“Diversity adds to the collective intelligence of a research group, and not only enhances creativity, but also provides new contexts for understanding the societal relevance of the research itself”
At Equate Scotland, we have been working on the under-representation of women across science, technology, engineering and mathematics since 2006 and whilst some progress has been made, this progress has been too slow to meet the needs of our economy and our vision for a fairer Scotland. Life Sciences has been identified as a key sector for growth by the Scottish Government, but in order to achieve this growth, it needs to be met with a robust plan to tackle inequality at all levels from entry level to workplace leadership.

In our years of work, the engineering, construction and technology sectors have been emphasised as the areas in need of most change or challenge. Whilst it is correct to say that these sectors have the furthest to go in terms of the number of women studying, working and remaining in these fields, the Life Science sector still has an under-representation problem and further to go to create inclusive workplace cultures. Despite there being a higher number of women graduating from Life Science subjects, these numbers are not reflected in the workplace, and the proportion of women decreases significantly the higher up an organisation we go, particularly within academia.

There have been many initiatives such as the Athena Swan awards and internal women’s networks to tackle occupational segregation within the sector; however, there is much further to go, and progress requires a nuanced approach which makes equality everyone’s responsibility.

This publication is an opportunity to reflect on good practice occurring across the Life Sciences in universities, colleges, research institutes and organisations. However, it goes beyond merely case studies of good practice and invites employers and leaders in the sector to consider what more can be done to create truly inclusive and equal workplaces.

We hope this guide engages more people in our national work and offers a chance to pause, reflect and go further to make the Life Science sector a STEM leader.
Scotland enjoys a vibrant and dynamic Life Science sector. With over 700 companies employing more than 37,000 people, it is one of Scotland’s key growth sectors and is one of the largest clusters in Europe.  

2016 figures show the sector’s turnover was almost £5.2 billion, an increase of 39% in only 5 years. Life Science is the largest contributor to Scotland’s business research and development investment, reaching £293 million in 2017, representing a quarter of the total for the whole Scottish economy.  

With the Life Science Strategy for Scotland outlining the ambitious target of increasing turnover in the sector by £8bn by 2025 and a new £56 million UK innovation centre to be based in Scotland, which aims to attract more than £80 million in research and development investment by 2028, the sector’s importance to employment and the Scottish Economy cannot be underestimated.

The Life Science sector is diverse in terms of company size, technology and application, and therefore the workforce needs to reflect this diversity.

While the lack of women studying and working in STEM is well documented, there can be a perception that this is not an issue in the Life Sciences.

### SCOTLAND’S LIFE SCIENCE SECTOR: FAST FACTS

**700 COMPANIES**

**37K EMPLOYEES**

**£5.2 bn TURNOVER IN 2016**

**39% ▲ IN 5 YEARS**

### UNDERGRADUATE/POST GRADUATE

With the exception of Physical Sciences, women outnumber men in all of the Life Science subjects at undergraduate and postgraduate levels in Scottish Higher Education Institutions.  

<table>
<thead>
<tr>
<th>Subject</th>
<th>Female</th>
<th>Male</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine &amp; dentistry</td>
<td>38,340</td>
<td>27,475</td>
<td>65</td>
<td>65,875</td>
</tr>
<tr>
<td>Subjects allied to medicine</td>
<td>227,725</td>
<td>60,160</td>
<td>180</td>
<td>288,065</td>
</tr>
<tr>
<td>Biological sciences</td>
<td>149,890</td>
<td>83,900</td>
<td>180</td>
<td>233,970</td>
</tr>
<tr>
<td>Veterinary science</td>
<td>6,110</td>
<td>1,745</td>
<td>0</td>
<td>7,860</td>
</tr>
<tr>
<td>Agriculture &amp; related subjects</td>
<td>11,955</td>
<td>6,715</td>
<td>10</td>
<td>18,680</td>
</tr>
<tr>
<td>Physical sciences</td>
<td>40,645</td>
<td>55,010</td>
<td>65</td>
<td>95,720</td>
</tr>
</tbody>
</table>

### MODERN APPRENTICESHIPS

In Life Science Modern Apprenticeships the numbers are generally quite low when compared to other STEM frameworks. 2018 data indicated that while the general Life Science framework had 32 female apprentices and 25 males, the Aquaculture framework had 10 times as many male apprentices (60) than female (6).
WORKING LIFE

Despite the numbers graduating with a Life Science qualification, women only make up around 10% of senior scientists in UK universities, government labs, public science bodies and industry. While women make up 44.5% of Life Sciences Academics, only 20% of Life Science Professors are female and only 13.9% of Senior Managers are women. When it comes to earning power women make up only 29% of staff in the level 6 salary group. We therefore have a leaky pipeline issue in Life Science – women are not progressing into senior roles in proportionate numbers.

The reasons why women leave the sector are complex, including non-inclusive workplaces, career breaks to raise families, lack of flexibility and unconscious bias in appraisal and promotion processes. A competitive culture that rewards long working hours and participation in out of hours activities can be common in the sector; this is not inclusive to those who have caring responsibilities.

The Royal Society of Biology identified a range of issues influencing the numbers of women declining in academic careers, including:
- The short term nature of contracts
- Following specialist research projects often requires relocation
- The nature of funded research – short term or open ended contracts conditional on grant funding; limited timeframes in which to make career decisions/career moves
- They identified that the insecurity of being on fixed term contracts was one of the main barriers to successful academic careers for women.

A number of reasons why women are under-represented in Lectureships/Principle Investigator positions were highlighted. Women disproportionately do not apply due to:
- Perceptions that academia remains a male orientated network
- Perceptions of male working patterns/macho culture
- Seminars and informal networking sessions routinely held out of hours
- Disproportionate assignment of pastoral roles to women
- Academic culture of long working hours
- Focus on competition to achieve status, for example winning large research grants and publishing in high profile journals

The Christina Miller Fellowship case study featured in the following pages outlines the approach that the University of Edinburgh has taken to encourage women into academic careers.

ATHENA SWAN

Advance HE’s Athena SWAN Charter was established in 2005 to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research. It covers academic roles in STEMM, professional and support staff and trans staff and students in relation to their representation, progression of students into academia, the journey through career milestones and the working environment for all staff.

The Charter recognises that academia requires diversity and equal representation to achieve its potential, and sets out to address the leaky pipeline issues which result in women being lost to STEM, in particular senior and professional roles. Institutions are encouraged to address the barriers to participation and progression in STEM, including the nature of short term contracts that are a particular barrier in terms of lack of job security. There is a commitment to tackling the gender pay gap and recognition that a whole institution approach is required to achieve sustainable change to women’s representation in academia.

Institutions undertake a range of activities to achieve improved gender equality and bronze, silver and gold awards are conferred depending on progress made. Achieving an Athena Swan award demonstrates a clear commitment to gender equality.

There are currently 160 Athena Swan members in the UK, holding 766 awards between them. To find out about how your institution can get involved contact your institution’s Equality and Diversity Officer. You can also contact the Scottish HEI Liaison Group or the Scottish College Liaison Group.

The Royal Society of Biology identified a range of issues influencing the numbers of women declining in academic careers, including:
- The short term nature of contracts
- Following specialist research projects often requires relocation
- The nature of funded research – short term or open ended contracts conditional on grant funding; limited timeframes in which to make career decisions/career moves

They identified that the insecurity of being on fixed term contracts was one of the main barriers to successful academic careers for women.

The Christina Miller Fellowship case study featured in the following pages outlines the approach that the University of Edinburgh has taken to encourage women into academic careers.

---

1. Sci Scisters www.chemicalimbalance.ed.ac.uk/scisister
2. Scottish Funding Council
CASE STUDY
SCHOOL OF CHEMISTRY, UNIVERSITY OF EDINBURGH
CHRISTINA MILLER FELLOWSHIPS

The School of Chemistry has two closely intertwined core functions: creating new knowledge through original research and teaching the next generation of chemists through our undergraduate and postgraduate programmes.

