

Department of Materials Science and Engineering

Athena SWAN Silver Application

Apr 2021

Department application Silver	
Word limit	12,000
Recommended word count	
1. Letters of endorsement	500
2. Description of the department	500
3. Self-assessment process	1,000
4. Picture of the department	2,000
5. Supporting and advancing women's careers	6,500
6. Case studies	1,000
7. Further information	500
(Words for Faculty description	1,000)
(Words relating to impacts of Covid	500)

Name of institution	University of Sheffield
Department	Department of Materials Science and Engineering
Focus of department	STEMM
Date of application	28th May 2021
Award Level	Silver
Institution Athena SWAN award	Date: Nov 2015 Level: Silver
Contact for application	Dr Edmund Cussen
Must be based in the department	
Email	e.j.cussen@sheffield.ac.uk
Telephone	0114 222 5481
Departmental website	https://www.sheffield.ac.uk/materials

Exceptional Circumstances - Faculty Word Count (noted at the end of relevant sections).

The use of 1000 additional words has been agreed to allow explanation of collaborative work and initiatives undertaken with other departments within the Faculty of Engineering and of the Faculty itself (see email below). These have been used in Section 2.

Covid Word Count The use of 500 additional words was agreed to describe impacts from Covid. These have been used in Letters of Endorsement (122 words) and in Section 3

James Greenwood-Lush <James.Greenwood-Lush> Tue, 27 Nov, 12:23 (2 days ago) ☆ ↶ ⋮
to Athena, Catriona, me ▾

Dear Dan,

I can confirm that for the November 2018 submission round, the Department of Materials Science & Engineering at The University of Sheffield have been granted an additional 1,000 words. Please include this email in your application, and state clearly where the additional words have been used throughout. As per previous correspondence with Kate, this is to enable you to describe the work you lead/do collaboratively across the Faculty in working towards Athena SWAN/gender equality goals.

Please note that there is no blanket agreement that 1,000 words will be granted to each engineering department at Sheffield – Cc Kate. It is more or less inevitable that our policies will change and additional words do need to be applied for in the run up to each award round.

Best wishes,
James

James Greenwood-Lush
Head of Athena SWAN

Summary of Abbreviations

%F	Proportion of females (in given cohort)
ADM	Admissions Team (Student Taught Programmes)
AS	Athena SWAN
BEng	Bachelor of Engineering (undergraduate degree)
BAME	Black and Minority Ethnic
DAM	Department Administration Manager
DEC	Departmental Executive Committee
DDEDI	Departmental Director of Equality, Diversity and Inclusion
DDRI	Departmental Director of Research and Innovation
DRP	Departmental Review Panel
DTM	Department Technical Manager
EDI	Equality, Diversity and Inclusion
EDIt	Equality, Diversity and Inclusion Team
FDEDI	Faculty Director of Equality, Diversity and Inclusion
FEDC	Faculty Equality & Diversity Committee
fHEA	Fellow of the Higher Education Academy
FoE	Faculty of Engineering
FT	Full-time
FTC	Fixed-term contract
FY	Foundation Year
GTA	Graduate Teaching Assistant
H&S	Health and Safety
HoD	Head of Department
HR	Human Resources
LGBT	Lesbian, Gay, Bisexual and Transsexual
LTC	Learning and Teaching Committee
MATSOC	Materials Student Society
MCO	Marketing and Communications Officer
MEng	Master of Engineering (undergraduate degree)
MSc	Master of Science (postgraduate degree)
MSE	Department of Materials Science and Engineering
OEC	Open-ended contract
PGR	Postgraduate Research student (PhD)
PGT	Taught Postgraduate student (MSc)
PhD	Doctor of Philosophy
PSDG	Professional Staff Development Group
PT	Part-time
PtE	Pathway to Engineering
RAE	Research Assessment Exercise 2008
RC	Research Committee
REF	Research Excellence Framework 2014
ROO	Recruitment, Outreach and Student Experience
RSO	Research Support Officer
SAT	Self Assessment Team
SRDS	Staff Review and Development Scheme
UB	Unconscious Bias
UoS	University of Sheffield
WAM	Workload Allocation Model

* **Refers to actions made in previous Action Plan**

1. LETTER OF ENDORSEMENT FROM THE HEAD OF DEPARTMENT

Recommended word count: 500 words

An accompanying letter of endorsement from the head of department should be included. If the head of department is soon to be succeeded, or has recently taken up the post, applicants should include an additional short statement from the incoming head.

Note: Please insert the endorsement letter immediately after this cover page.

The letter of endorsement from the head of the institution or department sets the tone for the submission. It is vital that it demonstrates support, commitment and investment.

The letter should explain why the department or institution values the Athena SWAN Charter, and how the action plan will help meet their strategic aims.

Wherever possible the letter should outline specific activities/actions undertaken by the head of the institution (and/or senior leadership team) or the head of department to promote gender equality.

If the applicant holds an Athena SWAN award and is applying for an award under the post-May 2015 criteria, reference should be made to the impact of the previous award.

For higher levels of recognition, the panel will expect to hear how the department or institution has championed gender equality.

Although the head of the institution or department may well wish to refer to an institution's history and achievements, this should not be the focus of the letter. Panels are keen to get a sense of individual commitment to gender equality at the top of the organisation or department.

The letter should include a statement that the information presented in the application (including qualitative and quantitative data) is an honest, accurate and true representation of the department.

If the head of department is soon to be/has been recently succeeded, applicants should include an additional short statement from the incoming head. An additional 200 words is permitted for use in this statement.

Letters should be addressed to:

*Equality Charters Manager
Equality Challenge Unit
7th Floor, Queens House
55/56 Lincoln's Inn Fields
London WC2A 3LJ*

The letter should highlight key challenges for the department and explain how the Athena SWAN action plan and activities in the department will address the challenges and contribute to the overall department and/or institution strategy. Comment on how staff at all levels are, and will continue to be, engaged with the process at present and during the lifetime of the award. Include any evidence of actions taken by the head of department to support/promote the charter.



The
University
Of
Sheffield.

Department Of
Materials
Science &
Engineering.

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

28 May 2021

Acting Head of Department: Professor John Provis
Sir Robert Hadfield Building
Mappin Street
Sheffield S1 3JD
United Kingdom

Telephone: +44 (0) 114 222 5502
Website: www.shef.ac.uk/materials

Dear Assessment panel,

I am delighted to endorse the Department's submission for an Athena SWAN Silver Award. I believe the information presented in the application (including qualitative and quantitative data) to be an honest, accurate and true representation of the Department.

I have been Acting Head of Department since March 2021 and am writing in this capacity, on behalf of the Department Executive team. I have been part of the Department for nine years, and Deputy Head of Department since September 2019. During this time, I have seen how the Department has continued to be an exemplar of equality and diversity within the University, and still challenges itself to explore ways to improve further. Since the presentation of our first Bronze Award in 2013 and subsequent Silver Award presented in 2015, the Department has striven to embed equality, diversity and inclusion throughout its policies and practices. We are proactive in supporting and developing all our staff and students to thrive and succeed, and recognise that this is only possible when our leaders, at all levels, are visibly and actively committed to gender equality. Our Department Executive Committee exemplifies this, considering (as a standing agenda item) the importance and potential impact of gender aspects in our decision-making. It is also encouraging that, where issues and concerns exist, positive action is taken to address them. This has been particularly important during the past 18 months as the Covid19 pandemic has disproportionately impacted certain categories of staff and students, with female staff and those with long-term health conditions most affected. We have actively considered and publicly noted these equality issues in our decision-making related to our Covid19 response, facilities access under pandemic conditions, and health and safety policy development.

It has been very gratifying to see an increase in the number of women in the Department at all levels, from undergraduate to professorial, with the visibility of strong role models and positive attitudes of established students and staff. We are receiving a higher proportion of high quality female applicants across the board, which is extremely encouraging. We actively support staff of under-represented gender identities to apply for promotion and upward secondment, identifying opportunities for them to further progress their careers within and beyond our Department. For example, over the past few years:

- we supported the promotion of one of our female academics to Professor and DDRI while working part time for caring responsibilities, and

- our male Department Administrative Manager (the only one in the Faculty) was supported in a secondment upwards to a key University of Sheffield initiative (Student Lifecycle Project), for career development and skills growth.

On a personal level, as part of an academic couple with a preschool-aged child, I fully understand how important it is that we support everyone to be able to achieve their maximum potential regardless of their background or personal characteristics.

I am personally committed to ensure that we do our very best to support the career development of aspiring females within the Department, removing barriers to their progress.

The inclusivity of the Department comes across in the way that members of the Department refer to it as the "Materials Family". Recently, the supportive nature of the Department has come to the fore as I have taken on this new challenge of acting as Head fully committed to the success of the Department's work in supporting gender equality, and we look forward to seeing and leading further progress in coming years.

Yours faithfully



John L. Provis, BE(Hons)/BSc PhD, CEng FIMMM FICT FACerS
Professor and Acting Head, Department of Materials Science and Engineering



The
University
Of
Sheffield.

Department Of Materials Science and Engineering

Former Interim of Department: Professor Derek Sinclair
Materials Science and Engineering
Sir Robert Hadfield Building
Mappin Street
Sheffield S1 3JD
United Kingdom
Email: d.c.sinclair@sheffield.ac.uk

28th May 2021

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

Dear Assessment panel,

Following my time as interim Head of the Department in the 2018/19 academic period, I would like to endorse the Department's application for the Athena Swan silver award.

The Department is committed to developing an environment where women in Materials Science are encouraged and empowered to succeed. We are extremely proud of all our aspirational female staff, actively celebrating their achievements wherever possible, promoting them as ambassadors and role models.

During my time as Head of Department we worked on increasing opportunities for women in the department enabling them to develop as far as they wanted. My vision was to make the Department more team based, creating a supportive atmosphere where everyone could thrive, ensuring equitable workloads and support at all levels. We worked on improving female representation across the department especially within committees and having roles of responsibility, increasing visibility and providing crucial development opportunities.

I believe that the ethos behind the Athena SWAN awards is represented the Department's achievements and ambitions regarding holistic equality and diversity. The continued support of equal career prospects in academia is central to the Department, and is something that we continue to work on today.

Yours faithfully,

[Section 1: 822 words]

2. DESCRIPTION OF THE DEPARTMENT

The department of Materials Science and Engineering (MSE) is one of seven departments in the Faculty of Engineering at Sheffield University. This is one of the largest Engineering Faculties in the UK by both student numbers and research income. MSE was second in research income in Materials in the 2014 Research Assessment Exercise (RAE) and has one of the UK's largest Materials student populations. The department can be traced back to the 19th century and its modern formation arose in 1978 by the amalgamation of the Department of Ceramics, Glasses and Polymers with the Department of Metallurgy.

MSE continues to evolve with the discipline. It is currently configured around six distinct but overlapping research themes: Biomaterials, Nuclear Engineering, Nanomaterials, Functional Materials, Advanced Structural Materials and Multiscale Materials Modelling. These themes include and span multiple scientific and engineering disciplines and the gender balance of the academics working in these themes reflects differential rates of progress towards gender equality across these disciplines. For example, an outright majority of female academics is found only in the Biomaterials theme (4F:2M) reflecting that staff can be recruited from bioscience backgrounds, but female academic staff are present, and in leadership positions, in five of the six research themes.

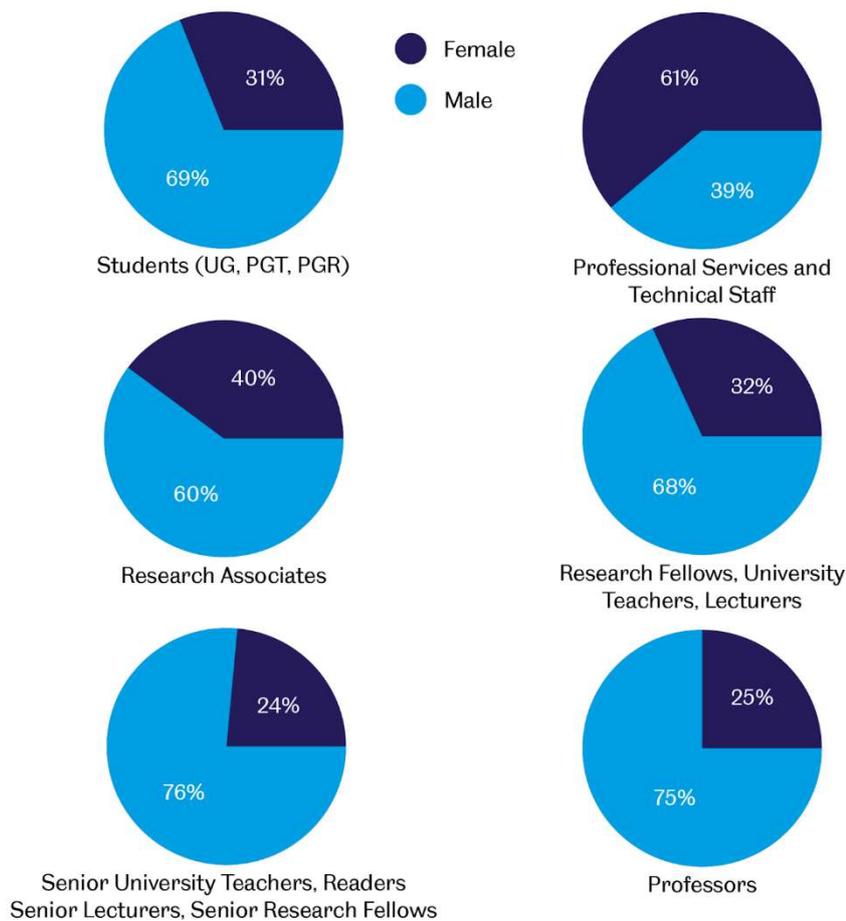


Figure 1. Gender distribution for students and job roles.

During the review period the department has undergone a significant increase in the number of academic, postdoctoral and professional services staff as part of a strategy to grow research volume and enhance the staff:student ratio. This has been achieved whilst increasing the proportion of women in academic and research roles. A snapshot of the gender distribution for students and job role is presented in Figure 1 and more detailed information on trends for each of these categories are presented in Section 4.

MSE is transitioning from its current structure of individual responsibilities (Figure 2) to being team-based and recognising overlapping cross-boundary activities (Figure 3) to foster cooperative working. The Admissions Team is the template for this; they developed this approach since 2016 to generate collective responsibility and a robustness to staff absences, changes or part-time (PT) working that has permitted them to implement an ambitious overhaul of admissions procedures, communications, publicity materials and Open Day format. This led to a record for female undergraduate applications in 2019.

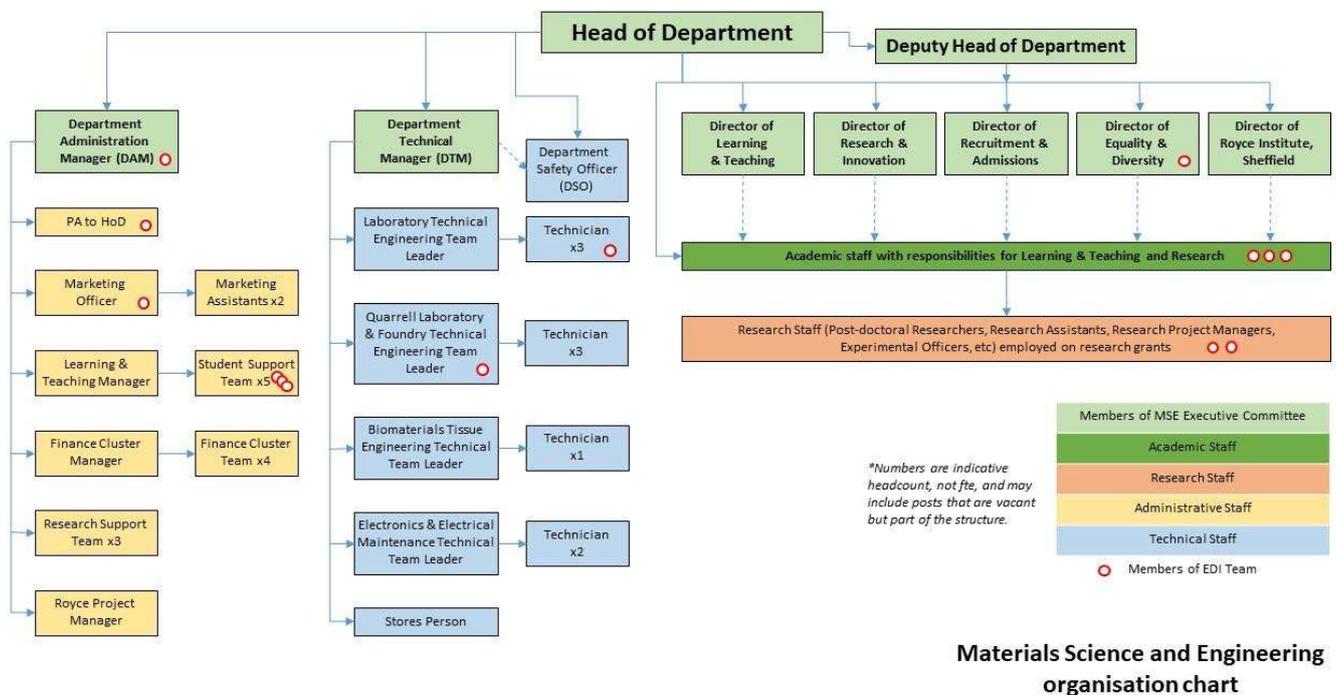


Figure 2. Organisational structure of MSE.

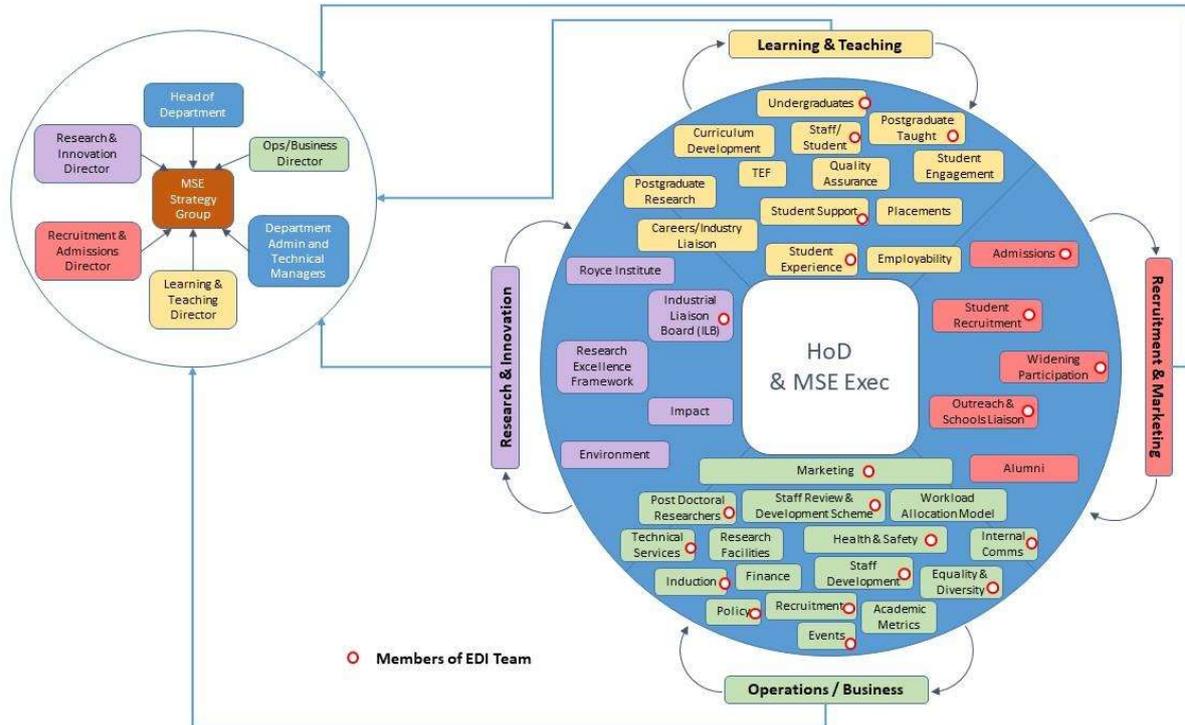


Figure 3. Planned team structure of MSE.

The department's EDI team is assembled from staff across a range of job roles and teams as indicated in Figures 2 and 3. The team is led by a Director of EDI who is expected to devote approximately **20%** of their working time to this role, with the workload allocation raised to **25%** during Athena Swan submission years. Staff also contribute extensively to external EDI matters, most evidently in the FoE, where MSE's Prof. Gwen Reilly provided leadership as the Faculty Director of EDI (2015-2019). The EDI team members are embedded throughout MSE, reflecting how EDI is 'baked in' across the department.

Major Athena SWAN Achievements (2015-20):

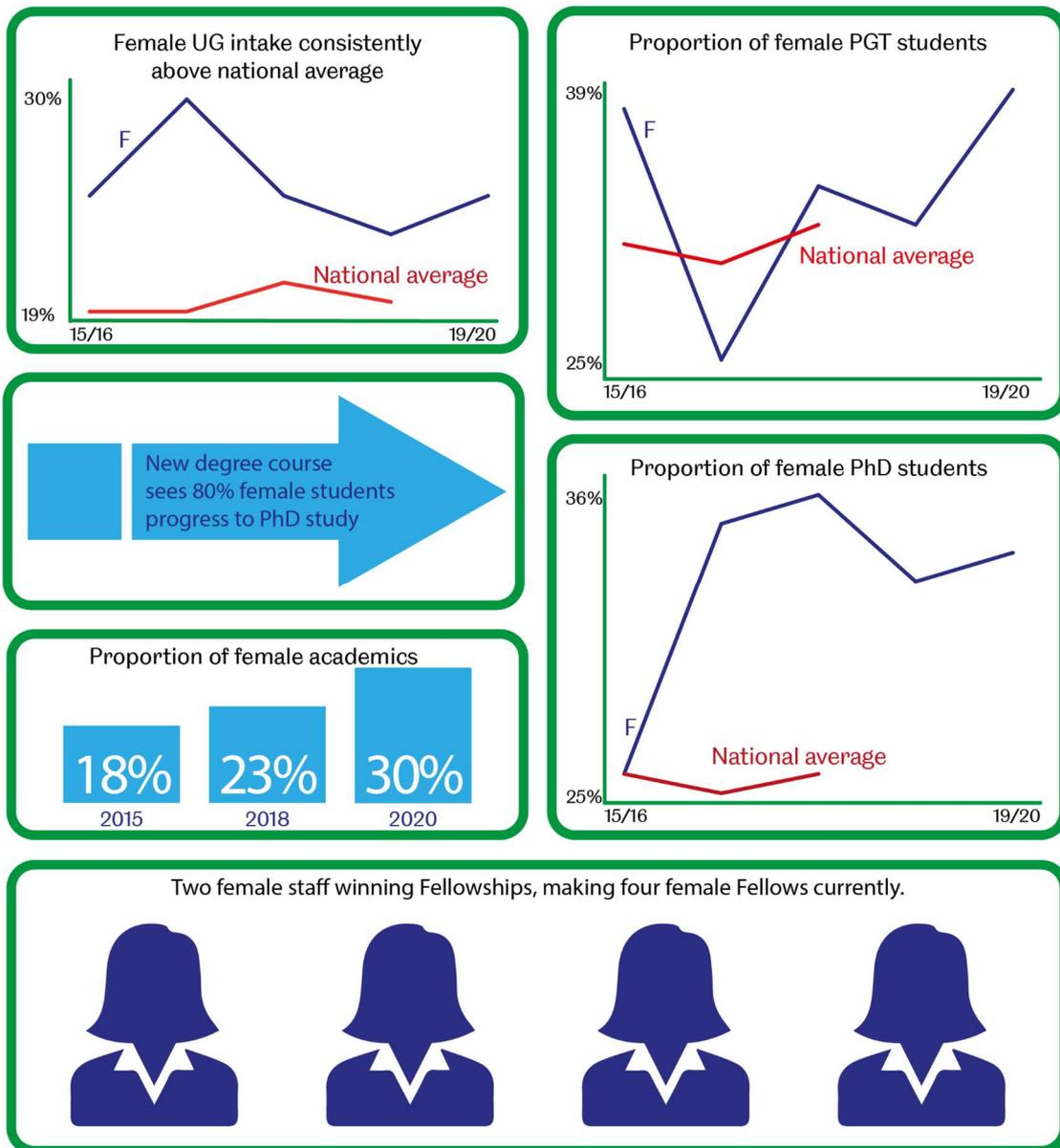


Figure 4. Summary of some recent major AS impacts.

