



## **Athena SWAN Silver department award application**

**Name of university:** The University of Sheffield

**Department:** Materials Science and Engineering (MSE)

**Date of application:** November 2015

**Date of university Bronze and/or Silver Athena SWAN award:**

University Bronze : 2009, 2012

**Contact for application:** Professor Beverley Inkson

**Email:** [beverley.inkson@sheffield.ac.uk](mailto:beverley.inkson@sheffield.ac.uk)

**Telephone:** 0114 2225925

**Departmental website address:** <https://www.sheffield.ac.uk/materials>

Athena SWAN **Silver Department** awards recognise that in addition to university-wide policies the department is working to promote gender equality and to address challenges particular to the discipline.

### **Sections to be included**

At the end of each section state the number of words used. Click [here](#) for additional guidance on completing the template.

#### **1. Letter of endorsement from the head of department: maximum 500 words**

An accompanying letter of endorsement from the head of department should explain how the SWAN action plan and activities in the department contribute to the overall department strategy and academic mission.

The letter is an opportunity for the head of department to confirm their support for the application and to endorse and commend any women and STEMM activities that have made a significant contribution to the achievement of the departmental mission.

**Letter of endorsement – Professor Neil Hyatt [499]**



The  
University  
Of  
Sheffield.

## Department Of Materials Science and Engineering

Athena SWAN Manager  
Equality Challenge Unit  
7th floor,  
Queens House  
55/56 Lincoln's Inn Fields  
London, WC2A 3LJ

**Professor Neil Hyatt**  
Royal Academy of Engineering Chair in Radioactive Waste Management  
Professor of Nuclear Materials Chemistry  
Head of Department of Materials Science & Engineering  
Sir Robert Hadfield Building  
Mappin Street  
Sheffield S1 3JD  
United Kingdom  
**Telephone:** +44 (0) 114 222 5502  
**Fax:** +44 (0) 114 222 5943  
**e-mail:** [n.c.hyatt@sheffield.ac.uk](mailto:n.c.hyatt@sheffield.ac.uk)

05 December 2015

Dear Athena SWAN Assessment Panel,

As Head of the Department of Materials Science and Engineering, I am delighted to write this letter of endorsement for our application for an Athena SWAN Silver Award.

As a Department, our strategic aim is to maintain our position as a global leader of research and education. To achieve this aim, and prosper as a cohesive and supportive working environment, we recognise the need to encourage, develop and channel the abilities of all staff and students, independent of gender. The principles of the Athena SWAN Charter are therefore embedded within the core values and strategic development of our Department.

Our commitment to gender equality extends across all aspects of our activity. Staff are passionately engaged in our vibrant Outreach and Recruitment programmes, which seek to attract the best minds, to engage young people in STEMM subjects, and use positive action to attract under-represented women. We work hard, and have been successful, in supporting highly achieving female PhD students to progress into postdoctoral research and win prestigious fellowships and academic positions. We have transformed our recruitment of new staff, and doubled our female academic numbers. We believe that flexible working should be normal working practice for all staff, enabling them to manage caring or other responsibilities, and we have achieved considerable progress, since our Bronze Award, in realising this goal.

As a Head, I am fully committed to driving forward our Action Plan, which will build on our Bronze Award activities and progress further positive changes in our working practice, to promote gender equality. As an example, we have achieved a remarkable pipeline of our female staff from fixed-term Research Associate to open-ended Academic Staff positions, against full international competition. In my leadership role, I am enthused by the prospect of developing and accelerating the academic careers of our new female staff, through our new Action Plan, which ultimately will transform gender balance at senior grades and deliver influential and inspirational female role models.


Through our self-assessment process, we have reflected on the visibility of our equality of opportunity activities. We have recognised that delivery of our new Action Plan requires leadership, and influence on planning and resource allocation. Henceforth, our Director of Equality & Diversity will be engaged as a member of our Department Executive Committee, and Senior Leadership team, and our annual strategic planning activity will embed and resource Action Plan objectives, over a five year time frame. This change in culture and practice will ensure that we are positioned to deliver our objectives with the continued engagement of our staff.



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ANNIVERSARY PRIZES  
FOR HIGHER AND FURTHER EDUCATION

In conclusion, I wish to acknowledge the passion and dedication of our Equality and Diversity Committee, who have steered development of Department policy, our self-reflection activity, and this Athena SWAN submission, under the leadership of Professor Beverley Inkson. Working around their busy professional and family commitments, they have contributed enormously to the continued evaluation and enhancement of gender equality and diversity in our working culture and practice, which will benefit all staff and students in the future.

Yours sincerely,

A handwritten signature in black ink that reads "Neil Hyatt". The signature is written in a cursive style with a long, sweeping underline that extends to the right.

Professor Neil Hyatt.

## 2. The self-assessment process: maximum 1000 words

Describe the self-assessment process. This should include:

- a) A description of the self assessment team: members' roles (both within the department and as part of the team) and their experiences of work-life balance

The self-assessment team of the Dept of Materials Science and Engineering (MSE), Sheffield, comprises 11 members, 7 female and 4 male, with a range of roles, experience and working patterns:

**Prof Dan Allwood** is Director of Student Support (2015-) and was Director of UG Admissions 2011-2014, implementing a range of equality actions. He has 3 children, is part of a dual academic career family and makes use of flexible working hours.

**Vanessa Dalton** is the MSE Recruitment Administrator (Recruitment/Staffing/Staff Appraisals), PA to the HoD and a Dept Women's Champion. She is married with 2 grown-up children and returned to full-time work in 2009.

**Dr Amy Gandy** joined the E&D committee as the Research Associate representative, leading the new MSE Researchers Forum. She is a newly appointed Lecturer in Nuclear Engineering (Sept 2015), with responsibility for developing a new cross-faculty General Engineering degree.

**Dr Russell Goodall** was Director of Outreach including the Schools Liaison Team 2012-2014, and is new Director of UG Admissions. He has a dual-career family, a son aged 2, and has just returned from paternity leave for newborn twins.

**Dr Claire Hinchliffe** is Manager of the large MSE Centre for Doctoral Training (CDT) in Advanced Metallic Systems, dealing with the training and progression of PhD students, and is a Dept Women's Champion.

**Dr Christopher Holland** is an EPSRC Early Career Fellow supporting the interests of early career Researchers, Head of the Natural Materials Group, incoming Director of Outreach, and a Dept Women's Champion. He is part of a dual academic career family and commutes from York.

**Prof Beverley Inkson** is Founder/Chair of the MSE Equality & Diversity Team (2011-), Chair of the SAT, Dept Disability Officer and member of Faculty E&D/Athena SWAN committees. She has a dual-career family, two children aged 11 and 14, and regularly uses the University school-holiday Playscheme. She has worked part-time since 2002, 60% FTE since 2005.

**Dr Nicola Morley** is Director of Postgraduate Research, overseeing the training and progression of PhD students. She has a dual academic career family, taken two maternity leaves (2009, 2012), works part-time 80% and has two children.

**Lucy Price** is the new Departmental Administration Manager (DAM, 2013-), overseeing operational delivery of support services, and business/strategic development support to the HoD/Executive Committee. Lucy represents MSE staff/students at Faculty and University level, and works flexibly on occasion.

**Dr Gwendolen Reilly** is Admissions Tutor for the cross-faculty Bioengineering degree, and MSE representative on the Steering Committee of the University's Women@TUoS NETwork. She took maternity leave in 2011/12, used the Women Academics Returners Programme (WARP), works flexibly and has one child.

**Prof Mark Rainforth** is a University Professor in Materials Science and Head of Department during the assessment period 2012-2015. He is married with two adult children, and is a Dept Women's champion.

In addition to the core team, other key participants involved in the Dept Athena SWAN application preparation include:

**Kate Watson**, Faculty of Engineering Athena SWAN Advisor.

**Liz Robinson**, Faculty HR Manager, Staff/student data.

**Prof Neil Hyatt**, incoming Head of Department (2015-), E&D planning for 2016-2019.

**Lauren Ashton**, MSE Marketing/Communications Officer, Facilitation of E&D webpages and surveys.

**Kerry Abrams, Rebecca Boston**; Coordinators of Postdoctoral RF input. [526]

- b) an account of the self assessment process: details of the self assessment team meetings, including any consultation with staff or individuals outside of the university, and how these have fed into the submission

As an outcome of our Athena SWAN Bronze self-assessment in April 2013, MSE made the conscious decision to upgrade our Women in Materials Team (SWIM) to a full Committee for Equality & Diversity (E&D) chaired by Prof Inkson. Since 2013 the E&D Committee has been fully embedded into the Dept management structure, with actions/outputs discussed at Staff Meetings. The E&D Committee Chair has given a more detailed E&D Annual Report, including data analysis, to the Dept each January. These communications have led to more direct engagement of staff in E&D processes.

The E&D team has met 6-8 times/year since April 2012, with an annual review of Committee membership to reflect current activity. In this self-assessment period, key team leaders and responsibilities were **Inkson**: *Chair/Action Plan*, **Allwood**: *UG progression*, **Morley**: *PG progression*, **Price/Dalton**: *Staff progression*, **Goodall/Reilly**: *Outreach/Dept Culture*.

Student and staff data has been analysed annually and benchmarked against local and national data. Annual data, internal policy reviews, feedback from our PDRA/Researchers Forum (2014-), student feedback, and annual MSE E&D surveys (2013-2015), have formed the basis for E&D discussions, planning and activities, including internal policy changes and organisation of focused events.

Within the University, additional consultation on women in STEM has been facilitated by regular discussions at Faculty of Engineering Athena SWAN/E&D focus meetings (4-6 times/year), and at University Women Professors Network and Women@TUoSNetwork events.

We also carried out in-depth discussions with the E&D/SAT Team and HoD **Prof Patricia Cowell** of the Dept of Human Communication Sciences (2015). This generated a really useful mutual exchange and insight into good practise in a completely contrasting social science Dept (majority women).

Our collaborative networking/discussions with women in STEMM external to the University, particularly on Female Career Progression, have included:

- **The Institute of Materials, Minerals and Mining (IOM<sup>3</sup>)** our professional body:  
We've organised and hosted three **IOM<sup>3</sup> Women in Materials: Career Development Events** (2012/2013/2015), enabling consultations with women from 20+ Materials Industries and academic institutions.
- **Women in SET (WiSET)**, Sheffield Hallam University: Careers events including *Women in Technology* (2014).
- **Sheffield City Council/White Rose Consortium**; Discussion Events on Women's Progression/Leadership in Sheffield with local female Leaders and Industrialists (2012-2015).
- **Professional Qualifications Workshop : Sarah Boad**, IOM<sup>3</sup> (Sheffield 2015), informed our new Qualifications strategy. [371]

- c) Plans for the future of the self assessment team, such as how often the team will continue to meet, any reporting mechanisms and in particular how the self assessment team intends to monitor implementation of the action plan.

The MSE E&D committee has been successfully embedded into the formal administrative framework of the Dept, and will continue to meet 6-8times/year to oversee and monitor the progress of the 2016-2019 Action Plan (with identified Responsibility and specific Targets). The E&D Chair will be appointed to the MSE Executive Committee, to enable strategic embedding of E&D Actions into the MSE Planning round.

MSE E&D will actively report progress to staff/students via presentations, an Annual Progress Report, website/intranet and email updates. Regular quantitative Feedback/Surveys will monitor impact of activities and scope new directions, particularly from new target groups including Professional/Support staff, LGBT+ and Disability. [103]

<< Action 1.1: Promotion of Gender equality within MSE, including Professional/Support staff >>

<< Action 1.2: Integration of Actions in Dept plan, Budgeting and Calendar>>

<< Action 1.3: Expansion of data tracking >>

[1000]

### 3. A picture of the department: maximum 2000 words

- a) Provide a pen-picture of the department to set the context for the application, outlining in particular any significant and relevant features.

The Department of Materials Science and Engineering (MSE) is one of nine academic departments within a growing Faculty of Engineering at the University of Sheffield. MSE currently has 41 academic staff (9 female; 4 part-time) and 54 Researchers (14 female). MSE is a culturally diverse department, with staff and students originating from over 40 different countries. The department is proud of its technical support services, and three of the five senior technician roles are held by women.

MSE is established as one of the UK's leading departments of Materials Science and Engineering, and maintains strong links to industry, securing sponsorship from c100+ industrial organisations and government agencies. Key research areas include Metallurgy, Advanced Manufacturing, Functional Materials, Materials Characterisation, Nuclear Materials and Biomaterials. The department hosts two Centres for Doctoral Training (CDT) in Advanced Metallic Systems and Nuclear Engineering (Nuclear FiRST) and is proud of the strong industrial involvement in its teaching programmes. MSE provides industrial collaboration for the majority of UG/PG student projects, helping student's career development.

Over the last 5 years MSE has expanded its range of taught programmes to UG and PG students, now offering 4 core UG and 14 PGT degree programmes, totalling ~160 students/year. In addition to the MSE Materials Science Courses described in the following UG data, MSE is also the main provider of the highly popular UG Bioengineering programmes, which since 2011 are coordinated separately by an Interdisciplinary Programmes Office (IPO).

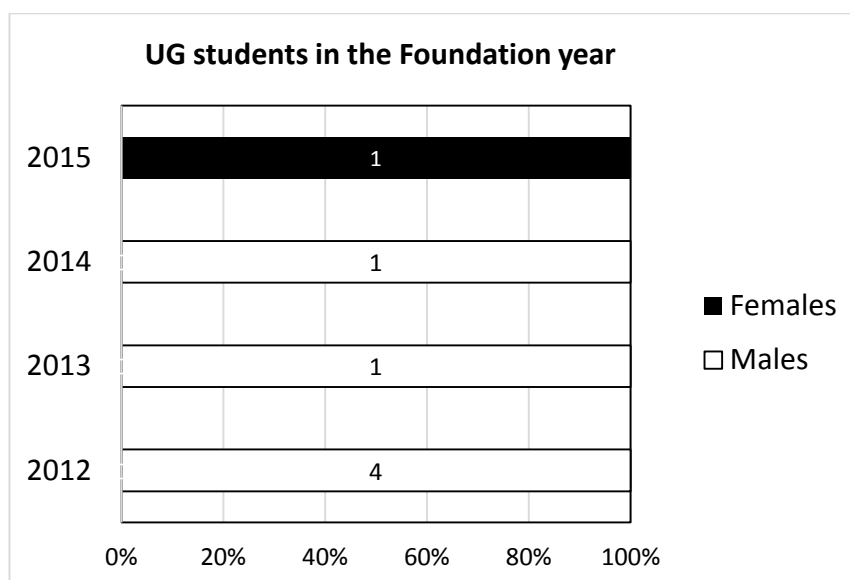
Sheffield University was voted number 1 in the Times Higher Student Experience Survey 2014/15, and the National Student Survey (NSS) results for MSE have risen year-on-year making it one of the top departments in the country, as voted for by the students. [279]

- b) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

#### Student data

- (i) **Numbers of males and females on access or foundation courses** – comment on the data and describe any initiatives taken to attract women to the courses.

