



# The EU Mutual Learning Programme in Gender Equality

## Gender segregation in the labour market and education

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Discussion Paper – Northern Ireland



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Justice

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# Addressing gender bias in STEM

STEM Business Subgroup and  
Equality Commission for Northern Ireland

## 1. Main elements of the policy on Addressing gender Balance in STEM

### 1.1 Background and general policy context

In common with most western economies, Northern Ireland recognises that it needs an increasing number of skilled workers with qualifications in Science, Technology, Engineering and Mathematics (STEM). The Northern Ireland Executive's Programme for Government for 2011/15<sup>1</sup> identified as an economic priority the need to increase the uptake in economically relevant STEM places. To achieve this growth in STEM skills in the workforce, the Success through STEM Strategy<sup>2</sup> was published in 2011. It has 20 recommendations, 15 were assigned to various Government Departments and five recommendations were assigned to STEM businesses to take forward. A STEM Business subgroup was established to implement these recommendations and in November 2012 the Department for Employment and Learning (DEL) funded a seconded post of STEM Business Co-ordinator to support the subgroup's work.

### 1.2 Improving gender balance in STEM through involving the target group in the development of resources and support networks to share and build on good practice

Recommendation 4 of the STEM Strategy, which falls under the responsibility of business to take forward, is to "Address Gender Bias". It states, "*The Business Sub Group should work with the Sector Skills Councils and other bodies to help address gender bias especially within physical sciences and engineering.*"

The STEM Co-ordinator established from the Labour Force Survey<sup>3</sup> conducted by the Department of Enterprise, Trade and Investment, that of the 11 percent of jobs in Northern Ireland that are high level STEM posts, only 25 percent are occupied by women.

In February 2013 the Co-ordinator initiated a partnership with the Equality Commission for Northern Ireland to address the gender balance issue in STEM. In June 2013 the STEM Business Subgroup and the Equality Commission ran a seminar entitled 'Are you getting the balance right – Is gender an issue for you?' Over 70 delegates, mostly from STEM employers, attended this seminar at which a draft version of the report **Addressing Gender Balance – Reaping the Gender Dividend in STEM** was presented. The report

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<sup>1</sup> Source: [Northern Ireland Executive Programme for Government 2011-15](#)

<sup>2</sup> Source: [Success through STEM- STEM Strategy](#)

<sup>3</sup> Source: [Labour Force Survey DETI NI](#)

demonstrates the business case for gender diversity and contains several tools to help business engage with the issue, these including a STEM CEO Charter and 22 good practice guidelines.

Speakers at the event included Dr Stephen Farry, Minister for Employment and Learning, Dr. Joanne Stuart, Chair of the STEM Business Subgroup and Anna Carragher, Equality Commissioner. Brenda Bennett from Schlumberger presented case studies from her organisation and Catherine O'Neill from the Amelio Utilities Group described how her choice of career was influenced by a female role model and how she herself is in turn acting as a role model for other young people. She is a 26 year old civil engineer who started her business while still at university and now employs 50 people in the UK and Ireland.

Following the formal speeches, the attendees were asked to consider the series of Good Practice Guidelines to address Gender Imbalance in groups and provide feedback from their group. Feedback from the event was used to inform the next draft of the report.

Over the next few months, the Good Practice Guidelines and STEM CEO Charter were further consulted upon with companies and seven good practice case studies were gathered from different organisations; Schrader, Schlumberger, Allstate, Northern Ireland Electricity, Atkins, Ulster Bank and Queen's University Belfast.

### **1.2.1 Launch of Addressing gender Balance – Reaping Gender Dividend in STEM report**

The final report<sup>4</sup> was launched on 7<sup>th</sup> November 2013 at Our Lady and St Patrick's College Knock, as part of Tomorrow's Engineers Week. Year 10 pupils from Our Lady and St Patrick's College, Grosvenor Grammar School and Lagan College attended the event. It was opened by the Minister for Employment and Learning, Dr. Stephen Farry and the speakers included Naomi Long, the then MP for East Belfast, and a civil engineer and Julie Templeton, a civil engineer with Atkins and a member of the Institution of Civil Engineers. The event was closed by Steve Thomson of Schrader Electronics, who is an electronics engineer himself and a member of the STEM Business subgroup.