The major impacts of Athena SWAN activity over the recent period are summarised in Figure 4 and in the following:

- Increased number of Female PGT students on scholarships to support gender balance in Engineering.
- Strong improvements in PhD students submitting thesis on time.
- Recruitment of married couple of female Professor and male Reader by joint appointments with another department.
- Promotion for more than half of female academics.
- >25% Female representation on all MSE committees.
- Technicians promoted; two to Academic pathway.
- Three of MSE's four Technical Team Leads are female.
- Unconscious bias training compulsory for staff and given to new UG and PGT students(*).
- New staff induction pack in response to survey feedback.
- Department e-Handbook (Figure 5), including family-friendly policies (*).

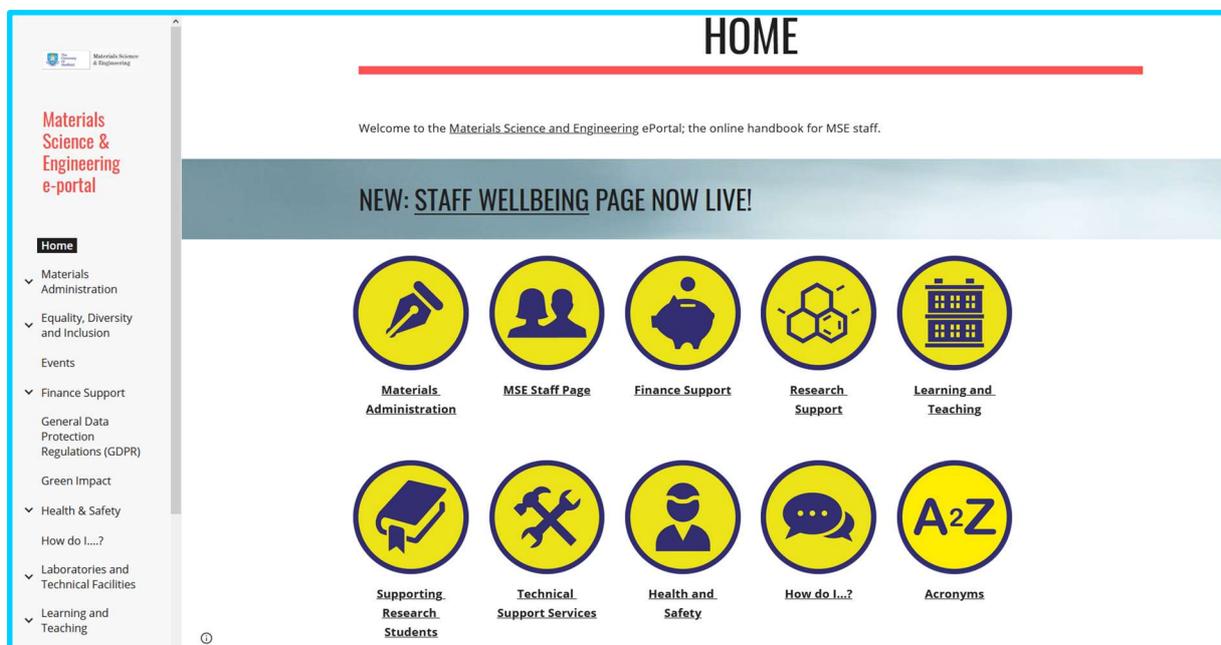
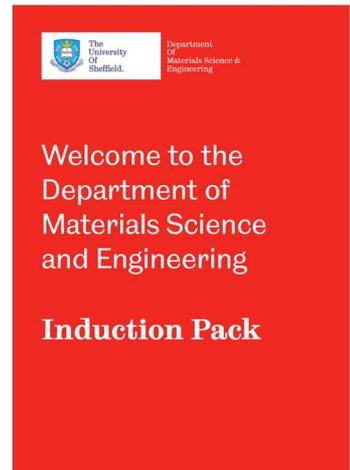


Figure 5. MSE e-Handbook

MSE consistently scores highly in the National Student Survey (NSS), e.g. ranked number 1 in the Russell Group for Overall Satisfaction in 2020. Students benefit from the social space in the Turner Museum of Glass within our main building (Figure 6). Our student numbers (Table 1) show %F growing through the pipeline. Undergraduate (UG) numbers have increased since 2013/14 with %F consistently higher than benchmarks. However, we are concerned about a reduction in female accept rate over the past two admissions cycles. Our taught postgraduate (PGT) numbers are increasing rapidly while maintaining %F in line with benchmarks. Our postgraduate research (PGR) student numbers have reduced over five years but female numbers have increased and %F transformed from 21% to 36%, well above the national average of 26%.

	Female	Male	Total	%F
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Undergraduate (UG)	67	174	241	28%
Taught Postgraduate (PGT)	28	62	90	31%
Research Postgraduate (PGR)	43	86	129	33%

Table 1. MSE student numbers (at Dec 2020) by gender and total.

Figure 6. Turner Museum of Glass.

MSE UG and PGT students undertake taught laboratory sessions in the ‘Diamond’ (Figure 7), a dedicated innovative £81M teaching building. This bespoke building was completed in 2015 with 13 laboratories dedicated to FoE students.



Figure 7. Images of the Diamond teaching building.

MSE within the Faculty of Engineering

MSE teaches UG students from other FoE departments and is a major contributor to delivering the three FoE interdisciplinary UG programmes. These programmes enrol ca.300 UG students p.a. and several female MSE staff occupy leadership roles in these programs. The FoE commitment to Athena SWAN (AS) principles has been recognised with four Silver

and three eight Bronze awards currently across its departments (plus Bronze for the Faculty’s Advanced Manufacturing Research Centre).

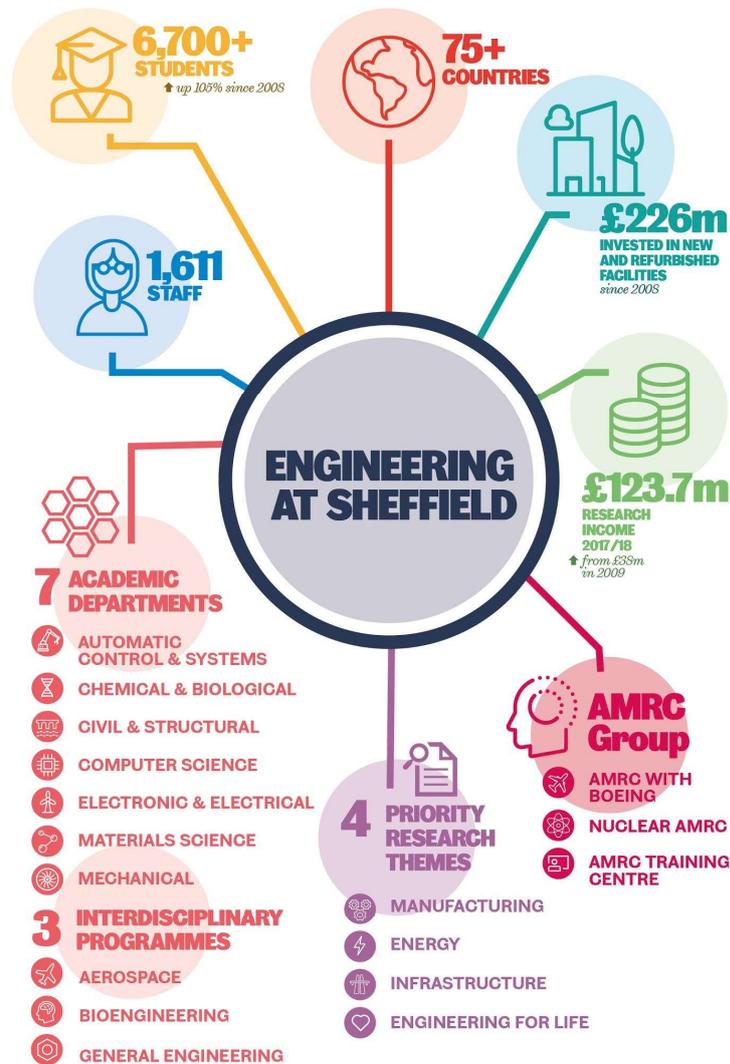


Figure 8. Summary of Faculty of Engineering (FoE).

Departments in the Faculty make a financial contribution to support FoE networks, activities and staff, for collective benefit. The senior post of Faculty Director of Women in Engineering was created in 2011 and the remit was broadened in 2015 to include wider Equality, Diversity and Inclusion (EDI) matters. The post has recently been renamed FDEDI and was held 2015-2019 by a female academic from MSE (Prof Gwen Reilly), who decided to apply for the Faculty position after her positive experience on the MSE SAT committee for the previous AS submission and involvement in the University staff network Women@TUOS. The FDEDI sits on the Faculty Executive Board, thus ensuring that EDI is discussed at the highest level in FoE. EDI (with particular emphasis on AS) is a required element of the

annual Planning Round of all FoE academic departments and the FDEDI leads discussions on this in Planning Meetings where the synergies between departmental and faculty EDI targets are discussed as well as where department/discipline-specific effort needs to be focussed.

Department funding provides an EDI budget and supports a team of a Director and a full time Support Officer. The Faculty Equality, Diversity and Inclusion Committee (FEDIC) is led by the FDEDI and brings together the EDI team with all Departmental Directors of EDI (DDEdIs) to share best practice and discuss initiatives, common challenges and new evidence on a monthly basis. The FEDIC supports preparations for department AS submissions, runs the Faculty AS Champions Network for promoting best practice, shares best practice around Equality and Unconscious Bias (UB) training and, with the Recruitment and Outreach Team, organises Women in Engineering (WiE) events. WiE events and activities include:

- ❑ Schools outreach activities: 'STEM for Girls' (featured on BBC Radio Sheffield, interview with Amanda Southworth), 'Women in Engineering' (featured in BBC Look North regional TV news, including interview with Gwen Reilly on why we need more women in engineering).
- ❑ Public outreach: 'Engineering Imagination' celebrating International Women in Engineering Day for the public in Sheffield city centre
- ❑ Coaching/support for the Women in Engineering Student Society
- ❑ Wall of Women - featuring biographies and interviews with FoE female staff

MSE has been a strong contributor to outreach events with many staff and students participating in events. MSE staff have featured notably in the FoE Wall of Women (Figure 9).

The cross-department funding also supports a Researcher Development Manager to lead Research Staff Development Committee and organise activities to support FoE researchers, particularly female researchers. These activities include:

- ❑ Writing club for women (MSE: 4F)
- ❑ Academic writing retreat (MSE: 1F/3M)
- ❑ Talks by prominent FoE academics
- ❑ Fellowship Support Programme to encourage female applicants (MSE: 4F/1M)
- ❑ 'Communicating your Impact' training for female academics (MSE: 6F)

MSE attendances in the list are self-reported as FoE records do not yet allow simple interrogation to obtain data. These have contributed to the success of MSE currently having four female academics with Fellowships (and was part of the previous Action Plan). Several initiatives developed in MSE, such as provision of Mental Health First Aiders and the survey of homeworking arrangements during 2020 Covid Lockdown, have been taken up around the University as examples of good EDI practice. MSE introduced Unconscious Bias training introduced by MSE for all staff, and this was subsequently adopted as FoE policy.

Engineering at Sheffield

Faculty ▾ Study ▾ Research ▾ Business and Industry ▾ Engineering Campus ▾

Wall of Women

Engineering is a great choice for women. We aim to break preconceived notions of what engineering is by showcasing our excellent Women In Engineering at The University of Sheffield. Our profiles were taken over a 4/5 year time period and are a snapshot of what our engineers were doing at that time.



Figure 9. Images of MSE staff and students taken from the UoS *Wall of Women* to highlight the role of women in the Faculty of Engineering, including Lisa Hollands (co-Chair SAT) (<https://www.sheffield.ac.uk/engineering/about/wall-women>).

3. THE SELF-ASSESSMENT PROCESS

SUMMARY: Our broad-based self-assessment team engages with the Department and externally to understand our context and the appropriate best practice.

(i) Description of the self-assessment team

The self-assessment team (SAT) is made up of 9 staff (5 female, 4 male) across all staff groups, giving a broad representation of gender, roles, and ages (Table 2). The team

members volunteered for a variety of reasons (Figure 10) and each bring huge enthusiasm for AS activities. Students are not currently part of the SAT but we engage with them through social events and the Department's student society (MATSOC).

The SAT is formed from members of the Department's EDI Team (EDIt). This was reconstituted in March 2018 after an 18 month hiatus and reports to DEC (three EDIt members), academic staff meetings and all-staff Department meetings. Eddie Cussen (Co-Chair EDIt) is also part of FEDIC, where best practice is shared.

Other key individuals:

Dr Neil Walkinshaw - FoE AS and Gender Bias Working Group

Dr Heidi Christensen - FDEDI.

Professor John Provis - acting HoD since April 2021

Professor John Haycock - HoD since September 2019

Professor Derek Sinclair - acting HoD from September 2018 to August 2019.

Professor Neil Hyatt - HoD to August 2018.



Figure 10. SAT members' motivations. [Figure = 86 words]

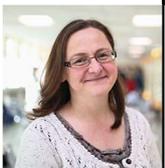
	<p>Dr Eddie Cussen (Co-chair SAT since 2020) Reader (joined 2018) Departmental Director of EDI Part of DEC, FEDIC. Disability Liaison Officer for MSE.</p>		<p>Dr Lisa Hollands (Co-chair SAT) Technical Team Leader Returned to Department in 2012 after working in industry. On University's 'Wall of Women'</p>
	<p>Amanda Southworth Recruitment, Outreach and Student Experience Coordinator (joined 2019). Experience in industrial and education sectors.</p>		<p>Dr Michael Trikić University Teacher (since 2018) Director of Student Experience and Engagement Bioengineering Admissions Tutor</p>
	<p>Dr Rebecca Boston Lloyds Register Foundation / Royal Academy of Engineering Research Fellow PGR Progression Tutor</p>		<p>Dr Vanessa Hearnden Lecturer (since 2015) Undergraduate admissions tutor Part-time (80%) since 2019</p>
	<p>Dr Amy Gandy Senior Lecturer (since 2015) Joined 2011 (as RA) Featured on University's 'Wall of Women' and 'Inspirational Academics'</p>		<p>Stephen Birch Marketing and Communications Officer (since 2017) Engineering graduate, marketing and communications more than 20 years experience in industrial and education sectors.</p>
	<p>Professor Dan Allwood (Co- chair SAT -2020) Joined 2005 as Research Fellow 0.6 FTE since Oct 2017</p>		

Table 2. SAT members.

(ii) The self-assessment process

We have **met fortnightly** since March 2018. Minutes are made available to the SAT via a shared Google folder, which also holds all EDI team documents. Meetings feature small-group brainstorming, in order to encourage input from all team members and overcome any perceived hierarchy. The previous EDI met three times following the previous Silver Award and made significant progress against the original Action Plan. EDI now has a dedicated budget (*) and EDI members have considerable influence in the Department and beyond (Figure 11), with three members on the DEC (*).

We have run a **Department survey** annually since summer 2018 that receives between 90-110 responses (with a response rate of 20-30% across the different groups defined as Academic Staff, Professional Services, RAs, Technicians, PGR Students). This has allowed us to understand experience and perceptions in the Department, to identify key areas to be addressed and monitored. The survey outcomes also had an immediate impact in influencing Department priorities. We ran two 'outcomes' sessions providing feedback to staff and indicating themes that have arisen from the survey that will seek to address.

Actively demonstrating to staff that their input is valued, listened to, and acted upon is important for engagement and department culture as well as countering survey fatigue. We also intend to run a 'you said, we did (or are doing!)' campaign, again to reinforce the message that staff voices are important.

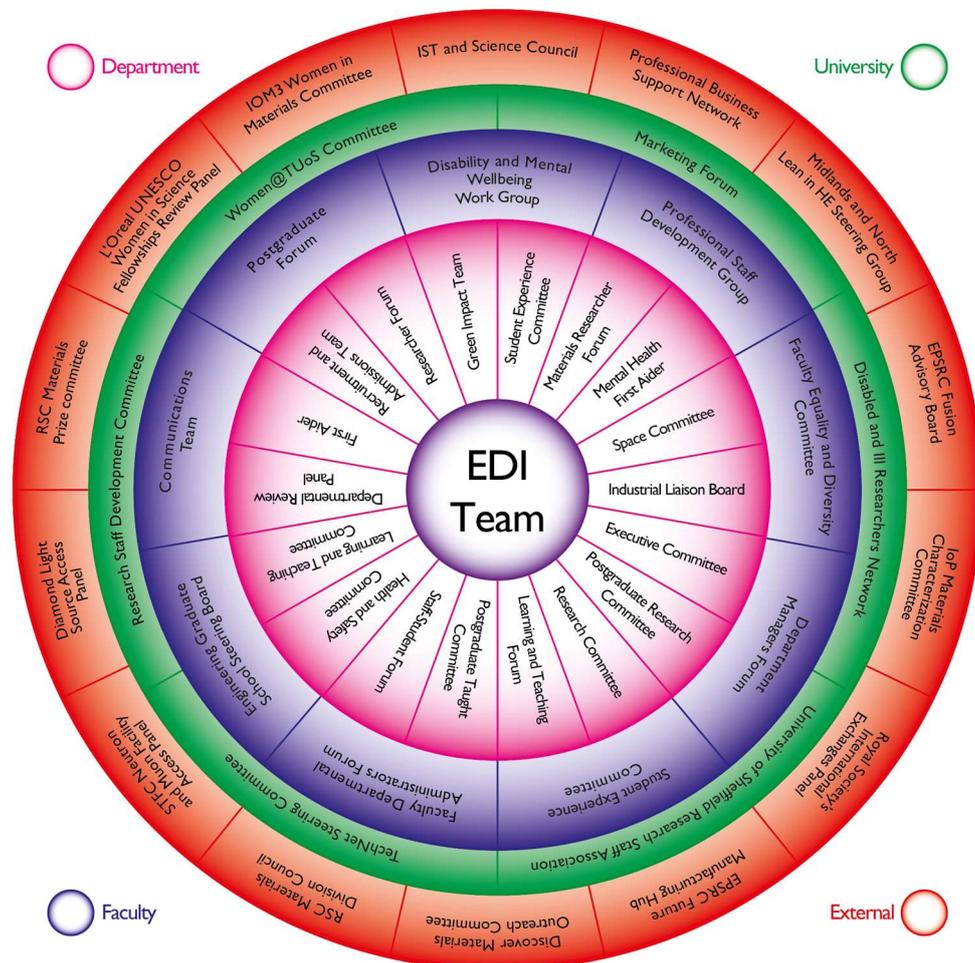


Figure 11. Team and committee memberships of members of the EDI.

We have engaged with outside experts. Previous DEDI Dan Allwood had one-hour Skype conversations with expert practitioners around the UK. These discussions were of profound benefit in raising the long-term aspirations of our SAT and providing guidance on effective approaches to seeing AS-principles becoming woven into the culture of an academic department; this included being evidence-led, having a structured understanding of organisational change, to be bold with developing progressive policies, and the importance of buy-in from key players (e.g. HoD).

The DAM attended an Athena Forum Work Allocation Models Workshop (Sept 2018). This was timely for us given discussions about improving the joint ownership of our existing Workload Allocation Model (WAM). They also attended Prof Paul Walton's talk 'Gender Equality in Higher Education' at UoS and, with Lisa Hollands, a consultation with Dame Athene Donald (Dept Physics, Cambridge) as part of the Advance HE review of AS.

We were struck by LMCB’s use of Kotter’s theory of organisational transformation¹ to guide their AS work. We have reflected on where we are on this journey (Table 3) and will be using this as a touchstone in future reflections.

Step	Status
1. Establishing a sense of urgency	Shared desire to improve the experience and sense of belonging to MSE and career development of all
2. Forming a powerful guiding coalition	SAT established
3. Creating a vision	Creating a vibrant and shared workplace inclusive of all
4. Communicating the vision	EDIt reports to DEC. Feedback in staff/student presentations.
5. Empowering others to act on the vision	Sharing findings invites comments
6. Planning for and creating short-term wins	Induction pack, female Research Fellows, female student numbers, staff-student events, AS award focus, revised Action Plan, EDIt integrated into Dept aims
7. Consolidating improvements and producing still more change	Annual survey, continued revision of action plan, engagement with Gold award depts
8. Institutionalising new approaches	Engaging with University and wider sector

Table 3. Self-assessment of our standing against Kotter’s eight steps of organisational transformation.

Our data collection was far more straightforward for this Athena SWAN submission as UoS now provides a consolidated data pack (*) containing information on student recruitment, registrations and completions, and all HR-related staff processes. Members of the SAT have provided input to the data pack production team to advise on refinements for future datasets to extend the functionality of the datasets. Details of the various census dates are shown in §7.

Impact of Covid on MSE

The lockdown of March 2020 caused wide disruption and the preparation of the Athena SWAN submission was necessarily deferred.

MSE surveyed staff and PGR in May 2020 to identify areas where support was needed and feedback practices that were reported as most supportive.

¹ John P Kotter. “Leading Change. Why transformation efforts fail”. Harvard Business Review, January 2007, pp92-107.

As lockdown eased, each work team carried out Equality Impact Assessments, which were reviewed by DEC. Since early 2021 the MSE Mental Health First Aid team have been working in the communal space of the Turner Museum to make themselves available to anybody who needs support.

In MSE we are aware that the ramifications of this will continue to be felt for several years to come. Recruitment of staff, promotion decisions and performance evaluation will all need to be undertaken with recognition that the average impacts of Covid have fallen more heavily on women.

(iii) Plans for the future of the self-assessment team

Our HoD's mission statement provides the overarching context of our future SAT work: "*To build Dept and its activities around teams and to end with a clear vision for MSE that is inclusive to all*".

FUTURE ACTIONS:

- A. SAT to meet fortnightly through next assessment period.
- B. Continue to engage with FEDIC to discuss best practice.
- C. SAT to broaden remit to include wider intersectionality.
- D. 25% SAT membership turnover per annum.
- E. Invite UG and PGT students to represent their cohorts on SAT/EDI Committee.
- F. External audit of SAT by 2023.
- G. SAT member to attend AS network event each year.
- H. Provide volunteer on AS assessment panel each year.
- I. Update Dept on actions and opportunities three times per year.
- J. Departmental seminar on EDI related topics every year
- K. EDI standing item on all Dept committee agendas.
- L. Dept survey and feedback sessions annually.
- M. Report Gender Paygap data to department.

[word count 1420]

4. A PICTURE OF THE DEPARTMENT



4.1. Student data

Student Intervention Timeline

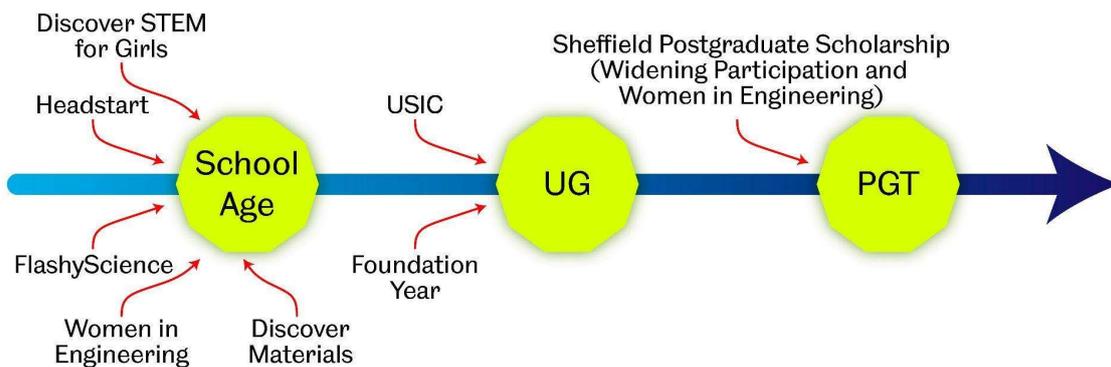


Figure 12. Student interventions through taught programmes.

