representation on public boards
3. Technology to permit the normalisation of flexible and remote working

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. Levels of female staff in senior positions. This is improving but culture change around recruitment (and retention still an issue).
2. Streamlining of equality reporting mechanisms. Too many different initiatives creating a burden on HR staff and mid-career academics who generally have a leadership role in this area.
3. Maternity / paternity leave and support for working parents. There are well recognised issues around maternity pay and the impact that maternity leave has on a mother's career. Shared parental leave may go some way to helping this but the mechanisms are clumsy and often the regulations can negatively impact on parent's finding a workable solution. Issues are compounded when children start school. Not all schools have wrap around care and this can have a significant impact on mother's who generally have the predominant caring role. These issues also will have an impact on single parents – of either gender.

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. Promote culture change to enhance diversity
2. 'commitment to equal pay, developing progressive policies.... ..long term career'
3. Improve provision of high quality, accessible childcare (this should extend to school age children for working parents).

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. Stream-line initiatives to reduce the reporting burden
2. Make all promotion and recruitment policies open and transparent, with inclusive language and acknowledgement of non-traditional career paths
3. Support for working parents with school-age children in terms of after-school care

Section 2:

In detail

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.

There has been clear progress in relation to gender equality. Athena Swan and GAPs have raised the issue to HEI management level and there is clear commitment from HEI's to address ongoing issues. In our own institution, flexible and remote working is encouraged to allow staff to manage commitments outside of the workplace. As the care burden, be that children, disabled family or elderly parents, falls predominantly on women such flexibility enables career progression that may otherwise be hindered.

Social media has also helped promote the visibility of women in STEM. Opportunities such as 500womenscientists and SciSister network have increased the profile of women across a range of discipline areas.

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?

From a university perspective the implementation of both Athena Swan and gender action plans have had a huge influence on gender equality. They bring gender issues to the forefront and aligned to statutory requirements have been a positive influence on gender equality. Negative influencers include zero hour's contracts and the reliance on short term contracts, particularly in the early career stages. There is also still a perception (and perhaps reality) that caring responsibilities fall to women. This can include childcare, elderly relatives or sick and disabled friends and family. This can not only negatively impact a woman's ability to progress but also manifests as (un)conscious bias in the workplace.

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?

In higher education, there does appear to be a shift from rhetoric to action. There are obviously areas where more needs to be done but over the past five years, there has been a definite shift driven by legislative, regulatory and societal attitudes.

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?

Seeing science as 'other' or 'difficult' is a major problem. As soon as children start at school, they are influenced by peers, teachers and other staff members. Ensuring that teachers are confident in teaching STEM subjects is critical. This could be achieved in partnership with FE and HE providers locally, both in providing support directly to teachers and by exposing pupils to real scientists – especially female scientists. Education on career paths and management training is important to encourage young women to engage in STEM subjects and pathways, especially where there may be a lack of effective role models

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?

Flexible working is important as is the recognition of all contributions made by staff – not just research – when considering promotion. This is important not only for academic staff. There should be clear promotion structures and training opportunities for support and professional service staff also. In the majority of STEM areas, there is a gender balance across undergraduate and postgraduate degrees. The change seems to occur post-degree. The reasons for this are complex but include short-term contracts, academic job security, external demands such as REF on sector policy regarding recruitment and retention of staff (e.g. fellowships that do not lead to permanent positions), attitudes regarding maternity (and even the possibility of maternity leave), access to affordable childcare, opportunities for career returners and a lack of role models. Many of these issues are not specific to the university and college sector but are wider societal issues. Athena Swan has done a great deal to embed gender equality thinking in the higher education sector but has perhaps become a victim of its own success. A renewed and invigorated Athena Swan agenda that is perhaps more fluid to accommodate the non-traditional HEI and that truly delivers impact would be welcome. Alignment with and between Athena Swan, GAPS and other initiatives would also alleviate the administrative burden and allow staff to integrate work-streams and actually deliver instead of chasing data.

Cultural Change

Q11

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

Prominent women in senior positions as role models. Nurturing staff through flexible career paths. Taking family and caring responsibilities into context when considering career pathways. Flexible working patterns that allow women to fully participate in the workplace and in networking opportunities.

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?

Gender equality must be embedded in everything that the HEI does and all policies and procedures should be mindful of gender impact and intersectionality. This should start at outreach work in schools and extend through student recruitment, student experience, staff development and promotion to the population of HEI Boards / Court / Senate. One of the major barriers, however, is the very initiatives that have been put in place to address the issue. Participation in Athena Swan is resource intensive and again, much of the burden falls on mid-career women academics. This is built-in to the process with the construction (and often chairing) of the self-assessment team. The extensive data collection and mis-match between the data requirements for other mandatory and statutory reporting mechanisms increases the burden and can lead to a perception of this being another box to tick.

Q13

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

This is a tricky question and not easily answered. The tangible outputs are gender equality at all levels, from children engaged in STEM activities both in and outside school, an increase in female representation in STEM subjects (and exam results), gender equal recruitment of students and ultimately women equally represented at the highest levels in academia, industry and government. This should be tempered though with an understanding that some women want to be at home with children and may not want to be full-time employees or senior managers. Successful culture change will be when women are able to achieve parity with men in terms of their chosen career path and work-life balance.