Please describe the initiative your organisation took forward
In 2016, the School of Chemistry instituted the Christina Miller Fellowships. These were specifically to encourage talented postdoctoral researchers from under-represented groups (e.g., gender, minority ethnicity, disability, disadvantaged background, etc.) who are traditionally less likely to follow an academic career and who often lack the confidence to apply directly to independent 5-year fellowships. These posts were aimed at exceptional individuals who can demonstrate the potential for independent research and a future academic career. Throughout the 24-month position, the fellow would have the opportunity to undertake independent research in their chosen field and would have the full support, guidance and mentoring of the School for further applications and preparation for interview. To date, three CMF fellows have been appointed to the School.

What were the key drivers behind taking this action?
The key driver for this action was an observation made by the then Head of School, Prof Eleanor Campbell. While giving career talks about applying for fellowships, Prof Campbell noticed that the people who were approaching her at the end of the talk for more information were almost exclusively male, despite a mixed audience. She perceived that there was a gap in confidence (even if no gap on ability) that was holding back the female researchers for applying for independent fellowships.

Her experience correlates with the statistics in both our own and other Chemistry departments, where there is a fall in the representation of women from early-career research positions to more senior fellowship and academic roles.

What were the cost/resource implications of taking this action?
The cost implication for this was 2 years of salary plus some consumable resources for each fellow, bearing in mind that we would be recruiting one fellow per year. This was an approx. investment of £150k per year once the scheme was underway (i.e. each year we would have a first year and second year fellow employed).

In addition, lab and office space for the new fellow would need to be accommodated. Because of the developmental nature of the scheme, the fellow has a host lab to join and so there would be no large outlay in terms of equipment. However, in order to ensure the fellow was seen as an independent academic, they would need office space similar to other junior lecturer positions.

What has been the impact of the initiative?
We recently conducted a review of the scheme to see what the impacts of the initiative have been on the fellows personally, on their mentors and hosts and the perception of the fellowship from early career researchers.

Of course the most obvious impact on our school has been the addition of three women to academic roles in the School, which in percentage terms raises the % female from 19% - 23%. Two of these women have subsequently attained further funding to support their positions therefore we will be retaining them past the end of their original 2 year fellowship.

In terms of the impact, in their own words, fellows have said “I have found it a very supportive scheme” “this has been exciting and pushed me to be independent” “developmentally it has been very good and that is what sets it apart”. Their hosts and mentors have also found the scheme beneficial to the School: “having her here has been really beneficial”; “The process seems to be working – we have two people who are on the right trajectory”. In terms of longer term impacts, this scheme will continue to hire under-represented groups into the School of Chemistry including individuals similar to the talented women we have already attracted. These women will be excellent candidates for future lectureship positions that arise, either in our School or elsewhere, and so through this relatively small investment, we are priming the academic market with women empowered and equipped to take on independent and future leadership positions.

Did you experience any internal barriers or resistance and if so, how did you overcome them?
As with most things, the main barrier here was cost as this was the creation of a new, previously non-existent position. This barrier was overcome by:

- Key leadership from the Head of School on the importance of the position in the equality and diversity aims of the School and the University
- Highlighting the additional grant income that these fellows would attract, and with strategic positioning in terms of research themes allow for increased numbers of collaborative grants (which has since been borne out)

Can you offer any advice to employers looking to do something similar in the future?
In Life Sciences, as is our experience in the School of Chemistry, the main disparity in gender balance is in the more senior positions. The good thing about this is that you have an internal population of junior women that you can tap into to discover what is discouraging them particularly about applying for senior positions. So ask them and look at ways to address these concerns. In our case one of the elements was a perception among women that they weren’t ready yet for these positions – and it was from this the Christina Miller Fellowship scheme was formed. In other cases it could be workplace culture or family-friendly policies. Every organisation has its own ecosystem and so the key initiatives that will make a difference may be unique to your organisation.

What are your future plans to further gender equality in the workplace?
One of the outcomes of our recent review of the Christina Miller scheme is that we want to enhance the fellowship opportunity and so we currently have a proposal under consideration to expand the scheme with a longer fixed term (3 years) with a mid-term review linked to promotion.
THE BUSINESS CASE FOR DIVERSITY

The business case for diversity in any sector is strong. In a sector where innovation and problem solving are fundamental, the business case is even stronger. In Life Sciences diversity of perspective is crucial to effectively identifying priorities and solutions that meet the needs of individuals, communities and the environment. A diverse workforce is a dynamic workforce.

LIFE SCIENCE, WOMEN AND THE ECONOMY

It is estimated that doubling the numbers of women participating in STEM careers could be worth up to £170 million to the Scottish economy annually.11

Life Science is one of the key growth sectors in Scotland. 2016 figures showed an increase of 39% in only 5 years with a turnover of £5.2 billion, and research and development investment reached £293 million in 2017.12 The Life Science Strategy for Scotland sets out a target of increasing turnover in the sector by £8bn by 2025.13 To achieve this women will have to be part of the picture at every level from career entry to executive leadership.

“Life Science is one of the key growth sectors in Scotland. 2016 figures showed an increase of 39% in only 5 years with a turnover of £5.2 billion”

DIVERSITY AND PROFITABILITY

In terms of profitability, companies with greater diversity experience greater profitability and better returns on investment. Having women present at an executive level has a direct impact on business success. There are a number of studies that evidence the impact of greater gender balance at management level. Research carried out by the McKinsey Global Institute found that companies with the most women at director level experienced 20% higher profitability than those companies with the fewest women at that level, and that on average companies with the highest number of women directors outperformed those with the lowest percentile by 53% higher return on equity, 42% higher return on sales, and 66% higher return on invested capital16, and Leeds University Business School reported that having at least one female director on the board cut a company’s chances of going bust by about 20%.17

VEHICULAR CRASH TESTING

In the 1960s, the vehicular test crash protocol called for testing with dummies modelled after the average male with its height, weight and stature falling in the 50th percentile. This meant seatbelts were designed to be safe for men. This lack of consideration of differences in body type between men and women means that for many years cars have been sold that are largely unsafe for women, especially pregnant women. Consequently, female drivers are 47% more likely to be seriously injured in a car crash.

ATTRACTING AND RETAINING TALENT

Increasingly, diverse employers are employers of choice - people want to work for diverse companies. In a 2017 survey by PwC, 54% of women and 45% of men surveyed said they researched whether a company had diversity and inclusion policies in place when deciding to accept a position with their most recent employer. A further 61% of women and 48% of men said they assessed the diversity of the company’s leadership team when deciding to accept an offer.18 Diverse companies tend to experience more inclusive workplace cultures, resulting in greater job satisfaction, better workplace morale and therefore greater retention of talent. The importance of this cannot be underestimated when considering the costs associated with replacing lost talent. According to research by Oxford Economics and Unum, the average cost of turnover per employee (earning £25,000 a year or more) is £30,614.17 Companies that want to attract and select from the widest and best talent pool, and to retain that talent, need to be diverse in order to enhance their reputation as an employer and to be seen as an employer of choice.

DIVERSITY AND INNOVATION

Having a diverse workforce results in diversity of perspective and outlook. As individuals we view the world through a lens that has been formed as a result of our personal experiences and cultural background. This means that we all bring something different to the table. In business and in research, we need this diversity of experience in order to identify the priorities and meet the needs of all potential customers or service users. A report published in the journal Elsevier highlighted that research teams with more diversity and a wider representation of social groups tended to generate more original ideas due to the variety of perspective present: “Diversity adds to the collective intelligence of a research group, and not only enhances creativity, but also provides new contexts for understanding the societal relevance of the research itself.”19 A lack of diversity results in having a group of people who are alike and think alike, and this creates a lack of diversity in what we produce. It results in designing products that are not fit for purpose, or are inaccessible to different groups. This is not only bad business sense in terms of potential profitability but can also be to the serious detriment to different groups.

12 https://www.theyworkforyou.com/sp/?id=2019-01-09.15.0&s=waste
13 https://www.oxfordeconomics.com/my-oxford/projects/264283
16 Leeds University Business School, 2009
17 Leeds University Business School, 2009
It is obvious then that diversity is good for business, not only in terms of profitability and business resilience, but also when it comes to better innovation and product development, as well attracting and retaining the best talent.