We engage students and applicants at various stages (Figure 12) with outreach events, virtual experiments as part of application interviews, the FY programme, an articulation agreement with University of Sheffield International College (USIC), and scholarship support for female PGT students. In addition, members of the Department are part of the *Discover Materials* initiative, which involves a number of universities around the UK to promote the discipline of Materials Science and Engineering to school-age children, teachers and parents.

Data from UG and PGT show female students tend to perform at least as well as male peers, and work at all stages of the UG recruitment process are reflected in positive gender data relating to applications and enrollments. PGT are recruited significantly from overseas, most especially China. MSE typically graduates 65 UG and 85 PGT students each year. **Challenges** are evident in the data around acceptance of PGT offers by female applicants and the progression of female students onto postgraduate study.

(i) *Numbers of men and women on access or foundation courses*

SUMMARY: Increased FY numbers with 33% female students due to changes in admissions policy.

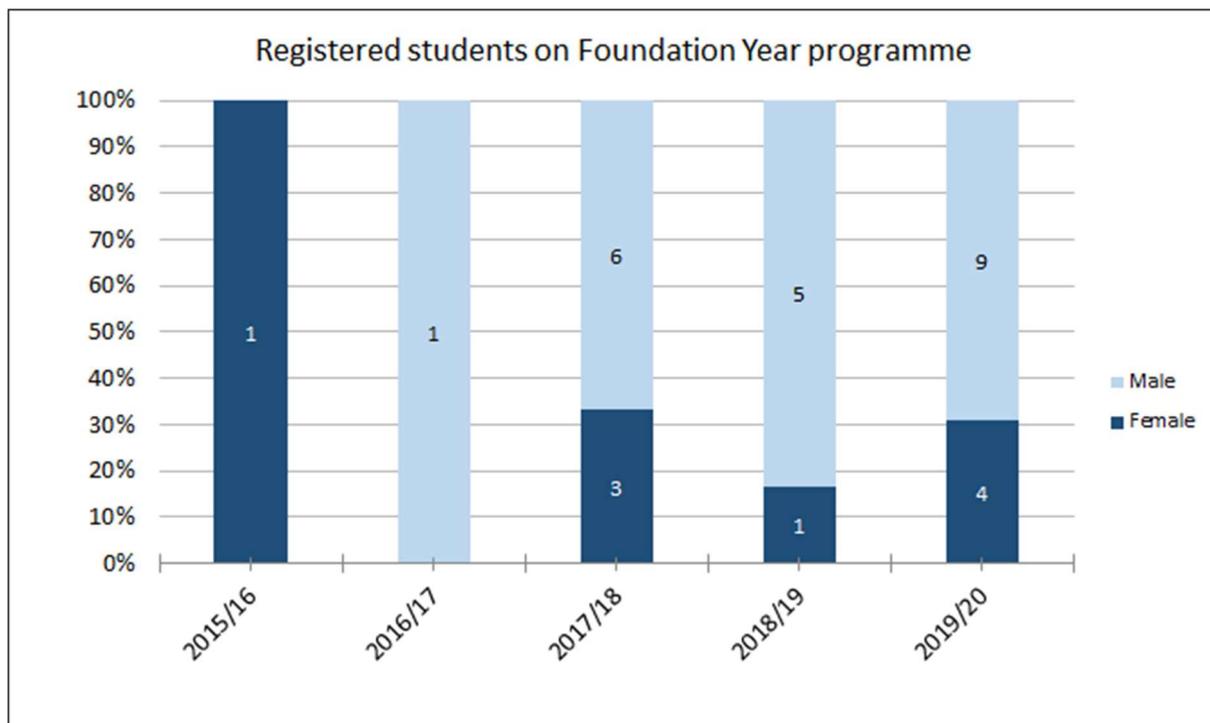


Figure 13. Registered MSE-linked students on Foundation Year programme.

Impact of Actions Changes in 2017 admissions requirements from required grades to required subjects immediately impacted FY numbers (Figure 13) and resulted in 33% %F.

FUTURE ACTIONS:

- A. Continue to monitor MSE-linked FY student numbers by gender each year.
- B. Monitor FY student progression to MSE programmes each year.
- C. Investigate suitability of Pathway to Engineering for MSE applicants.

(ii) *Numbers of undergraduate students by gender*

SUMMARY: Rising student numbers while maintaining %F above national average. Higher %F of applications. Female UGs perform exceptionally well.

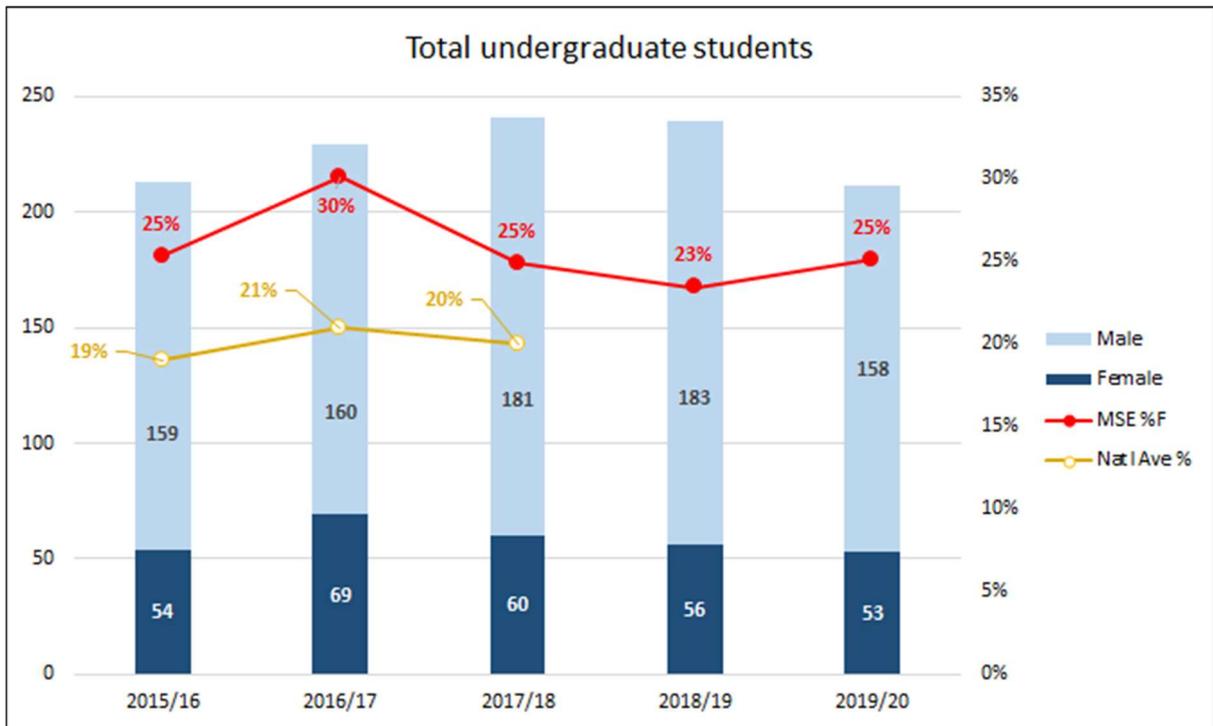


Figure 14. Total UG student membership of the department by gender.

Challenges The decrease in student numbers in 2019/20 may reflect changing demographics in the UK.

Impact of Actions The Open Days have been redesigned to foster a friendly environment, and communication with applicants was improved*. These items have been identified as positive factors in UG applicant feedback, along with enhanced NSS results after a focus on improved student engagement.

There is gender parity in our applicant offer rate (Figures 15, 16). We have worked to ensure there is a positive gender balance to our student ambassadors and current and previous Admissions Tutors are both strong female role models.

Impact of Actions MSE has received record numbers of female UG applications and %F applications recently (Figure 16).

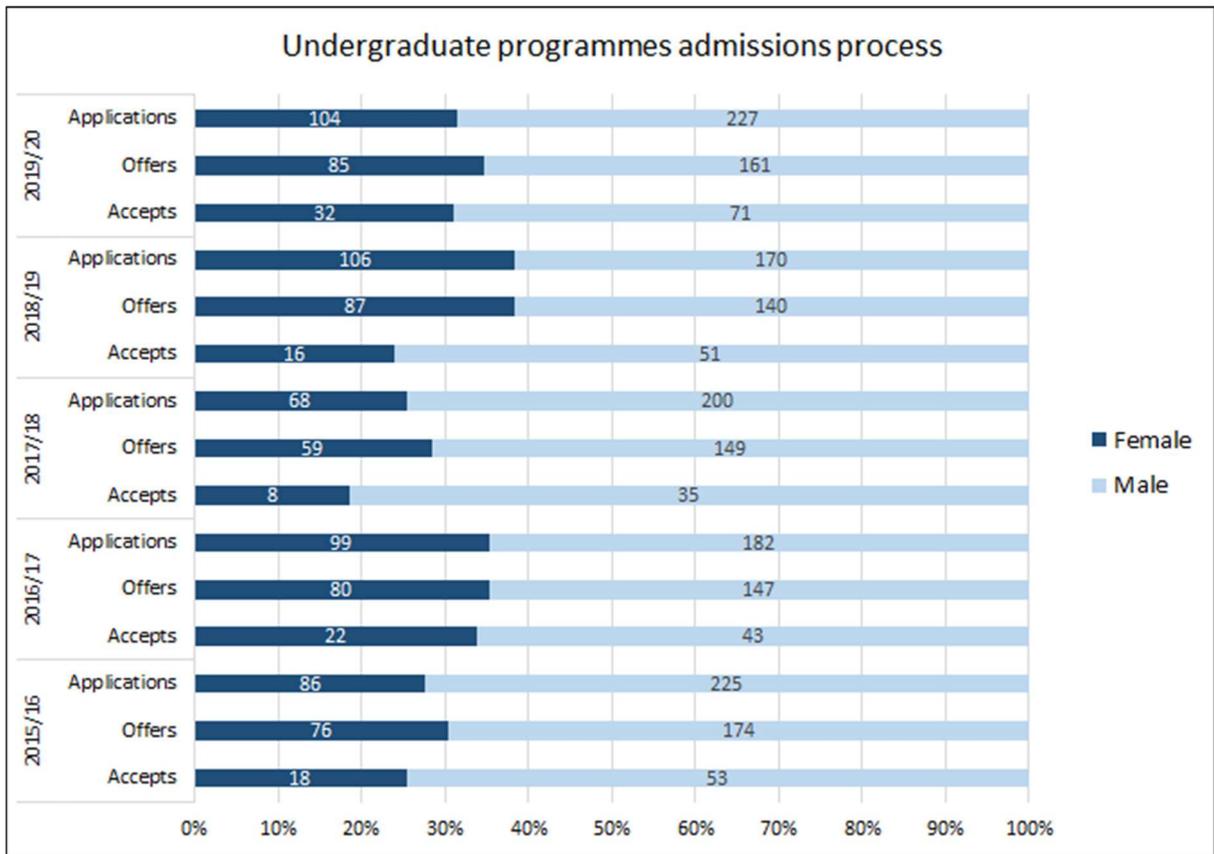


Figure 15. Gender split of UG applications, offers and offer acceptances.

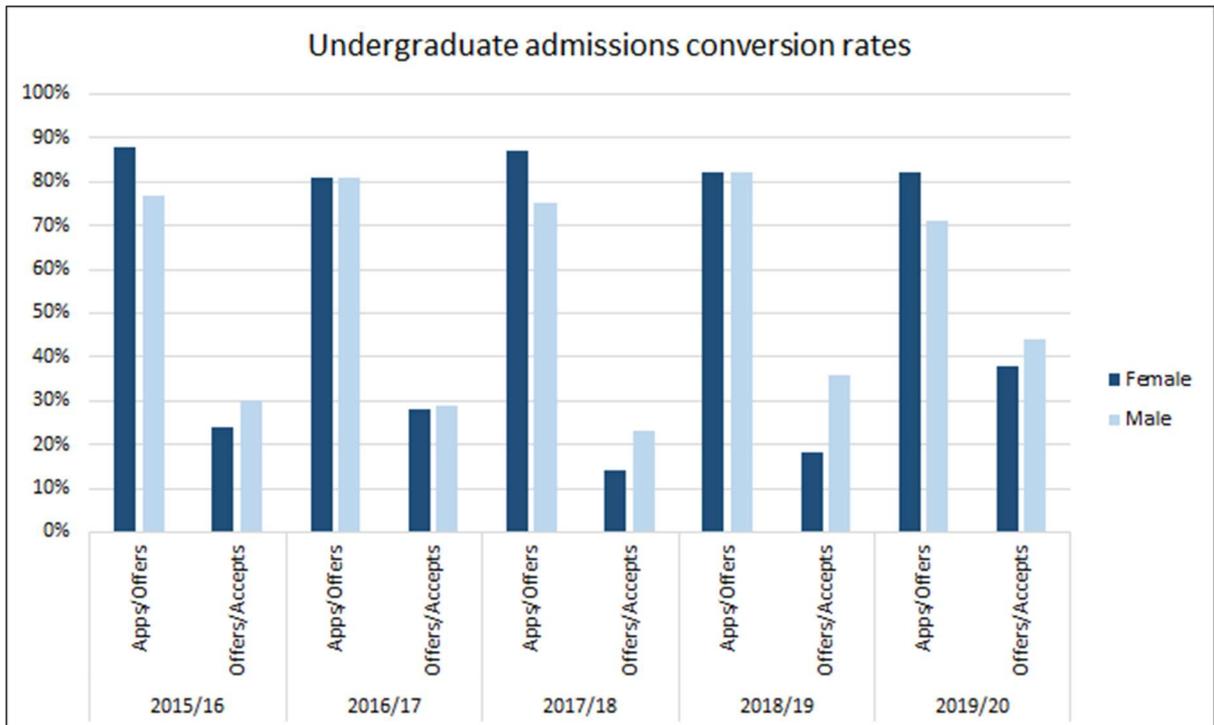


Figure 16. Conversion rates of UG applicants receiving an offer, and accepted offers.

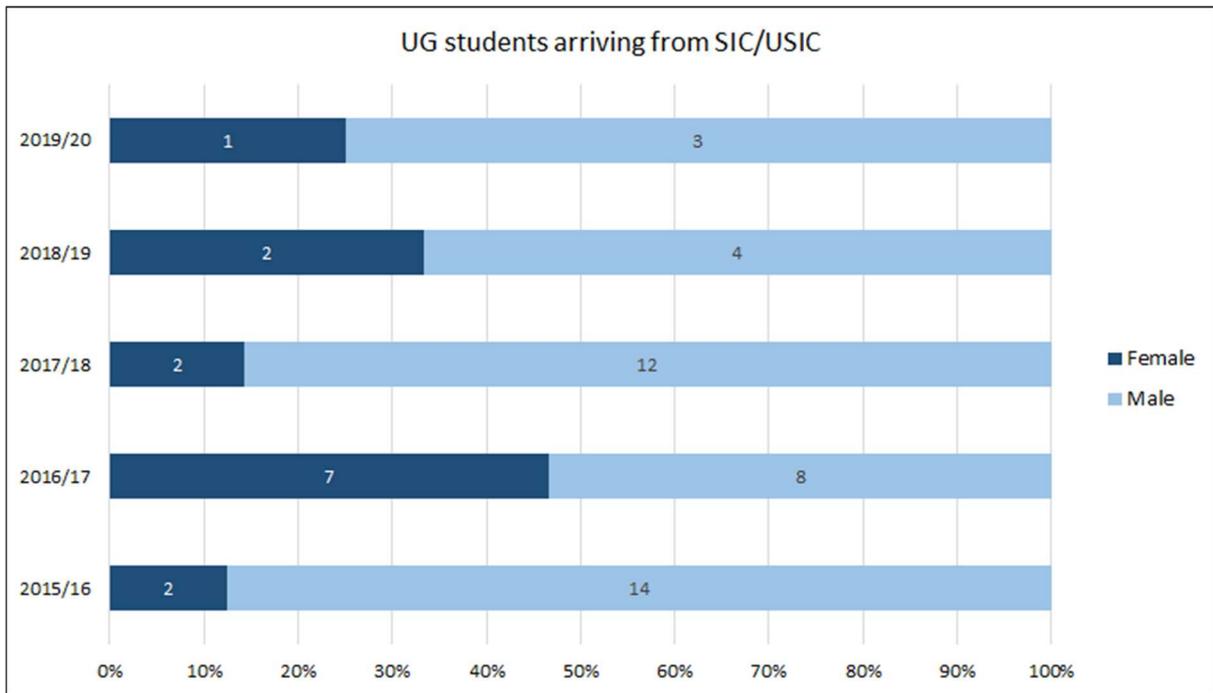


Figure 17. UG students from Sheffield International College (SIC) and University of Sheffield International College (USIC) from 2016.

UG entry from articulated international colleges (Figure 17) had a varied gender balance.

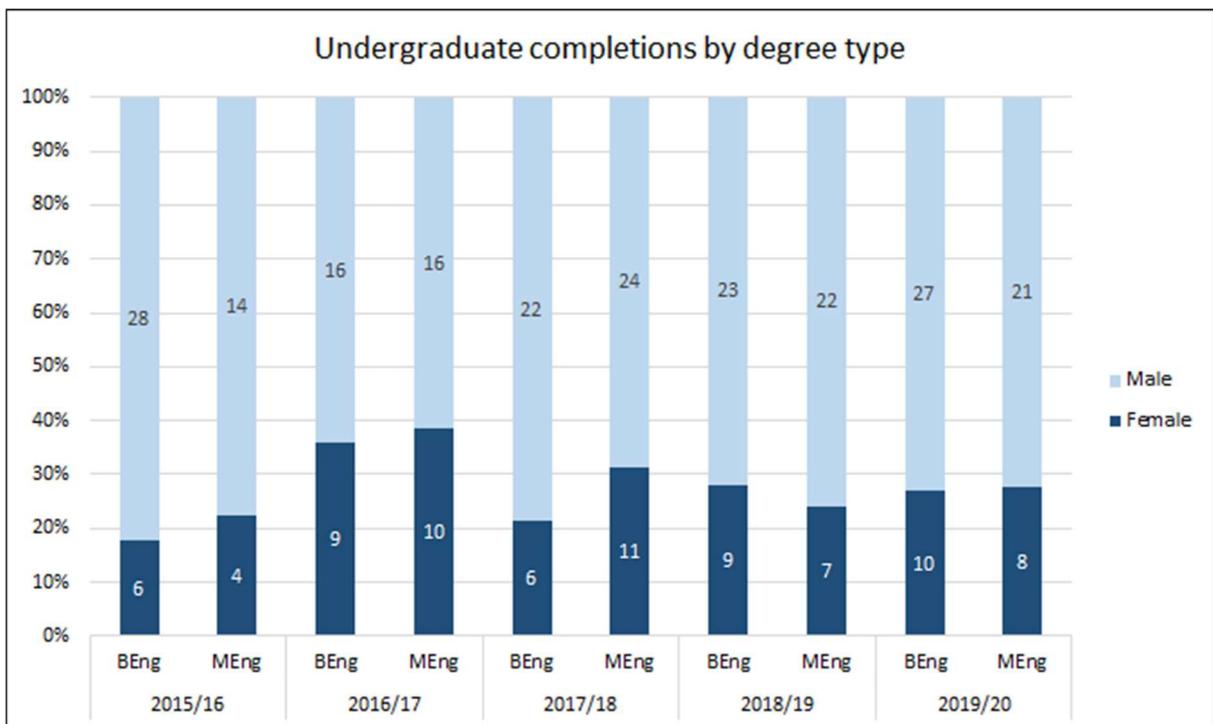


Figure 18. Undergraduate students completing BEng and MEng courses.

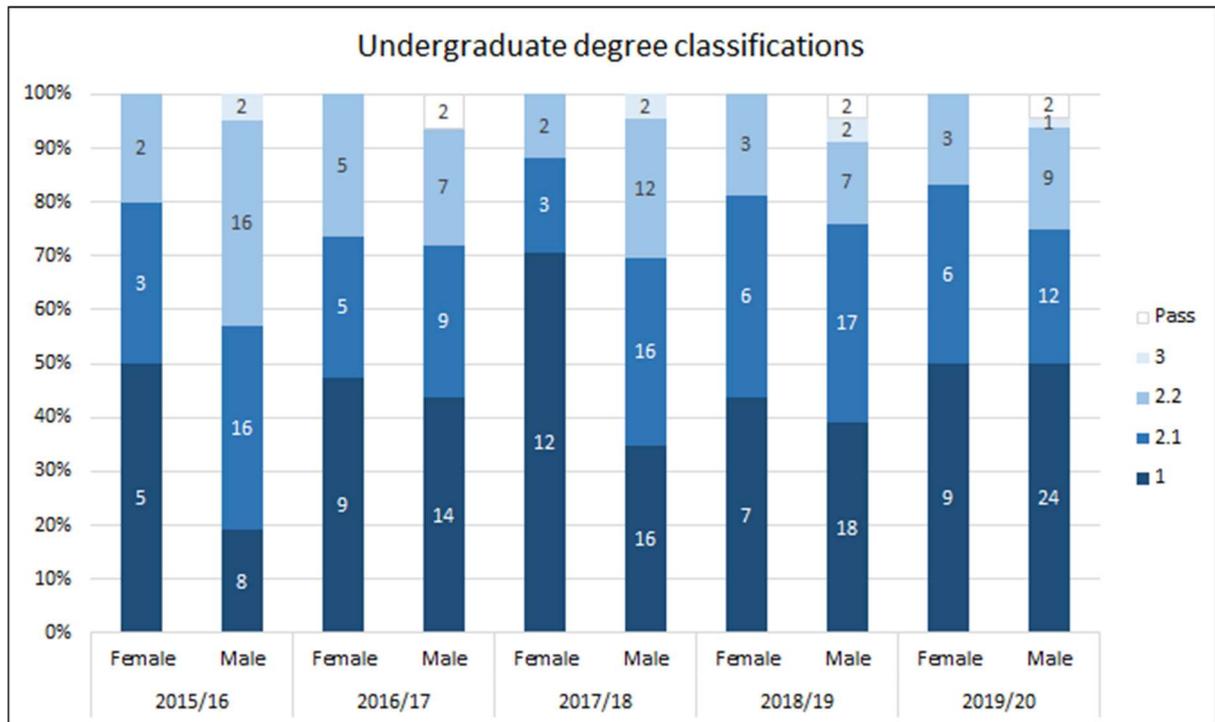


Figure 19. Undergraduate degree classifications by gender.

The gender balance of our graduating UGs (Figure 18) shows a greater %F for four-year MEng degrees (due to better female performance at Y2, when there is a grade hurdle for MEng continuation) and in 1st/2i Degree classifications (Figure 19). Since 2018 we have run gendered focus group discussions that gather feedback from students in their first university term to quickly identify and correct challenges to learning amongst the female cohort.

UoS does not offer PT undergraduate programmes.

UG-focused FUTURE ACTIONS (see below for joint UG & PGT actions):

- A. Collect data on USIC applications process.
- B. Maintain USIC visits and Open Days.
- C. Develop strategy of ROO engagement of female applicants.
- D. Review impact of offer grades on students with lower predicted grades.
- E. Maintain monitoring of UG applications and entry by gender.
- F. Investigate scholarships targeting female and BAME students.

(iii) Numbers of men and women on postgraduate taught degrees

SUMMARY: Increased PGT numbers (with national average female representation) due to overhaul of offering, marketing, scholarships and communication with applicants.