MSE operates a foundation year for applicants with good grades in subjects that do not meet the requirements of the undergraduate degrees. Over the period 2009-2015 the numbers of students has been persistently small (total 2 female:11 male; same F:M applicant-to-entrant conversion rate), and are predominantly students who have previously pursued BTEC Engineering and other vocational qualifications with a low female ratio.



**Figure 1. Percentage of female and male students starting the MSE Foundation Year degree**

MSE is committed to maximising accessibility to its courses. Initiatives to attract women to Foundation/UG courses are coordinated by an **Outreach Team** and a **UG Admissions Team**. **Outreach** activities are crucial in Materials Science because although demand for Materials graduates outstrips the current supply, Materials is not a separate GCSE or A-Level subject and awareness of degree courses and potential careers is low. The Outreach team, led by **Dr Russell Goodall**, has been working with schools and teachers in the local and wider area, with active involvement of female students, researchers and staff acting as visible role-models. [159]

<< Action 2.1: UG Recruitment, Widening participation>>

- (ii) **Undergraduate male and female numbers** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the impact to date. Comment upon any plans for the future.

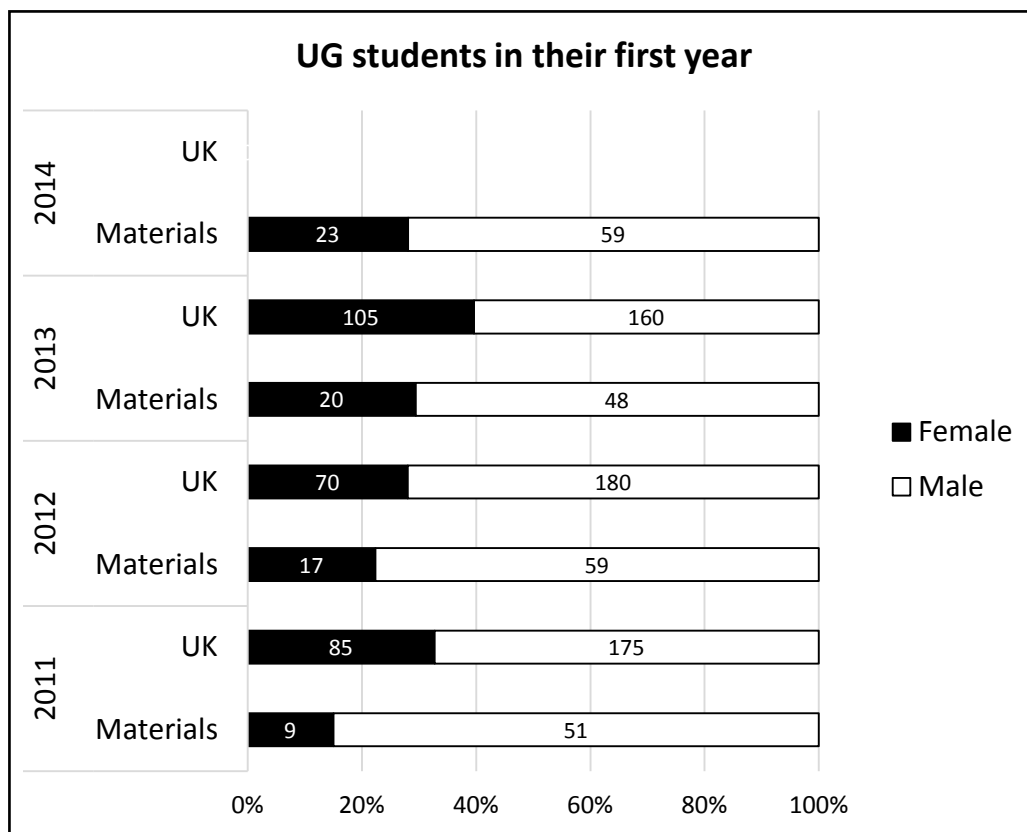
At the beginning of our Athena SWAN journey in 2011 our UG female numbers were low (15%), exacerbated by the move of our Bioengineering Courses (popular with females) into a new Interdisciplinary Programmes Centre.

Actions carried out 2012-2015 to address the MSE UG gender imbalance, implemented by the Admissions Team led by **Prof Dan Allwood**, include:

- Gender equality training of staff
- Increased access of applicants to female UG/PG/Staff during UCAS Open Days, including female PG/staff led laboratory demonstrations
- Full redesign of MSE UG brochures and website, including female/male parity in advertising/imagery and female case studies
- Use of social media (Facebook, Twitter) to communicate with applicants from 2013
- Interviews with female staff members where numbers permit



The numbers of female and male students starting undergraduate courses in MSE over the past four years are shown below (all full-time).



**Figure 2. Percentage of female and male students starting undergraduate degrees in MSE 2011 – 2014 and the national picture for UK Materials students 2011-2013 (HESA).**

Our actions have had significant impact on our UG numbers.

Over four years, our UG female ratio has almost doubled increasing **15% → 28%**. Furthermore our MSE intake numbers have risen by 37% in the same time, meaning our actual female intake numbers have increased 9 → 23, an **increase of 160%**.

Our UG female ratio is now significantly higher than the local Faculty of Engineering (18%-2014). The UK UG female ratio in Materials-related courses (HESA) has been 28%-40% over the same time period, so we still have scope for further progression. [234]

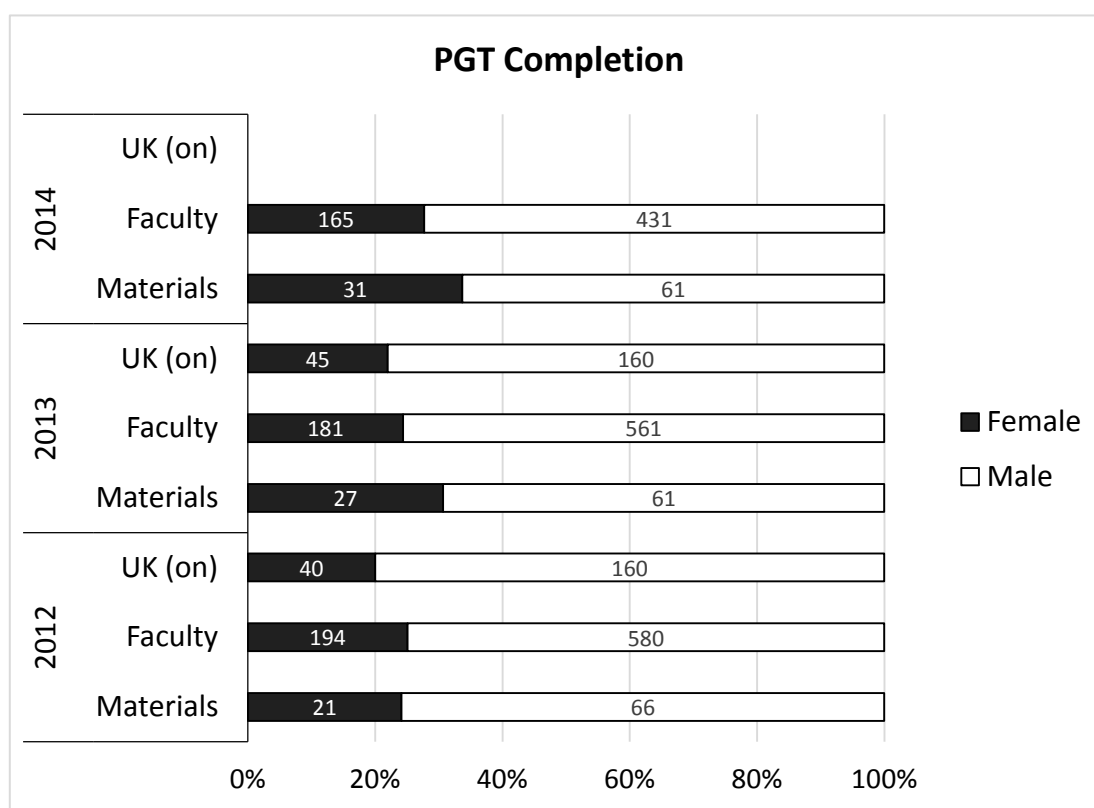
<< Action 2.1: UG recruitment; Widening participation including new Bursaries, improved communication with overseas applicants, careers promotion and new UG Careers brochure >>

- (iii) **Postgraduate male and female numbers completing taught courses** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

MSE runs 14 taught courses for Postgraduate students. Up to 2012 there were ~30-60 students per year, of which ~20-25% female. Over the last 3 years departmental initiatives to attract more female applicants have included:

- Improved PGT website (first place prospective PGT students look) - more course/environment information, gender-balanced imagery, easily-navigated pages
- Female and male PGT case studies, employability information
- eNewsletters, PGT-Facebook
- SKYPE interviews
- PGT Director visits (Asia, EU)
- English Language support for PGTs & PGRs

The numbers of female and male students completing MSE PGT courses over the past three years are shown below. There have been 3 part-time students 2012-2014, all male.



**Figure 3. Percentage of female and male Postgraduate students completing taught courses in MSE and the Faculty of Engineering, and National total number of students on PGT courses across the UK (HEIDI database).**

Improvements in our PGT Admissions processes and Course design have had significant impact on our annual numbers of PGT students.

Over the last 5 years, the number of MSE PGT students finishing the range of MSc degrees has substantially increased **26 → 92** students. This is compared to a fairly constant number of ~200 students annually on Materials PGT degrees (J2/J5 HEIDI) nationwide. Over the same period 2010-

2014, the actual number of women completing MSE PGT courses has increased 7 → 31, an increase of **340%**.

Our initiatives over the last three years have resulted in a continuous improvement in our MSE PGT female ratio, increasing **24% → 34%** (increase of 42%). This PGT female ratio is higher than both the local Faculty of Engineering average (28%, 2014) and the UK national number of PGT students on Materials-based courses (22%, 2013). [251]

<< *Action 2.1: PG recruitment, Widening participation, Webinars for Overseas applicants* >>

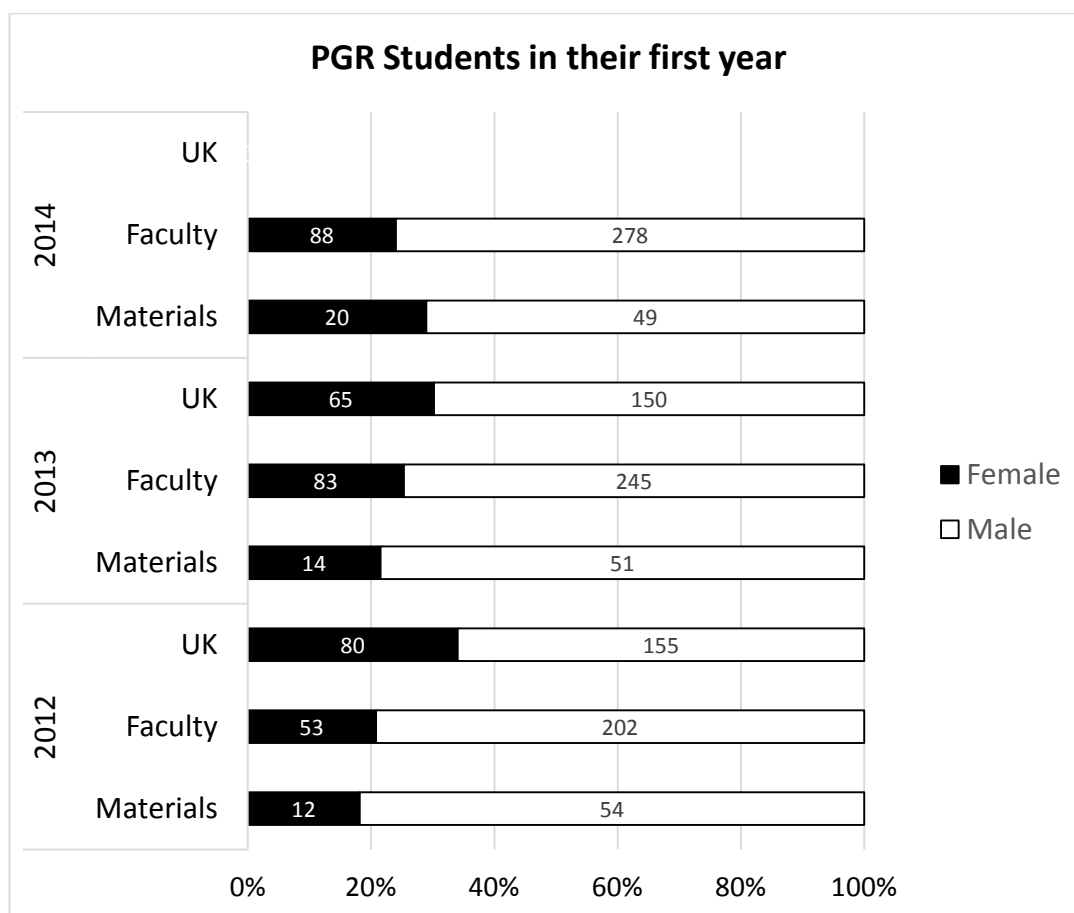
<< *Action 2.3: Improve PGT completion rate - PGT pastoral support* >>

- (iv) **Postgraduate male and female numbers on research degrees** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

The MSE dept has a strong track record in research and successful male and female PGR students. Maintaining PGR numbers is challenging in an environment of reducing Research Council funding, UK competition for Centres for Doctoral Training (CDT)) and fluctuating international student numbers. Dept Initiatives to attract more female applicants have included:

- **Overhaul of PGR website;** Improved design/easily-navigated pages, more information increased female imagery (substantially increased hit-rate)
- **Use of female case studies and videos;** including women who have had a maternity leave and become mothers during their PhDs.
- **Improved application process;** faster response times, improved communications with overseas applicants, information on Scholarships/Bursaries.
- **Introduction of interviews** for all candidates has significantly increased offer acceptance rate
- **Improved PGR environment;** £500k investment in PGR workspace/laboratory facilities which prospective students visit or see by virtual tour online (2014-)

The numbers of female and male students starting research degrees in MSE over the past three years are shown in Fig 4. There have been only 2 part-time students 2012-2014, both male.