According to the Healthcare Businesswomen’s Association, women make 85% of all healthcare decisions and therefore the key responsibilities around health and wellbeing around the world. This is not surprising given the gendered nature of care and the inaccurate, historical idea that caring is “women’s work” and that leadership has been traditionally masculinised. Yet within the National Health Service, despite women making up 75% of NHS workers, they only account for 37% of all senior roles. It provides the perfect example of deeply embedded inequalities, which are complex and multidimensional in nature, that organisations such as Equate Scotland are working to eliminate. The Life Science sector is, of course, not only concerned with healthcare, although in its broadest sense the sector is concerned with health: from the health of the environment to the health of communities and individuals. It is therefore crucial that women are represented at all levels of Life Science companies and institutions to ensure their perspectives, ideas and solutions are part of the conversations from inception to end product.

APPLE HEALTH APP

In 2014, Apple launched its health monitoring app ‘HealthKick’. The app allowed users to track a wide range of physical functions including heart rate, blood pressure, sodium intake, blood alcohol levels, sleep, hydration and inhaler use, to name only a few. What the app didn’t include was a function for women to track their reproductive cycle. This omission was relevant to 50% of the population. How could a global company with billions of users across the world make such an error?

In the same year, the company’s first diversity report highlighted that the majority of its workforce were white and male. This lack of diversity resulted in development of a product that was not fit for purpose for a significant proportion of its users, resulting in reputational damage to the company, as well as a loss of profit.

THE SKILLS DEMAND

Employers within the sector report a number of common challenges in attracting the talent they need to keep pace with their business demands and priorities.

They report difficulties in recruiting candidates with ‘higher level’ scientific and technical skills and experience. Due to the niche nature of many Life Science companies, many are facing challenges finding the right ‘blend’ of multidisciplinary skills to meet the needs of their business specialisms. The role that women returners can play in meeting some of these demands is explored later in this guide.

The SDS Skills Investment Plan for Life and Chemical Sciences highlighted the following skills challenges:

- General science or technical skills, such as laboratory work and research and development (cited by 53% of companies who had identified a skills shortage vacancy)
- General business and commercial skills (42%)
- Biological and medical skills (42%)
- Core skills (40%)

GRADUATE WORKPLACE READINESS

While we know that there is no shortage of women qualifying with graduate and post graduate qualifications in the Life Sciences, employers report that more attention needs to be paid to graduate workplace readiness including provision for work experience, practical skills and soft skills, specifically:

- Graduate laboratory skills
- Graduate soft skills
- Realistic expectations of working in industry
- Work Experience opportunities

Evidence suggests that access to high quality work placements or internships can significantly impact on the career intentions and workplace readiness of women undergraduates studying STEM subjects.

"Internship programmes enable students to gain experience of working in technical roles and improve confidence.”

---


**CAREERWISE**

The Equate Scotland Careerwise programme engages with a wide range of STEM employers and universities across Scotland to offer 8-12 week paid summer placements for women studying STEM at undergraduate level. Careerwise:

- Supports STEM employers to take positive action to increase opportunities for young women considering STEM careers
- Improves access to industry for women
- Increases women’s awareness of STEM occupations as viable career options
- Increases women’s employability skills in preparation for entry to STEM employment.

A recent Careerwise Intern concluded:

“The whole experience has been fantastic for me! Not only has it given me the opportunity to learn a lot of technical and industry knowledge, but it has also given me the opportunity to learn about what interests me and where I could potentially go with my future career. Because of the placement I had so many real-life and relevant examples that I could use in my interview which I think was really beneficial.”

In addition to benefits for graduates and undergraduates, there are clear benefits to employers of employing a student intern:

- Pre-assessment for future potential employment candidates, who will be more ‘workplace ready’
- Improved diversity in the workplace, which in turn translates to competitive advantage in terms of innovation and attracting the best talent
- Access to a resource to progress projects or initiate new projects
- Access to high quality students who can bring new ideas and perspectives to the organisation
- Raised profile among graduate community and valued as an employer of choice
- Current staff are provided with development opportunities, such as line management and mentoring.

**TIPS FOR SUCCESS**

- **Identify a suitable project** – Select tasks that can be done with minimal supervision, carefully selected so they are challenging but also achievable.
- **Devise a work plan/schedule** – Ensure objectives are SMART and be clear about what is expected from the intern.
- **Set clear working boundaries** – Set clear boundaries around the work pattern you expect the intern to work. While some students may require some flexibility, set parameters around this, for example core working hours to ensure they maximise learning about the role, the organisation and the sector.
- **Induction** – Provide a comprehensive induction to your organisation, including organisation aims and values, introductions to key staff they will be working with, processes they will be working within and objectives they need to meet.
- **Assign a mentor or buddy** – Someone who can act as a sounding board, role model and source of support to the intern.
- **Provide other work shadowing opportunities** – This will provide an insight into the different career options and routes into them, within your organisation and the wider sector.
- **Give performance feedback** – Schedule regular performance reviews and a final review meeting to let them know what they have done well and what they can work on for next time.
- **Student presentation** – Ask the student to deliver a short and informal presentation to their peers on what they have achieved during their time with the organisation. This activity also allows students to practise their communication and presentation skills.
- **LinkedIn** – Be sure to connect with the intern on LinkedIn before their placement finishes. This means you will be able to contact them should another opportunity arise to work in the company.
- **Marketing** – Use the placement to market your company and the efforts it has taken to attract women in STEM. You can write a blog from the employer’s perspective or ask the student to write the blog, post a photograph on Twitter and LinkedIn or write an article for the news section of your website.
CASE STUDY

STHREE

STHREE STEM SCHOLARSHIP PROGRAMME

SThree is STEM’s leading recruitment business. SThree identifies the talent to help businesses build the future in specialist STEM sectors, including Life Sciences.

Please describe the initiative your company took forward

SThree is committed to driving positive change through STEM and understands the importance of having a robust and diverse talent pipeline in Life Sciences. In 2018 we launched a STEM scholarship programme with a focus on providing financial support to students from underprivileged backgrounds. We purposefully focused one of our scholarships on providing support to a female wanting to pursue a degree in Life Sciences.

We funded the scholarship of Rada who had been on a Life Sciences Insight Placement we organised in 2017 and who is now studying Biomedical Engineering in London. Rada aspires to find solutions to help people who have been injured to make a speedy recovery. She is passionate about engineering and keen to prove that women can be great engineers. She said: “Despite being a female in this male dominated industry, I am determined to make a future in this field and have a positive impact on society.”

What were the key drivers behind taking this action?

In 2016 we established the SThree Foundation which funds STEM projects that inspire and engage people from diverse backgrounds. We know that a career in STEM is purposeful and offers sustainable employment; this can be life-changing for many people from underserved communities.

We understand the positive impact a diverse team can have on productivity and decision-making. Through providing recruitment services within Life Sciences we believe there is a need to diversify the talent pipeline, and this is one of the ways we are helping to do so.

What were the cost/resource implications of taking this action?

We are committed to identifying STEM talent to help businesses build our future and have provided funding to five students studying STEM courses across the UK. Our support goes further than funding, as in order to provide these young people with the very best start, we make sure they have the energy and commitment of our team behind them.

We are helping students find internships during the summer; we offer CV and interview mentoring and when they graduate we will be supporting them to land their first role in the sector. Giving our insight, expertise and access to our network is one of the most powerful things we can do.

What has been the impact of the initiative?

A significant impact of this project is that five students who might not have found it financially viable to do so now attend university. In addition to this, following the STEM Insight Placements we arranged prior to university, they understand what a career in Life Science entails and have started to form their own business networks.

The biggest impact will come when each of the students begins their first day of employment in STEM following graduation. Watching and supporting each of them as they embark on their careers in STEM will be incredibly rewarding.

Can you offer any advice to employers looking to do something similar in the future?

There are three pieces of advice we would give to anyone looking to begin a scholarship or mentoring programme with young people:

1. Find the right partner to work with. There are numerous not-for-profit organisations and education establishments who share our desire to diversify the talent pipeline. Spend time researching, meeting with and establishing relationships to help you develop the very best and most impactful programme.

2. Empower your teams to get involved. In addition to work experience or scholarships your teams can be great mentors and advisors to students.

3. Do it! Diversifying the talent pipeline can’t be achieved by one company or organisation alone. Get involved, get your programme off the ground; small initiatives and small steps will all have a collective impact.

What are your future plans to further gender equality in the workplace?