From 2017 we have made extensive changes made to PGT admissions including: rationalised course offering, enhanced communications web-based module information, in-person or Skype interviews for UK-based applicants* and promotion of £10k Sheffield Scholarships for female Engineering PGT (currently three in MSE). The PGT applications show a significantly increased registration rate amongst male students.

Impact of Actions PGT numbers have increased with %F above national benchmarks (Figure 20) following 2017's changes. The revised interview process led to 17/36 visitors registered for 2018 entry. The increase is due to full-time (FT) students; only between three and six PT PGTs are enrolled each year.

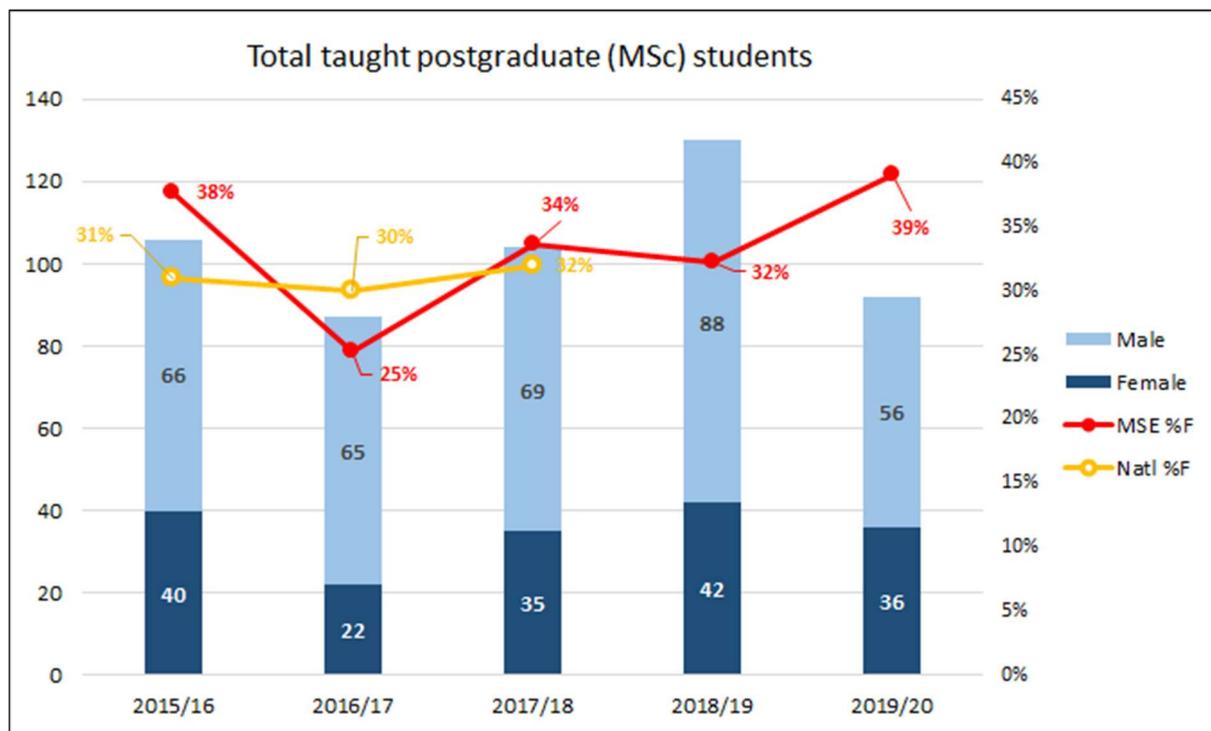


Figure 20. PGT students by gender and comparison to national average.

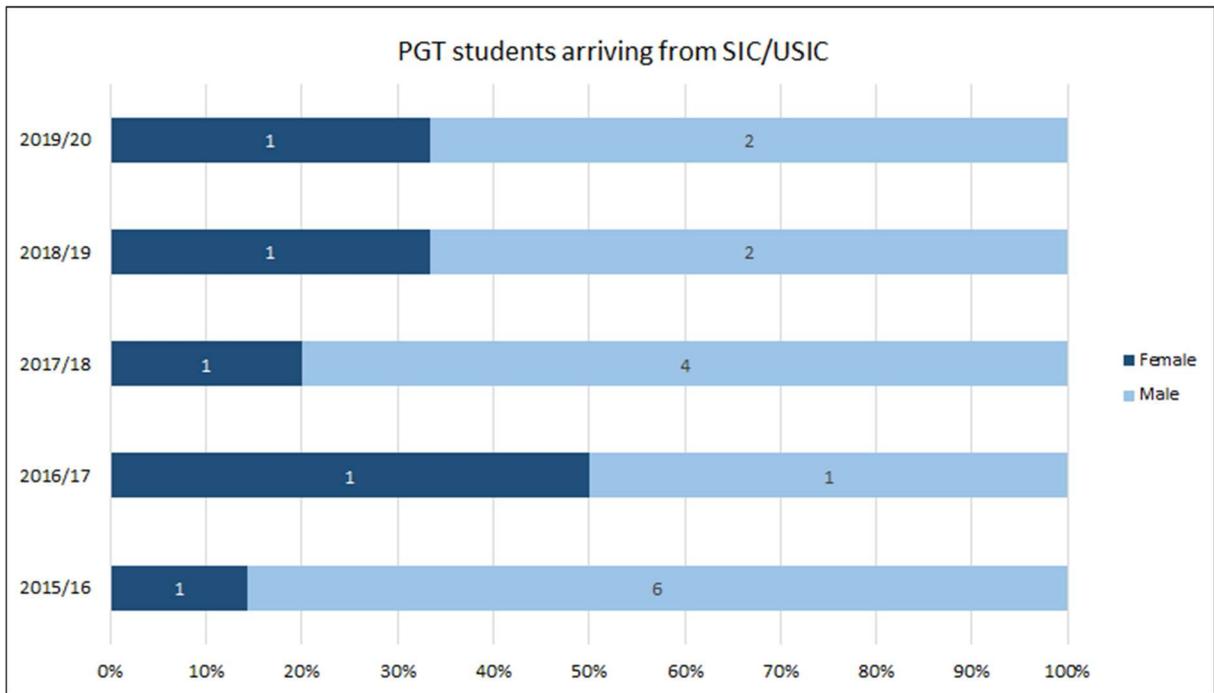


Figure 21. PGT students from SIC/USIC.

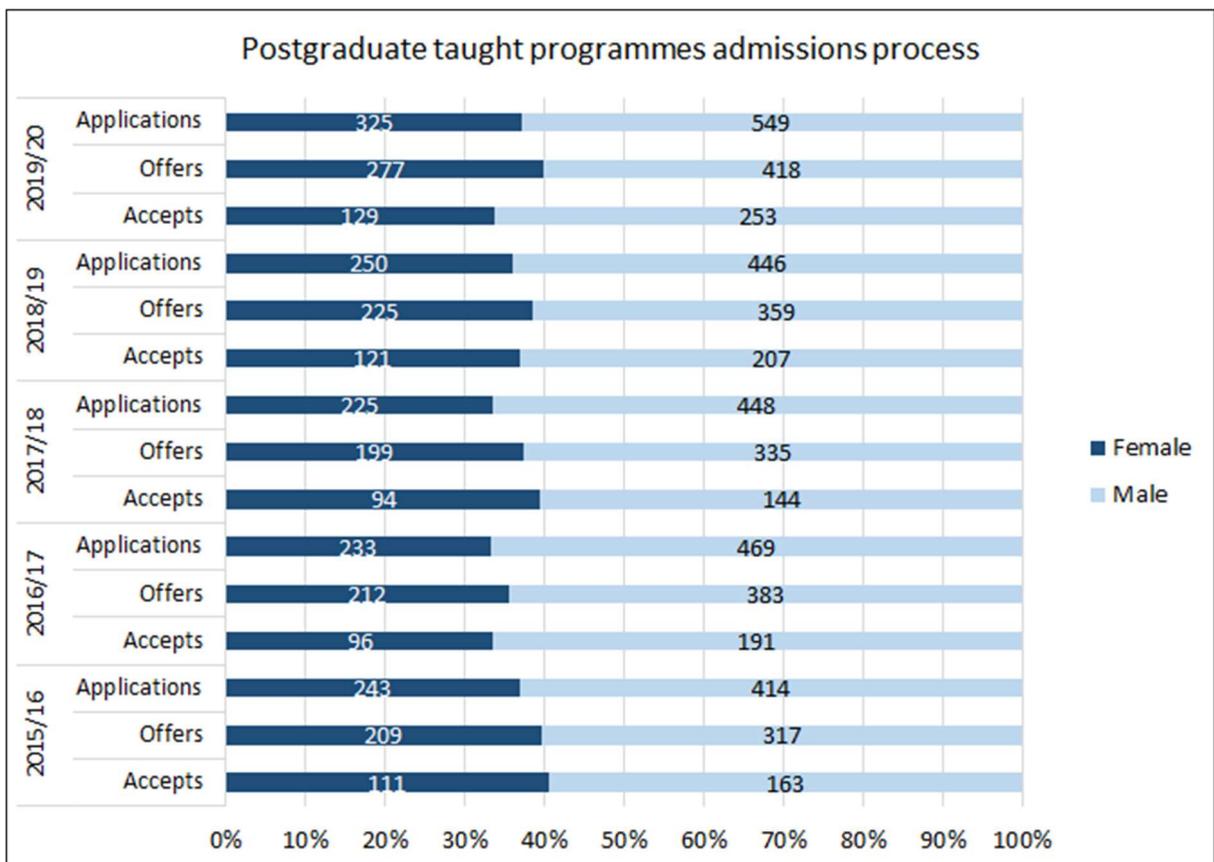


Figure 22. PGT applications, offers and acceptances by gender.

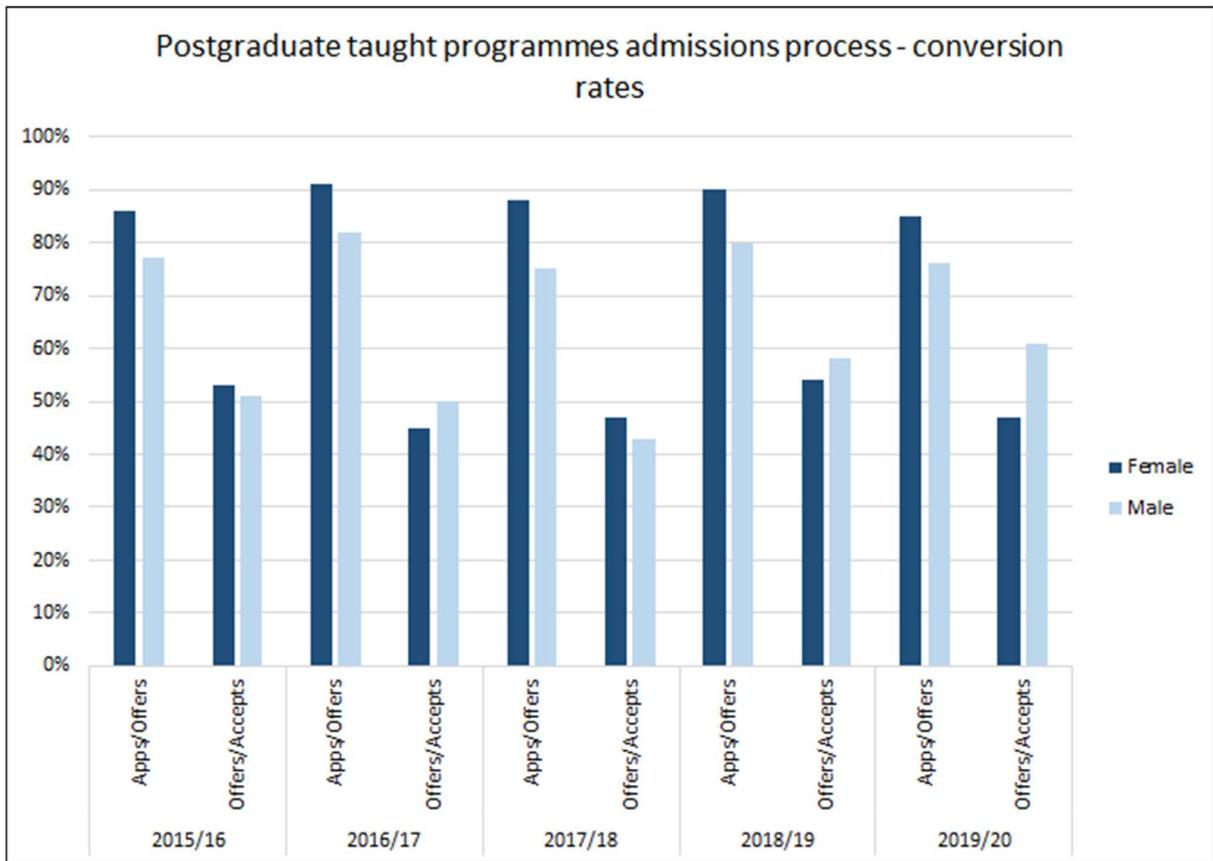


Figure 23. Application-to-Offer and Offer-to-Acceptance conversion rates to PGT courses by gender.

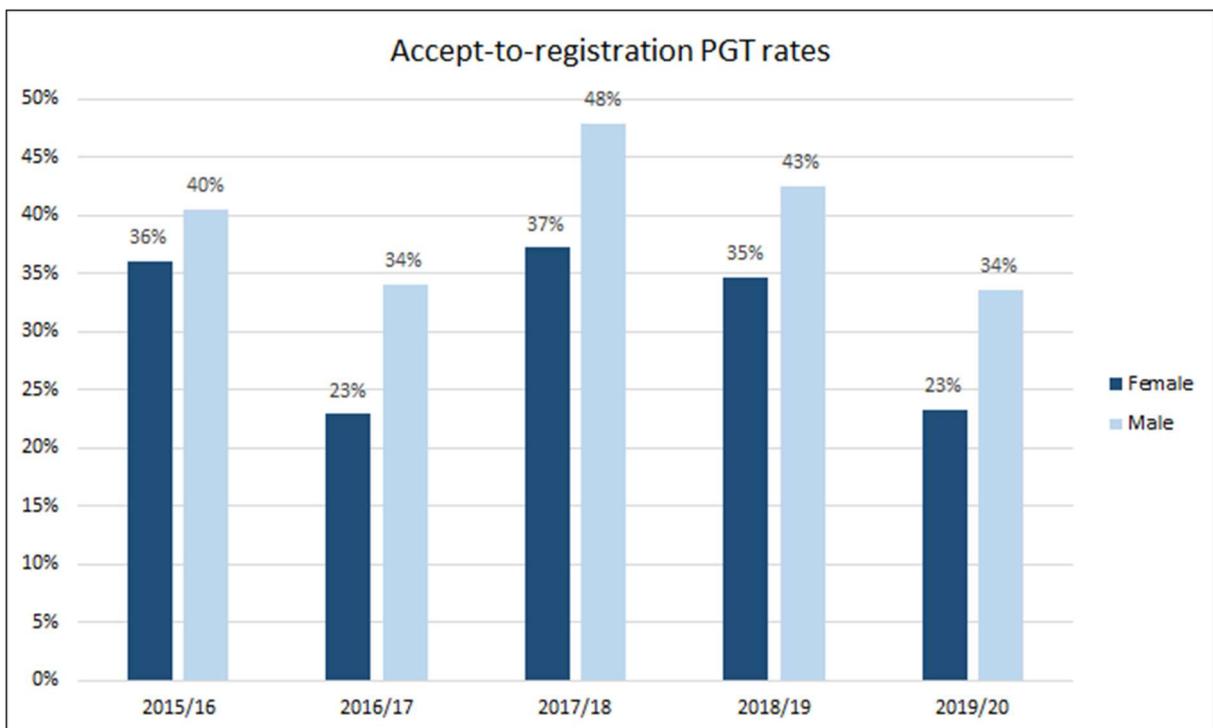


Figure 24. Accept-to-registration PGT rate.

PGT degree classifications (Figure 25) show female students are slightly more likely to obtain Merit or Distinction.

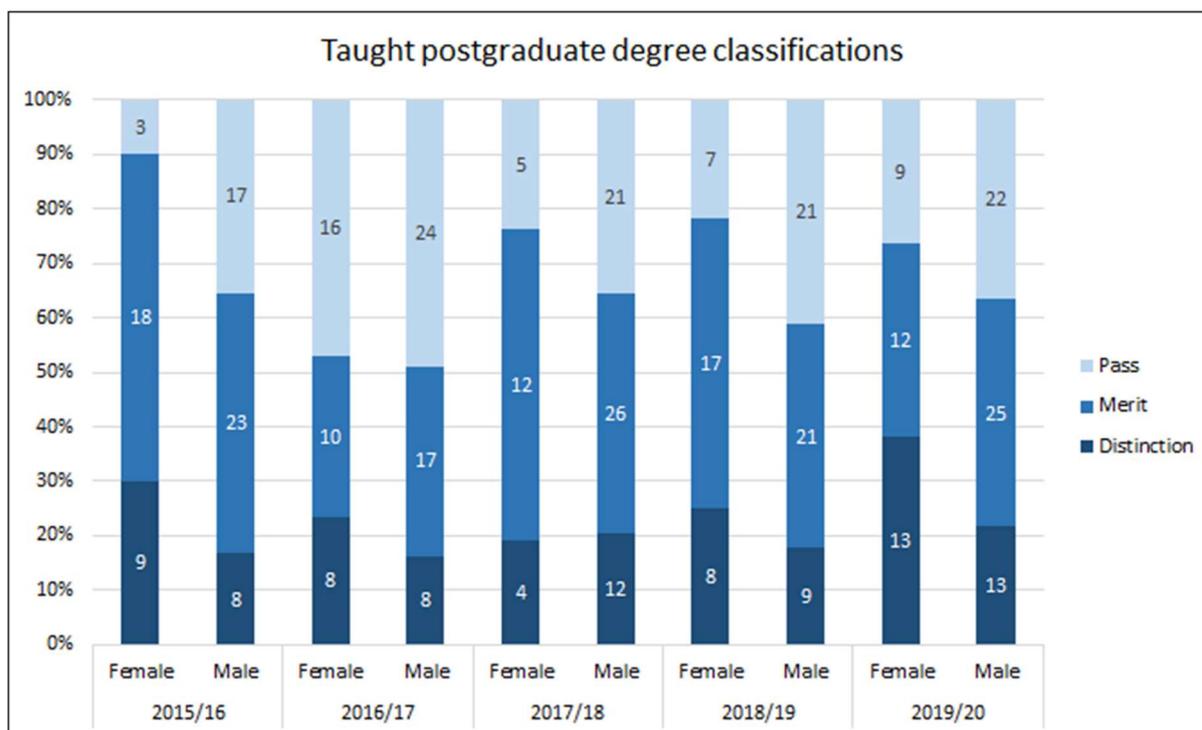


Figure 25. PGT degree classifications.

PGT-only FUTURE ACTIONS:

- A. Change interview day to a Visit Day for UK-based applicants
- B. Invite USIC applicants to Visit Days
- C. Develop strategy of ROO engagement of female PGT applicants to support increased registration rate.
- D. Maintain monitoring of PGT applications and entry by gender.

FUTURE ACTIONS RELEVANT TO BOTH FOR UG AND PGT:

- E. Ensure that gender balance is positively, yet realistically represented throughout all Departmental publicity, marketing and communication activities.
- F. Routine use of focus groups (including by gender) to feedback on recruitment process.
- G. Maintain review of marketing for gender bias.
- H. Develop female case studies, role model visibility and images in marketing.
- I. Review information sent to offer-holders for gender bias.

(iv) *Numbers of men and women on postgraduate research degrees*

SUMMARY: Substantial increase in the female balance of our PhD cohort.

Impact of Actions The proportional increase in the female population of MSE PhD students comes from benchmark parity in 2015/16 (Figure 26). This follows concerted efforts from our previous Action Plan to increase the visibility of female research role models, exemplified by several female staff winning Research Fellowships.

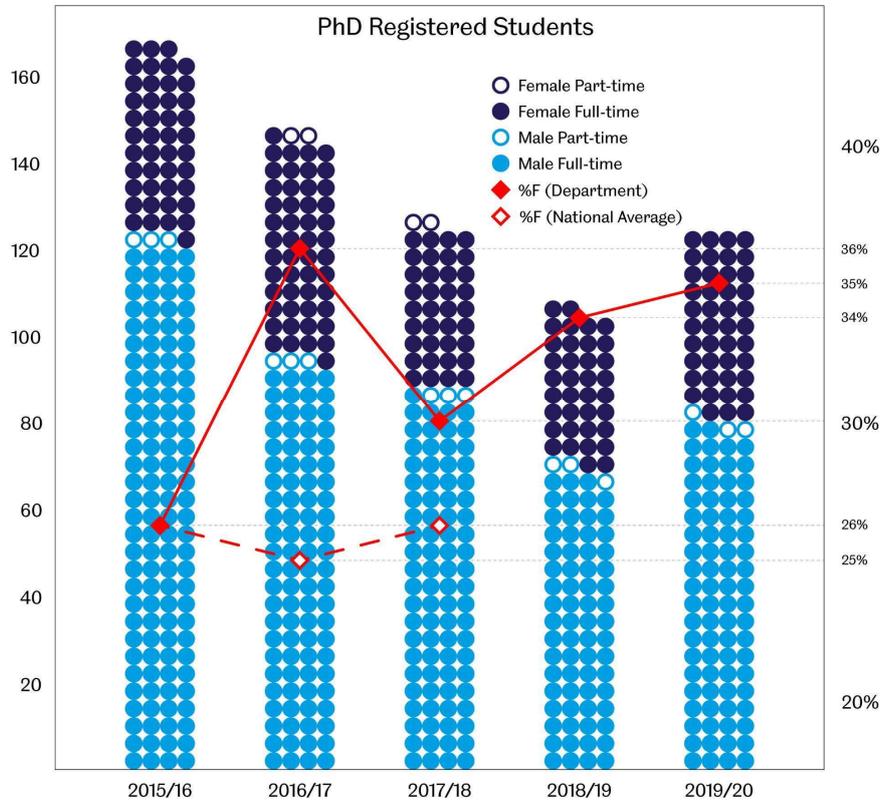


Figure 26. Numbers of registered PhD students by gender, and %F MSE.

The PhD registration data (Figure 27) do not show a gender disparity. Offers may be conditional on funding, and so do not tally with the registrations.