**Figure 4. Percentage of female and male postgraduates in their first year of study for research degrees in MSE, Faculty of Engineering, and National number of PGR students in their first year of study across the UK (HEIDI database).**

Over the last three years (2012-2014) the impact of the pro-active PGR recruitment actions has been a significant increase in MSE PGR female ratio **18% → 29%**. Furthermore actual female student intake numbers have increased from **12 → 20**.

The **67%** increase in female numbers is partly due to the inclusion from 2014 of CDT students whose PhD projects start in MSE in their 2<sup>nd</sup> year within the MSE PGR first-year head-count. The female ratio of the CDT students (all UK home) is comparable to those supported by other funding streams. The MSE department runs the Advanced Metallic Systems CDT, and takes PGR students from 5 further CDT's.

The MSE PGR intake is typically ~25% of the whole Faculty of Engineering. Compared to the National picture however, MSE still has a lower percentage of females than the number nationally in Materials-related courses (HEIDI). Increasing PGR female numbers therefore remains important, including increasing the number of home female PGR applications. We also aim to prioritize the development of PGR careers support. [341]

<< Action 2.1: PG recruitment, Widening participation, Communication with overseas applicants >  
<< Actions 2.2, 4.3: Careers Support and Mentoring for female PGR>>

- (v) **Ratio of course applications to offers and acceptances by gender for undergraduate, postgraduate taught and postgraduate research degrees –** comment on the differences between male and female application and success rates and describe any initiatives taken to address any imbalance and their effect to date. Comment upon any plans for the future.

### Undergraduate degree admissions

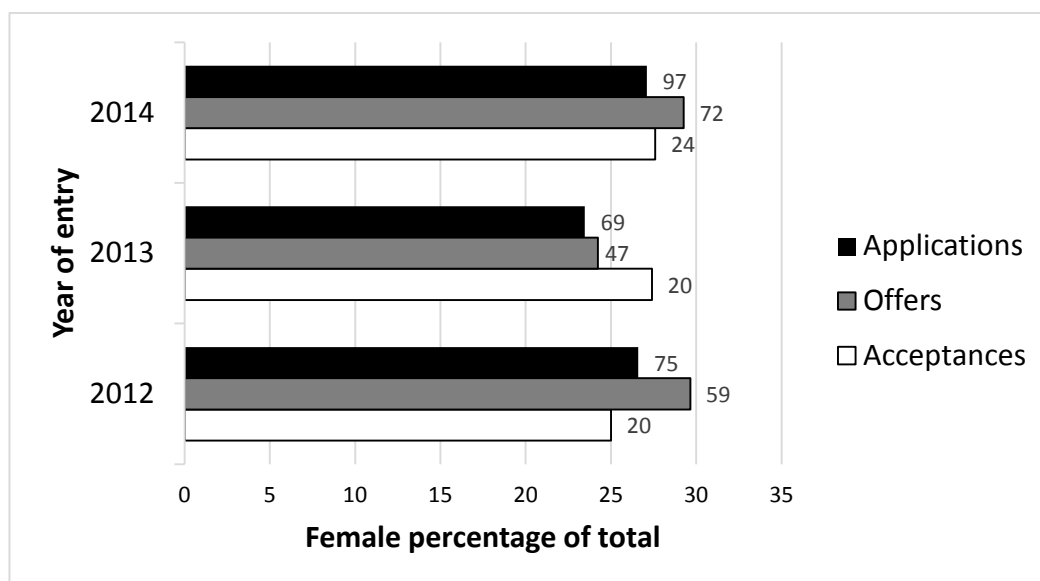


Figure 5. MSE female undergraduate applicants, offers and acceptances as a percentage of total applicants, by year of application.

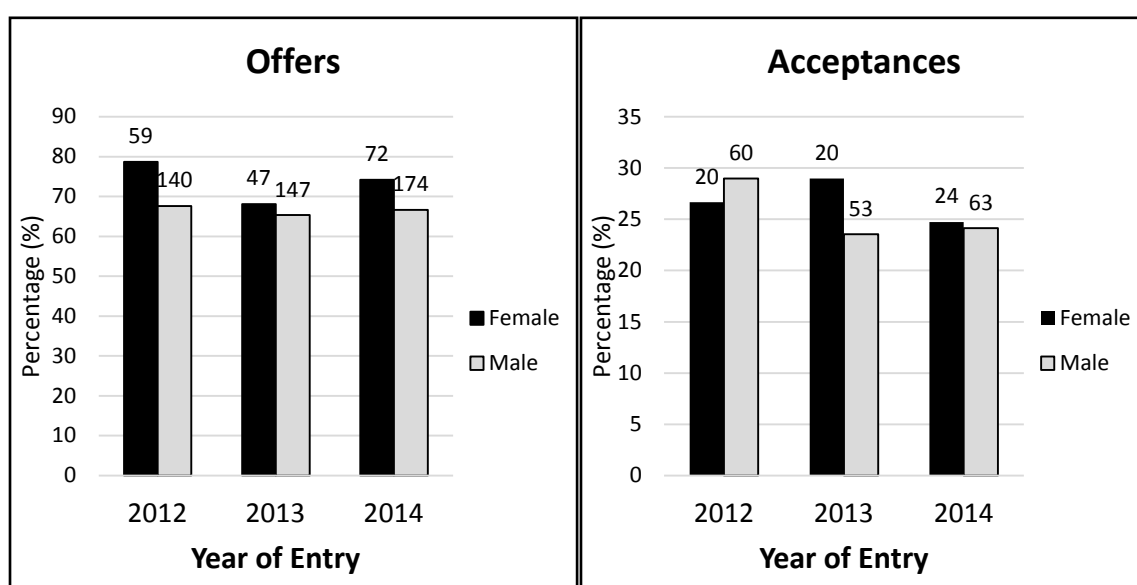


Figure 6. MSE female and male undergraduate offers and acceptances, as a percentage of their application numbers, by year of application.

Data analysis reveals that both female and male UG applicant numbers are increasing, with female ratio ~25%. A consistently higher proportion of women UG applicants receive offers of places than men (Fig 6). There is a slight, but consistent drop in the proportion of all applicants receiving offers, occurring in line with generally increasing requirements for entry (AAA for MEng courses, AAB for BEng courses for 2015 entry).

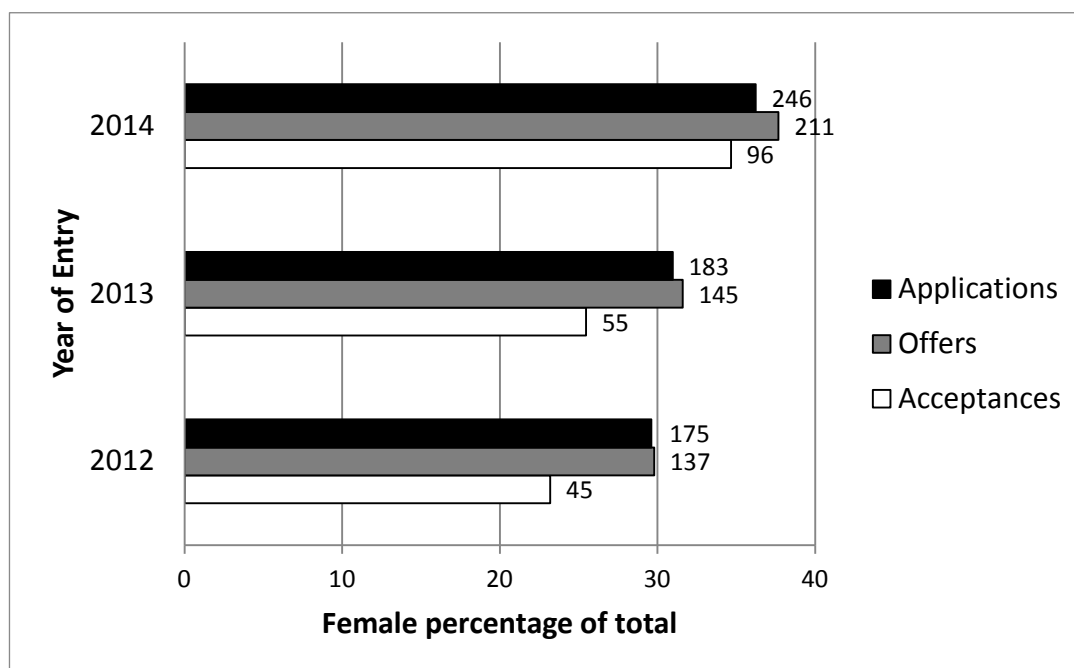
The ratio of women accepting their offers has significantly increased with our admissions actions, from 15-20% (prior to 2011) to >25% (2012 onwards), with an increase in overall female proportion of acceptances up to **28%**.

There is evidence that our action in having a strong female presence at open days is having particularly positive impact, with female home students who visit the department meeting staff and students, being more likely to accept an offer than male students. [145]

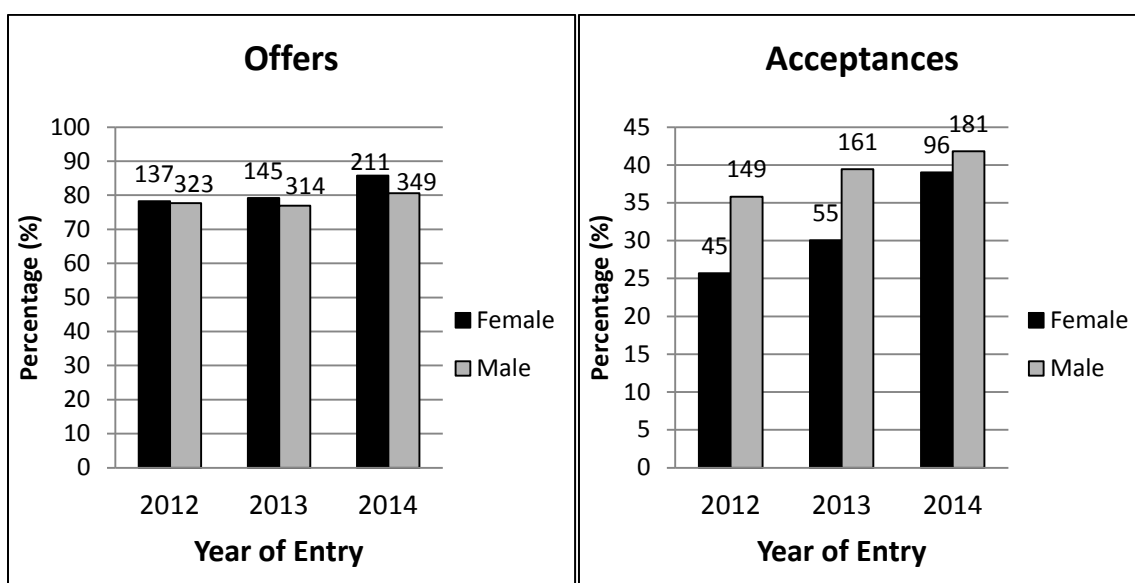
<< Action 2.1: UG recruitment, Widening participation including new Bursaries, improving acceptance rate of overseas applicants, enhanced promotion of Careers in Materials>>

<< Action 4.3: UG career mentoring>>

#### Postgraduate taught degrees



**Figure 7. MSE female postgraduate taught applicants, offers and acceptances as a percentage of total applicants, by year of application.**



**Figure 8. MSE female and male postgraduate taught degree offers and acceptances, as a percentage of their application numbers, by year of application.**

Changes in our PGT admissions strategies and course design have had significant impact, and over the last 5 years our PGT student numbers have grown enormously by **250%**. Actions have included increased personal contact during admissions and overhaul of digital media including female case studies and information on employability.

Our ratio of female applicants has grown from **~25%** (prior to 2011) to **>35%** (2012 onwards). Around **~95%** of our female applicants are from overseas.

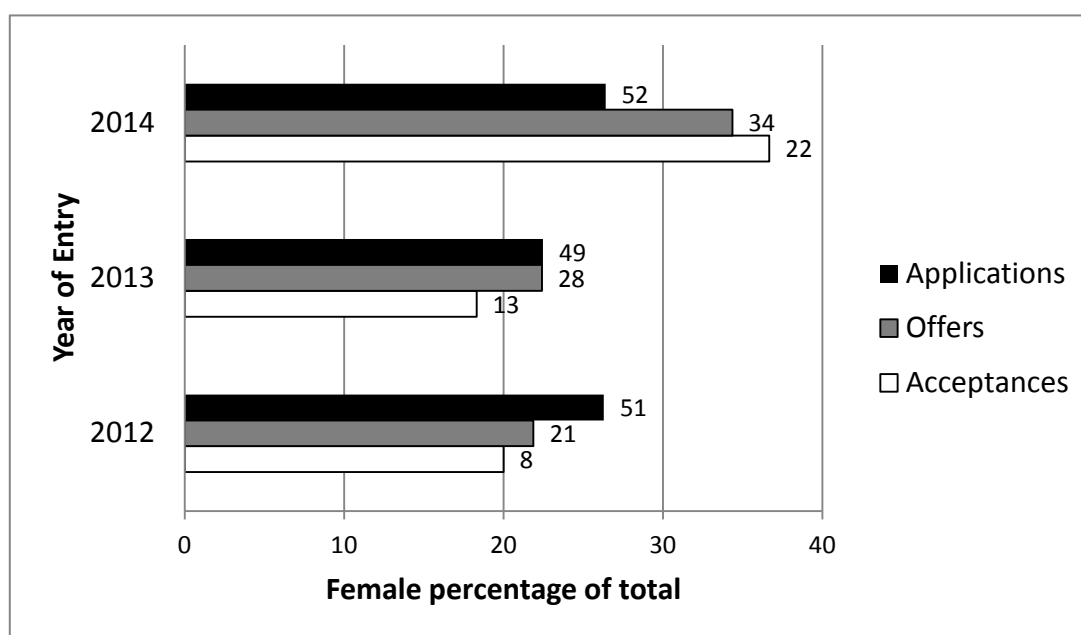
Over the last 3 years, a higher proportion of female applicants have received offers of places than men (Fig 8). A significant rise in the proportion of women accepting their offers has occurred, rising to **~40%** of female applicants in 2014 (Fig 8).