We have broadened out the work we are doing with the SThree Foundation to fund even more programmes across the world which help tackle diversity in STEM. Some of the programmes we are funding in 2019 are focused on gender equality. These include:

- A STEM entrepreneurs programme for young females.
- A STEM internship programme in New York.
- A STEM insights event for female university students in Amsterdam.

In addition to this, we will also continue to partner with our clients to support their initiatives and programmes focused on achieving gender equality within their workplace.

What advice would you give to other employers who wish to promote gender diversity within their business?

There are a few key areas that have been instrumental to SThree:

1. The core values of a business should reflect the culture they want to uphold. At SThree our operating principles of Build Trust, Be Clear Then Aim High and Care Then Act create an inclusive culture and provide the foundations for an environment that supports gender diversity.

2. Employee-led initiatives. Our employees are incredibly passionate about this topic and have great ideas. We empower and support them to lead on activities.

3. Be authentic. Gender equality should be a continuous conversation and natural part of your work. Rolling out communications simply for International Women’s Day does not feel like a real investment.

4. Get feedback. Having opportunities for your teams to give continuous feedback is incredibly important. It provides a pulse check and insight into what is and isn’t working for all of your people, including the female workforce.
NovaBiotics Ltd is a leading clinical-stage biotechnology company focused on drug discovery research and the design and development of first-in-class anti-infectives for difficult-to-treat, medically unmet diseases.

Please describe the initiative your organisation took forward
NovaBiotics have participated in the Equate Careerwise programme since the beginning of the programme in 2014. Careerwise is a paid placement programme for women studying STEM at Scottish universities and colleges. The placements last between 8 – 12 weeks over the summer period, and students are paid the living wage for the duration of their placement. To date we have hosted 4 placements.

What were the key drivers behind taking this action?
There were a number of reasons we chose to participate in Careerwise, as a company we are huge fans of placement programmes. Careerwise is about getting women in science into placements and we support this. We see benefits for both the business and the student.

Participation in a high quality placement gives the students the edge on their CV. You can leave university as a fantastic graduate, but do you have hands on workplace experience?
From a business perspective, the pre-screening aspect of Careerwise means that we have access to the highest quality candidates, who are fantastic to have around. As a small business we value the funding support offered to host the placement.

Taking part in a placement at NovaBiotics gives women students the opportunity to see the potential to develop in the company. The Life Science sector is female dominated in the lab and at middle management, so it’s good to give visibility to women in leadership.

What were the cost/resource implications of taking this action?
There were some salary costs, although because we are a small business Equate Scotland were able to make a partial contribution to this.

The main resource was staff resource, including induction, training, supervision and making sure there is meaningful work for them to do – there is no point in dropping a student into the lab without them having a genuine role to play.

What has been the impact of the initiative?
For students the placements provide a real picture of how commercial placements work. It gives them a chance to decide whether that is the industry they want to go into. It also lets them see the career options for women in the sector in terms of leadership.

There’s a real benefit to NovaBiotics as well. We get excellent students and an additional pair of hands that generates data and information for us.
It’s also really good for the team. They get an opportunity to mentor the students, and it reminds us of the bigger picture and why you are doing what you are doing.

Did you experience any internal barriers or resistance and if so, how did you overcome them?
None whatsoever. As a team we are genuinely very positive about what we get out of hosting interns.

Can you offer any advice to employers looking to do something similar in the future?
Yes, definitely.
You will get out what you put in. Don’t underestimate the additional resource needed. It’s not just about paying the student. If you invest, you will benefit from the outputs. Interview and select in exactly the same way as you would for a job. Be choosy – pick only the good ones. Make sure you are providing a quality placement with interesting work for them to do.
Recognise that this is an opportunity for your team to gain new experience through mentoring the intern.

What are your future plans to further gender equality in the workplace?
We always try. There is a paradox in this sector in that imbalance is not towards women, except when it comes to women in leadership.
It’s about providing choice. Some women don’t want the additional responsibility, but don’t assume that the positions and opportunities are not there.
What advice would you give to other employers who wish to promote gender diversity within their business?
You need diversity for success – there is a reason we are not all the same. Where there is diversity, the input and dynamics fundamentally lead to better success, whether it’s in the lab or on the board.
It’s difficult – you can’t force it as you need to make sure you have the right person for the job. Be mindful of overkill or positive discrimination just to get there quicker.
Are there any other examples of good practice in your organisation that you wish to share?
NovaBiotics staff act as STEM Ambassadors within schools.
We also have scientists in residence at academies, where we demonstrate the application of science for purpose and not just for experiments. We also participate in the CREST Science Awards where pupils are challenged to come up with useful solutions to problems.
For us, it’s important that at a grass roots level that pupils and students can see successful women in the commercial sector.
Businesses invest considerable resources in their staff and therefore replacing lost talent is expensive. The average cost of turnover per employee is £30,614 in terms of lost productivity. In a sector with ambitious targets of increasing turnover by £8 billion by 2025, it is vital that attention is paid to staff retention in order to avoid unnecessary loss of productivity.

In addition to the obvious financial implications, retaining the talent you have means you have a staff team that knows the company, understands the mission and shares common goals. Companies with high attrition rates experience reputation damage and will struggle to attract the best talent available.

**FLEXIBLE WORKING**

Biospace surveyed 24,000 Life Science professionals globally⁴ to find out what they valued in an employer. The report highlighted for 79% of women, manageable working hours were among the most important factors, and 65% reported that opportunities for flexible working were what they looked for in an employer. Men also valued these attributes but in lower numbers (63% and 51% respectively).

Opportunities for flexible working are becoming increasingly commonplace as good employment practice with employers recognising the benefits of flexible working provisions for both staff and business. There is a move away from a ‘presenteeism’ workplace culture with more focus on outputs and productivity than where the work takes place.

65% of employers say that flexible working has a positive effect on recruitment and retention

54% of the workforce currently works flexibly

1 in 8 job advertisements in Scotland mentions flexibility

Flexible working opportunities support all employees to achieve a healthier work/life balance, and employees will make flexible working requests for a range of reasons. It is important not to assume that it is only women with caring responsibilities who will benefit from working flexibly. By offering flexible working opportunities, companies have access to a wider talent pool. Not only this, a 2017 YouGov survey of British businesses and employees found 89 per cent considered flexible working to be a key motivator to their productivity. Eighty-one per cent of remote workers said remote working would encourage them to increase their productivity levels.

There are a number of different ways to work flexibly, including:

- Working remotely
- Working compressed hours
- Job sharing
- Working core hours (for example 10-4, with flexibility outwith these hours)

**WHAT YOU CAN DO**

Review roles to identify where there is flexibility within them

Some roles will be conducive to more flexibility than others; however, there is usually room for some flexibility regardless of the role.

Implement a flexible working policy

Promote flexible working and ensure that staff are aware of the flexibility available to them.

Lead by example

When leaders are seen to be working flexibly, this will encourage other staff to make flexible working requests without fear of being perceived as less committed.

Rotate meetings

Make sure that staff who do work flexibly do not miss out on important meetings (for example team meetings) by rotating the day of week/time of day these occur.

Advertise your flexible working opportunities

Include the ‘Happy to Talk Flexible Working’ logo on your recruitment materials and website. This is likely to attract applications from those who may not otherwise apply.

**INCLUSIVE WORKPLACE CULTURE**

The cultural environment of our workplaces determines how we feel about going to work and what our day to day experience in the workplace is. The workplace culture of a business can impact on productivity, staff morale and staff retention, in addition to well-being both in and out of the workplace. It can also determine access to the talent pool during recruitment – companies with a reputation for an inclusive, positive workplace culture will be more attractive to prospective employees than one with a poor reputation.

The culture of an organisation is complex and is influenced by a number of factors. Some of these are visible, for example company policies, strategies and job descriptions and some are not visible, for example attitudes, beliefs and unconscious bias.