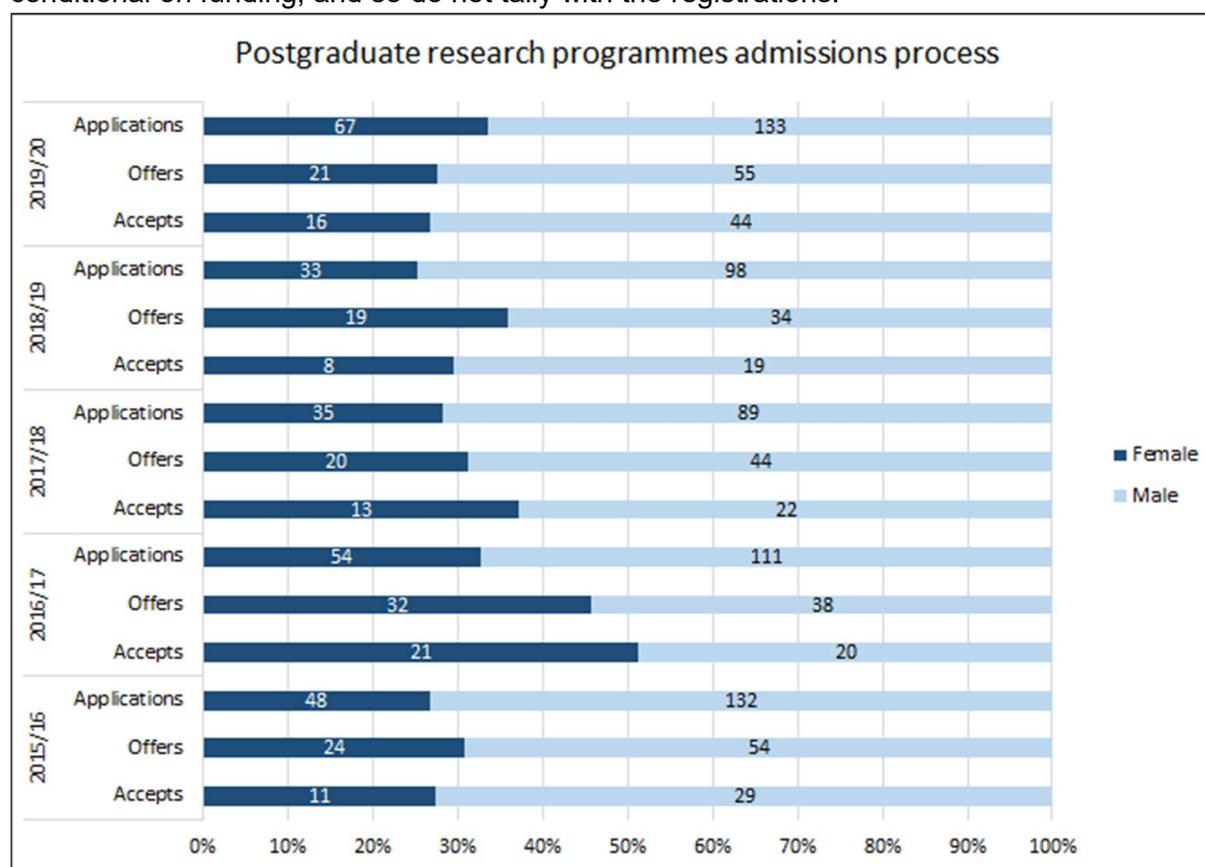


Figure 27. Applications, offers and accepts for postgraduate research courses.

Since 2018 we have exceeded the FoE target of 70% of PhD theses submitted within time (4 years for FT, 8 years for PT). Our datasets show no gender difference in completion rates. We have identified a gap in our datasets relating to in-time PhD completion and will revise monitoring arrangements to allow accurate gender comparison. In future, we will follow the approach of UCL's LMCB to use clear, visual signposting of PGR timelines to communicate the characteristics of healthy PhD trajectories.

MSE have had 4 PhD students take maternity leave in the last few years; all returned to successfully complete their PhD.

TARGETS:

- Increase female PhD student registrations to 37% by 2023.
- Increase timely thesis submission rate to 80% by 2025.

FUTURE ACTIONS:

- Continue monitoring of PhD admissions and registrations by gender.
- Establish robust monitoring of PhD submission rates by gender.
- Develop female case studies, role model visibility and images in marketing.
- Visual signposting of PhD trajectory, in addition to annual progress reviews.

(v) Progression pipeline between undergraduate and postgraduate student levels

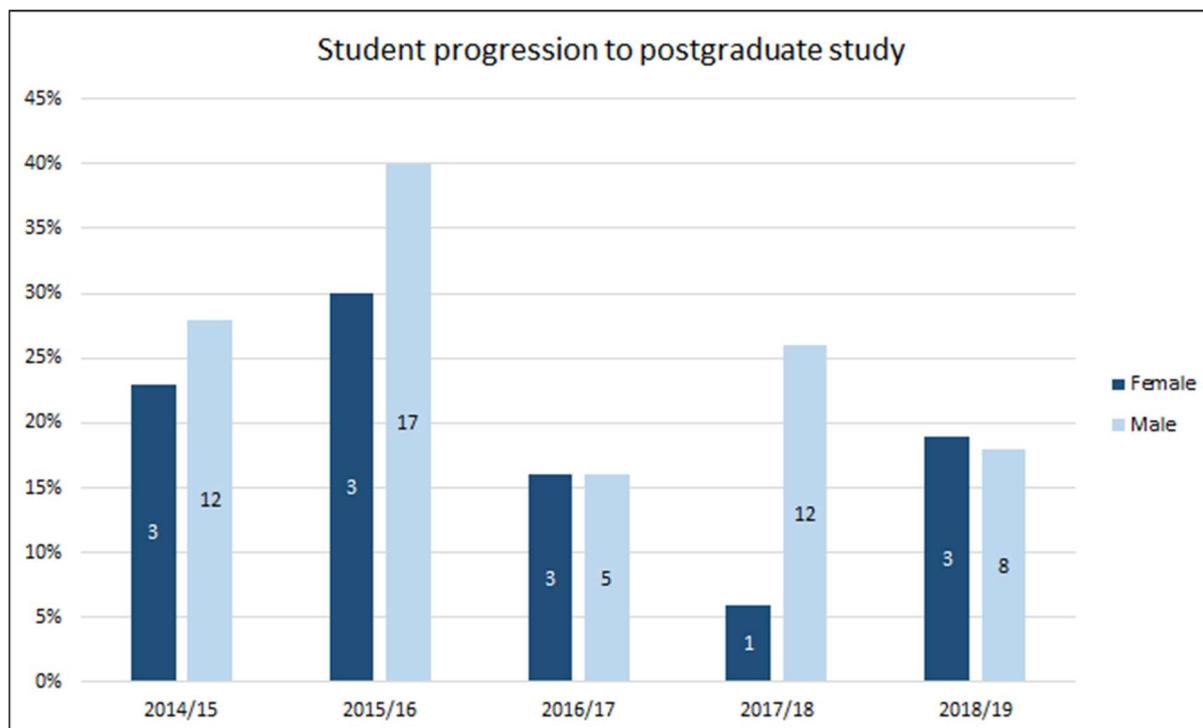


Figure 28. Proportion students by gender progressing from UG to PG study at UoS within two years of graduation.

We have a high rate of undergraduates progressing to postgraduate study (Figure 28; majority to PhD) but with a possible gender split of male students more likely to become postgraduates.

Impact of Actions Our MSE (Research) degree has provided some mitigation to this, with recent graduating cohorts having 80% (4/5) female students continuing to PhD, compared with 50% (5/10) male students.

TARGET

Gender-balanced progression to postgraduate study.

FUTURE ACTIONS:

- A. Continue to monitor UG-PG progression by gender.
- B. Hold female PG focus groups to learn why they chose this route and how they learned of it.
- C. Encourage female Y2 UGs to apply for summer research placements.
- D. Invite UGs to PhD and PGT student presentations.
- E. Hold information sessions and workshops on postgraduate study.
- F. Run research lab tours for UG students.

4.2. Academic and research staff data

Challenges MSE recruits academic staff from a range of background disciplines that show a range of progression towards gender equality. This has an ongoing impact on the %F applications for both academic positions and research staff.

Impact of Actions Our female Academic staff numbers and %F (Figure 29) have steadily increased since 2013/14 and %F now just exceeds benchmark data. We have made female appointments to Lecturer (previously RA in MSE) and, recently, two Professors (external; one joint with another FoE department; not shown in data). An additional female Emeritus Professor is not included in these data but contributes to MSE via research activity and grant income. Two females won Research Fellowships (one RA, one Academic), both with Departmental support.

(i) Academic staff by grade, contract function and gender: research-only, teaching and research or teaching-only

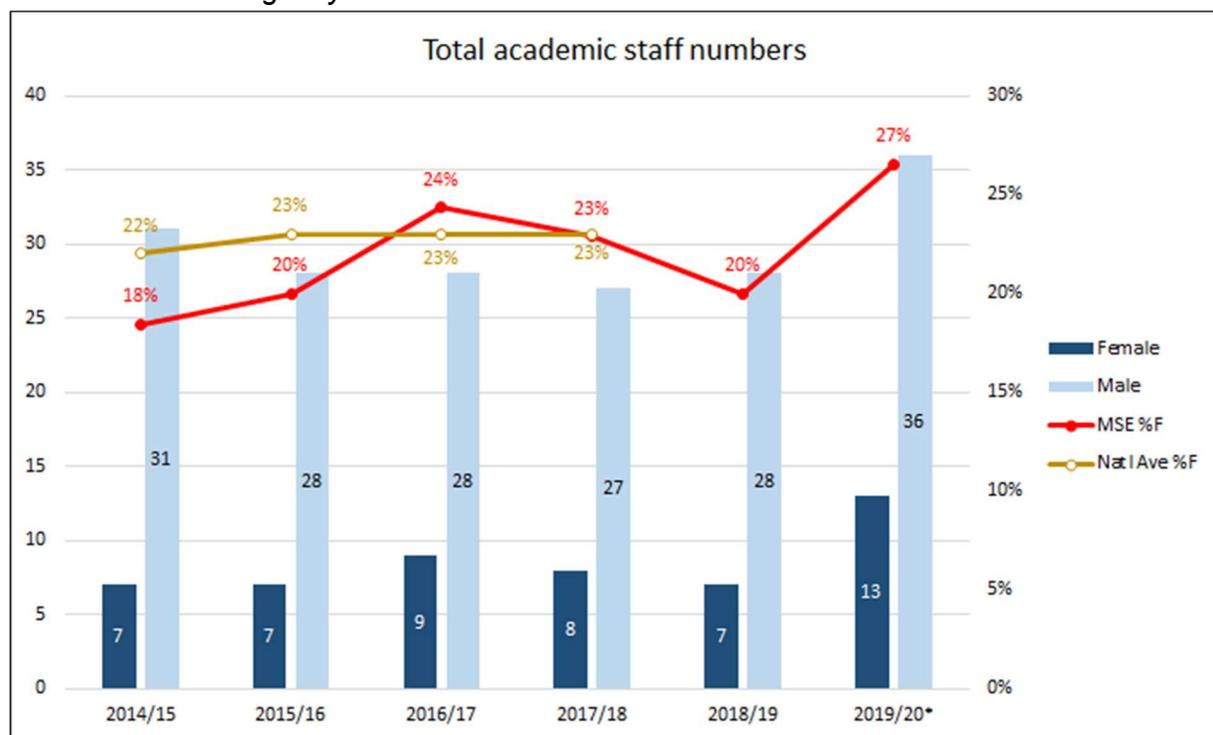


Figure 29. Numbers of academic staff by gender.

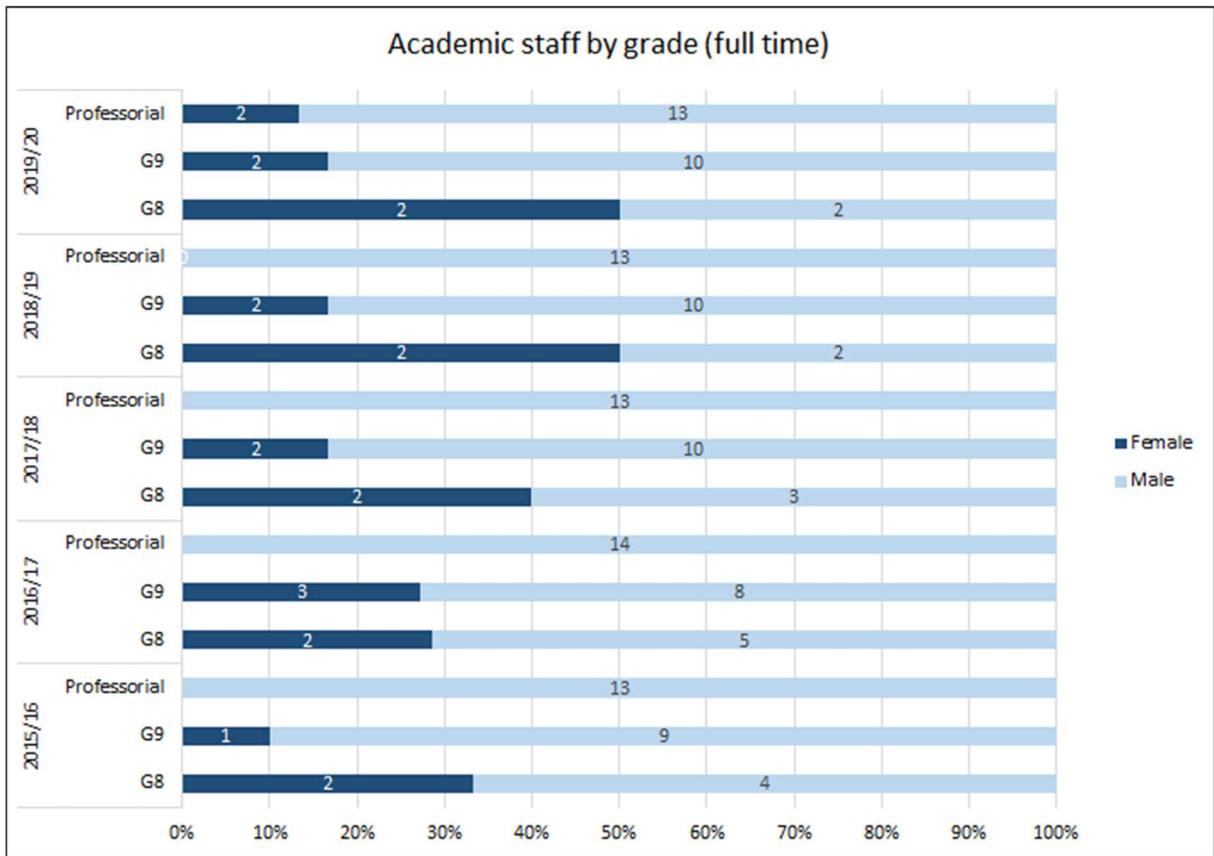


Figure 30. FT Academic numbers in MSE by grade and gender.

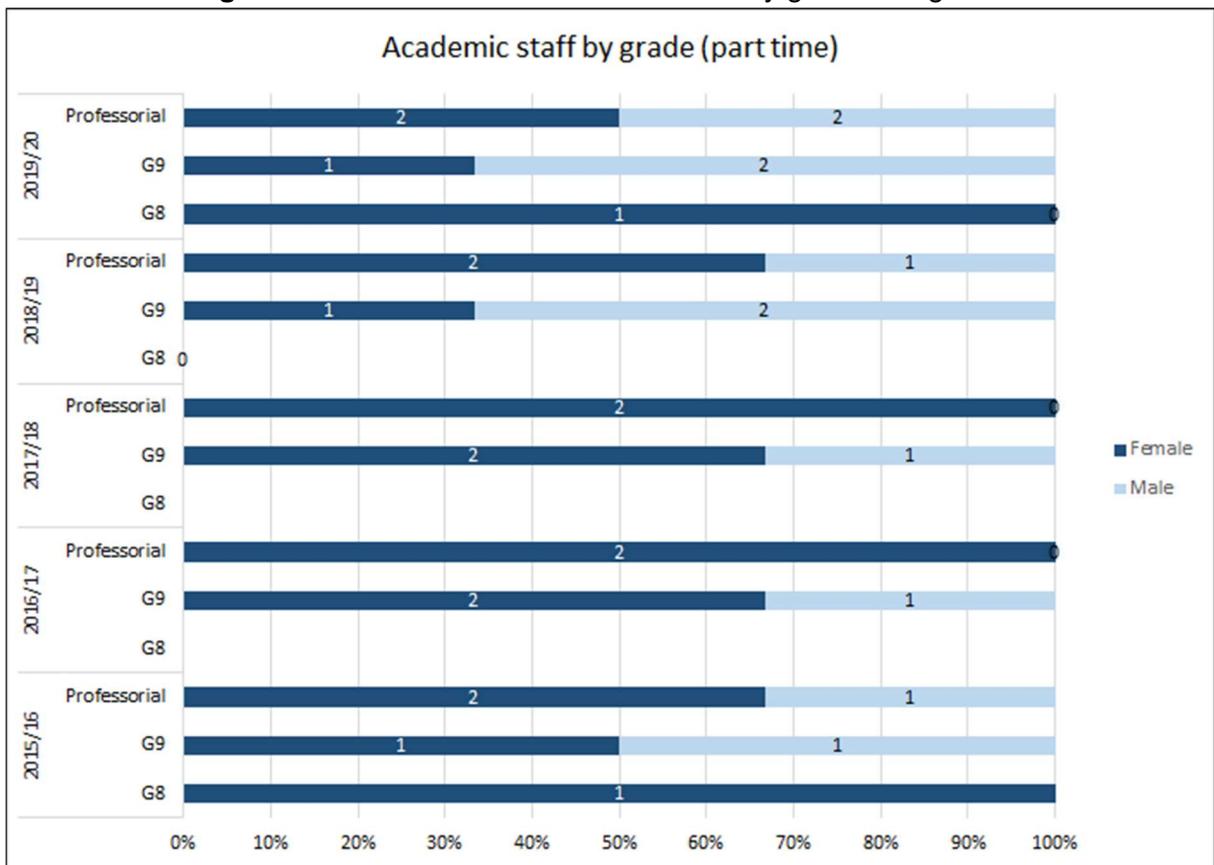


Figure 31. PT Academic numbers in MSE by grade and gender.

Impact of Actions Support for PT working has led to increasing numbers of both male and female staff adopting PT working at all levels of seniority. From 2016, we developed a policy of recruiting additional posts arising from career breaks or Fellowship successes amongst staff. The three resulting teaching-only Academic posts give Researchers experience of Academic roles. These posts are occupied by males at G8/G9.

Our promotions pipeline is strong and all our female Academic staff are well-placed for progression. All G9 female staff are either Research Fellows or holding senior Faculty posts, while the newly-appointed G8 female staff are making key teaching contributions and developing significant research profiles.

Our Research-only staff are dominated by G7 RAs but also includes three G8 female MSE-funded staff (Figure 33).

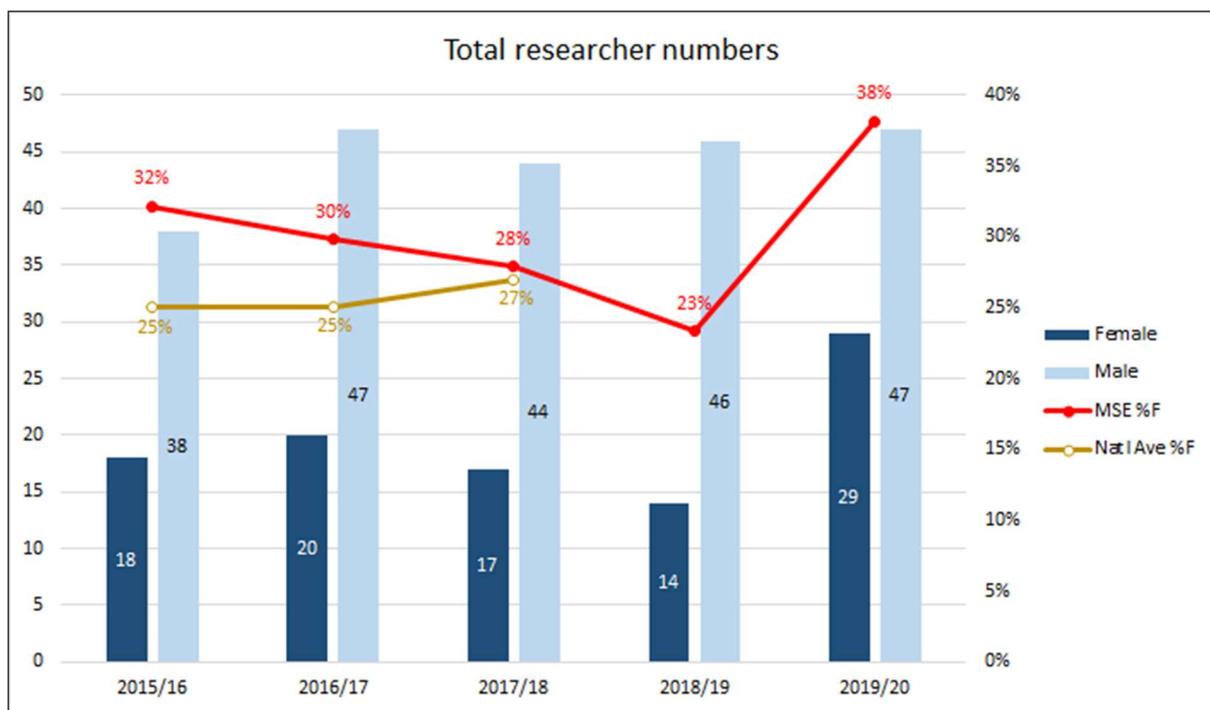


Figure 32. Numbers of Researcher staff by gender.

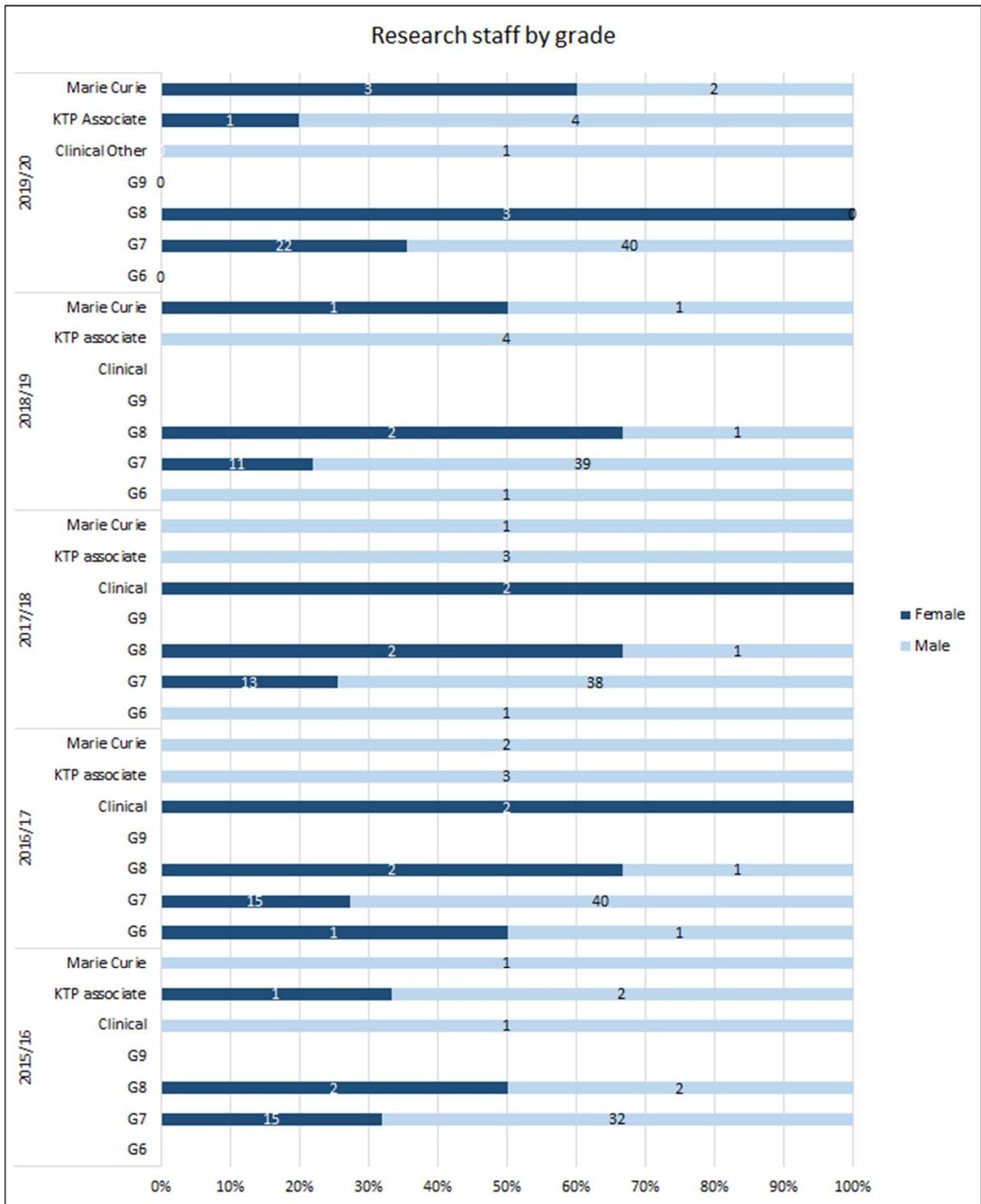


Figure 33. Research staff in MSE by grade and gender.