Overall between 2012-2014 our female ratio of the total accepted PGT places has risen from **23% → 35%**, (increase of 52%) comparable to the significant rise in female applicants. Encouragingly, impact in PGT admission numbers has converted to a similar increased female ratio (34%) in PGT completion. [163]

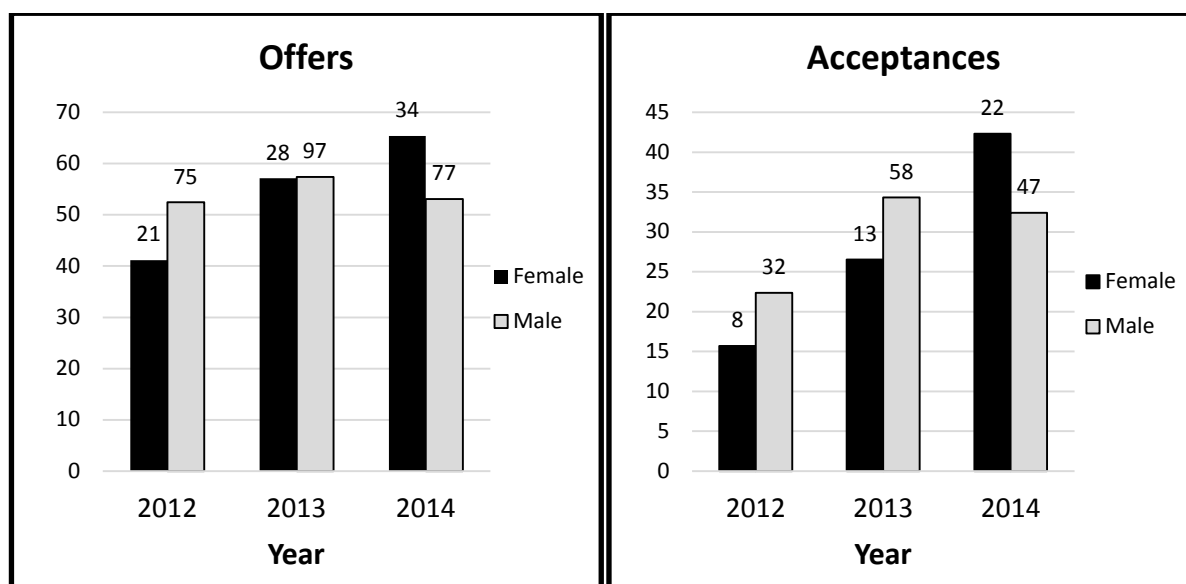
*<< Action 2.1: PG recruitment, Widening participation, increasing home student numbers >>*

*<< Actions 4.2, 4.3: Career development and mentoring >>*

## Postgraduate research degrees



**Figure 9. MSE female postgraduate research applicants, offers and acceptances as a percentage of total applicants, by year of application.**



**Figure 10. MSE female and male postgraduate offers and acceptances, as a percentage of their application numbers, by year of application.**

Over the last three years ~50 women/year have directly applied for MSE PGR positions (Fig 9), although MSE also takes additional PGR students via 6 separate CDT programme entry routes. In 2012 40% of female applicants received offers (50% of men), but there has been an upward trend to 65% in 2014 (52% for men) (Fig 10). An upward trend of **15% → 42%** of female PGR applicants accepting offers has resulted in a significant increase in the female ratio of total accepted PGR places over the last three years of **20 → 36%** (increase of 80%) and actual female acceptances **8 → 22**.

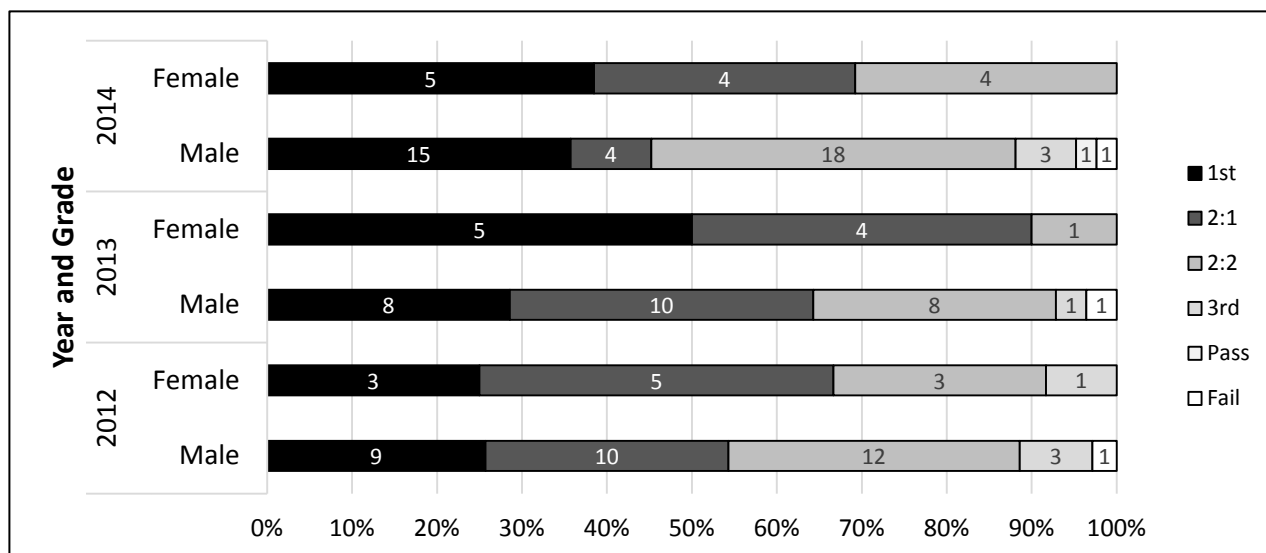


Improvements in our PGR admissions processes and PGR environment have had clear impact on our female applicant→ accepted offer conversion rate, particularly our decision to interview all candidates in person or via Skype before an offer is made. [138]

<< Action 2.1: PG recruitment, attracting more high quality female applicants (direct and via CDT schemes) >>

<< Actions 2.2, 4.2, 4.3: Careers Support and Mentoring for female PGR >>

- (vi) **Degree classification by gender** – comment on any differences in degree attainment between males and females and describe what actions are being taken to address any imbalance.

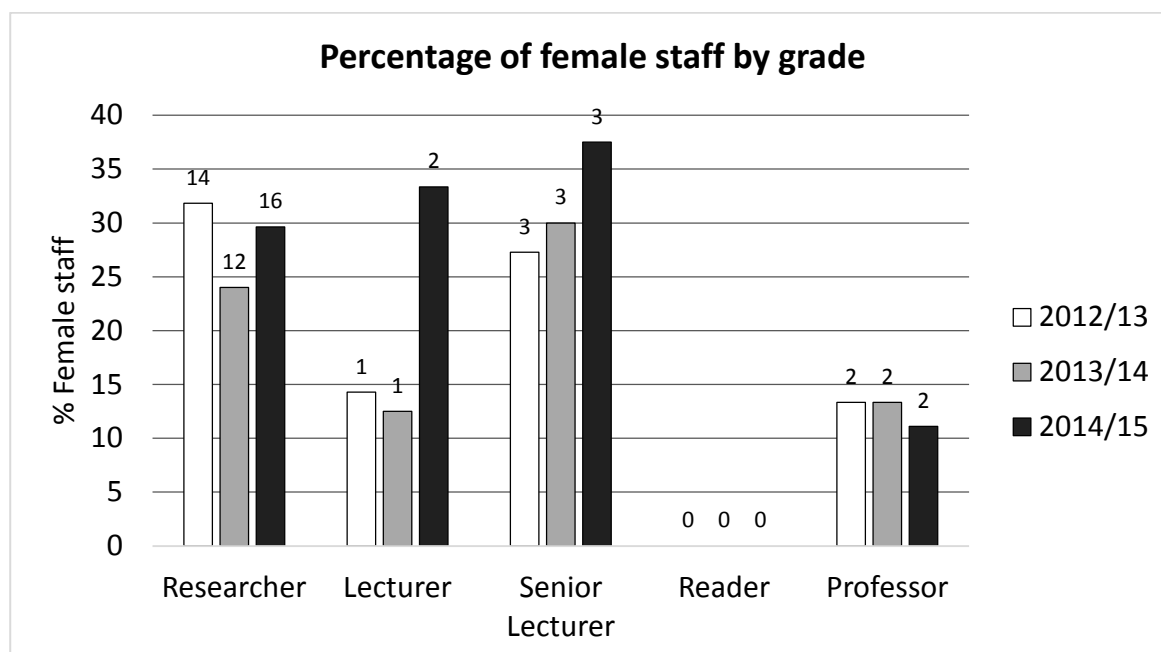


**Figure 11. Undergraduate degrees awarded by grade and gender for 2012, 2013, 2014.**

The data shows that for MSE UG degrees awarded in 2012-2014, a consistently higher proportion of female students achieved 1<sup>st</sup> + 2.1 classifications compared to male students. Levels of degree attainment will continue to be monitored by gender, particularly as the Bioengineering courses are removed from 2014 onwards. [48]

## Staff data

- (vii) **Female:male ratio of academic staff and research staff** – researcher, lecturer, senior lecturer, reader, professor (or equivalent). comment on any differences in numbers between males and females and say what action is being taken to address any underrepresentation at particular grades/levels



**Figure 12. Percentage of female academic and research staff by grade.**

At the start of our Athena SWAN work in 2011 we had 4 female academic staff. Since then we have appointed 3 female Lecturers (2012, 2014, Sept 2015), a Senior Lecturer (2011) and a tenure-track Fellow (2014). Two female Lecturers were promoted to Senior Lecturer in 2013. Our female academic staff numbers have thus more than doubled in four years, however the data shows that there is still female under-representation at all grades, with percentage of female academics dropping through the grades from 33% Lecturer to 11% Professor.

We now have >10% more female Researchers, Lecturers and Senior Lecturers than the local Faculty of Engineering averages, and MSE also has 2 out of the 5 Faculty of Engineering female Professors (93 male). However compared to other STEMM categories our female ratios are still poor, particularly at higher grades.

Equitable recruitment, career development and promotion exist at the heart of the department strategic plan, and subject to opportunities it is one of our key priorities to optimise our appointment strategies to tackle female underrepresentation particularly at higher grades. [177]

<< Action 3.1: Female staff recruitment >>

- (viii) **Turnover by grade and gender** – comment on any differences between men and women in turnover and say what is being done to address this. Where the number of staff leaving is small, comment on the reasons why particular individuals left.

Table 1 : Staff turnover by grade and gender								
	% Turnover, Female Staff				% Turnover, Male Staff			
	2011/12	2012/13	2013/14	2014/15	2011/12	2012/13	2013/14	2014/15
<b>Researcher</b>	4.7	58.8	76.9	40.0	33.0	55.6	34.3	28.2
<b>Lecturer</b>	0.0	0.0	0.0	0.0	0.0	0	0	0.0
<b>Senior Lecturer</b>	0.0	0.0	0.0	0.0	14 (1)	0	0	20 (1)
<b>Reader</b>	0.0	0.0	0.0	0.0	36 (2)	0	0	0.0
<b>Professor</b>	0.0	0.0	0.0	0.0	0.0	7 (x1)	0	0.0

% Turnover = No. Leavers/Average Staff number \*100

Data in Table 1 indicates that annual turnover for female and male Research staff remains erratic. This is reflective of the nature of the funding via fixed-term grants for specialist research projects typically lasting 2-3 years. There is no evidence of a systematically higher turnover of either gender.

Academic turnover within the department remains extremely low with no female academics leaving the department in the last 6 years. In the last three years two male staff have left, one Professor retiring and one senior lecturer securing a Professorship elsewhere. [89]

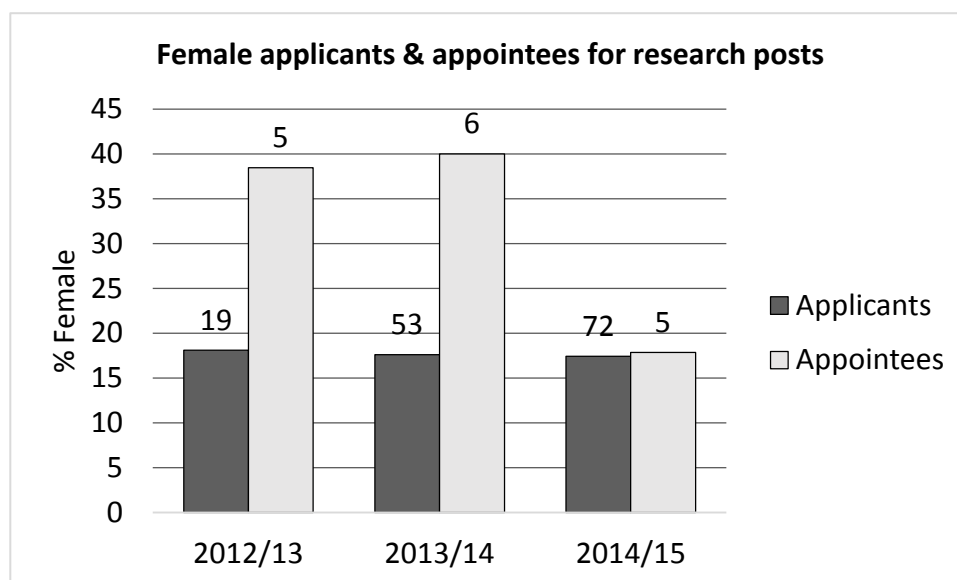
[2024]

#### 4. Supporting and advancing women's careers: maximum 5000 words

##### Key career transition points

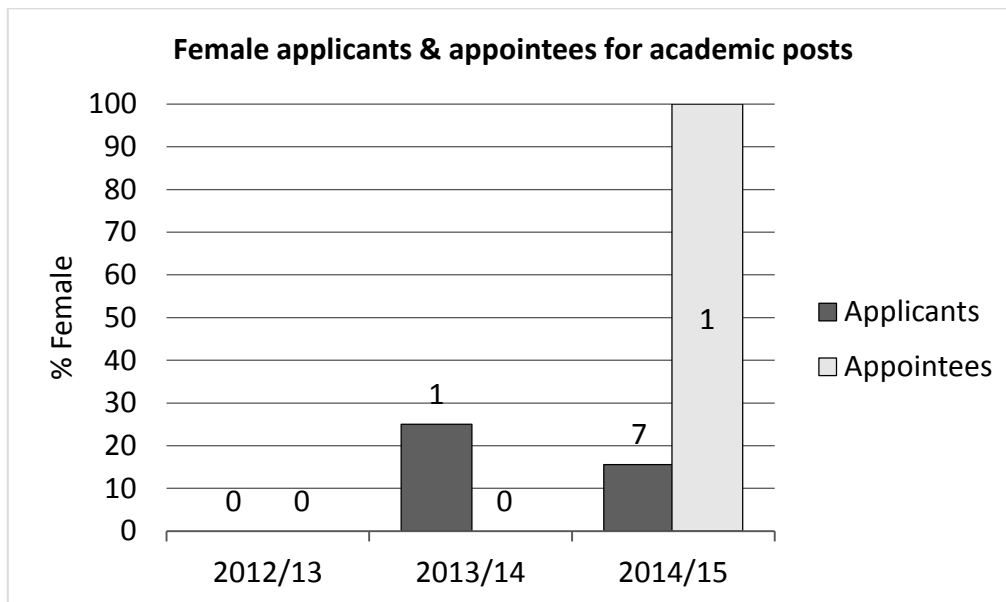
- a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.
- (i) **Job application and success rates by gender and grade** – comment on any differences in recruitment between men and women at any level and say what action is being taken to address this.