In STEM, workplace culture is a significant factor in the leaky pipeline in terms of the participation and representation of women at different levels of a company.
UNCONSCIOUS BIAS / MICRO INEQUALITIES

Unconscious bias is a bias that happens automatically and outwith our control. This is a result of our brains making quick decisions based on perception, personal bias and group biases. It is estimated that the brain processes around 11 million pieces of information every second; however, we can only consciously process around 40 pieces of information. The result is that the brain has to take shortcuts when making sense of a person or situation. Culturally, we process a person's gender, ethnicity, age and disability before we even know we’ve done it. At the same time we also link that person to existing knowledge or beliefs we hold about that category. These unconscious judgements can affect the way we interact or respond to people, depending on whether we associate them with positive or negative traits. It can influence:

In the workplace, those who find themselves in the out-group can experience micro inequalities as a result of unconscious bias, and this is commonly reported by women in STEM. In the Life Science sector this may be more common for women in management and leadership roles where there are fewer women.

Micro inequalities can include being interrupted or silenced in meetings, assumptions being made about role based on gender, for example assuming a woman is the minute taker in a meeting when she is in fact the Chair. It might also include being excluded from social activities or being subject to gender based jokes in the workplace.

Susan Wojcicki, who has been the CEO of Youtube since 2014, and works in a male dominated environment, described her experience of micro inequalities:

“I’ve had my abilities and commitment to my job questioned. I’ve been left out of key industry events and social gatherings. I’ve had meetings with external leaders where they primarily addressed the more junior male colleagues. I’ve had my comments frequently interrupted and my ideas ignored until they were rephrased by men. No matter how often this all happened, it still hurt.”

Unconscious bias and micro-inequalities create non-inclusive and often unpleasant workplaces and can contribute to driving women out of the sector.

WHAT YOU CAN DO

Review organisational policies
Consider what policies will contribute to a positive working environment, including Equality and Diversity, Flexible Working, Dignity at Work, Bullying and Harassment and Whistle Blowing.

Be explicit in what you expect from your workforce in terms of behaviour in the workplace
These can be set out in an Organisational Values statement. Ensure this is included in the induction of new staff, and review regularly with your team.

Raise awareness of unconscious bias and its potential impacts
Provide access to training on the subject. It is particularly important that recruitment, management and supervisory staff receive unconscious bias training.

Be an active bystander
When you witness micro-inequalities in the workplace, challenge it. This is an opportunity to have dialogue and raise awareness of the issue.
CASE STUDY

TISSUE SOLUTIONS
FLEXIBLE WORKING

Tissue Solutions (www.tissue-solutions.com) is a vibrant service-based company that supplies sourcing ethically acquired, fully consented human tissue and biomaterials to help scientists develop and test new drugs.

Please describe the initiative your company took forward

Our team is key to delivering the service our clients need. Quite simply put, if we don’t have a good team then we are not able to provide a good service.

You spend a significant part of your day at work so we want to make sure that we have as positive and supportive a culture as possible. Our management team have worked in places which were not the most pleasant and nurturing places to be so understand first-hand how important this is to everyone.

Flexible working is one of the ways we have sought to address this. We do not have a formal policy on this and we want to make sure that we have as positive and supportive a culture as possible. Our management team have worked in places which were not the most pleasant and nurturing places to be so understand first-hand how important this is to everyone.

Flexible working is one of the ways we have sought to address this. We do not have a formal policy on this and each request for flexible working is taken on a case by case basis.

What were the key drivers behind taking this action?

It has been employee driven, they have asked and we have actioned. However, they are aware that this has to work for both the employee and the company.

What were the cost/resource implications of taking this action?

Our employees are our assets and we want to make sure once someone is trained up that we then do not lose them and their experience. In a competitive global market, we do not want to waste time and money recruiting and training replacements.

What has been the impact of the initiative?

Some examples of how this has worked in practice:

- In a previous role, this woman was off on maternity and did not have the option of coming back part time. Fast forward a few years and we contacted her to see if she was interested in a new role in our organisation. She joined us working 2 days per week. When it became apparent that she was needed more than 2 days a week, we agreed on a 4-day week with 2 days in the office and 2 days at home. She is now a member of our Management Team and supervises a significant number of other employees.

- Another employee was looking to spend a bit more time with her children as they are growing up rapidly. She took a reduction in hours and now has every second Friday off.

- It is not just the female employees who are benefiting from this, we have a male colleague who now works his 3 days over 4 to make it easier for childcare.

- This can even help grandparents as seen in this example where we have a lady who has a half day every Tuesday to allow her to help out with looking after and spending time with her grandchildren.

CAREER DEVELOPMENT AND PROGRESSION

TAKING POSITIVE ACTION

It is well documented that women are under-represented in the majority of STEM sectors. While representation is better in the Life Science sector, particularly at undergraduate, career entry level and middle management, the further up the career ladder we look, the fewer women are present; they are not entering senior management and leadership roles at the same rate as men.

There is clear evidence of this; for example if we look at figures in Scottish Academic Institutions, while women make up 44.5% of Life Sciences Academics, only 20% of Life Science Professors are female, and only 13.9% of Senior Managers are women.

Where there is evidence of a group with a particular characteristic being under-represented employers can reasonably take positive action.

POSITIVE ACTION

Positive action is when an organisation voluntarily takes steps to help or encourage certain groups of people with different needs, or who are disadvantaged in some way, to access work or training.

Under the provisions of the Equality Act 2010 employers can implement positive action initiatives when:

- persons who share a protected characteristic have needs that are different from the needs of persons who do not share it, or
- participation in an activity by persons who share a protected characteristic is disproportionately low.

This recognises that different groups may face different and/or additional barriers to participation, and that giving everyone the same doesn’t create equality if people have different starting points.

Positive action under the Equality Act recognises that extra measures may need to be put in place to overcome these challenges.
THE LEGAL CONTEXT

There can be a reluctance to implement positive action measures, largely due to fears about the legal boundaries and confusion about what constitutes positive action and how it differs from positive discrimination, which is not legal. There are clear distinctions between the two under the Equality Act 2010:

‘Positive action’ is when an organisation voluntarily takes steps to help or encourage certain groups of people with different needs, or who are disadvantaged in some way, access work or training

‘Positive discrimination’ means treating one person more favourably than another on the grounds of that individual’s protected characteristics.”

It would therefore not be legal to employ someone purely based on a protected characteristic, for example their age, ethnicity, sexuality, disability or gender; however, it is legal to take steps to remove barriers which may be causing under-representation of any of these groups.

The term positive action can describe a wide range of activities, many of which are set out in this guide.

POSITIVE ACTION – THE PROCESS

In order to ensure positive action activities are legal, proportionate and addressing barriers to participation, evidence and evaluation are key. You must be able to demonstrate that there is an under-representation:

- Is there a particular under-represented group?
- What is the evidence of that under-representation?
- What is the cause of that under-representation?
- How will the measure address the under-representation?
- Are any other groups disadvantaged by the introduction of the measure and, if so who?
- If groups are disadvantaged, what plans are in place to alleviate negative impacts?
- Is there another, more effective (or less adverse to other groups), way for the organisation to address the under-representation (i.e. proportionality)?
- For what period of time will the measure be in place? What arrangements are in place to review the impact of the measure?

Dr. Chantal Davies, Chester University, 2016

WHAT YOU CAN DO

Gather data to demonstrate the need for positive action activities:

- Look at where women work in your company – what proportion of your administrative, technical, middle and senior management and executive roles are held by women?
- Is there a gender pay gap in your organisation? This can indicate a lack of women in senior roles.
- Monitor staff attrition – are there key points/roles where women leave the organisation?
- Monitor who is applying for senior roles and promotion opportunities – are women applying for these roles?

Speak to the women in your company:

- Ask what is stopping them from considering applications for senior roles. Find out what support and development needs they have and how you can meet these needs. For any initiative to have impact, it is important to seek the views of intended beneficiaries.

Consider what partnerships may be necessary to implement your positive action activities:

- If you do not have internal resource or expertise, partnerships with other employers and/or support from specialist equalities organisations can be useful.

Use this guide:

- And the case studies within, to give you inspiration and confidence about the different types of activity you can undertake.

There is no one answer to the issue of women’s retention and development in Life Sciences; a range of activity and a whole organisation approach are needed.
POSITIVE ACTION:
WOMEN RETURNER PLACEMENTS

There are a number of reasons why we lose women from STEM at different stages, as highlighted by the leaky pipeline. Taking a temporary career break to raise a family is a common reason that women leave the sector, often at a stage in their career where they may be at middle management level.

Due to the pace of change within the STEM landscape and STEM technologies, coupled with the loss of confidence a career break can lead to, as well as the challenges of achieving a work/life balance and managing child care, returning to industry can feel out of reach for many women.