We have had limited opportunities to appoint new Academic staff over recent years, so this has restricted the pipeline of early-career Academics.

Impact of Actions We encourage and support RAs to apply for Fellowships and currently have 3F/1M staff on five-year Research Fellowships (3F/1M).

The development of RA career pathways is a significant focus of our future actions to address concerns identified in the Dept survey (6/14 RA respondents disagreed that their career pathway was clear to them). We were struck by the simplicity and effectiveness of UCL's LMCB's signposting of opportunities to RAs. We will use this and workshops as the basis of building understanding of opportunities for PGRs and RAs to stimulate the Academic pipeline.

Impact of Actions PhD students working as Graduate Teaching Assistants (GTAs; see §4.2) sit a qualified course in university teaching that allows them to become Fellows of the Higher Education Academy (fHEA). We will adapt this to be accessible to RAs to develop their teaching credentials.

TARGETS:

- Increase the number of female Professors.
- Increase %F Academics to 32% by 2024.
- Increase %F RAs to 40% by 2024.

FUTURE ACTIONS:

- A. Continue monitoring Academic and Researcher numbers by grade, PT/FT and gender.
- B. Introducing visual signposting of Fellowship opportunities and hold Fellowship workshops for PhDs and RAs.
- C. Develop organised teaching opportunities for RAs.
- D. Develop support for AFHEA recognition for RAs.

(ii) Academic and research staff by grade on fixed-term, open-ended/permanent and zero-hour contracts by gender

All academic staff positions have had open-ended contracts (OECs), except the one male fixed-term contract (FTC) University Teacher maternity cover.

Research staff are predominantly employed via research grants on fixed term contracts are shown in Figure 34. The department is proactive in reviewing fixed term staff and automatically requests transfer to open-ended contracts (OEC) when they achieve 3-4 years continuous service.

Impact of Actions We have nine researchers/support staff (four female) with over four years' service and therefore on OECs who run facilities and support the activity of particular research groups. In 2019 one of these researchers was promoted to a Senior Lectureship.

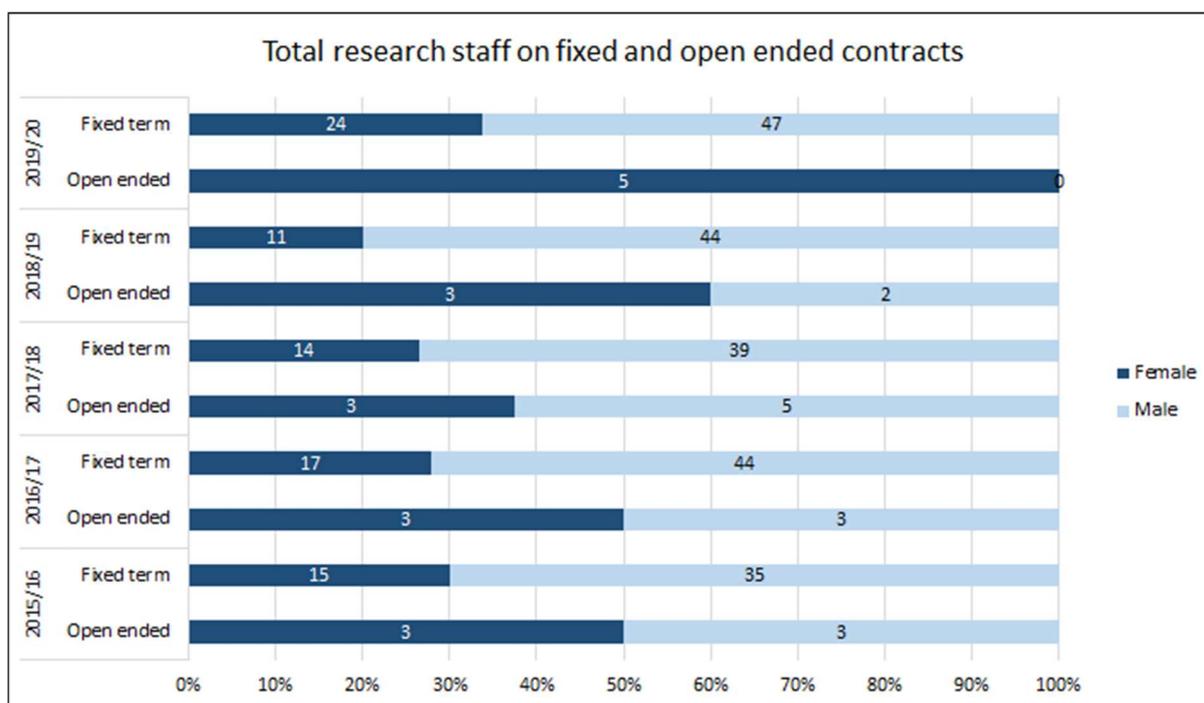


Figure 34. Numbers and proportion of female and male fixed term and open-ended research staff.

We engage UG and PGR students in various paid opportunities, as they arise, on a casual basis. UG opportunities are usually associated with applicant Open Days whereas PGR students help with some problems classes and UG laboratory sessions held in MSE, or working as ‘Graduate Teaching Assistants’ (GTAs) in the FoE Diamond building. The GTA team is composed of 27-35% females, and is broadly in-line with the PGR and UG gender balance. Offers of opportunities to GTA’s are monitored to ensure a diverse balance and where this is not limited by suitable applicants in the pool.

We do not use zero hours contracts in MSE or FoE.

FUTURE ACTION:

- A. Ensure equality of opportunity by gender for GTAs.

(iii) Academic leavers by grade and gender and full/part-time status

	2015/16	2016/17	2017/18	2018/19	2019/20
Academic	4M (2xG9, 2xProf)	-	1F (G9)	1F (Prof) 1M (G9)	2M (1xG8, 1xProf)
Researcher	2F: 32M	5F:30M	15F:43M	4F:15M	2F:16M

Table 4. Academic and research leavers from MSE by gender.

Academic and Researcher leavers are summarised in Table 4. Professors retired (1M:1F) or moved institution (2M), other academic staff mainly left for promotions into positions elsewhere and a G9 (M) completed his FTC. There were no notable gender disparities.

Leaving Researchers are dominated by G7 RAs and KTP staff at the end of FTCs.

UoS sends a letter (e.g. Figure 35) to leaving staff and FTC staff three months before their contract end to explain the leaving process.

FUTURE ACTION:

- A. Strengthen the exit interview process to gather anonymised data on reasons for leaving.

[word count 2335]



The University
Of
Sheffield.

Human
Resources.

PERSONAL

NAME
DEPARTMENT

25 May 2021
Enquiries: Eleanor Murphy/Brendan Collins
Quoting your personal no. XXX and
Post reference no. XXX
Faculty of Engineering

Director of Human Resources
Mr Ian Wright, FCIPD

Post to: Human Resources, The University of Sheffield,
The Arts Tower, Western Bank
Sheffield, S10 2TN

In Person: Level 1 Reception, The Arts Tower

Telephone: +44 (0) 114 222 1493/1634

Email: hfacultymg@sheffield.ac.uk

Website: www.sheffield.ac.uk/hr

Dear NAME,

I am writing to acknowledge receipt of your resignation from your post as a XXX in the Department of XXX with effect from DATE.

The University is committed to improving its employment practices, and recognises the importance of seeking feedback from staff about their experiences with the University. As you are leaving the University we would like to invite you to complete an Exit Questionnaire before you go, which can be found at:
www.sheffield.ac.uk/hr/guidance/leaving/index

Exit Questionnaire responses will be collated and used to examine why staff are leaving the University, and to identify any improvements that could be made to employment practices within the University and to improve the retention of staff. The questionnaire will also assist the University in maintaining accurate data on employment for reporting to the Higher Education Statistics Agency (HESA).

As your employment with the University is coming to an end your staff computer account will be deactivated after your last working day. I would like to take this opportunity to advise you to Login into MyJob and print copies of your online payslips before your last working day as you may need these for your future reference and these cannot be retrieved online once you have left the University.

(Remove if not academic researcher) Please be aware that intellectual property conceived and confidential information disclosed to you during the course of your employment remains the property of the University and you are not permitted to use this without prior written consent, please contact ri-contracts@sheffield.ac.uk if you require further information. In addition, please be aware that any existing research ethics approval which has been obtained via the University's Ethics Review Procedure will no longer be valid from the date you leave the University. If you intend to continue with an ethically-approved research project after this date, you will need to seek alternative [ethics approval](#).

May I take this opportunity to thank you warmly for your services to the University and wish you every success in the future.

Yours sincerely

Brendan Collins *E L Murphy*

pp. Ian Wright
Director of Human Resources



Figure 35. Example UoS exit letter.

5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

5.1. Key career transition points: academic staff

(i) Recruitment

SUMMARY: Recruitment panels all have unconscious bias training and at least one female member

Permanent Academic Staff Female applicants perform at least as well as males in obtaining an interview and securing a job offer (Figure 36) and MSE has recognised a bottleneck to appointing female academics lies in %F applications. To increase the number of female applicants, MSE's recruitment panels pro-actively develop wide-ranging and inclusive search strategies. The DEDI is a panel member for all academic recruitments and all panel members seek and encourage applications from female applicants as well as from under-represented groups. All panels include at least one female member of staff*.

Approximately 4-6 longlisted candidates for each academic position are invited to visit the department, give presentations on their research topic, and informally meet staff. This gives all MSE staff a chance to feedback comments on possible candidates. From this process a shortlist of candidates are invited for formal assessment.

Impact of Actions Recent recruitment of a female Professor through direct approach*, female Fellows* with underwritten permanent positions and improved %F of applicants in 2018/19 all point to effectiveness of revised recruitment strategy. *NB* Recruitment was frozen in 2015/16 and 2019/20.

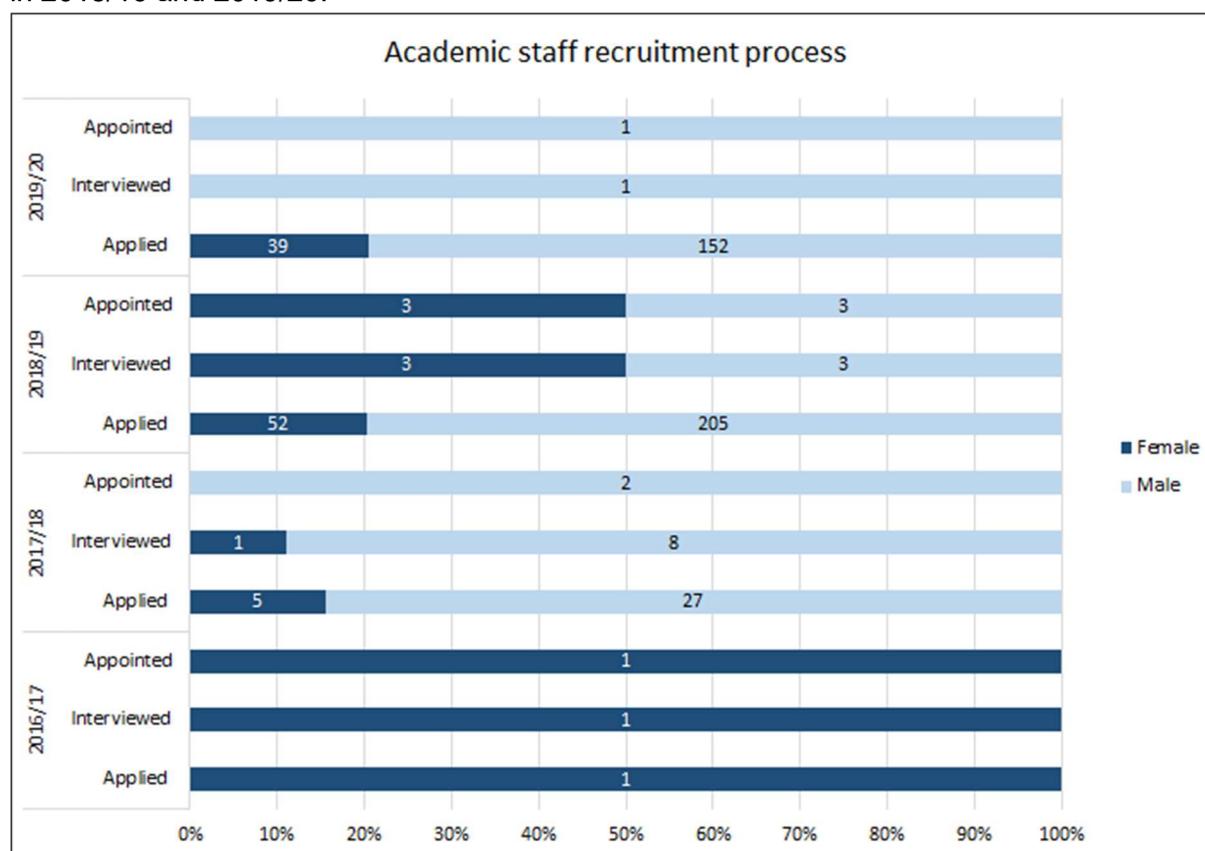


Figure 36. Academic recruitment process by gender.

Researchers

At least three members of staff shortlist and interview Researchers. The processes (Figures 37, 38) show no discernable gender patterns at each stage. Salary is set at the start of the Grade but is subject to negotiation. The SAT are concerned that variation in negotiated starting salaries for PDRAs generates long-lived pay differentials that persist due to annual pay increments.

The EDI team will review HR policies around starting salary, develop examples of case studies for enhanced starting rates, and incorporate these into the ‘how to...’ section of the MSE eHandbook to support equitable negotiation for all RA appointments.

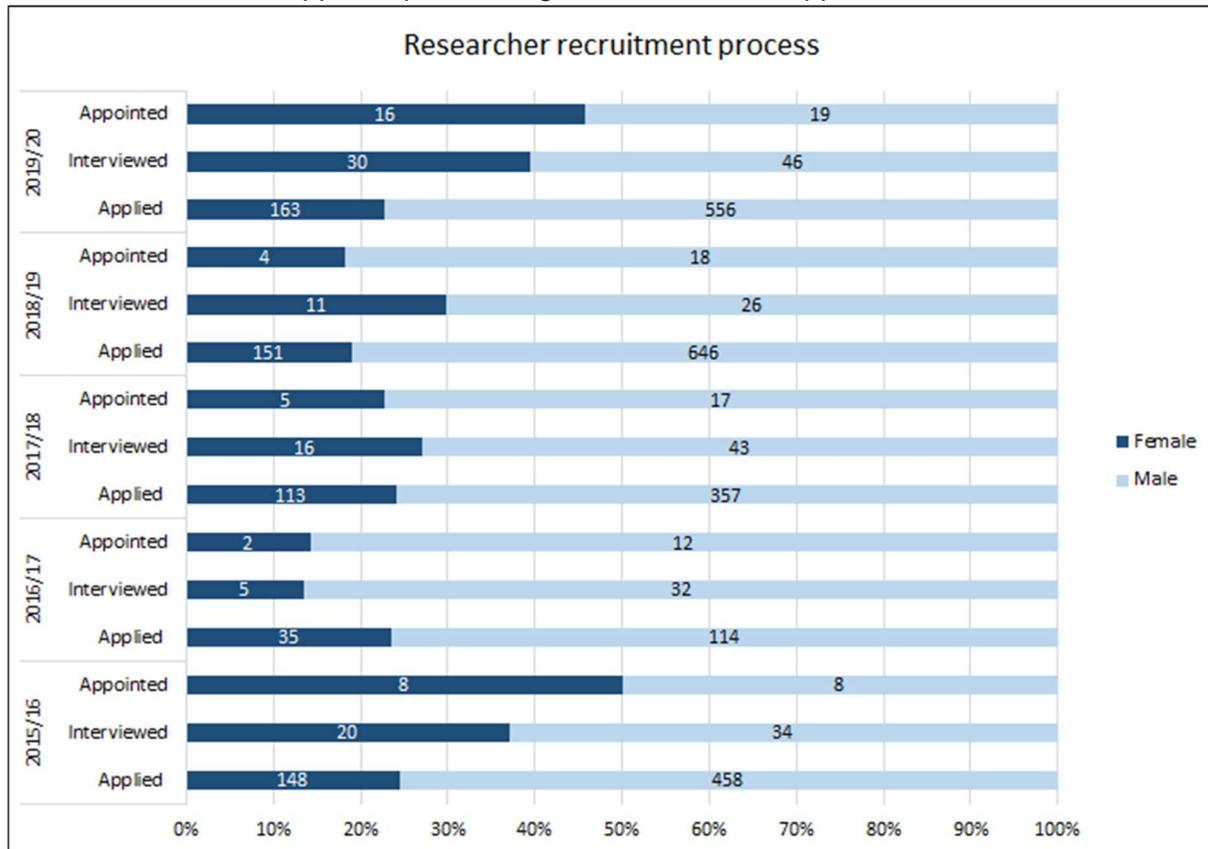


Figure 37. Researcher recruitment process by gender.

TARGETS:

- Increase %F Academics to 30% and Researchers to 35% by 2024.

FUTURE ACTIONS:

- Continue to monitor recruitment processes by gender.
- Continue to review recruitment adverts for gender bias.
- Review recruitment adverts for family-friendly policies and career-support information.
- Develop and communicate guidance to recruiting staff on using RAs on interview panels.
- Clarify procedures around starting salary for new RAs.

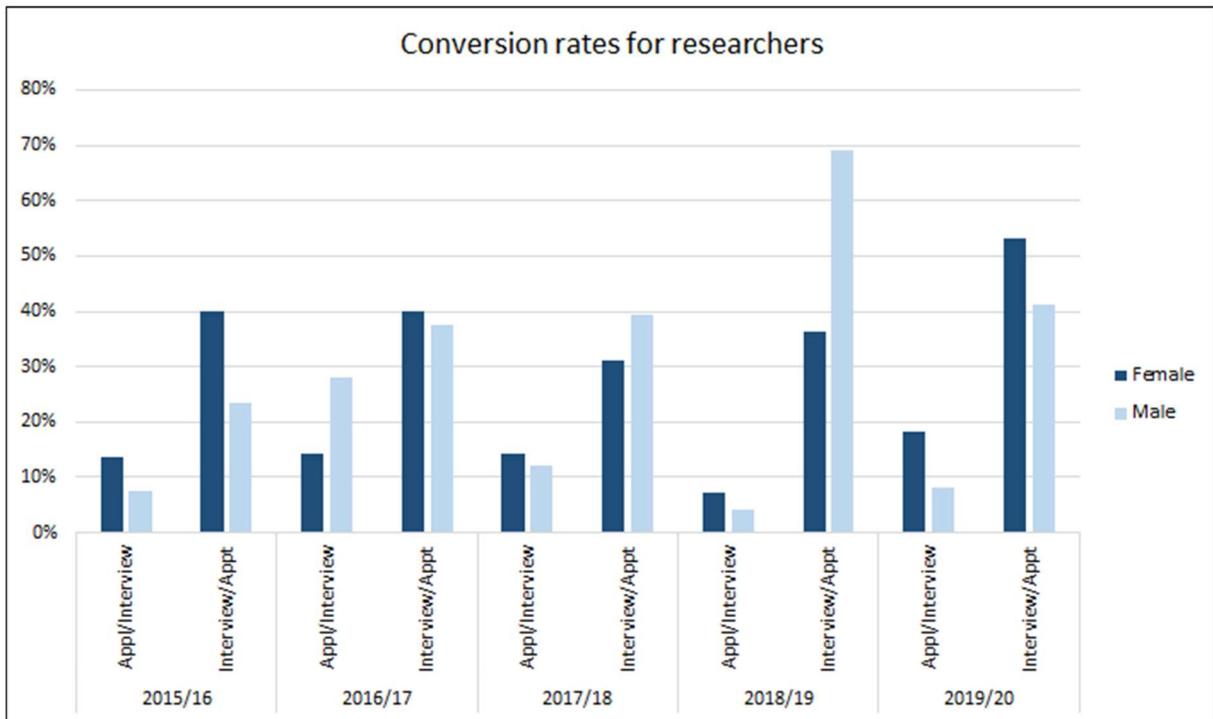


Figure 38. Application-to-interview and Interview-to-appointment rates for Researcher recruitment.

(ii) Induction

SUMMARY: A new induction pack has been created in response to SAT understanding gained through discussions and Dept survey

Newly-appointed staff receive a welcome letter before arrival, outlining arrangements for their first few days. New staff meet the HoD or line manager before joining their research/teaching group to meet key staff and undertake some basic mandatory training. New staff are introduced via email before arrival and in person at monthly ‘Feel Good’ coffee mornings.

From our considered reflections on inductions, SAT felt it relied too heavily on individual existing staff with new staff reporting variable experiences (department 2017 survey results: only 9/23 Academics and 6/13 Researchers felt they received effective induction).

A ‘new starter’ timeline has been developed, identifying key actions/responsible persons. We produced ‘Guide to the Department’ for new staff, including an informal ‘*what do I do..?*’ approach to orientate and welcome staff. Feedback on this from new and existing staff is extremely positive, many commenting they had learned new things about MSE.

Impact of Actions Induction was rated as much more effective (>80%) by Academic and Research staff in the 2020 survey compared to 2017 survey (30%).

FUTURE ACTIONS:

- A. Annual review of induction pack content .
- B. Develop buddy system with MSE contact for new recruits pre-arrival.

(iii) Promotion

SUMMARY: Five female Academic promotions in past three years - more than half of all female Academics.

The annual staff review process is launched by the Departmental Review Panel who oversee documentation and guidance for the Staff Review and Development (SRDS) scheme. Candidates for promotion may be identified by the DRP, or by line manager or SRDS reviewer, or by HoD recommendation. Candidates can also self-nominate for promotion.

Applications are submitted for departmental review in August. Candidates receive feedback to further refine the application for consideration by the Faculty Promotions Panel or to indicate where unsuccessful applications require strengthening.

Between 2015/16-2018/19 MSE had a 100% success rate of academic candidates submitted to Faculty (Table 5). However, DEC agreed this could indicate MSE procedures unfairly delayed candidates for Faculty consideration and procedures were adjusted for 2019/20 so MSE could submit more cases. This resulted in a minimal dip in success rate at Faculty and the highest numbers of: promotion applications within the Department; cases being submitted to Faculty (in total, and female); and successful promotion of female academics.

		Applied	To Faculty	Successful
2015/16	Female	2	1	1
	Male	5	3	3
2016/17	Female	2	2	2
	Male	7	5	5
2017/18	Female	2	2	2
	Male	7	5	5
2018/19	Female	1	1	1
	Male	3	2	2
2019/20	Female	4	3	3
	Male	7	5	4

Table 5. Academic and research staff promotion applications and outcomes.

In 2018, UoS published revised guidance on Academic Career Pathways (ACP; Figure 39) showing ten Core or Additional promotion criteria for different roles. This provides focus when assessing Teaching and/or Research specialists and emphasises that promotion may be considered for excellence in two selected areas, if four Core activities meet expected standards.

Impact of Changes This provides clarity to Departmental staff management; for example, a female Researcher reduced her teaching load, enabling greater research focus to support progression. It also facilitates transfer of staff between 'pathways', with two staff on Research contracts (1F, 1M) transferring onto T&R.

	Research Criteria			Teaching Criteria			Leadership Criteria			Professional Standing & Wider Engagement Criteria
	High Quality Outputs (Core)	Research Income and Supervision	Research Impact	High Quality Teaching Practice (Core)	Curriculum Enhancement	Improving Teaching Practice	Academic Citizenship (Core)	Accountable Decision Making	Change and Innovation	Professional Standing & Wider Engagement (Core)
Teaching and Research Contract	Core			Core			Core			Core
Teaching Specialist Contract				Core			Core			Core
Research Specialist Contract	Core						Core			Core

Figure 39. Academic Career Pathway criteria summary on UoS HR website. Details of each criterion available [here](#)

FUTURE ACTIONS:

- A. Amend academic staff SRDS to explicitly include ‘promotion readiness’ in review discussions.
- B. Start annual submission of all academic staff CVs to HoD/panel.
- C. Review internal process to increase Academic promotions transparency and objectivity.