Job application and appointee rates by grade and gender are available from HR for applicants who self-identify their gender.



**Figure 13. 2012-2014 Percentage of female job applications and female success rates for Research posts in MSE (self-identified women).**

2012-2014 the data shows that for Researchers, self-identified female applicants were consistently ~18% of candidates, and 18-40% of appointments, with a higher average success rate than male candidates.



**Figure 14. 2012-2014 Percentage of female job applications and female success rates for Academic posts in MSE (self-identified women)**

	Number of posts	Female appointments	Male appointments	% Female
<b>University Teacher</b>	0	0	0	0%
<b>Lecturer</b>	1	1	0	100%
<b>Senior Lecturer</b>	0	0	0	0%
<b>Reader</b>	0	0	0	0%
<b>Professor</b>	1	0	1	0%
<b>Total</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>50%</b>

Between 2012-2014 there were only two MSE academic staff appointments, in Nuclear Fusion and Bioengineering (Table 2). These attracted ~20% female applicants (Fig 14), and 1 female **Dr Vanessa Hearnden** and 1 male **Prof Brad Wynne** were appointed. In addition, **Dr Claire Corkhill** was appointed in 2014 to a highly competitive *Vice-Chancellors Fellowship* (Sheffield tenure-track Lecturer position), and **Dr Amy Gandy** newly appointed to Lecturer in Sept 2015. Also in 2015, three female senior technicians have been appointed (3F:2M), indicating positive progress and promotion of these career paths for women.

From the MSE data, there is no evidence for bias against women during the research and academic appointments processes, and the female appointment rate is higher than the application rate. However the low 15-20% percentage of female applicants is still concerning.

Positive actions to tackle the gender imbalance have included developmental support for internal female staff, gender-neutral job descriptions, and female-friendly marketing including

commitment to appoint with flexible and part-time working options stated clearly in all recruitment campaigns.

Staffing Actions are a priority for MSE, especially given the upcoming expansion of a new Sir Henry Royce Institute. Actions will include an in-depth review of staffing strategy investigating creative and innovative approaches to a flexible and adaptive working environment. [255]

*<< Action 3.1: Female staff recruitment; review of staffing strategy, pro-active headhunting of external candidates >>*

*<< Actions 4.2-4.4: Female staff recruitment; developing the internal skills pipeline including Professional/Technical Services >>*

- (ii) **Applications for promotion and success rates by gender and grade** – comment on whether these differ for men and women and if they do explain what action may be taken. Where the number of women is small applicants may comment on specific examples of where women have been through the promotion process. Explain how potential candidates are identified.

In MSE, all staff are annually invited to submit cases for promotion to the MSE Promotions Panel (HoD, Senior academics/management, HR), which decides which candidates will be put forward to the annual Faculty of Engineering promotion round. A direct self-submission route to the Faculty is also available for those not endorsed.

In the period 2012-2014 there were only two female academics who were at the career stage for promotion (not newly appointed or Professors), and both of these were put to Faculty panel, being promoted in 2013 to Senior Lecturer. Although small numbers, the success rates at the Faculty Panel were higher for females (50%) than males (27%).

We have been working on our promotions process, including:

- Line managers/academics pro-actively identifying and encouraging female staff with potential to apply for Promotion.
- One-to-one HoD mentoring discussions with female academics to identify support required to develop their CV.
- Circulation of promotions information prior to call for candidates.
- New MSE promotions panel procedures; at least two 'sponsors' from the panel speak for each case with a remit to consider the balance of allocated load, non-metric aspects such as leadership, work-life balance, and a holistic overview of the individual.
- One-to-one feedback is given by HoD to all promotion candidates.

Our pool of female academics eligible for promotion has grown three-fold with recent appointments, and female technical/research support staff increased. However we still need to increase female ratios in senior-roles. [240]

*<< Action 3.2: Understanding of promotions criteria/procedures across all staffing groups >>*

*<< Action 4.1: Female academic development; access to senior-role and leadership experience, advertising of job opportunities >>*

*<< Action 4.2: Career development of Researchers >>*

*<< Action 4.3: Career Mentoring of all staff including Professional/Technical Support >>*

- b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

- (i) **Recruitment of staff** – comment on how the department’s recruitment processes ensure that female candidates are attracted to apply, and how the department ensures its short listing, selection processes and criteria comply with the university’s equal opportunities policies

MSE recruitment complies with University of Sheffield recruitment and equal opportunity processes and procedures, and endorses the Faculty of Engineering’s strategy supporting Women in Engineering.

Specific MSE actions have included:

- Gender-neutral job descriptions.
- All Job Particulars for MSE advertised posts include stated commitment to exploring flexible working opportunities with staff.
- The MSE Applicants Pack/Job Particulars include web-links to family-friendly information including flexible working, Maternity/Paternity/Adoption leave and University Nursery/Playschemes.
- Information on employee benefits available through HR package ‘The Deal’, including purchase of additional annual leave.
- All advertised posts and job descriptions highlight the MSE and University Athena SWAN Bronze Awards, and commitment to gender equality.

During the selection process, our actions have included:

- MSE committing to long-listing 20% more female candidates for academic posts than the proportion applying wherever possible.
- Embedding practice that all MSE interview panels include at least one female academic panel member. It is an expectation that all panel members have undergone E&D/UB training.
- On interview days, time is set aside for informal discussions with MSE staff with knowledge on work-life balance issues, including childcare.
- All MSE recruitment processes are monitored for gender equality.

Between 2012-2015, the impact of our work on recruitment of staff is demonstrated by:

- A doubling of our female academic staff numbers in four years
- Attraction of high-quality female Researcher and Academic job applicants (a higher female appointment rate)
- A significant increase in our female technical staff numbers.

However, our female ratio of job applicants is still persistently at ~15-20%. [251]

*<< Action 3.1: Female staff recruitment; appointment of external Female Advisors, pro-active headhunting of external candidates >>*

*<< Actions 4.1-4.2: Female Academic/Researcher development, developing the internal skills pipeline including Professional/Technical Services >>*

*<< Action 1.4: Embedding equality and diversity training for all staff >>*

- (ii) **Support for staff at key career transition points** – having identified key areas of attrition of female staff in the department, comment on any interventions, programmes and activities that support women at the crucial stages, such as personal development training, opportunities for networking, mentoring programmes and leadership training. Identify which have been found to work best at the different career stages.

Our **Successful Women in Materials (SWIM)** agenda is at the core of activities of the MSE Equality and Diversity Committee, finding innovative ways to develop the career paths of women staff and students, and creating an environment in which all members of the department can thrive.

### **Researcher→Lecturer**

In MSE female staff turnover is most rapid in the fixed-term research posts, due to the short-term nature of the funding and specialist expertise required. One of our key actions has been the establishment of a new Materials Science **Researchers Forum (RF)** to support staff at this key transition point Researcher → permanent Academic (or Industrial employee).

**MSE Researchers Forum** : This new group, run by Researchers for Researchers, now provides the framework for regular Researcher meetings, Materials Career events, and provides Researchers with a voice within the department.

Activities so far have included:

- Monthly Coffee/Networking mornings for peer group support
- A IOM<sup>3</sup> workshop on how to apply for Professional Qualifications
- Presentations on **Think Ahead** (mentoring), Appraisals and Fellowships
- Women's Engineering Society (WES) and STEM Ambassador presentations
- Talks on Career Paths in Materials Engineering (academic and industry speakers)
- Researchers Feedback/Wish-list to the E&D committee

The leadership experience gained by **Dr Claire Corkhill** and **Dr Amy Gandy** in establishing the RF has been very beneficial to their career progression, with both being appointed to tenured academic Lectureships within the department.

Other positive actions to aid development of MSE Researchers have included:

- Annual personal development discussion at SRDS interviews
- Encouragement to take on (restricted) teaching responsibilities
- Cover of academic staff career-breaks (maternity leaves/Academic Sabbaticals) by temporary University Teaching Lectureships (3 female).
- Encouragement to develop research independence, including support for grant applications and conference participation
- Mentoring of Fellowship applications

Advanced Research Fellowships (e.g. EPSRC/RAE/Royal Society) have been very important as a career stepping stone to many MSE Lectureship appointments in the last 10 years. Our support



includes mentoring through the application process, review of applications by the MSE Executive Committee, and dry-run interviews with feedback.

Our actions have aided the career progression of MSE Researchers, with an outstanding achievement of seven Sheffield Lectureship appointments including **Dr Cornelia Rodenburg** (MSE/2012), **Dr Xinshan Li** (Mechanical Engineering/2013), **Dr Claire Corkhill** (MSE/2014), **Dr Ilida Ortega** (Dentistry/2014), **Dr Vanessa Hearnden** (MSE/2014), **Dr Susan Bernal-Lopez** (Civil Engineering/2015) and **Dr Amy Gandy** (MSE/2015).

## Lecturer →Professor

Our female academic numbers have increased 4→9 in the last 4 years, and no female academic staff have left. Individual personal development training and career support is discussed annually within the Staff Review and Development Scheme (SRDS), and participation in mentoring and leadership programmes supported. MSE female Academics and Researchers have attended a wide range of personal development courses/events including:

- **HR Mentoring Schemes**
  - **Think Ahead** –research staff
  - **Impact** –female lecturers
  - **Futures** – mentoring for female academics interested in pursuing senior governance and leadership roles
- **The Sheffield Leader** - 4 levels of leadership training for all staff grades
- **Sheffield Teaching Assistant** - Professional development workshops for researchers involved in teaching
- **University Women@TUOS-NET Network** and **Female Professors Network** : Discussion meetings and events with inspirational women to support personal and career development. **Dr Gwen Reilly** (MSE) is on the Women@TUOS-NET Steering Group.

All female staff are encouraged to build their networks and experience of leadership roles, within MSE and outside the department (Faculty/University/UK). 2012-2015 we have achieved real networking changes within the MSE department, improving communications across staff-groups, with the Research Forum, regular Staff Coffee, redesigned all-Staff meetings and Alumni Networking.

We are also expanding our career development of technicians, for example Teaching Technician **Claire Johnson** has been successfully supported by MSE, received **Fellowship** status from The Higher Education Academy (HEA) and was subsequently promoted to University Teacher. To work with staff and students on Professional Qualifications, including Chartered Engineer (CEng), we are setting up a **Qualifications Club**. [630]

*<< Action 4.1: Female academic career development; access to senior-role and leadership experience, advertising of job opportunities >>*

*<< Action 4.2: Career development of Researchers; PhD-to-Researcher support, Networking/Collaboration with Industry (now crucial across all Materials Career paths) >>*

*<< Action 4.3: Career Mentoring of all staff including Professional/Technical Support >>*

*<< Action 4.4: Supporting female Research Fellowship applications >>*

*<< Action 4.5: Networking with women in UK Materials academia and industry >>*

## Career development

- a) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.
  - (i) **Promotion and career development** – comment on the appraisal and career development process, and promotion criteria and whether these take into consideration responsibilities for teaching, research, administration, pastoral work and outreach work; is quality of work emphasised over quantity of work?

All staff participate annually in the University of Sheffield **Staff Review and Development Scheme (SRDS)**. MSE has almost 100% compliance in this scheme each year.

The SRDS process serves as a mechanism to ensure and promote dedicated conversations between managers and staff, focusing on quality feedback, future planning and discussions around career aspirations. At their appraisal staff discuss with their line manager or allocated senior academic (choice available) their progress against key responsibilities (teaching, research, administration, pastoral, outreach). The volume of activities and responsibilities is discussed with reference to those jobs modelled in the current work-load model (WAM), and takes into account to the actual time worked (e.g. part-time).

This annual reflection of progress informs discussion of future objectives and support/development required for future career aspirations. New objectives and plans for personal career development are agreed, listed in an SRDS report, and fed into a Departmental Review Panel (DRP; comprising senior academic/technical/professional/HR staff; 5F:6M), enabling the department to respond to staff needs. MSE has pro-actively nominated female staff for courses, identified potential promotion cases, and identified training opportunities that can be arranged 'en masse'. SRDS outcomes contribute to the departmental Staff Development Plan, which in turn feeds into the departmental strategic plan each year.

The SRDS process provides opportunities for individual staff to consider, and receive support for, submission of promotion cases. The annual Promotions process occurs two months after the SRDS, and all staff are invited to submit cases for promotion. Significant effort has been put into encouraging and mentoring women through the promotions process.

Criteria on promotion to different grades, and required evidence, follow University guidelines. The candidate's CV/application follows a HR template with sections on teaching, research, leadership and administration. Pastoral and Outreach work appear in promotion criteria for some grade profiles. In MSE the Promotions Panel takes into account all of an individual's achievements, and from 2016 MSE applicants will be explicitly invited to include pastoral work, outreach work and impact of working patterns on their applications. MSE Promotion applications approved by the internal panel then pass to the Faculty of Engineering Promotions panel for decision.

In addition to SRDS and Promotions, a new continual reward system 'The Deal' is being introduced by the university to replace a previous annual bonus mechanism. Nominations of staff will enable small rewards e.g. ~£100 to be awarded for positive behaviour and achievements of high quality. This system will be monitored for gender bias, and used to reward good practise in gender equality throughout the department.

Our Dept and RF surveys reveal that within the Technical Support groups and high-turnover fixed-contract early career Researchers, there is variable knowledge of career development opportunities including perception of SRDS, understanding promotion criteria and value of skills. [453]

*<< Action 1.5: Rewarding E&D good practise, monitoring 'The Deal' >>*

*<< Action 3.2: Understanding of promotion criteria across all staff groups, promotion support, optimising applications >>*

*<< Action 3.3: Monitoring of promotion processes by gender, E&D rewards for good practise >>*

*<< Actions 4.1-4.3: Career Development of all staff groups, Researcher Skills Passports to give evidence of skills development >>*

- (ii) **Induction and training** – describe the support provided to new staff at all levels, as well as details of any gender equality training. To what extent are good employment practices in the institution, such as opportunities for networking, the flexible working policy, and professional and personal development opportunities promoted to staff from the outset?

Self-reflection from MSE's bronze Athena SWAN award identified MSE practice as 'patchy' with areas for improvement. Activities supporting induction and training for all staff groups have been developed and revised, reflecting on practice and feedback from new starters. These sit in parallel with the comprehensive University induction guidelines sent directly to new starters from HR. All new academic staff take part in rolling Faculty and University Induction courses, which include unconscious bias training.