At the same time if Scotland is to achieve ambitious targets set out in the Life Science Strategy for Scotland, employers will need to tap into all the talent and resource available to them, including experienced, qualified women who have taken a career break, particularly when they report challenges in finding the ‘higher level’ skills they require and find that graduates are not quite workplace ready.

There are a number of advantages to investing in a woman returner placement, or developing a women returners’ programme. In addition to the expertise and experience they are bringing from their earlier career, women returning to work are already in possession of the range of skills necessary to operate effectively in the workplace and bring a maturity that graduates may not.

Offering supported placements to women who have had a career break for 2 years or more gives them the opportunity to demonstrate their existing skills and knowledge, while gaining on the job learning about developments that have happened in the sector during their time away from work.

Ensuring a supported return to work, either for women who were previously employed by your company or women new to the company, can reap benefits both for the company and the women involved.

TIPS FOR SUCCESS

▶ Consider a tangible and appropriate project – To get the most out of the experience and expertise a returner can provide consider a project which has tangible outcomes and can be delivered or contributed to within a 3 to 6 month placement period.

Women returners are not new to the sector, so these opportunities should not be work shadowing or work experience but rather supporting the individual to utilise their years of experience and paying them accordingly.

▶ Develop an inclusive and clear job description – Job adverts and job descriptions are the first insight into your organisation a woman returner may see; therefore, it is important to get across why yours is an organisation they would want to work in. Try not to rely on overly technical language, include equality and diversity statements, and consider what needs to be essential criteria and what they can “learn on the job”.

▶ Find an appropriate line manager who can give the returner the time and support they need – Although women returners are not new to the sector, they may have had a considerable absence from work. As such, it is important that adequate support is provided and that line managers are aware of their employees’ needs and how best to manage them.

▶ Ensure a good induction – This should include introductions to key staff they will be working with, processes they will be working within and objectives they need to meet. As women returners may have been out of the sector for some time, it is recommended that the induction also includes an overview of the sector and key advances that are relevant to the role.
The employee works a condensed 4 day week, with two days job share in the lab and two days on LIMS. We will continue to monitor this in order to assess longer term sustainability of this model.

Did you experience any internal barriers or resistance and if so, how did you overcome them?

We experienced no barriers to participation in the programme or taking on an employee on this basis. Our HR department were informed of the intention and signed it off immediately.

There have been some minor challenges, for example the candidate had previously worked in an academic setting whereas Eurofins is a commercial company and therefore operates within much stricter guidelines, so this took some adjusting to for her.

As a woman with caring responsibilities, occasionally it has not been plain sailing; however, as an employer we are aware of the need for some flexibility in relation to this.

Can you offer any advice to employers looking to do something similar in the future?

Offering a Returnship placement is a win-win situation for an employer. There is very little risk involved and there are a number of benefits. The person comes into the organisation knowing that it is on a short term basis, usually between 3-6 months. As an employer you get to see the individual in the work environment, so it’s very much like an extended job interview. The company gets something out of it in terms of outputs and productivity while at the same time assessing the person’s suitability for a potential long term position within the company. A Returner often brings a maturity and focus to the work that an entry level candidate may not necessarily have.

It is also an opportunity to put something back into the community, giving women an opportunity to show that they can perform and that their skills are still relevant. This can help in giving back confidence to women who have been out of the workplace for a period of time. Due to the initial short term nature of the placements it can feel like a low risk opportunity for the women themselves.

Be prepared for bumps in the road but don’t give up. It is important that this is a supported process. As an employer you can’t treat a returner just as a ‘normal’ employee you can’t treat a returner just as a ‘normal’ employee. They don’t require special treatment, but when returning from a career break it is important to look at the developmental needs of the woman. We made sure that our returner had a mentor in the workplace paying attention to these needs.

Keep an open mind about whether this is a short term or a longer term opportunity and be aware that taking on a returner can result in a real payoff in terms of investment.

What are your future plans to further gender equality in the workplace?

As we currently have 80% female representation at the executive level of Eurofins BioPharma Product Testing, we are keen to recruit more men into these positions to ensure balance. We know that diversity is good for business and that works both ways.

What advice would you give to other employers who want to promote gender diversity within their business?

Be open about it. If you recognise there is an issue around gender balance and/or lack of diversity have an open discussion about it. Include everyone in the conversation. Come up with balanced and thoughtful plans about what you want to do.

Obviously it’s not just about giving the job to someone on the basis of their gender, it has to be on merit. At one point the majority of our scientists were women and we were keen to recruit more men for gender balance. In order to achieve this we ensured that we shortlisted a good number of men for interview during the recruitment process. As it turned out many of these were strong candidates and we successfully achieved closer to a 50/50 gender balance in our technical roles.

Are there any other examples of good practice in your organisation that you wish to share?

We very much operate a culture of flexible working. We have a flexible work request process that is open to everyone. This can include part-time working, flexible start and finish times and compressed working hours (working full time hours over fewer days). Being a company with significant numbers of women, it is important how we manage return to work after maternity leave. Many women want to return part-time, at least for a period of time. Because laboratory work does not always lend itself to a huge amount of flexibility due to the nature of the work, it is important that we accommodate flexibility in other ways and we can do this by giving specific tasks that are more suited to the desired work pattern. We tailor roles depending on individual needs and that allows far greater flexibility without compromising the needs of the business. For example there are roles in data checking which are office based and can be better managed on a time critical basis. Flexibility works for both employees and employers as it implies a level of trust in the employee to complete the work in a timely manner and not be defined by the constraints of a prescribed working day. For employers you often get more back from the employee who is then prepared to give a bit extra without being asked.
With only around 10% of senior positions across disciplines in the Life Science sector being held by women, there is the potential to experience isolation, unconscious bias and a lack of visibility. Women’s networks can help to counteract this by creating sources of peer support and opportunities to raise the profile of women working in the sector.

Women’s networks can act as a platform to lift women from middle management positions into senior leadership positions through access to networking, continuing professional development opportunities, mentoring and news and information from across the sector.

Many large companies support internal women’s networks; however, in SMEs this may not be practical. Sci Sisters is an example of a Life Science Network for women in Scotland. The network was set up for women in senior leadership, including team leaders, senior managers, female professors and government scientists. The network provides opportunities to connect with other senior scientists in Scotland, get support and advice, access to training and opportunities to raise the profile of senior women in science through participation in science festivals and careers events.

For women’s networks to be successful it is important that the need is identified by women in the organisation themselves.

The network’s activities should be led by women and for women in order to be effective. If a need has been identified, women’s networks are made a success if they include the following:

- A team of women leading the network
- Planned events which provide development opportunities for women and include input from external female role models
- Buy-in from senior management of the organisation
- Ability to influence and discuss culture or policy within the organisation
- Sharing of network’s successes to all staff in the organisation

TIPS FOR SUCCESS

http://www.chemicalimbalance.ed.ac.uk/scisisters/
POSITIVE ACTION: MENTORING

Offering access to mentoring support is one way an organisation can support career development and succession planning for women.

Research found that those who provided mentoring support to others experienced greater job satisfaction and commitment to their employers. Mentors, who tend to be people in more senior positions, can offer support in a number of ways depending on the goals of the mentee. For women looking to move into senior management and leadership positions this may include setting objectives, planning and problem solving, acting as a sounding board for testing out new ideas or thoughts, providing access to professional networks and raising the profile of the mentee within the company.

Research found that employees who were mentees were promoted five-times more than non-mentees. Furthermore, with the talent pool scarce and the demand for STEM talent at an all-time high, companies are finding that employees who participated in a mentoring program had a retention rate 20 percent higher than those who did not mentor.29

Mentoring programmes not only have benefits for those receiving mentoring support, but also for the mentors themselves, and there is evidence that they can provide clear financial benefits for companies. A 2013 Verstrics study examined responses from more than 830 mentees and some 670 mentors participating in Sun Microsystems’s program. Employee retention rates climbed 69 percent for the mentors and 72 percent for the mentees over the seven-year period of the study. The increased retention resulted in savings of $6.7 billion in avoided staff turnover and replacement costs.