(iv) Department submissions to the Research Excellence Framework (REF)

All eligible staff were submitted to RAE 2008 (9 female, 42 male, %F 18%). Two male academics were not entered for REF 2014 following internal paper reviews: 6 female, 30 male staff submitted (%F 17%). The %F reflects staff gender ratios at that time.

5.2. Key career transition points: professional and support staff

(i) Induction

PSS recruitment and induction follows the same processes as academic staff (§5.1ii). New PSS meet Departmental Administration and Technical Managers (DAM and DTM). The induction pack includes PSS-specific sections.

(ii) Promotion

Business need determines UoS PSS grades, so grade ‘promotion’ is not supported without changing role. Where an existing role develops to the level of a higher grade and meets business need, a regrading case is made by the line manager. Two cases have been put forward since 2015, both female, with one successful and one unsuccessful.

PSS career progression is generally achieved by applying for open positions, usually in a different UoS department. Our surveys identify this as an ongoing source of significant tension: 11/16 PSS indicated career pathways were unclear (broadly consistent with 14/19 in

2018). PSS often feel loyal to MSE: their preference is to progress with us, particularly Technical staff who may find their expertise is specific to MSE.

PSS receive annual incremental pay progression up to a discretionary zone. Accelerated progression for “sustained exceptional contribution” is via DRP processes as for academic staff.

FUTURE ACTIONS:

- A. Monitor applications and outcomes of PSS regrading.
- B. Use UoS guidelines to prepare and communicate career development and regrading guidance for MSE PSS.
- C. Ensure SRDS for PSS staff includes reflection on appropriateness of role/grading.
- D. Ensure all supervisors are aware of regrading/promotion policies.
- E. Monitor ‘The Deal’ awards to staff who regularly exceed performance for their role.

5.3. Career development: academic staff

(i) Training

SUMMARY: A wide range of training and development opportunities are available to MSE staff

Until 2017, UoS offered academic leadership training through its tiered ‘Sheffield Leader’ programme and participation (3F:8M) reflects MSE gender balance of Academic staff. This program has subsequently been revised to include PSS staff.

As mentioned in §2, no participation database of other development training exist, so records are self-reported. Table 6 shows activities beyond FoE activities (Fellowships, Impact communication and Women’s writing support).

Activity	Academics		Researchers	
	Female	Male	Female	Male
Survey responses	3	13	3	5
Mentoring	3	4	3	1
Pathways to Impact writing training	2	4		1
Academic writing retreat	1	3		
EATS sessions (FoE teaching workshops)	1	6	1	
Mentoring / coaching training		1		1
Supporting the Supporters (non-academic student-facing support)		2		
LGBT+ awareness		1		

Table 6. Self-reported development opportunities undertaken (2018).

In our 2018 Dept survey, Academics/Researchers identified a high degree of access (89%) and encouragement (74%) for development opportunities, but 50% didn’t have time (responses were gender balanced). SRDS for Researchers was revised and CPD now features more prominently in forward planning.

Impact of Actions Promotion of development opportunities led to 86% of Researchers indicating that they have time for development in the 2020 survey. Academic staff continue to find time is unavailable for development. MSE will feed this into strategic planning and introduce funding covering staff time for significant training events.

FUTURE ACTIONS:

- A. Request FoE and other training providers create accessible training databases.
- B. Establish budget to cover Academic training time.

(ii) Appraisal/development review

SRDS forms are tailored for staff groups, but all templates cover basic common expectations around safety, EDI, and continuous professional development.

Impact of Actions Researchers can choose their SRDS Appraiser following consultation with Research staff. This approach has been reviewed annually in response to ongoing feedback from the Researcher Forum

DRPs also consider emerging training and development needs and in 2019, Mental Health First Aider training was identified as important.

Impact of Actions The Department currently has 10 trained Mental Health First Aiders (5F, 5M including academic, technical and PSS), with training for a further 16 arranged.

Staff on maternity leave are offered SRDS; with zero take-up to date.

Informal feedback from PSS presents a negative view of the SRDS process, indicating development needs are identified, but not acted upon due to availability of time.



SRDS participation rates have improved from 91% in 2015 to an average of >98% since 2017.

FUTURE ACTIONS:

- A. Review the DRP remit to drive specific staff development plans for different staff groups
- B. Review academic SRDS format to include 'what are you learning/ will you learn?' as active enquiry.

(iii) Support given to academic staff for career progression

SUMMARY: A high degree of focussed support for postdoctoral researchers has resulted in a significant number of (female) Fellowships.

Support for RAs has been discussed already. RAs can engage in student supervision at all levels and deliver teaching. We will develop this and support RAs working towards recognition via Associate Fellowship HEA. RAs are also encouraged to act as 'Named Co-Investigators' on grant applications.

We provide direct support for career progression where appropriate, e.g. MSE has recently paid 50% fees for an OEC Researcher’s Masters in Education study, and is currently funding a University Teacher’s MEd in Teaching and Learning in Higher Education.

As of 2018, MSE supports Academic staff one-semester sabbaticals* and recently approved eligibility policy for sabbaticals ensuring fair access.

Impact of Changes Both female and male staff have taken sabbatical periods and flexible sabbatical arrangements (one day/week, three semesters) have recently been agreed for two staff members where a full semester would be impracticable.

FUTURE ACTIONS (not already listed in other sections):

- A. Communicate fund for additional childcare costs due to work-related travel provided by FoE and monitor uptake in MSE.
- B. Create and communicate MSE policy on financial support for Academic staff development.

(iv) Support given to students (at any level) for academic career progression

All PGRs develop a Training Needs Assessment plan to build a ‘Doctoral Development Programme’ portfolio showcasing technical training, lectures, conferences and development courses. Table 7 shows self-reported training event participation.

Activity		
	Female	Male
Survey responses	11	10
Mentoring	5	4
Communication	5	5
Support for fellowships or other applications	2	3
Research writing training / retreat	11	9
PGR forum/ drop in sessions	8	8
Career choices/ planning	7	4
No training reported	0	0

Table 7. PGR development participation.

UG career progression support is woven through all years of study, most notably final year projects based in research labs, concluding with a conference-style poster session (Figure 40). We support 10+ UG student summer research projects annually.

Figure 40. UG final year poster session.

Our MEng(Research) cohort receives significant academic career preparation, including communication training, outreach activities and weekly mentoring; **this stream has 80% female progression to PhD (§4.1v).**

All students are invited to an annual Speed Networking event to meet Academics, Industrialists and alumni to discuss careers.

FUTURE ACTIONS:

PhD actions noted in §4.1iv

- A. Review how UG courses can draw on MEng(Research) training activities.

(v) Support offered to those applying for research grant applications

SUMMARY: Support for research grant applicants has enabled female staff to win Fellowships

MSE provides a range of research grant application support, tailored to different career stage. The faculty and MSE also support grants via co-investment (e.g capital equipment or PhD studentships) on a pro rata basis based on grant value.

MSE does not have any structured support for unsuccessful grant applicants. SAT, in consultation with the Director for Research, recognises that such support is needed.

Table 8 shows grant applications in number, value and success rate by Primary Investigator (PI) gender. Female PIs in MSE submit a disproportionately high number of applications and there is negligible gender difference in grant success rate by grant *number*.

Female PI success rates by grant *value*, however, have been significantly lower than male PIs. SAT noted that the Biomaterials research strand of the department secures more charitable funding than other research groupings, and the female majority of PIs (5F:3M) in Biomaterials skews data due to the lower value of Charity Trust awards compared to fully-costed Research Council grants. The 2018/19 data show an inversion of this trend.

Impact of Actions The increase in grant award value to female PIs was driven by external recruitment of a female Professor to the department and by successes in large value grant applications by another two senior female colleagues who had been promoted during the review period.

		2016/17		2017/18		2018/19		2019/20	
		Number of apps	Value of apps (£k)	Number of apps	Value of apps (£k)	Number of apps	Value of apps (£k)	Number of apps	Value of apps (£k)
Female	Total	29	7,924	26	6,869	31	11,746	29	6,717
	Successful	10	1,500	15	2,624	23	6,876	12	951
	Success rate	35%	19%	58%	38%	74%	59%	41%	14%
Male	Total	50	24,586	54	15,946	82	26,355	49	23,635
	Successful	15	6,796	36	9,671	55	12,980	26	7,893
	Success rate	30%	28%	67%	61%	67%	49%	53%	33%

Table 8. Research grant applications by female and male PIs and the number and rate of successful applications.

TARGET:

- Sustain 2018/19s zero gender gap in average awarded grant value.

FUTURE ACTIONS:

- Develop policy of supporting unsuccessful grant applicants.
- Create strategy for research support to work with female academics to create larger grants (£500k+) and with PIs writing first large grant.
- Hold group mentoring by large grant holders to develop ideas of early career and female academics.

5.4. Career development: professional and support staff

PSS numbers have increased since 2015 (Figure 41) with more than 55% of staff, and the majority of Team Leaders, female.

(i) Training

All PSS undertake a mid-year review of the training needs identified by PSS or line managers in SRDS, ensuring objectives remain accurate and attainable. MSE is supportive of PSS undertaking development opportunities, as espoused in 'The Sheffield Professional' framework which supports accelerated progression.

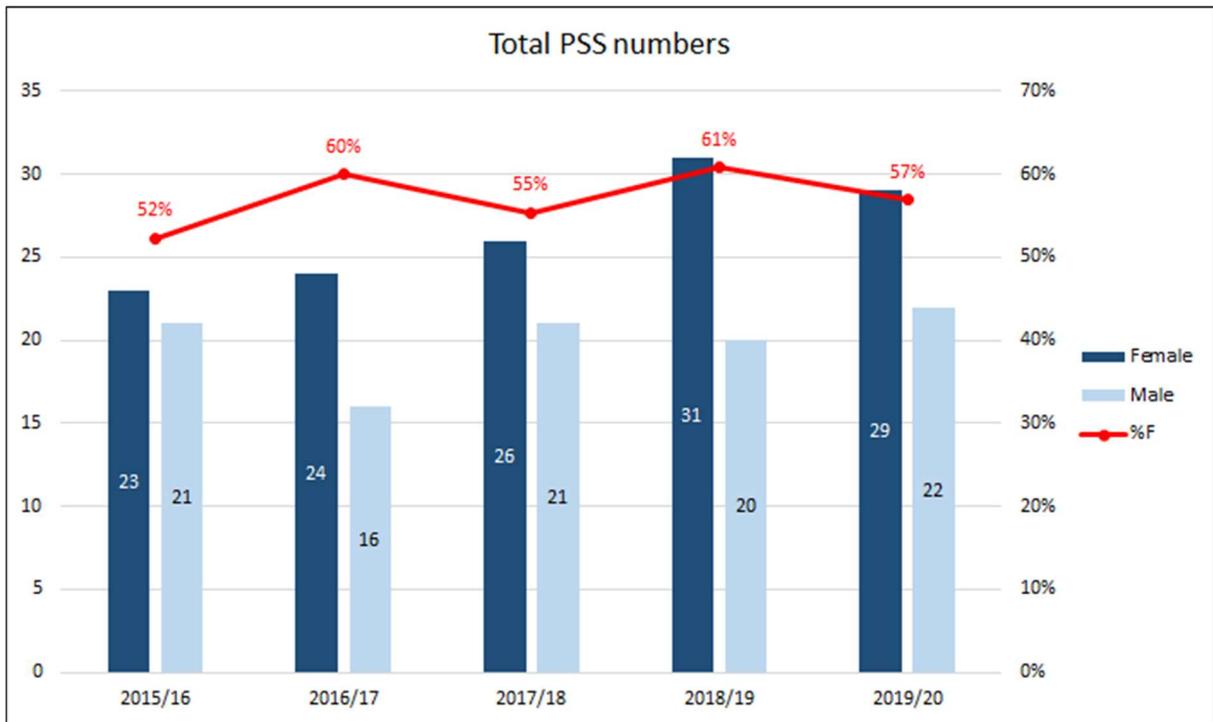


Figure 41. Professional and Support Staff in MSE.



Figure 42. The Sheffield Professional framework

PSS are supported to take secondments within the institution, encouraging development and have participated in Sheffield Leader training (4F:6M).

PSS can apply to be a mentor and/or mentee in UoS's 'GROW' mentoring scheme. Pairing is confidential, and staff are not required to declare participation; uptake numbers are therefore unavailable, but it appears anecdotally popular.

Impact of Actions Technical staff responses identified extended safety training, addressed by the DTM (see §5.4iii), and mental health first aider training which has since been delivered (see §5.3ii)

Activity	PSS	
	Female	Male
Survey responses	10	6
Mentoring	6	1
Shadowing	1	1
Attending conferences	2	4
Internal University courses		
Not specified	1	1
Management related	3	2
Supporting students		1
IT and systems	3	1
External courses (incl. Webinars, MOOC's)		
Not specified	1	
Management	1	1
Technical job related		4
First Aid	4	3
Mental health first aid	3	2
No opportunity to engage in development		1

Table 9. Self-reported PSS development opportunities undertaken over the past 5 years.

FUTURE ACTIONS:

- A. Facilitate training and development opportunities
- B. Develop methods to measure effectiveness and impact of training and development
- C. Expand departmental training and development assessment and planning

(ii) Appraisal/development review

The UoS uses the same Staff Review and Development Scheme (SRDS) across all staff groups. MSE's application of this is described in §5.3ii.

(iii) Support given to professional and support staff for career progression

SUMMARY: PSS receive high level training to develop their skills and careers

A staff training and development budget is available each year and several PSS have benefitted from externally-provided training, directly supported by MSE (Table 10).

Gender	Team	Qualification	Support
Female	Finance Team	Level 7 Accounting/Taxation Professional Apprenticeship leading to ACCA qualification (Association of Chartered Certified Accountants)	Funded through Employer Apprenticeship levy. MSE provides exam and registration fees, 20% time 'off the job'.
Female	Finance Team	AAT Level 3 (Association of Accounting Technicians)	50% fees from MSE
Female	Technical team	P/T PhD in MSE	Dept. fee waiver.
Female x 2 Male x 1	Technical Team	NEBOSH (National General Certificate in Occupational Safety & Health)	MSE fees; 10 days training and x3 study days
Female x 1 Male x 1	Technical Team	City & Guilds PAT testing Level 3	Fees and time.
Female	Admin Team	Marketing qualification	Fees and time
Male	Technical team	BSc	Time
Male	Technical team	MSc in Management and Strategic Leadership	Funded through Employer Apprenticeship Levy. MSE provides time

Table 10. PSS staff engaging in training by external providers leading to qualifications since 2015.

FUTURE ACTIONS:

- A. Continue support for professional development for PSS.

5.5. Flexible working and managing career breaks

Family-friendly working policies are available via the eHandbook* (Figure 43). Staff have been surveyed to gather evidence of their experience of part time and flexible working. Flexible working arrangements were in place for 31% of survey respondents via informal

arrangements after discussion and approval with manager (22% 5F:8M) or formal arrangements (9% 4F:1M).

FAMILY SUPPORT

Maternity, Paternity or Adoption Leave

Discover how how maternity, paternity or adoption leave works via this [flowchart](#).

Useful links:

- [Parental leave procedure](#)
- [Adoption Support](#)
- [Women Academic Returner's Programme \(WARP\)](#)
- [Finance about maternity/paternity/adoption leave](#)
- [Flexible Working Request Form](#)
- [Additional Leave](#)
- [Maternity Notification](#)
- [Return to Work Interview](#)
- [Request for Special Leave](#)
- [Parents in Academia](#)

Buddying Schemes are now available for men and women in academia who have families, about to start a family or thinking about having children in the future to meet up at an informal coffee morning to discuss experiences and have a chat about family life.

39% of women described returning back to work after parental leave as stressful,

which is why these coffee mornings can become very beneficial in helping out with tips to take the stress away.

Click [here](#) to find out when your next coffee morning is.

Figure 43. Links to family-friendly policies on MSE eHandbook (*).

(i) Cover and support for maternity and adoption leave: before leave

When a member of staff informs us of her pregnancy, a risk assessment is conducted with the Departmental Safety Officer (DSO). The staff member's line manager or DAM discusses general wellbeing with the expectant mother and identifies necessary adjustments to work.

MSE follows UoS Maternity Leave Policy and Procedure whereby we meet with expectant parents (also for adoption leave and shared parental leave for fathers) to plan cover for absence. MSE aims to provide extended maternity cover with phased handover wherever possible.

(ii) Cover and support for maternity and adoption leave: during leave

MSE provides cover through recruitment or secondments for any staff undertaking a significant planned absence. With maternity and adoption leave, we try to ensure the individual postholder is involved in the recruitment process.

UoS also uses optional Keeping in Touch (KIT) days on-leave staff can work for up to 10 days. MSE enables new parents to use KIT entirely at their own discretion.

(iii) Cover and support for maternity and adoption leave: returning to work

UoS's Women Academic Returners' Programme (WARP) provides up to £10k funds to minimising impact of extended leave on research activities. WARP funds supported one female MSE academic's return from maternity leave with dedicated technical support.

Line managers engage with staff on a case-by-case basis in planning return to work, considering periods of phased return, flexible working, and requests for temporary or permanent changes to working time.

Impact of Actions Flexible working survey indicated that respondents had been able to switch between PT/FT and revise flexible working patterns as circumstances changed.

(iv) *Maternity return rate*

SUMMARY: All staff returning from maternity leave since 2015/16 remained in the Department.

Year	Left			Stayed				Total
	6 months	12 months	18 months	G5 PSS	G6 PSS	G7 RA	G8 Acad	
2015/16	0	0	0	1	0	1	0	2
2016/17	0	0	0	1	0	1	1	3
2017/18	0	0	0	1	0	0	0	1
2018/19	0	0	0	1	1	0	1	3
2019/20	0	0	0	1	0	1	0	2
TOTAL	0	0	0	5	1	3	2	11

Table 11. Number of staff by grade leaving and staying beyond 18 months after having taken maternity leave.

FUTURE ACTIONS:

- A. Interview returners from maternity leave to review Dept support to understand the challenges impact of support, and ideas for future improvements.
- B. Review support for maternity returners in light of the above interviews.
- C. Managers to keep ‘change logs’ of significant changes to policies or practices for discussion with maternity/parental leave returners

(v) *Paternity, shared parental, adoption, and parental leave uptake*

We have seen a marked increase (Table 12) in parental leave compared to previous years, where no parental leave was used.

Year	Paternity / Partner Leave
2015/16	6
2016/17	3
2017/18	2
2018/19	3
2019/20	4
TOTAL	18

Table 12. Take up of parental leave over the past five years by MSE staff.

FUTURE ACTIONS:

- A. Engage PhD students and RAs to understand their awareness of the availability of parental leave.
- B. Communicate the level and range of paternity support available at UoS.

(vi) Flexible working

SUMMARY: MSE offers a wide range of flexible working arrangements and is responsive to staff requests

UoS updated its flexible working arrangements in 2014 to support a wider range of options. The application process for flexible working is clearly signposted to staff and managers. UoS arranges free childcare to support staff participating in Saturday UCAS Admissions Days. **Impact of Changes** SAT surveyed staff on impacts of flexible and PT working. Respondents spoke positively about flexibility and how this supported them in a range of work-life balances including return from maternity leave, childcare, managing occasional domestic emergencies and supporting partners with variable shift patterns.

We recognise the value of the PT working guarantee that we have discussed extensively in conversations with Prof Paul Walton (Chemistry, York) around developing excellence in EDI. This is not currently available at UoS but MSE would like to understand its impact further and, based on this, decide on developing a similar guarantee policy.

FUTURE ACTIONS:

- A. Survey staff on attitude to PT working and possible effect of guaranteed return to FT;
- B. Discuss further with Paul Walton the impact of PT working guarantee on work practice and take up of flexible working.
- C. Interview staff on challenges and benefits of PT working.
- D. Recommend changes to Dept policy based on the engagement on PT working guarantee and working practices.

(vii) Transition from part-time back to full-time work after career breaks

Flexible working arrangements and transitions from part-time to full-time are developed on a case-by-case basis in discussion with the staff's manager. The survey of flexible working arrangements showed PT staff were offered the opportunity to return to full-time work and this flexibility was valued. However supportive these arrangements are, they are not automatically currently standard practice. Further investigation of the implications and challenges of a part-time working guarantee are underway which may allow MSE to develop a PT working guarantee (§5.5vi) to those returning from career breaks.

5.6. Organisation and culture

(i) Culture

SUMMARY: EDI culture, including Athena SWAN principles, is a core part of MSE. UB training mandatory for staff and delivered to Y1 students.

EDI is a standing item on DEC* and in the FoE's Annual Planning Round, focusing discussion on Athena SWAN activities and Action Plan progress. The role of EDI within MSE is monitoring, asking questions, suggesting actions and encouraging ideas, and not to be the sole implementers of actions. The change to a Dept team approach will assist future action implementation.

To help secure EDI culture in MSE, we developed mandatory unconscious bias (UB) training for all staff in 2017, and advocacy by MSE's previous EDI Chair led to FoE adopting this policy. MSE funded external UB training for selected student year groups (Table 14), with UGs giving positive feedback via tutors. Since 2020, UB is included in University EDI Training that is now compulsory for all staff and PGR. SAT is aware that online training can have lower levels of engagement than in-person activities and MSE's EDI-related training will be reviewed in response to this.

	Academic	PSS	RA	PhD (not Y1)
Female	7	21	9	6
Male	29	11	24	17

Table 13. Staff unconscious bias training numbers by role and gender, as Nov 2018.

	Female			Male		
	Attended	Not attended	% attended	Attended	Not attended	% attended
UG	16	1	94%	49	7	88
PGR	5	3	63	6	8	43

Table 14. Unconscious bias training participation by Y1 UG and PGR students.

Impact of Actions Survey results indicate that communication in MSE has improved since our last Athena SWAN submission following the introduction of formal all-staff meetings*, informal fortnightly teaching forums, research forums, PSS drop-ins, HoD surgeries and regular clinics for PGT and PGR students with the respective Academic leads*.

The 2018 survey contained a low positive response for Technical Support, accompanied by comments making clear that there were not enough Technicians.

Impact of Actions These survey outcomes were used by MSE to make the case for four additional permanent technician posts.

Our Dept survey in summer 2018 showed staff mostly feel supported (89% female / 76% male). The perceived 'supportedness' of individuals in MSE is a key metric to judge the result of moving to a team-based Dept structure.

Impact of Actions Activities around building a supportive Culture, publicising the importance of various job roles in MSE, and showing mutual respect have seen an increase in staff feeling supported (97%M: 96%F) in the 2020 survey.

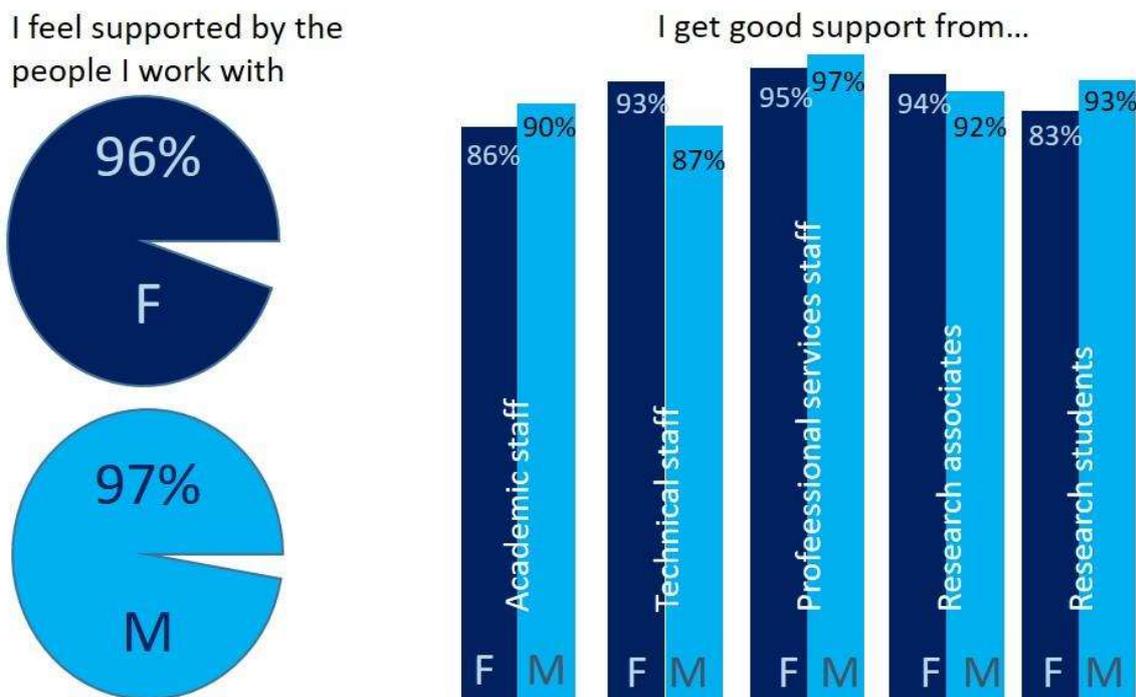


Figure 44. Responses to Dept survey questions about support.