### **1.2.2 Launch of STEM Charter**

The STEM Co-ordinator consulted further with STEM companies about the STEM Charter and in June 2014, the STEM Business subgroup, DEL and the Equality Commission launched the STEM CEO Charter.<sup>5</sup> Sixty people attended the launch. The **Charter enables STEM organisations to demonstrate their commitment to equal opportunity for women in their employment.** Twenty organisations committed themselves on the day of the launch and now 37 companies have signed up to the Charter. Many companies at the event also indicated that they would like to be part of the STEM Employers Equality Network.

### **1.2.3 STEM Employers Equality Network (SEEN)**

The premise of the network is to learn about relevant research and hear about good practice from another business. Participants can then discuss any alternative models they may have

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<sup>4</sup> Source: [Addressing Gender Balance- Reaping the Gender Dividend in STEM](#)

<sup>5</sup> Source: [STEM Charter](#)

operating in their companies and how the good practice initiative could be implemented in their own organisations.

On 25<sup>th</sup> September 2014, the STEM Business Co-ordinator and the Equality Commission ran the first meeting of the STEM Employers Equality Network (SEEN). Professor Yvonne Galligan from Queen's University Belfast spoke about Queen's journey with the Athena Swan Award<sup>6</sup>. At this meeting participants began to benchmark their practice against the 22 good practice guidelines from the Addressing Gender Balance report. Whilst several of the good practice guidelines are self-explanatory, participants have identified the areas that they would like more information about to enable them to address the under representation of women in the STEM sector. These included mentoring, networking and challenging unconscious bias. Further meetings were planned to address these identified needs.

A second meeting took place on 26<sup>th</sup> February 2015. Professor Joan Ballantine, Ulster University, who is researching Gender Equality at Executive level in the NI Public Sector and has identified many of the same issues as the Gender report addresses. She spoke about her research and participants were able to draw useful parallels between the situation in STEM organisations and the senior public service. Twenty people attended including representatives from 10 STEM businesses who then heard from Shauna Kane, Institute of Leadership and Management (ILM) about their courses in mentoring and then from Caroline Murdock from Schrader (now Sensata Technologies) about their mentoring programme. Another member company, Terex, has already implemented its own mentoring system, based, at least in part, on the information exchanged at that meeting.

A third meeting of the Belfast SEEN took place on 10th June 2015 which addressed networking. The speakers were Roseann Kelly from Women in Business who spoke about external networks and Shauna Burns from Ulster Bank who spoke about Business Women Can<sup>7</sup> which is a network to encourage and support female entrepreneurs. A third speaker, Karen Lawther, Ulster Bank's Head of Markets NI explained about Women in Touch<sup>8</sup>(WIT) which Eilvena Graham, the former Head of SME Banking at Ulster Bank started in 2010. This network was featured as a good practice case study in the STEM Business subgroup's Addressing Gender Balance report. The aim of this internal network is to support women in managerial roles to network, share experiences, learn from each other and realise their potential. The WIT network offers Ulster Bank employees the opportunity to develop and advance their careers, becoming involved in activities that challenge and inspire them.

Participants then discussed the benefits of networking in a STEM setting and how to start and sustain a network. The speakers kindly shared their expertise in answering members' questions. The importance of having a sponsor for the network, a relevant programme of events and using the feedback from the meetings were all mentioned.

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<sup>6</sup> The 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.

<sup>7</sup> Source: [Business Women Can](#)

<sup>8</sup> Source: [Women in Touch](#)

### 1.2.4 Launch of STEM Charter and another network in Derry~Londonderry

In order to broaden the business participation in the Charter and Network across the whole of Northern Ireland, both the STEM Gender report and STEM Charter were launched in the North West on 29<sup>th</sup> April 2015. Ilex, the urban regeneration company for Derry~Londonderry supported the Co-ordinator and the Equality Commission in the preparation for the event. Over 30 people attended the meeting and four organisations signed up to the STEM Charter. Participants were given the opportunity to discuss the Good Practice Guidelines in groups and again highlighted the areas in which they would welcome further support to implement. The areas identified were mentoring, networking, unconscious bias and aspects of positive action.