Access to mentoring support can result in increased confidence and motivation and in turn improved performance and productivity. It can attract talent to your company, shape organisational culture and retain and develop the talent you have.

POSITIVE ACTION: SPONSORSHIP

In a sector where women face multiple barriers to entering senior leadership roles, a sponsor may help to raise their profile and provide access to opportunities that might otherwise pass them by.

Unlike a mentor, who acts as a sounding board and advisor, or a coach who facilitates self-reflection and career planning, a sponsor is a person at a senior level who acts as a champion for an individual within the company. They actively speak out for the person they are sponsoring, recommending them for opportunities, promotions and high profile work. The difference between a mentor and a sponsor has been described as ‘a mentor will talk to you, a sponsor talks about you.’ They actively promote, protect, prepare and push the person they are sponsoring to advance their careers.

Sponsorship programmes should result in increased confidence and raised profile within the organisation. However, in addition to the fact that women are less likely to be offered mentoring support than their male colleagues, when it comes to sponsorship, the issue is even more stark; men are 46 percent more likely than women to have a high-powered sponsor30 and a 2018 report found that only 4% of women in STEM have been sponsored in the past 2 years.31 Sponsorship of men by men is more likely to happen and happens on a more organic basis as part of informal networks that women often don’t have access to.

It is therefore important to take a structured approach to ensuring that women have access to sponsors. For women in STEM, having a sponsor who has an active interest and plays an active role in developing their career path can have significant impact.

The Fish Site is a knowledge sharing platform with premium news, analysis and resources for the aquaculture and commercial fishing industries. The Fish Site team volunteered their time on top of their management and business development. Women in Aquaculture programme is a tool to raise awareness, to launch an innovative pilot project offering professional mentoring to women and men in the industry.

What were the cost/resource implications of taking this action?

The Fish Site team volunteered their time on top of their existing workload; concept, design and implementation were all managed in-house, with the exception of the mentoring training webinars and programme assessment that used an expert third party, Coach Mentoring Ltd, at a cost of approximately £5k. This allowed a small-scale pilot programme to run; the intention is to expand and professionalise it in the future.

What has been the impact of the initiative?

The pairs were matched and initial training (virtual webinars for mentees and mentors) run in March 2019. The immediate impacts were the positive feedback on the initiative and training from the participants and the demonstration of value from the number and quality of the applications, which included interns, students, CEOs, business and technical managers. A second round of webinars is scheduled for October 2019, with evaluation due in March 2020. Based on these outputs, we hope to run the programme again in 2020 with a wider reach, including professional mentoring software, and to incorporate as part of a wider event series/initiative raising awareness and supporting action on gender equality in the aquaculture industry.

Did you experience any internal barriers or resistance and if so, how did you overcome them?

There were no particular barriers as the concept proved itself as an editorial series and the company as a whole are committed to diversity so were supportive. The concept has been very popular with audiences; the challenge has been to get commercial support from private businesses (e.g. through sponsorship) to cover the costs of expanding the initiative. Companies are always vocally supportive but often less interested from a commercial perspective.

Can you offer any advice to employers looking to do something similar in the future?

The Fish Site programme is fairly unique to aquaculture as it is free and open to all through our audience channels, but mentoring for women in STEM and more widely is popular and growing. Our audience responded very well to the initiative because it was seen as something new within an often male-dominated industry, and many mentees spoke about wanting to bolster their confidence and contacts in order to overcome perceived barriers to their progress. They also wanted support with technical skills, management and business development.

The main advice would be to plan carefully what you want the outputs of the programme to be, and I do recommend using a professional training provider initially as there is a lot more to mentoring than meets the eye! Lastly, I was taken aback by the amount of admin required to field 40-odd applications, match them and get them set up on the webinars; ensure you have resource in place to handle the busy work.

What advice would you give to other employers who wish to promote gender diversity within their business?

Gender means men too! Mentoring and other programmes aimed at women (or other groups) are great, but equality needs everybody to participate and take responsibility for making a fairer, more productive, more positive workplace (and society). The Women in Aquaculture programme is a tool to raise awareness, but it shouldn’t be seen as removing the necessity for everyone in the business to assess their own attitudes and performance and strive to do better, to learn more, to be part of the solution and not the problem.
Access to Career Coaching can be an effective way to support women to identify the steps they need to take to progress their careers to the next level. Coaching is also a useful resource for women returning to work after a career break.

Coaching programmes value the participant as the expert in their own lives and are designed to help women to evaluate their strengths and skills and to identify solutions to barriers they may be facing to career progression. Coaching is not about telling women what to do, but about facilitating a process through which they learn about themselves and to identify the different options available to them.

There are a number of reasons why someone might access career coaching. They may be thinking about seeking a promotion or a move into a management level position, or there may be a specific workplace issue they want to overcome.

In a sector where women only make up around 10% of senior scientists in UK universities, government labs, public science bodies and industry, coaching support can help women make the move from middle management into more senior leadership positions.

As well as obvious benefits for employees in terms of career planning and progression, job satisfaction and well-being, employers also reap the benefits of investing in coaching support with improved employee engagement, productivity, morale and retention.

WHAT YOU CAN DO: MENTORING, SPONSORSHIP AND CAREER COACHING

- **Providing access to training and resources** – This will support good practice in the mentoring/spONSoroSHIP/coaching process. Gender awareness is important to ensure understanding of the issues and barriers that may be preventing women from progressing into leadership roles.

- **Matching is important** – Both in terms of personality and the aims of mentoring/spONSoroSHIP/coaching relationship. It is important that the mentor has the knowledge, skills and experience that are relevant to the aims of the mentee. Women don’t necessarily want access to a female mentor, but where possible the choice should be given.

- **Consider different models** – Mentoring/spONSoroSHIP/coaching can be formal or informal, and can be delivered face to face, by telephone or online. SMEs should consider approaching another company if there is a lack of resource within the company. There can be added benefits to having a mentor/spONSoroSHIP/coach from another company in terms of objectivity and privacy.

- **Be clear about what you hope a mentoring/spONSoroSHIP/coaching programme will achieve** – This may be improved levels of retention or supporting women to move into senior roles. By having clear objectives you can monitor success.

Remember, all of these activities should be led by the identified needs of the women involved.

---

[http://www.chemicalimbalance.ed.ac.uk/scisister/](http://www.chemicalimbalance.ed.ac.uk/scisister/)
**CASE STUDY**

**THE ROSLIN INSTITUTE, UNIVERSITY OF EDINBURGH**

**CAREER COACHING**

The Institute is a research Institute embedded in the Royal (Dick) School of Veterinary Studies, with a research focus on animal health and genetics and postgraduate training.

Please describe the initiative your organisation took forward

We met with Equate Scotland to discuss the value of career coaching for individuals and worked together to develop a partnership with Equate to provide a career coaching programme, Coaching for Success. This had the added benefits of providing coaching to a cohort of female staff with a small group of coaches and Equate liaison staff. This enabled the coaches to learn more about the organisation and follow-on training for line managers was provided by Equate, based on the outcomes evaluated by a confidential questionnaire run by Equate. The programme offers 6 places per year and is publicised each year with a launch lunch event with previous recipients of coaching awards describing the process and benefits. The staff selected for coaching were prioritised to award the opportunity to those who are approaching key career stages (e.g. potential promotion) or who have recently moved up to a more responsible role. The coaching programme is now embedded in the Institute and has been extended to male staff and this year will be offered to Professional Services staff. We think that it is important to recognise that the challenges of work/life balance impact our male staff and aim to be inclusive in our support, especially for earlier career staff. The extension to Professional Services staff recognises the relative lack of support, and different challenges, for these staff.

What were the key drivers behind taking this action?

We recognised that we did not provide enough individual career support and the time to focus. Career coaches bring a valuable skill set to helping individuals identify their personal goals and steps to achieve them.

What were the cost/resource implications of taking this action?

Initially the programme was part-funded by Equate but now we run the programme and commit £10K per year to the programme.

What has been the impact of the initiative?

Successful promotion within the organisation or by appointment elsewhere for staff who received coaching. The training for senior managers has improved understanding of the aims of career coaching and the challenges staff face. The idea of running a coaching programme has been taken up by other departments. The message we send to staff is a commitment of senior management to supporting career progression, part of our culture change.

Did you experience any internal barriers or resistance and if so, how did you overcome them?