New staff join MSE continually throughout the whole year. Our updated '**MSE Induction Pack**' encompasses:

- A '**Welcome to the Department**' letter sent ~10 days before start date, setting out who to report to on arrival, and where.
- Health & Safety guidance and '**What to do on your first day**'.
- New MSE e-portal (online department handbook, 2015) collating policies/procedures and training information, including E&D information/links.
- Access to 'MOLE' (MSE online student environment) and departmental calendar.
- Proactive arrangement of meetings with key Academic/Technical/Professional support staff.
- All new Academic staff meet the HoD on arrival.
- Personal tour of the department.
- Probation meetings with line-managers to ensure clarity of objectives/role responsibilities, job-specific training, discussion of flexible working, and personal development opportunities.
- Departmental buddy/mentors where appropriate. All new academic staff are intensively mentored by the HoD and an academic Advisor throughout their probation period.

All new staff including Researchers, Visitors and Academic staff are welcomed via the MSE newsletter, website, at Staff Socials and at staff meetings. As a result of our previous self-assessment we are working hard on improving networking. This can be a challenge as staff and students are split across three main sites. Staff arriving in Sept/Oct attend MSE welcome parties organised for new students and all staff. Regular Networking events are now being arranged

throughout the year to generate improved cohesion and collaboration for example the new **Researchers Forum** and **Staff Coffee**.

Gender equality training is now embedded in the Induction of all new academic/administration staff, and other important roles such as Interview Panels. Our monitoring/surveys indicate there are still gaps in training, so a rolling programme of gender equality/unconscious bias training sessions, supported by HR, is taking currently place in the department for all staff categories. [359]

*<< Action 1.4: Embedding equality and diversity training for all staff >>*

*<< Action 5.1: Development of E&D intranet resources >>*

*<< Action 5.3: Gender equality training embedding in inductions of all staff >>*

- (iii) **Support for female students** – describe the support (formal and informal) provided for female students to enable them to make the transition to a sustainable academic career, particularly from postgraduate to researcher, such as mentoring, seminars and pastoral support and the right to request a female personal tutor. Comment on whether these activities are run by female staff and how this work is formally recognised by the department.

Final year UG and PGT students have Course Directors, a dedicated Careers Officer, and a Research Project Academic Supervisor who acts as personal tutor/mentor. Students can request a female tutor. To coordinate and direct Pastoral care, a new role of Senior Tutor has been created from Oct 2015. Further female pastoral support is available through the Students Union/Student Support Services.

**UG/PGT →PGR Transition:** Students have many opportunities to meet prospective PhD Supervisors, and special Careers events such as **Industrial Seminars** and the new **Alumni Speed Networking** inform their career decisions about research in an academic or industrial environment. From 2015, prospective PhD candidates can also choose a specialised MSE (Research) Degree. Students also receive support through the University Careers Service (e.g. **eMentoring**), and in 2016 a new Engineering Faculty Employability Hub opens.

The **MSE Staff-Student Committee** provides formal support and a discussion forum for any academic and non-academic issues. It has representatives from all UG and PG courses, with a high 46% female student representation. The student society '**MATSOC**', had a female president last year (**Jess Andrews**), and was particularly active in female staff/student networking including actively engaging recent department female alumni in the '**Alumni Speed Networking**' events.

**PGR →Researcher Transition:** At PG level, impartial mentoring and pastoral support is provided by the PGR Course Director (**Dr Nicola Morley**). All students are supported by their academic supervisors to develop a plan of personal development, skills training, seminars and teaching experience run under the framework of the **Doctoral Development Programme** (DDP). We also actively encourage female MSE students to participate in a range of Faculty/University STEMM initiatives including the Engineering Researcher Society, the Student Women in Engineering Network, the Sheffield Teaching Assistant programme and VISTA Careers Mentoring. Specific MSE mentoring is available for preparation of Researcher Fellowship applications. Work on student support at UG and PG level is formally recognised in the MSE staff Workload Allocation Model.

An important part of career development at both UG and PG level is provided by a weekly programme of **Materials Science Seminars** (academic, industrial and careers) followed by **Career**

**Q&A** sessions. We have increased the proportion of female speakers from **15→~40%**, and they provide excellent role-models of successful women in Materials Science. Our new **Researchers Forum** is also important for providing Researcher role models at the PG→Researcher transition point.

Many of our female Alumni have impressive career trajectories and female Alumni are acting as female role models, including helping with our new **Alumni Speed Networking** events, where students have the opportunity to chat with alumni about careers. Our Industrial Liaison Board also offer Careers support, and between 2013-2015 six of the nine PhD students winning the Industrial Liaison Poster Competitions were female (including **Gifty Tetteh** - who also won an International Biomechanics Prize). [459]

<< *Actions 2.2, 4.3: Careers Support and Mentoring for female PGR students*>>

<< *Action 2.3: PG Pastoral Support*>>

<< *Action 4.5: Senior female Advisors; increased interaction with senior women working in Materials UK, Industrial Liaison Committee female ratio* >>

## Organisation and culture

- a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.
  - (i) **Male and female representation on committees** – provide a breakdown by committee and explain any differences between male and female representation. Explain how potential members are identified.

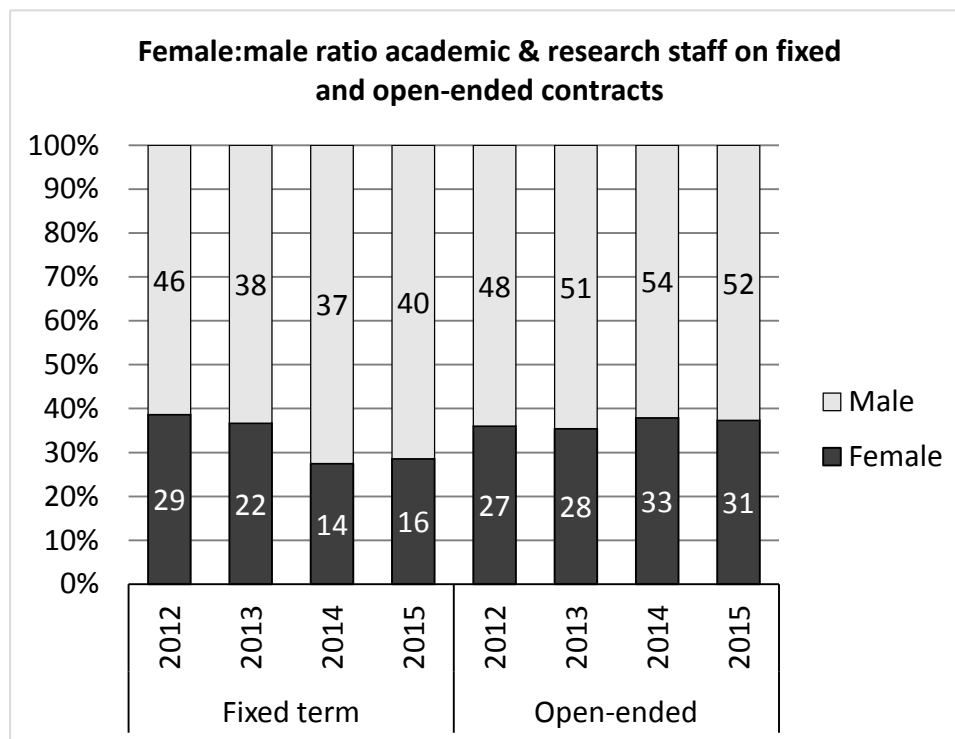
<b>Table 4: Representation by gender on MSE decision-making committees</b>						
COMMITTEE	2012/13		2013/14		2014/15	
	M	F	M	F	M	F
Admissions Team	6	3	5	3	3	4
Executive Committee	7	1	8	1	7	1
Departmental Review Panel	7	3	6	5	5	6
Learning & Teaching Committee	7	1	11	3	14	3
Equality & Diversity	0	0	3	7	4	7
Health & Safety Committee	0	0	0	0	6	3
PG Research Committee	7	2	7	2	7	3
PG Teaching Committee	5	1	8	1	9	1
Promotions Panel	7	2	10	3	10	3
Research & Innovation Committee	10	1	10	1	10	1
Staff-Student Forum*	3	1	8	1	10	1

\* Staff. Student membership changes each year, currently 6 F: 7 M

The female representation on committees in MSE typically comprises 1-3 women, (about 20%; higher when support staff involved), and has remained fairly uniform over 2010-2015 (Table 4). A limited pool of female academic and technical support staff is available due to the imbalance in female:male staff numbers (particularly at senior level). The ratio of women should increase in 2016-2019 as new female staff complete their probation periods (with reduced administrative loads). Potential members are currently identified by the HoD, although from 2016 posts will be advertised to widen opportunity. [89]

<< Action 6.1: Managing female workload >>

- (ii) **Female:male ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts** – comment on any differences between male and female staff representation on fixed-term contracts and say what is being done to address them.



**Figure 15. Proportion of male and female academic and research staff on Fixed-term and Open-ended Contracts 2012-2015.**

MSE has been proactive transferring staff on fixed term contracts to OEC where those staff meet the University policy regarding length of service (staff with +4 years service on renewed contracts). The data shows that the proportion of female staff on fixed-term contracts has decreased 39%→29%, (short-term Researcher posts), and the OEC female ratio is 37%. MSE policy is being updated, and in future all staff posts will be considered for OEC (subject to available funding). [76]

<< Action 4.2: Career development of Researchers, use of open ended contracts >>

- b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.
- (i) **Representation on decision-making committees** – comment on evidence of gender equality in the mechanism for selecting representatives. What evidence is there that women are encouraged to sit on a range of influential committees inside and outside the department? How is the issue of ‘committee overload’ addressed where there are small numbers of female staff?

Female representation on departmental committees has been increasing gradually, and in 2015 there is no committee without at least one female member.

Committees have been formed without wide consultation in the past, but this is being changed. In future, Memberships of various committees will be circulated as vacancies arise with ‘role descriptors’ and a term of service. Committee membership will naturally refresh over a number of years and different staff will have an opportunity to participate. Roles will be circulated internally with interested parties invited submit expressions of interest and an opportunity for discussion about how this role may be managed (for example with regards to part-time staff). This should empower female staff to volunteer for vacant positions to gain valuable experience and more senior responsibilities.

In terms of selection, all committee members in MSE will require mandatory ‘Unconscious bias’ training.

The pool of academic women remains small (9, of which 4 part-time; 4 on reduced load due to recent appointment). To reduce load, female senior administrators, project managers and other support staff have been appointed to MSE committees where appropriate skills are present, and the number of committees has been rationalised (2014). Furthermore a new style of all-staff meetings (rather than academic staff meetings) has been introduced (2015), for consultation of departmental-wide policy and improved communications between all staff groups. The meetings follow the format of a presentation (about a new policy area), small group discussions and plenary sessions. Feedback is then used to feed directly into new policy formation/revision and is hoped that this approach reaches a wider audience than previously, including female Researchers and Technical support staff.

Membership of influential committees outside the department is encouraged, and when vacant internal places are known, information is circulated and personal recommendations made. Our female staff are active on University and Materials UK committees including **Prof Sheila MacNeil** (Faculty Director -Interdisciplinary Programmes; Faculty Board), **Dr Gwen Reilly** (President:European Society of Biomechanics; Faculty Advisory Board) **Dr Nicola Morley** (UK Muon Facilities Panel), **Dr Claire Corkhill** (Council:UK Mineralogical Society) and **Prof Beverley Inkson** (Council:UK Royal Microscopical Society). [344]

<< Action 1.4 : Embedding Equality and Diversity training >>

<< Actions 4.1, 4.5: Progression of staff through Dept roles, external activities with IOM<sup>3</sup>, Materials UK and Industry >>

<< Action 6.1: Managing female workload >>

- (ii) **Workload model** – describe the systems in place to ensure that workload allocations, including pastoral and administrative responsibilities (including the responsibility for work on women and science) are taken into account at appraisal and in promotion criteria. Comment on the rotation of responsibilities e.g. responsibilities with a heavy workload and those that are seen as good for an individual's career.

A Workload Allocation Model (WAM) is used for assigning workloads within MSE, providing a snap-shot estimate of current activities include teaching, research, supervising, and significant administrative responsibilities. WAM is currently undergoing departmental and Faculty review (2015-2016) to optimise use as a planning tool for workload monitoring and allocation, including for different working patterns such as part-time working, maternity and sabbatical leave. A more detailed personal account of workload is provided by staff at their annual SRDS appraisal, in order to take into account activities that are either not modelled by, or take higher effort levels, than the WAM predicts (for example external activities, short-term Task-and-Finish).

In the Promotions process, a detailed CV and covering letter from the candidate is used to form a holistic overview of the individual. The covering letter provides the candidate with the opportunity to highlight their particular circumstances, for example key specific pastoral duties or leadership responsibilities that are not specifically measurable, or different work patterns like part-time FTE.

Except for the HoD position, jobs do not currently have a fixed term of office and have typically changed every 3-4 years under HoD direction. New procedures are being brought in to open up access to job vacancies by circulating Job descriptions with specific terms of office, and requesting of Expressions of Interest.

MSE has a somewhat ad-hoc and reactive approach to academic staff sabbaticals, dealt with on a case-by-case basis, for example after periods of high administration loads or externally funded Awards/Fellowships. MSE is contributing to a Faculty-level review of Sabbaticals, which will develop an embedded culture of pro-active sabbatical planning. [265]

<< *Action 6.1: Managing female workload* >>

<< *Action 6.4: Female access to sabbaticals* >>

- (iii) **Timing of departmental meetings and social gatherings** – provide evidence of consideration for those with family responsibilities, for example what the department considers to be core hours and whether there is a more flexible system in place.

Since 2013 core times of 10:00 – 15:00 for department-level meetings have been introduced to be considerate to those who work flexi-time with family responsibilities. Many events have been traditionally held on certain days of the week, which can be detrimental to part-time staff with fixed days or childcare arrangements. Where possible rotation of days is now encouraged for example staff meetings and socials.

Concerted efforts have been made in MSE to improve internal communications, in particular by using online media, such as Doodle Polls and Google Calendar, for meeting organisation to enhance accessibility to all staff. [96]

<< *Action 6.2: Widening access* >>



- (iv) **Culture** –demonstrate how the department is female-friendly and inclusive.  
'Culture' refers to the language, behaviours and other informal interactions that characterise the atmosphere of the department, and includes all staff and students.