## 1.3 The legal and financial provisions to implement the policy

### 1.3.1 Legal and policy framework

The policy framework of the Success through STEM – STEM Strategy gave the basis for the work by providing the recommendation of ‘Address gender bias.’ The aim of the recommendation was to remove any barriers to employment for females in STEM industries and thereby widen the pool of talent from which employers could potentially draw.

The current area of law that governs any work in this area of gender equality is the Sex Discrimination Order 1976 (Northern Ireland) (as amended).<sup>9</sup> The Equality Commission for Northern Ireland has a guide to this legislation<sup>10</sup> which includes a section on Positive Action:

‘Positive action refers to a variety of lawful measures designed to counteract the effects of past discrimination and help eliminate sex stereotyping and job segregation in employment. Employers or training bodies may take positive action to offer encouragement to members of one sex to take up jobs if there have been few or no members of that sex employed in that particular job over the previous twelve months. For example, this might include advertising to encourage women to apply for job vacancies or providing single sex training courses. Where lawful positive action is used to encourage the under-represented sex to apply for jobs or training, it is still unlawful to favour them at the point of Selection.’

The Good Practice Guidelines were examined by the Equality Commission to ensure that they were legal and fitted within the positive action measures, as appropriate.

### 1.3.2 Financial provisions

In order to support the STEM Business subgroup with the implementation of their five recommendations including the gender issue the Department for Employment and Learning recruited a seconded Co-ordinator who have been in post since November 2012 at a cost of £50,000 per annum to cover salary and employer’s costs. Of course, the Co-ordinator was engaged in work on the other four recommendations. One of these recommendations was ‘Develop a clear STEM careers path’ which has been complementary to the work on the

<sup>9</sup> Source: [Sex Discrimination \(Northern Ireland\) Order 1976](#)

<sup>10</sup> Source: [Sex discrimination and equal pay law in Northern Ireland a short guide](#)

gender balance as both involved engagement of the STEM Businesses. Publication costs for the Addressing Gender Balance report have been approximately £3500.

In addition to giving staff time to the work, the Equality Commission has covered all the venue and catering costs of the various seminars and Network meetings.

## **1.4 Institutional arrangements and procedures of implementation**

The partnership between the seconded STEM Business Co-ordinator (working in a government department) who engaged with the businesses, wrote the Gender Report and sourced speakers for the network and the Equality Commission which provided staff, equality law expertise and finances to run the seminars and networks meetings has worked well.

## **2. Benefits of the policy, challenges, obstacles and constraints encountered**

The success of the work has depended on getting and keeping the engagement of the STEM organisations. To date, the two large seminars have had between 60 and 70 attendees, the smaller network meetings have had 20-30 participants and a total of 37 organisations have signed the Charter. The other work of the STEM Co-ordinator in career pathways has supported this engagement. The benefits to the businesses which have contributed case studies to the report and /or have become STEM Charter signatories are that their good practice has been recognised and their profile as good employers has been enhanced. The sharing of good practice has been interesting in that potential competitors for talent are discussing problems and solutions on the basis that an improvement in the overall talent pool benefits not only the individual job-seeker, but the companies and the economy of Northern Ireland as a whole.

The three year secondment of the STEM Business Co-ordinator is due to finish in November 2015 and the Success through STEM Strategy is being reviewed. Owing to budget constraints, the Co-ordinator post is unlikely to be continued, but aspects of this work could be done within the Northern Ireland Civil Service. The challenges will be to make the networks sustainable and to keep the topics for the network meetings relevant to the needs of the businesses.

At the start of this project (2012), the Labour Force Survey indicated that only 25 percent of the 11 percent of high level STEM jobs in Northern Ireland were held by female, the current figure is now (2015) 30 percent. Whilst it is not possible to say what has caused this change, this work may have helped to support some of the increase, if only by raising awareness of the issue, engaging with the employers and sharing some potential solutions.

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