We plan to engage more within the Institute with Professional Services staff, to ask staff and student groups “What can we do better?”, to engage with other departments in the University but importantly in other organisations to share good practice and learn ideas to implement change from others.

What advice would you give to employers who wish to promote gender diversity within their business?

It is easy to set things up but systems must be put in place to ensure they continue.

Are there any other examples of good practice in your organisation that you wish to share?

We developed a “Parents Support Booklet” bringing together all the HR policies relevant to parents and all the local initiatives into one document. This has been very positively received and shared as a template for others.
THE GENDER PAY GAP

A gender pay gap shows the difference in average pay across all the men and women in an organisation, industry or country as a whole. It is not the same as an equal pay comparison which examines how much men and women are paid for doing the same job.

In Scotland, the gender pay gap has been calculated at 15%; however, in science and engineering the gender pay gap increases to 20%. The average salary for men working in science and engineering in the UK in 2017 was £41,200, while women were paid £33,000.

This varies across industries, for example the gap in pharmaceuticals is 22% with men earning an average of £42,200 and women £35,100, while in biotechnology, where women outnumber men, the average salary is lower than other STEM sectors at £36,800 and a gender pay of 10%.

The science sector in the UK has a larger gender pay gap than the US or Europe.

In Scottish academic institutions, despite the fact that women make up 44.5% of Life Science academics, women represent 41.6% of those earning salary band 5 and only 29.3% earning salary band 6.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>59.3</td>
<td>45.4</td>
<td>59.6</td>
<td>41.6</td>
<td>29.3</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>40.7</td>
<td>54.6</td>
<td>40.4</td>
<td>58.4</td>
<td>70.7</td>
<td></td>
</tr>
</tbody>
</table>

Life Science Salary Band by Gender

CAUSES

Occupational segregation is at the root of the gender pay gap; women are more likely to be in low paid, part-time work, concentrated in what is known as the ‘five Cs’ – cleaning, clerical, cashiering, caring and catering. Due to the gendered nature of caring, with women carrying out the bulk of unpaid caring work for family members, there is an oversupply of women looking for part time work to fit around their caring responsibilities. This depresses the wages in these sectors.

Lack of flexible working opportunities also contributes to the gender pay gap, resulting in women being forced into low paid, part time roles in ‘five C’ sectors to fit around caring commitments.

Another cause of the gender pay gap is a lack of objectivity and transparency in allocation of bonus earnings and performance related pay.

WHAT DOES IT MEAN FOR BUSINESSES?

A gender pay gap will impact on how attractive a company is as a potential employer. A Glassdoor survey found that 66% of UK respondents would not apply to a company where a gender pay gap exists between men and women. When broken down by gender the figures are higher for women, with 76% women indicating they would not apply to a company where there was a gender pay gap (compared to 59% of men). Companies with greater salary transparency experience better productivity and attract better talent.

In addition to this, a gender pay gap will impact on the reputation, brand and profitability of a business; customers are increasingly ethically aware and make spending decisions based on this.

WHAT YOU CAN DO:

Salary allocation processes – Women are less likely to negotiate salary with their employer. Assess roles and identify the worth of a position before recruitment to avoid reliance on negotiation to agree a fair salary. Confirm salary ranges in job advertisements. This will help achieve greater parity in salary for similar roles.

Performance review, promotion and reward processes – Set clear and objective criteria for processes, policies and criteria for reviews and decision making. This will create transparency; both managers and employees will be clear about what is involved and will be confident that decision making is objective and evidence-based. Introducing transparency to promotion, pay and reward processes can reduce pay inequalities.

Data Collection and Monitoring – Routinely monitor company data:

- Analyse the numbers of men and women at each level of the company and what they are being paid for each role.
- Who is participating in training and development opportunities? How are these allocated? Is there a structured approach in place to ensure this is done on a formal, rather than ad-hoc basis?

Competency based, structured interviews – To ensure candidates are being judged on the same criteria, recruitment processes should be competency based with candidates being asked the same questions during the interview process. Having set criteria against each competency/interview question will help ensure objectivity in candidate scoring. In the context of the gender pay gap in science, this will help ensure that the women who do apply for promotion and leadership roles are not subject to unconscious bias in decision making.

Ask for help – Close the Gap works in Scotland on women’s participation in the labour market. They work with employers (and policy makers and employees) to enable action on women’s inequality in the workplace. Find out more on their website https://www.closethegap.org.uk/
# TAKING THE ISSUE FORWARD IN YOUR ORGANISATION

This section provides planning worksheets and reflective questions to help you deliver a “women in STEM” strategy in your organisation. The following pages provide a starting point for organisations considering different approaches in this guide. Equality and diversity measures should be embedded into long term strategies and business plans of every organisation. These strategies should include (and ideally be led by) managers who are the point of contact for women in the sector and have responsibility in the delivery of a workplace culture. Equate Scotland can support you to embed this work. Find out more at [https://equatescotland.org.uk/](https://equatescotland.org.uk/)

## REVIEW THE GENDER PRACTICE OF YOUR ORGANISATION:

1. **We review gender balance on our boards, senior management teams, technical staff, those with budgetary responsibility and new starts:**
   - Level of implementation:
   - Follow up required:

2. **We pursue women only positive action initiatives to address gender imbalance in our workplace:**
   - Level of implementation:
   - Follow up required:

3. **We review policies and procedures to ensure all staff are aware of them and that they are working in practice:**
   - Level of implementation:
   - Follow up required:

4. **We ask staff for their feedback on their workplace and analyse results by gender:**
   - Level of implementation:
   - Follow up required:

5. **We analyse CPD uptake, promotions and role responsibility levels by gender:**
   - Level of implementation:
   - Follow up required:

6. **We have a flexible working environment and ensure that employees and applicants are aware of it:**
   - Level of implementation:
   - Follow up required:

7. **We reach out to female students and potential applicants through partnership working with colleges, universities and schools:**
   - Level of implementation:
   - Follow up required:

8. **We have an internal and external communications strategy about the benefits of gender diversity and promote ourselves as a gender equal employer:**
   - Level of implementation:
   - Follow up required:

9. **We evaluate our job descriptions, websites and marketing materials to ensure that our language is inclusive and non-biased:**
   - Level of implementation:
   - Follow up required:

10. **All staff take part in unconscious bias training or training related to equality and diversity:**
    - Level of implementation:
    - Follow up required:

---

16 Extract from Equate and SDS technology guide 2016
Use this worksheet to start the conversation within your organisation. It is critical to get people across the organisation involved to ensure that real change is made and that the experiences of women are included in any initiative that employers take forward.

<table>
<thead>
<tr>
<th>Who do we need to talk to?</th>
<th>What do we need to talk to them about? (This should include their experiences, what their expectations are and how they think this can benefit the business)</th>
<th>What role will they play in taking this forward? (When people are given active roles across an organisation, they are more committed to a strategy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle Managers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equality and Diversity champions/HR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in the organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women students we hope to employ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry level employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees with caring responsibilities (of all genders)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REVIEWING MICRO GENDER INEQUALITIES IN THE WORKPLACE

This worksheet provides examples of micro inequalities. Liaising with the female employees in the workplace, it may be helpful to review if these micro inequalities have been experienced and what action can be taken to prevent their recurrence.

<table>
<thead>
<tr>
<th>Example of micro inequality</th>
<th>How it can be overcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women rarely chair meetings</td>
<td></td>
</tr>
<tr>
<td>Women are talked over during meetings</td>
<td></td>
</tr>
<tr>
<td>Administrative tasks are taken on by more women than men (despite it not being their job)</td>
<td></td>
</tr>
<tr>
<td>Language used in the workplace is sexist</td>
<td></td>
</tr>
<tr>
<td>Women feel unable to challenge micro inequalities</td>
<td></td>
</tr>
<tr>
<td>Social events which are exclusionary to women</td>
<td></td>
</tr>
<tr>
<td>Taking input and questions from more men than women in meetings</td>
<td></td>
</tr>
<tr>
<td>Ignoring of emails or trivialising responses from women</td>
<td></td>
</tr>
<tr>
<td>Negative assumptions from colleagues around caring responsibilities and part time working</td>
<td></td>
</tr>
</tbody>
</table>