MSE is a large department, with 163 staff and >500 students, split over three main sites. Despite challenging geography we believe that it is a happy department, with a positive supportive atmosphere. We have invested in refurbishment of our central meeting area and coffee bar in the Glass Museum, Hadfield Building(2014), and a monthly staff coffee social introduced. This is increasing opportunities for informal networking and cross-collaboration. Further inclusivity is being developed by new all-Staff meetings, PGR-Researcher-Staff events (like our IOM<sup>3</sup> Qualifications workshop), and all-Staff training days (e.g. Health & Safety).

From Oct 2015, with the transfer of our UG teaching to a new centralised Engineering Teaching Building (**The Diamond**), we are deliberately running more UG events in our main MSE building to maintain a sense of 'belonging' to Materials Science. Our student society **MATSOC** is thriving, with some wonderfully energetic female students galvanizing students and staff into joint sporting and social events.

2012-2015 significant department effort and investment has gone into improving the PGR/Researcher environment, including refurbishment of study rooms and installation of kitchen facilities. An increase in informal meeting space has enabled students from different research groups to socialise and discuss ideas. Additionally more PGR-inclusive social events have been held, including the PGR welcome, Christmas Party, Departmental Sports Day, Graduation Lunch, and Green Team events, to make PGR students feel an important part of MSE.

Each year we survey the PhD students to find out how we can improve their experience. This has resulted in a buddy scheme, whereby new PhD students are given a "**buddy**" (from 2nd/3rd year) who helps them in the first few months to settle into their PhD. New University support enables all female PGR students who take maternity leave to take a 6 week Leave-of-Absence with £1500 to cover lost funding. Our female-friendly policies include support of part-time, flexi-working and core-hours conducive to childcare.

We are working hard to ensure that our commitment to gender equality and support of women is evident. We have set-up Community/E&D webpages (2014-) with You-Tube Videos and Case-studies of female and male role models at different career stages (high pageviews), and have increased female and minority group imagery in all Department literature. We are currently introducing a new MSE e-Portal (staff handbook; 2015-) for distributing and sharing information including committee meeting minutes; department structures **Who's who?**, and departmental policy documents **How to...?** guides.

Our international culture, with students and staff from 35 countries, also makes it important to be aware of the needs of other minority groups. We accommodate religious requirements (e.g. time flexibility for Prayers) and offer language support. We monitor our progress towards a fully inclusive culture by running annual student and staff Surveys for quantitative feedback, and respondents believe overwhelmingly that MSE is a great place to work. [463]

<< Actions 5.1, 6.3: Accessible information on intranet, publicity for family-friendly policies >>

<< Action 5.2: Surveys and Feedback opportunities to improve actions >>

<< Actions 6.2: Widening access to events >>

- (v) **Outreach activities** – comment on the level of participation by female and male staff in outreach activities with schools and colleges and other centres. Describe who the programmes are aimed at, and how this activity is formally recognised as part of the workload model and in appraisal and promotion processes.

MSE recognises the importance of working with the public at all ages, and has incorporated outreach activities into its strategy over the last 5 years. Our outreach activities aimed at prospective students are coordinated by our **Outreach Team**, and the **UG Admissions Team**.

Female and male staff are actively involved in outreach, serving to raise awareness of Materials Science and encouraging female uptake of STEMM subjects through events, online resources, TV, radio and press. For up-to-the-minute information we use our twitter account@msesheffield. We have found that our early career researchers are particularly enthusiastic outreach ambassadors.

We regularly undertake demonstrations and talks at UCAS open-days, visits to Primary/Secondary schools (6+ per year e.g. Bethany School, Sheffield High School for Girls) and have developed resources for schools activities including **A Lego Nuclear Power Station**, (Immobilisation Science Laboratory), **Materials Monopoly** (Dr Claire Hinchliffe; awarded IOM<sup>3</sup> Sir Colin Humphreys' Outreach Prize), and online videos **Science of Spider Silk** (Dr Chris Holland <https://vimeo.com/144215523>), **What is Materials Science** (Advanced Metallics PhD students).

MSE female UG/PG students are very active in outreach events including the Faculty-led **Exploring STEM for Girls** (200+ female audience). As an outstanding example of STEMM engagement, in March 2015 MSE PGR student **Lygia Eleftheriou** organised a daytime science event for primary school children, teachers and parents, finishing in a general public open evening. This was immensely successful, attended by 350+ visitors, with over 80 staff across the University volunteering to help.

In MSE we also have a mission to raise awareness of the importance of Women in STEMM to the general public and policy makers. Recently appointed lecturer **Dr Vanessa Hearnden** presented **10 fantastic ways to use leftover tonsils** as part of the University of Sheffield's Mobile University - a public outreach initiative which delivers free lectures to the people of Sheffield on the top deck of a double decker bus. **Professor Sheila MacNeil** is a role-model at Sheffield for engagement of women in science, regularly in the press and on radio due to her world-leading science in biomaterials. Six MSE women including **Dr Claire Corkhill** have made videos for the Faculty's **Wall of Women** (<http://wow.group.shef.ac.uk/>, 2014-), showcasing talented engineers, raising awareness and providing inspiration for other researchers. Also our Senior Technician **Lisa Hollands** delivered a workshop on **Careering your way through life** as part of the University's Thirty30 celebrations of staff development.

Membership of the formal Outreach and UG Admissions Teams are recognised in the MSE academic workload model. Outreach activities are now routinely recorded by staff in their SRDS documentation and Promotions applications. As a result of systematic involvement of PGR students and Researchers in outreach activities, their professional development has benefitted and we have noticed an increase in impact of MSE outreach (higher number of activities and participants). [458]

## Flexibility and managing career breaks

- a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.
- (i) **Maternity return rate** – comment on whether maternity return rate in the department has improved or deteriorated and any plans for further improvement. If the department is unable to provide a maternity return rate, please explain why.

Table 5 : MSE Maternity leave uptake by grade 2011-2015				
	2011/12	2012/13	2013/14	2014/15
PhD students	0	1	1	2
Researcher	3	1	3	4
Lecturer	2	0	0	0
Senior Lecturer	0	0	0	0
Reader	0	0	0	0
Professor	0	0	0	0
TOTAL	5	2	4	6

Table 6 : MSE Maternity return rate 2011-2015				
	2011/12	2012/13	2013/14	2014/15
Return	5	2	3	6
Resigned	0	0	1	0
TOTAL	5	2	4	6

2011-2015: With the exception of one Researcher, all staff returned to work after maternity leave. Discussions regarding opportunities flexible working or reduced hours are made available to all staff considering their return to work. [34]

<<Action 6.3: Promotion for family-friendly policies on new staff intranet >>

- (ii) **Paternity, adoption and parental leave uptake** – comment on the uptake of paternity leave by grade and parental and adoption leave by gender and grade. Has this improved or deteriorated and what plans are there to improve further.

<b>Table 7 : MSE Paternity leave uptake by grade 2011-2016</b>					
	2011/12	2012/13	2013/14	2014/15	2015/16
Researcher	0	1	2	1	2
Lecturer	3	0	0	1	1
Senior Lecturer	0	1	2	0	1
Reader	1	0	0	1	0
Professor	0	0	0	0	0
<b>TOTAL</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>4</b>

Paternity leave uptake remains strong amongst permanent staff. Over the period 2011-2015 no adoption or parental leave requests were been submitted.

It is difficult to monitor paternity and adoption leave uptake given the self-identification nature of the leave. However, we take all opportunities to make sure male staff are aware of their options, and encourage them to take advantage of Leave, opportunities for flexible working or reduced hours, and University support schemes including Additional Paternity/Partner Leave and Parents in Academia Network. [81]

<<Action 6.3: Promotion of family-friendly policies on new staff intranet >>

- (iii) **Numbers of applications and success rates for flexible working by gender and grade** – comment on any disparities. Where the number of women in the department is small applicants may wish to comment on specific examples.

2012-2015 flexible working has been dealt with informally in the department, following individual one-to-one discussions with the HoD and line-managers. From 2015 MSE will request that staff complete the formal HR 'Flexible Working Request Form', which will process arrangements for flexible working with MSE and HR.

To date, no member of staff has had a flexible working request denied. [59]

- b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

- (i) **Flexible working** – comment on the numbers of staff working flexibly and their grades and gender, whether there is a formal or informal system, the support and training provided for managers in promoting and managing flexible working arrangements, and how the department raises awareness of the options available.

MSE currently has two (male) academic staff who have agreed flexible working patterns (to accommodate child care) and five members of academic staff (4 female, 1 male) who have reduced hours and work flexibly on occasion.

The working culture of the department is such that the majority of Researchers and Academic staff regularly make minor adjustments to their working hours in order to suit their schedules, for example dropping children off at school. Other arrangements for informal flexible working include flexibility to move part-time hours around in order to best accommodate important meetings and uneven work demands, additional leave or flexi-hours to deal with illness of children and relatives, flexible phased return to work after sick-leave, and working from home. It is notable in MSE that four of the nine female academics work part-time for work-life balance.

Flexible working is promoted during all MSE recruitment. Line managers are made aware of options available and are able to promote these to their staff, particularly at annual appraisals. We have also promoted modes of good practise for helping part-time staff, including rotation of meeting days, and sending emails / requests for work well in advance of deadlines (allowing for reduced working-hours). [199]

*<<Action 6.3: Promotion of family-friendly policies on new staff e-Portal/intranet >>*

*<< Actions 6.2: Widening access to events >>*

- (ii) **Cover for maternity and adoption leave and support on return** – explain what the department does, beyond the university maternity policy package, to support female staff before they go on maternity leave, arrangements for covering work during absence, and to help them achieve a suitable work-life balance on their return.

Staff in MSE have access to an excellent maternity policy package which enables up to a year away on a mixture of full-pay, statutory maternity pay, and unpaid leave. Discussions are held with female staff by the HoD/Line-manager to make arrangements before, during and after maternity leave. MSE promotes the use of **Keeping in touch days** which enable women to choose to attend meetings or training days whilst on leave.

Wherever possible, MSE recruits cover for individuals' work, with an overlap to make the absence and return to work as smooth as possible. 2012-2015 there have been no Academic maternity leaves, but in the past MSE has appointed temporary teaching staff to cover teaching responsibilities, which has given beneficial teaching experience to younger researchers (3 female).

Female staff members have also been supported by the University Women Academic Returners' Programme (**WARP**), which finances employment of Researchers to maintain research activities whilst the academic is away.

MSE supports changes to part-time and family-friendly flexi-working arrangements on the return of female staff after maternity leave. Teaching and administrative tasks are also kept to a minimum enabling adjustment to a new work-life balance. Two of our academics (**Dr Nicola Morley** and **Dr Gwen Reilly**) have acted as mentors for the University-wide **Parents in Academia** scheme to support all staff with families. [218]

[5037]

## 5. Any other comments: maximum 500 words

Please comment here on any other elements which are relevant to the application, e.g. other STEMM-specific initiatives of special interest that have not been covered in the previous sections. Include any other relevant data (e.g. results from staff surveys), provide a commentary on it and indicate how it is planned to address any gender disparities identified.

## 6. Action plan

Provide an action plan as an appendix. An action plan template is available on the Athena SWAN website.

The Action Plan should be a table or a spreadsheet comprising actions to address the priorities identified by the analysis of relevant data presented in this application, success/outcome measures, the post holder responsible for each action and a timeline for completion. The plan should cover current initiatives and your aspirations **for the next three years**.

### **Notes and Key to MSE 2016-2019 Action Plan:**

#### **Abbreviations:**

MSE:	Materials Science and Engineering Department
M-E&D	MSE Equality & Diversity Committee (Athena SWAN self-assessment team)
DAM:	Departmental Administration Manager
RF:	Researchers Forum
WAM:	Work-load Allocation Model
SRDS:	Staff Review and Development Scheme
UB:	Unconscious Bias

Actions of high priority in each theme are highlighted <<PRIORITY>>, although all actions deemed important.

## Action Plan : Actions to be implemented in Materials Science and Engineering, The University of Sheffield 2016-2019

1	Dept Strategy and Data					
	Description of issue/action	Key Aims	Actions planned	Responsibility (Lead)	Timescale	Measure
1.1	<b>Promotion of Equality and Diversity principles within MSE</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>Promotion of Gender Equality Actions to all staff including Professional and Support Staff</li> </ul>	<ul style="list-style-type: none"> <li>Annual Review of M-E&amp;D membership and responsibilities to be fit for purpose</li> <li>Generate strategic plan for E&amp;D actions for Technical Support staff</li> <li>Generate strategic plan for E&amp;D actions for Professional Support staff</li> <li>Evaluate new Athena SWAN criteria</li> </ul>	M-E&D  Technical Manager  Administration Manager	Annual membership review 2016- 2017  2016- 2017  2018	Rolling Committee update  E&D strategies for all staff groups
1.2	<b>Integration of E&amp;D into Dept framework and strategy</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>Systematic embedding of strategic E&amp;D actions in Dept plan</li> <li>Embedded financial support</li> </ul>	<ul style="list-style-type: none"> <li>M-E&amp;D chair to be appointed to Dept Executive committee</li> <li>Budget/Embed cost of M-E&amp;D activities in Dept financial plan</li> <li>Generate E&amp;D calendar for actions</li> <li>Revise actions with progress</li> </ul>	HoD  Administration Manager  M-E&D	Jan 2016  Oct 2016- Annual Budget  Jan 2017- Annual calendar	E&D on Executive  Formal E&D Budget  Calendar of Actions



1.3	<b>Collation of gender-specific data for students and staff</b> <b>Data analysis, monitoring and reporting</b>	<ul style="list-style-type: none"> <li>Expand data tracking to Professional and Support Staff</li> <li>Define data specifications (e.g. census dates, anonymity)</li> </ul>	<ul style="list-style-type: none"> <li>Implement new data tracking and analysis</li> <li>Formalize data collection processes</li> <li>Evaluate gender intersection data, including ethnicity, disability, overseas</li> <li>Add new data to annual review at January Staff meeting</li> <li>Feedback new data into action plan</li> </ul>	Administration Manager  UG/PGT/PGR Admissions  M-E&D	2016 – Jan2017  2017-new data available  2018-new data trends	Tracked quantitative data Expanded E&D Annual report  Tracked trends for policy development
1.4	<b>Equality and Diversity training for all staff groups</b>	<ul style="list-style-type: none"> <li>Systematic embedding of E&amp;D training</li> <li>Embedding of Disability awareness into E&amp;D strategy</li> <li>Staff skills updates</li> </ul>	<ul style="list-style-type: none"> <li>Generate MSE-Human Resources gender equality training strategy</li> <li>Monitoring of available unconscious bias (UB) provision/online resources</li> <li>Embed mandatory UB training for all Academics, Recruiters and Senior Professional/Support staff</li> <li>Training register for UB</li> <li>Development of Annual Staff Skills day including E&amp;D and Disability updates</li> </ul>	Administration Manager HR	2016-2017 review  From 2016-Annual UB training  From 2017 - Staff Skills Day	Gender equality training strategy  Register of UB Training  UB training >80%  Skills Days
1.5	<b>Rewarding E&amp;D good practise</b>	<ul style="list-style-type: none"> <li>Positive reinforcement of E&amp;D good practise</li> </ul>	<ul style="list-style-type: none"> <li>Nominate MSE staff and students demonstrating good practise for E&amp;D Awards via new DEAL reward system</li> <li>Monitor DEAL rewards for gender equality</li> </ul>	M-E&D  HoD	From 2016  2017- annual review	E&D good practise Awards

2	UG and PG Students					
	Description of issue/action	Key Aims	Actions planned	Responsibility	Timescale	Measure
2.1	<b>Female UG and PG Student recruitment drive</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>• Increase in Female recruitment</li> <li>• New support mechanisms for underrepresented groups including ethnic minorities/widening participation</li> </ul>	<ul style="list-style-type: none"> <li>• New Outreach Bursaries to support under-represented groups</li> <li>• Use of social media, Facebook</li> <li>• Outreach/recruitment videos</li> <li>• Informing Overseas students – SKYPE interviews, Webinars, e-newsletters</li> <li>• UG Careers brochure</li> <li>• Expand publicity of female role-models having careers in Materials Science via documentation/web</li> </ul>	UG/PGT/PGR/CDT Admissions	2016- Annual admissions cycle  Oct 2016 new Bursaries  2018 review	Increased UG and PG admissions  Outreach Bursaries  Online media usage increase  10 UG Careers Spotlights
2.2	<b>Integration and support for female PGR and Researchers</b>	<ul style="list-style-type: none"> <li>• Improve PGR and Researcher interactions</li> <li>• Embedded support structure for Researchers Forum</li> <li>• Financial support for activities</li> </ul>	<ul style="list-style-type: none"> <li>• Organise PGR-Researcher Joint events</li> <li>• Formalise MSE Researchers Forum with defined responsibilities and reporting/feedback to Dept</li> <li>• Budgeted support for activities including career workshops</li> <li>• Advertising and promotion of PGR/RF successes</li> </ul>	Researchers Forum  M-E&D	2016- events  Oct 2016 RF Budget and plan  2017-Annual RF reports	PGR/RF event participation  RF reports including surveys
2.3	<b>Pastoral support for female UG, PG and Researchers</b>	<ul style="list-style-type: none"> <li>• Pastoral support for early-career Researchers</li> <li>• Pastoral support for overseas students/staff</li> <li>• Pastoral support for LGBT+, Disability</li> </ul>	<ul style="list-style-type: none"> <li>• Develop new UG Senior Tutor role</li> <li>• Review Pastoral care for PGT/PGR and early-career Researchers</li> <li>• Review Pastoral needs/support for overseas students/staff</li> <li>• Review Pastoral needs/support for LGBT+ and Disability</li> </ul>	Senior Tutor PGT/PGR Directors  Researchers Forum  Disability Officer LGBT+ Network	2016 – 2017 strategy review  2017-activities	Pastoral support strategies

3 Key Career Transition Points, Appointments and Promotions						
	Description of issue/action	Key Aims	Actions planned	Responsibility	Timescale	Measure
3.1	<b>Increase pool of female and minority staff applicants</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>• Increase female application rate</li> <li>• Increase Female academic staff numbers</li> </ul>	<ul style="list-style-type: none"> <li>• Staffing strategy review</li> <li>• Appointment of external Female Advisors for staff appointments</li> <li>• Pro-active head-hunting of potential female candidates, external and internal to University</li> <li>• Female representation on all short-listing and interview panels</li> <li>• Highlight online Female Staff case studies to potential female applicants</li> <li>• Keep Female Invited Speaker numbers &gt;35%</li> </ul>	HoD Recruitment Panels	2016 -2017 review  2017-Advisors	Increase in female ratio of applicants  Increase in female staff  External Female Advisors
3.2	<b>Better publicity of promotion criteria and promotion support</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>• Up-to-date Promotion criteria knowledge of applicants, panels and line-managers</li> <li>• Female access to personal mentoring</li> <li>• Clear criteria for reduced hour work-patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Annual Q&amp;A Promotions update to all staff</li> <li>• Offer Promotion Mentor to all Female staff including Professional/Support</li> <li>• Written guidance for adding Pastoral/Outreach/Work-pattern Impact to Application Form</li> <li>• Clarify criteria models for part-time/leave-taking staff</li> <li>• All candidates to receive oral feedback</li> </ul>	HoD HR Promotions Panel	April 2016 first cycle  2017-2019 Mentoring  2017 criteria updates	>80% Positive Survey ('Understanding Promotion Criteria')  Increase in female applicants to MSE panel
3.3	<b>Monitoring of promotion and DEAL reward processes by gender</b>	<ul style="list-style-type: none"> <li>• Monitoring of all staff promotion processes by gender</li> <li>• New DEAL reward system to implement equably</li> </ul>	<ul style="list-style-type: none"> <li>• Specified E&amp;D Champion on Promotions Panel</li> <li>• Expand data tracking to Professional and Support Staff</li> <li>• Implement E&amp;D DEAL monitoring</li> </ul>	Promotions Panel  Administration Manager	April 2016-data collection  From 2017-Annual data analysis	Annual review by gender  Male/Female promotion rate parity

4	Career Advice and Support					
	Description of issue/action	Key Aims	Actions planned	Responsibility	Timescale	Measure
4.1	<b>Career development of female academics</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>Improved female access to senior roles</li> <li>Management and Leadership skills training</li> </ul>	<ul style="list-style-type: none"> <li>Ensure appropriate nominations for Sheffield Leader/HR schemes</li> <li>Ensure progression of female staff through MSE Management and Leadership roles</li> <li>Develop Task-and-Finish Leadership roles</li> <li>Open up internal opportunities by advertising</li> <li>Reward E&amp;D activities</li> </ul>	HoD  Executive Committee  Administration Manager	2016-	Increased Sheffield Leader participation  Increased female Committee Chairs/Deputy Chairs
4.2	<b>Career development of female Early Career Researchers</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>Expansion of MSE career development activities</li> <li>Raise profile of Personal development activities</li> <li>Increase input from Materials Industry</li> </ul>	<ul style="list-style-type: none"> <li>Generate MSE Researchers Career Progression strategy</li> <li>Consider new PDRA posts for Open-ended Contract s</li> <li>Integrate Career Development into Researchers Forum activities</li> <li>Career Progression workshops with Industry, IOM<sup>3</sup>, and 'Meet the Academic' sessions</li> <li>Careers mentoring of female PGR/RF</li> <li>New Skills Passport for Researchers</li> <li>Start Qualifications Club for Engineer/Technical Chartered Status</li> <li>Link to upcoming Faculty of Engineering Employability Hub (2016)</li> </ul>	HoD Research Committee PGR Director  Faculty Employability Hub (2016-)  Researcher Forum	2016- events Annual IOM <sup>3</sup> Female Careers event 2016- Skills Passport 2017- 2019 Qualifications	Increased Open Contracts  Careers events participation Researcher Skills Passport Qualifications Club participation & applications

4.3	<b>Careers Mentoring</b>	<ul style="list-style-type: none"> <li>Materials Careers Mentoring</li> <li>Mentoring for female Professional and Support Staff</li> </ul>	<ul style="list-style-type: none"> <li>Review MSE-based mentoring strategies across all grades</li> <li>Mentoring for Support staff</li> <li>Mentoring for Technicians</li> <li>Materials careers/Alumni mentoring of UG/PG/RF</li> <li>Advertise mentoring opportunities on intranet</li> <li>Reward staff activity as Mentors</li> </ul>	M-E&D Administration Manager Technical Manager  Research Committee Faculty Employability Hub (2016-)	2016-2017 Review + Strategies  2017- Annual cycle of Individual mentors	Mentoring strategies for all staff  Increased MSE participation in Mentoring schemes – mentor and mentee
4.4	<b>Increase female Research Fellowship applications</b>	<ul style="list-style-type: none"> <li>Widen net for applicants via pro-active early identification</li> <li>CV development</li> <li>Application mentoring</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate new Researchers for potential Fellowship candidates.</li> <li>Provide more internal work-experience to expand CV</li> <li>Create MSE Fellowship College for coordinated support/mentoring</li> <li>Improve applicant rate to internal and external Fellowship calls</li> <li>Monitor application and success rates, Feedback to candidates</li> </ul>	HoD  Research Committee	2016-  2017- monitoring  2018- Review data	Increase in number of Fellowship applications

4.5	<b>Professional Development of Women in Materials</b>	<ul style="list-style-type: none"> <li>• Increased MSE interaction with senior UK female Engineers</li> <li>• UK visibility of MSE female staff</li> <li>• Female role models</li> </ul>	<ul style="list-style-type: none"> <li>• Appoint two external Senior Female MSE Advisors</li> <li>• Keep Female Invited Speaker numbers &gt;35%</li> <li>• Increase female representation on Industrial Liaison Committee</li> <li>• Female Hatfield Lecture speaker</li> <li>• Nominate MSE female academics for UK activities</li> <li>• Grow female Alumni database, diverse Case-studies and Visits</li> <li>• Develop outreach/career activities with IOM<sup>3</sup> and UK Materials Groups</li> </ul>	HoD Research Committee  Outreach Team	2016-Annual IOM <sup>3</sup> careers event  2018 Female Hadfield Lecturer	2 MSE senior female Advisors  3 female Industrial Liaison Members  Female Hadfield Lecturer
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5 Culture, Communications and Departmental Organization						
	Description of issue/action	Key Aims	Actions planned	Responsibility	Timescale	Measure
5.1	<b>Improved communications and access to Women in STEM information at Department level</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>Increased E&amp;D visibility</li> <li>Engagement with new communication channels</li> <li>Resources for keeping media updated</li> </ul>	<ul style="list-style-type: none"> <li>Senior staff Communications of E&amp;D commitment and good practise to all staff</li> <li>Resource support for E&amp;D media and administrative activities</li> <li>Update E&amp;D internet and e-Portal (intranet) information including               <ul style="list-style-type: none"> <li>➤ M-E&amp;D Terms of Reference</li> <li>➤ Work-life support</li> <li>➤ Researchers Forum</li> <li>➤ Careers/Industry/Case-studies</li> <li>➤ Networks and STEMM links</li> <li>➤ Feedback Link</li> <li>➤ Disability and LGBT+</li> </ul> </li> </ul>	M-E&D Chair HoD M-E&D  Marketing and Communications Officer	2016-  Oct 2016- Annual Resource Plan  2017-2018 Intranet Update	Media spotlights  E&D resource plan  Growth in E&D intranet  Increased E&D intranet usage
5.2	<b>Department E&amp;D Surveys for anonymous feedback, assessment and improvement</b>	<ul style="list-style-type: none"> <li>Review Annual E&amp;D survey for engagement and usefulness</li> <li>Ensure survey compliance with Data and Confidentiality laws</li> </ul>	<ul style="list-style-type: none"> <li>Revise annual MSE E&amp;D survey format to target key topics</li> <li>Open Feedback link on intranet</li> <li>Ensure survey compliance with Data handling and Confidentiality laws</li> <li>Monitor engagement for survey fatigue</li> <li>Analyse results, feedback to staff, input into E&amp;D/Dept strategic plans</li> </ul>	M-E&D  Marketing and Communications Officer  Administration Manager	Sept 2016  Annual cycle	Survey Strategy  Survey Response rates>50%  Data compliance

5.3	<b>MSE Induction and training of staff</b>	<ul style="list-style-type: none"> <li>• Induction Pack for Early Career Researchers</li> <li>• Gender Equality training in all Inductions</li> <li>• Skills training for Researchers</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate MSE Induction Pack with new e-Portal (intranet)</li> <li>• Gender Equality training in all Inductions</li> <li>• Induction of Researchers to include E&amp;D and careers information</li> <li>• New Skills Passport for Researchers</li> </ul>	Administration Manager  Line-Managers	2016-  2017 – Researchers Induction Pack  2017- Skills Passport	ePortal Induction Pack  Skills Passport
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6	Career breaks/flexible working					
	Description of issue/action	Key Aims	Actions planned	Responsibility	Timescale	Measure
6.1	<b>Managing female workload</b>  <b>&lt;&lt; PRIORITY&gt;&gt;</b>	<ul style="list-style-type: none"> <li>• Widening the pool of females for responsibilities</li> <li>• Update MSE WAM</li> <li>• Recognition of E&amp;D activities</li> </ul>	<ul style="list-style-type: none"> <li>• Development of all-staff meetings</li> <li>• Advertise committee vacancies</li> <li>• Task-and-finish roles</li> <li>• Revision of WAM model for flexible/part-time working, pastoral and outreach work</li> <li>• Recognition/Rewards for E&amp;D work</li> </ul>	HoD Administration Manager    M-E&D	2016-  2017 WAM  2016- annual E&D awards	Diversification of female staff in roles of influence  WAM revision E&D awards
6.2	<b>Widening female participation and access</b>	<ul style="list-style-type: none"> <li>• Retaining integration of staff across multiple buildings</li> <li>• Awareness of good practice in widening access</li> </ul>	<ul style="list-style-type: none"> <li>• Inclusive events for staff moved to new Diamond Building</li> <li>• MSE Good practise guide for widening access, and managing flexi-time</li> <li>• Rotate days of events</li> <li>• Avoid scheduling important events at short notice during School vacations</li> </ul>	Administration Manager Technical Manager  All staff	2016-	Good practise guide for staff



6.3	<b>Publicity for family-related policies</b>	<ul style="list-style-type: none"> <li>Family-friendly policies visible to all staff</li> </ul>	<ul style="list-style-type: none"> <li>'How to...' Guidelines on ePortal (intranet) including how to apply for flexible and part-time working, maternity and paternity leave</li> <li>Annual policy updates to Line-managers and Students/Staff prior to SRDS</li> </ul>	Administration Manager HR Advisor	2016- 2017 Guidelines  Annual May policy update  2017-2018 Intranet Update	MSE Policy Guidelines  Active E&D Intranet
6.4	<b>Female access to sabbaticals</b>	<ul style="list-style-type: none"> <li>Accessible Framework for female sabbaticals</li> </ul>	<ul style="list-style-type: none"> <li>Identify positive enabling actions for female sabbaticals</li> <li>Generate Strategy and Guidelines</li> <li>Monitor female participation rates</li> </ul>	HoD Faculty Review team	2016-2017 review  2017-guidelines	Sabbatical strategy  Female sabbatical uptake