In survey responses, students feel that “the Department is a friendly inclusive environment where you are challenged to reach your potential.” and the Department “feels like home”. MSE is home to staff and students from over 40 countries, and inclusivity and participation is greatly encouraged by staff and students.

Our 2018 survey showed 78% enjoy coming to work but the SAT team were dismayed that over 1/3 female respondents had experienced gender discrimination. This was clearly counter to the culture we try to foster and see in evidence around us and reducing experience of female gender discrimination was made a Departmental priority. In 2019, we ran a communication and workshop campaign, established work-practice training and publicised the routes for discussing instances of discrimination with senior individuals in MSE. Reports of discrimination via these routes remain extremely rare.

Subsequent surveys have demonstrated some impact from this; but the 2020/21 survey indicated that 1/6 of female respondents experienced discrimination based on gender ‘sometimes’ or ‘often’ in the last year. Responses on Witnessing Discrimination (F 68%: M 79%) suggest that men are not recognising some instances of gender discrimination.

Impact of Actions These findings were shared with all staff and PGR students. Ensuing discussions identified Bystander Training as a tool to help challenge discrimination when it occurs.

Work remains to be done about this, and we will revise and extend discrimination reporting mechanisms to support staff in Challenging discrimination.

The Deal scheme was established by UoS to reward good practice; rewards include vouchers, meals/drinks, bonuses typically of £50 value. Approximately 100 awards are made every year (ca. 40F:60M), recognising contributions in MSE from teams or individuals,

including the EDI team. All department members can submit nominations with a short (<100 word) description of meritorious activities such as exceptional support, work excellence, crisis management, or providing cover for unavoidable staff absences. The Deal is a standing DEC item, with awards monitored over the academic year to identify individuals who regularly exceed expectations. Such individuals are identified as candidates for more formal recognition via promotion or additional increments.

In future, EDIt will proactively seek to nominate more widely from MSE for practices that support Athena SWAN principles.

There are a host of activities and initiatives described elsewhere in this report that show how MSE embeds Athena SWAN principles into our culture. These include the FoE Wall of Women (Figure 9), the Engineering Researchers Forum, PGR Forum, Feel Good coffee gatherings and social events.

TARGETS:

- Reduce reported experience of gender discrimination in MSE by 2023.

FUTURE ACTIONS:

- A. Monitor completion of EDI-training of staff.
- B. Continue to hold Unconscious Bias/Implicit Bias training for all Y1 UG/PGR students plus PGT students.
- C. Conduct annual Department surveys
- D. Campaign communicating inclusiveness of Department
- E. Establish annual workshops on recognising and challenging gender discrimination, and gather information on discrimination
- F. Nominate examples of Athena SWAN good practice for awards via The Deal

(ii) HR policies

Any new and updated HR policies are communicated via our UoS HR Managers, to the DAM, DTM and HoD as appropriate at Faculty and Departmental HR meetings. Updates are then cascaded to appropriate staff groupings via email or at management meetings.

All staff have access to the same and appropriate training for their role, particularly where they have management responsibilities and the DAM and HoD are also available to provide guidance and advice for difficult situations. Grievance and disciplinary matters are usually dealt with by appropriate senior managers, the HoD and HR, with the intention that this eliminates potential differences between policy and practice.

Impact of Actions We provide 'how do I..?' summaries in simple language or diagrammatic form for all staff via the eHandbook, with signposting to other UoS sources of information. Feedback from staff has been positive.

(iii) Representation of men and women on committees

Table 15 shows Department committee membership by gender and role type, with the most influential committees shown in bold (UG, PGT and PGR committees report to LTC). Female representation and is tensioned against having two female academics having important FoE roles, and three having long-term Fellowships. The recently reformed Research Committee has significantly increased female representation, and notably a female chair.

Committee chairs are appointed by the HoD following discussions with DEC. The gender balance of committees is reviewed annually by the EDI team. SAT recognises there is underrepresentation of Research staff on committees, and that participation could benefit their careers and diversify the views on committees.

Impact of Actions DEC has recently approved recruitment of a Researcher onto RC.

FUTURE ACTIONS:

- A. Review Department strategy of Academic engagement in FoE posts.
- B. Include PDRA Researcher in Research Committee
- C. Committee Chairs to consider inclusion of Researchers on committee.

	Year	Female	Male	%F	ACAD	RES	PSS	PGR	PGT	UG
DEC	2017	2	9	18%	8		3			
	2018	2	10	17%	9		3			
	2019	2	10	17%	9		3			
	2020	3	8	27%	8		3			
H&S	2017	4	7	36%	5		6			
	2018	4	7	36%	5		6			
	2019	4	9	31%	4		9			
	2020	6	9	40%	4		10	1		
LTC	2017	3	7	30%	8		2			
	2018	5	11	31%	14		4			
	2019	5	14	26%	13		3			
	2020	7	13	35%	16		4			
RC	2017	-	-	-						
	2018	0	6	0%	6					
	2019	4	10	29%	10		4			
	2020	6	8	43%	10		4			
ADT	2017	2	5	29%	4		3			
	2018	2	4	33%	3		3			
	2019	5	5	50%	8		2			
	2020	4	5	44%	5		4			
UGCC	2017	4	9	31%	11		2			
	2018	4	9	31%	11		2			
	2019	4	7	36%	9		2			
	2020	-	-	-	-					
PGTC	2017	2	8	20%	8		2			
	2018	2	8	20%	8		2			

	2019	1	10	9%	10		1			
	2020	1	10	9%	10		1			
PGRC	2017									
	2018	4	7	36%	7		1	3		
	2019	5	8	38%	6		3	4		
	2020	5	7	42%	7		1	4		
EDI	2017									
	2018	10	4	71%	2	2	8	2		
	2019	10	8	55%	6	1	10			1
	2020	14	7	67%	7	2	11	1		
SAT	-									
	2018	10	4	71%	2	2	8			
	2019	6	5	55%	7		5			
	2020	4	4	50	5		3			
SSF	2017	8	18	31%	9		6	2	1	8
	2018	5	19	21%	10		5	1		8
	2019	10	19	34%	10		4	2	3	10
	2020	13	18	42%	10		5		4	11

Table 15. MSE committees shown by gender and job type (DEC = Department Executive Committee; H&S = Health & Safety Committee; LTC = Learning & Teaching Committee; RC = Research Committee; ADT = Admissions Team; UGCC = UG Courses Committee; PGTC = PGT Committee; PGRC = PGR Committee; EDI = Equality, Diversity & Inclusion; SAT = Self Assessment Team; SSF = Staff-Student Forum). Most influential committees shown in bold.

(iv) Participation on influential external committees

External committee activities are recognised and rewarded as Core Activities in the Academic Career Pathway framework for promotion. This is included in workload modelling as part of the half-day per week of external activities (pro-rata for PT staff).

FUTURE ACTION:

- A. Review Department strategy on external committee memberships
- B. Publicise external committee opportunities and seek nominations from underrepresented groups.

(v) Workload model

SUMMARY: MSE are responding to community evidence to develop a revised and co-owned approach to workload monitoring

FoE has used a workload allocation model (WAM) for a number of years (updated 2017). WAM primarily allows the HoD and DEC to assess and balance workload across staff. To this end, WAM attributes a 'tariff' indicating effort involved in particular activities, with a

reduced workload for newly appointed staff. The system used can be overridden following discussion with the HoD should allocations need to be adjusted.

Lucy Price (former DAM and SAT member) attended the Athena Forum workshop on WAM in STEMM departments at the Royal Academy of Engineering in September 2018.

As a result of that workshop and the conclusions of the report on this topic², MSE formed a diverse focus group of MSE academics to comment on the WAM model and tariffs. This identified highly subjective research workloads and MSE now recognises that this can skew the data enormously.

Impact of Actions Academics are involved in establishing how WAM is applied transparently. WAM is now effectively utilised by the HoD to support the rotation of key roles.

FUTURE ACTIONS:

- A. Use WAM to enable staff progression and development
- B. Advertising leadership roles on fixed term
- C. Consideration of team as well as individual contribution

(vi) Timing of departmental meetings and social gatherings

All key MSE committee meetings are scheduled within core hours (9:30am-3pm) to facilitate involvement of PT staff and those with caring responsibilities. Dates for key meetings are scheduled via Google Calendar and recordings of meetings are available to staff who were unable to attend.

In 2016 MSE introduced 'Feel Good Fridays' to welcome new staff, acknowledge anyone leaving, celebrate successes and achievements and boost internal informal networking amongst staff. These are now monthly 'Feel Good' coffee mornings, held on different weekdays* to increase the participation of PT staff or those with commitments.

MSE actively engages with MATSOC, which exists as a social entity for bringing Materials students together. We started a 'MATSOC meets MAT EXEC [DEC]' two years ago, to discuss and support MATSOC plans for the year. MSE has created a budget for support of MATSOC activities (Figure 45) including annual events such as graduation ball, Christmas party, sports day and Ceilidh that actively promote inclusivity across all student year groups.

FUTURE ACTIONS:

- A. Publish annual departmental calendar listing dates of key meetings.
- B. Provide round up communication of the 'Feel Good' news via the eHandbook.
- C. Ensure sustained relationships of MATSOC & DEC.

² <https://athenaforum.org.uk/media/1144/athena-forum-wam-reportjanuary2018.pdf>

Figure 45. Two recent MATSOC social events (staff hiding from the camera).

(vii) Visibility of role models

SUMMARY: We have strong visibility of female role models and improved female representation in Dept seminars after monitoring

MSE has a good mix of gender, race and nationalities, and this is reflected in our publicity material and our new eNewsletter, 'Interfaces' (Figure 46). More than 50% of the case studies, testimonials and student-generated content on our website feature female students and alumni.



The University
Of
Sheffield.

Department
Of
Materials Science &
Engineering

Interfaces

The newsletter of the Department of Materials Science & Engineering at
The University of Sheffield

Welcome to *Interfaces* March 2021

Every issue, we'll bring you news from the world of Materials, from us and elsewhere, and how discoveries made through the years affect our lives today.



In conversation with
Professor Nicola Morley
and
Professor Ipsita Roy

International Women's Day
#IWD2021 #WomenInChallenge

Celebrating International Women's Day

Earlier in March, we celebrated International Women's Day with an online event which saw research associate Dr Felicity Freeman chatting to Professor Ipsita Roy and Professor Nicola Morley about their careers.



Magnetic materials for reservoir computing

The study of domain walls in ferromagnetic nanorings has demonstrated behavior which has the potential to be useful in the development of reservoir computing, a brain-inspired computing method.



Spiderman becomes IOM3 Fellow

Earlier this year, Dr Chris Holland received the honour of being named Fellow of the Institute of Materials, Minerals and Mining (IOM3).



Colleague Showcase: Dr Lisa Hollands

Hear from Lisa Hollands, Technical Team Leader for Materials Science & Engineering, about what she enjoys about working in the Department.

Figure 46. *Interfaces*, our new eNewsletter.

MSE organises the annual Hatfield Lecture, a prestigious public event attracting 1000 visitors, that has been delivered by two high-profile women Academics in the past four editions. We started to monitor the gender of visiting Departmental visiting speakers in 2017-18 and identified a deterioration in the gender balance (Figure 47).

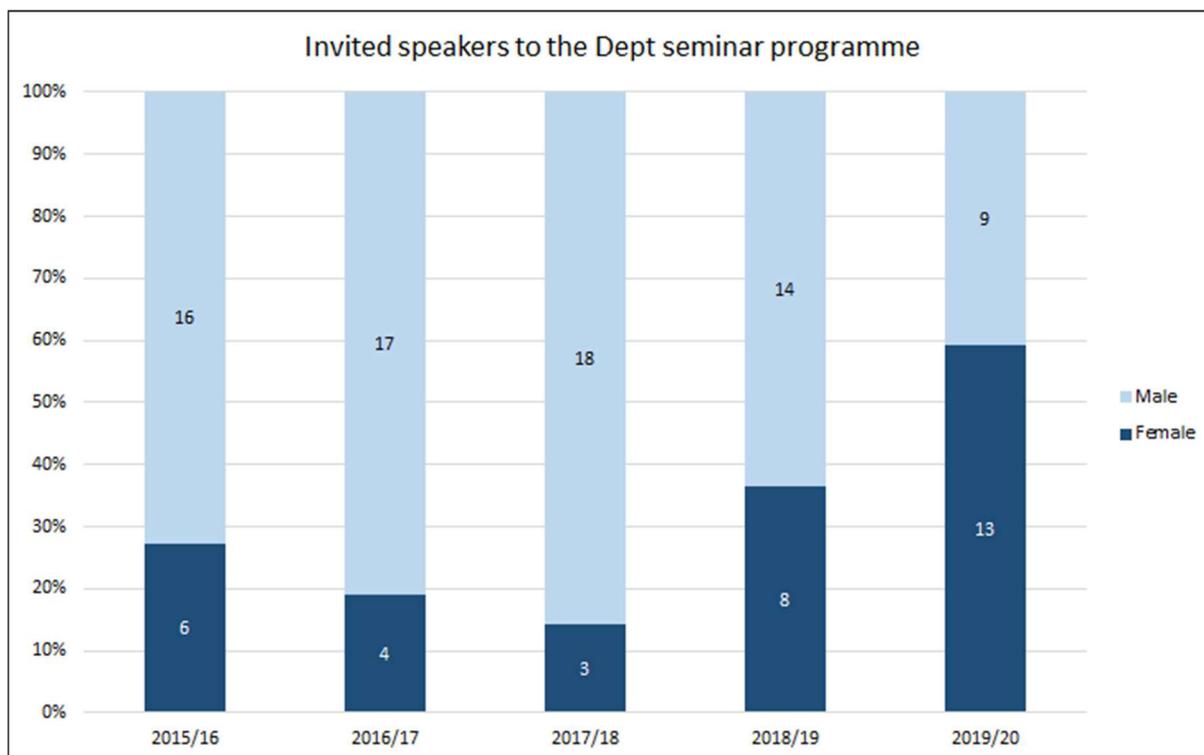


Figure 47. Gender split of invited speakers in the Department seminar programme.

Impact of Actions Speaker invitations from 2018 onwards were considered in light of gender balance and subsequent years programmes have recovered the female:male speaker ratio. We aim to achieve 50:50 gender balance in invited speakers in future.

Discussions external experts impressed on us the significance of having speakers one career step on from the audience, which is largely PhD students and RAs. We will start to monitor the career stage of speakers in future in order to possibly manage the profile of speakers.

SAT have identified opportunities to support female nominees for prizes and awards available from learned societies (e.g IoM3, IoP, RSC) to overcome the gendered 'Awarding Gap' in prizes³. Experienced prize recipients, prize panel members and senior staff in MSE will encourage nominations from eligible candidates.

Our female staff have strong external visibility. For example, an MSE staff member was selected in 2018 as one of 24 participants (from an applicant pool of ~3000) to attend a BBC Expert Women training day.

³ 'Re-thinking recognition: Science prizes for the modern world' www.rsc.org/new-perspectives

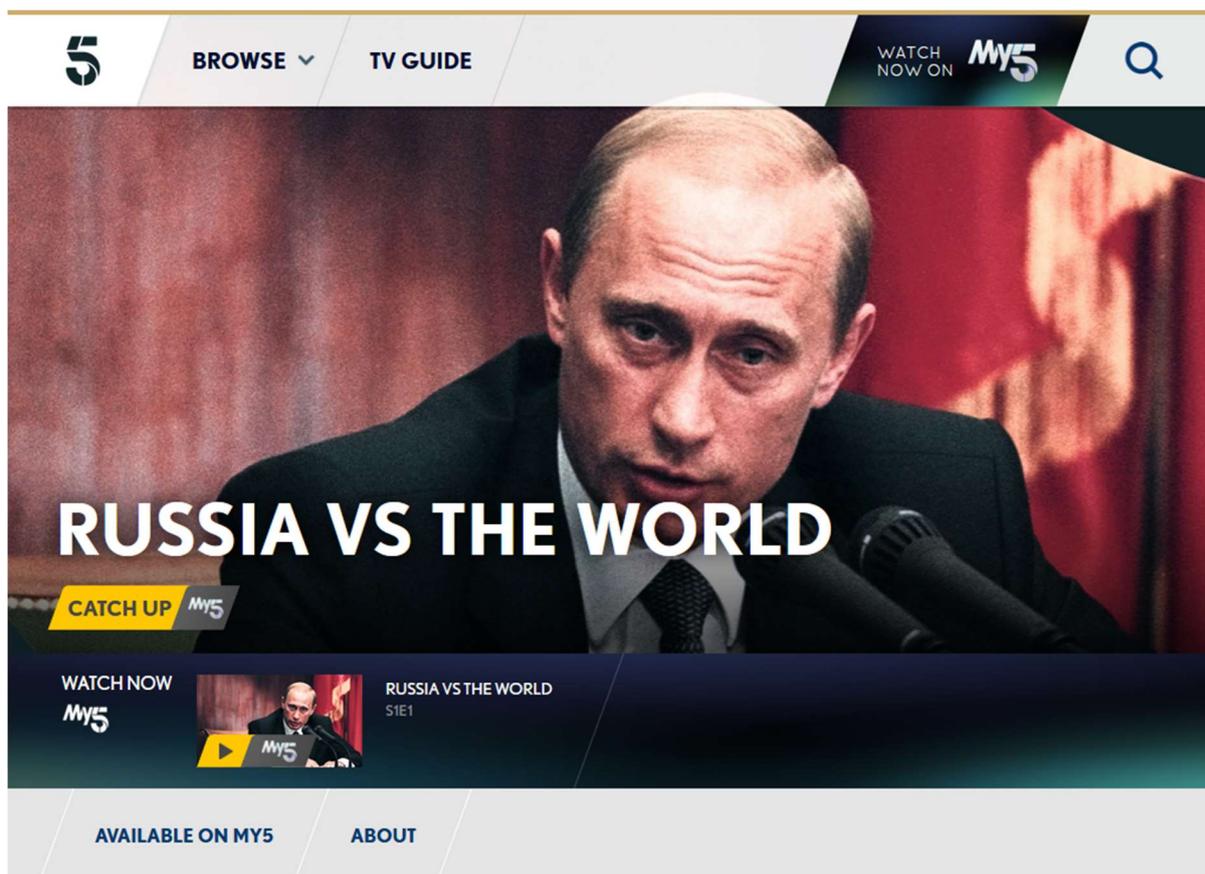


Figure 48. Information of one of several TV documentaries featuring MSE Reader and Fellow, Dr Claire Corkhill.

FUTURE ACTIONS:

- A. Continue to monitor gender balance of invited speakers to the Dept with aim of gender balance within each academic year
- B. Monitor career stage of visiting speakers and judge whether this should be managed to provide a more helpful range of role models to PGR students and RAs.
- C. Encourage invited speakers to discuss and reflect on their career pathway, milestones and work/life challenges they have managed.
- D. Provide details of external recognition awards to staff and encourage and support nominations.

(viii) Outreach activities

Four female and ten male Academic staff have participated in outreach events over the past Athena period. It has not been possible to obtain accurate numbers of Researcher outreach activity. MSE continues to develop its long-standing program of teaching activities based around materials properties of chocolate and 'Test a Tunnocks'.



Figure 49. MSE Staff developed outreach activities: (Left) Screenshot of the Material Space 3D virtual reality fly-through of electronic components on circuit boards. (Right) one of >1000 visitors at the Festival of the Mind.

We also work with MyBigCareer, Headstart and Discover STEM to increase female interest in STEM. One female and two male Academics are STEM Ambassadors and the Outreach team is typically 7F/3M UG and PGR demonstrators. We also build outreach into our student training.

Figure 50. (Left) School students participating in a 'chocolate making - chocolate breaking' outreach activity. (Right) MSE students at Engineering Imagination! with next-generation academics in Sheffield's Winter Gardens.

Two of our male Academics (including former DEDI) started an education company (FlashyScience) in 2017 to support school science students around the world with virtual experiments and resources.

MSE staff and students are encouraged to participate in outreach activities through career progression (staff), CV development (students) and The Deal rewards. The Academic Career Pathways Framework explicitly recognises Outreach activities in promotion at all levels of seniority.

6. CASE STUDIES: IMPACT ON INDIVIDUALS

[Two case studies have been removed from the published version.]

[843 words]

7. FURTHER INFORMATION

Data

UoS data census dates are shown in Table 16.

Data	Census date	Available to SAT
UG applications, offers and acceptances	31 August	End of first working week in January
PGT/PGR applications, offers and acceptances	1 October	End of first working week in January
Interim registration data UG/PGT for the current year	1 December	End of first working week in January
UG confirmed registrations, completion and progression	31 July	30 September
PGT completions on a rolling basis	31 July	30 September
Student competitors (UG/PGT/PGR)	31 July	31 March
Staff (all)	31 July	30 September
Staff competitors	31 July	31 March

Table 16. Census dates and availability for UoS data pack content.

A comprehensive data pack was made available to us by University Strategy, Planning and Governance. This included data from the Higher Education Statistic Agency for student numbers (including competitors). Other data sources include NSS reports, UoS HR, UoS Research Finance and MSE records.

Only very limited direct competitor data are available for Materials UGs and are extremely variable year-to-year. We therefore chose to use all Engineering UG data for benchmarking to provide a more consistent comparison. Materials PGT and PGR competitor data were more comprehensive and stable, and were used for benchmarking here.

LGBT+

MSE has not yet established separate LGBT+ policies. As noted in sections above, we aim to increase the uptake of LGBT+ awareness training and ensure any LGBT+ bias in any written or visual communication from MSE is identified and removed.

UoS has a formal LGBT allies initiative, Open@TUOS, launched in January 2016. All UoS staff are welcome to become an Open@TUOS ally, regardless of sexuality and/or gender identity. It engages those who identify as heterosexual with LGBT equality and inclusion matters, but is also inclusive of LGBT people who can be allies to other identities within the LGBT+ community. Open@TUOS is an ongoing success and in 2018 was relaunched under the #Rainbow Lanyard Campaign, which has resulted in over 2000 staff (25%) becoming supporters and was shortlisted for a prestigious Guardian University Award for Advancing Staff Equality. Recent policy developments include inclusive changing for sport, gender

neutral toilets on campus and LGBT+ specific accommodation in student halls. The Students' Union offers support for students who are transitioning and the Student Advice Centre includes a Hate Crime Reporting Centre. UoS sponsors local LGBT events, including Pride, SYLGBT Awards ceremony and Pinknic family event.

[word count 405]

Materials Science and Engineering Athena SWAN Silver application Action Plan

Apr 2021

Summary of Abbreviations

%F	Proportion of females (in given cohort)	LGBT	Lesbian, Gay, Bisexual and Transexual
ADM	Admissions Team (Student Taught Programmes)	LTC	Learning and Teaching Committee
AS	Athena SWAN	MATSOC	Materials Student Society
BEng	Bachelor of Engineering (undergraduate degree)	MCO	Marketing and Communications Officer
BAME	Black and Minority Ethnic	MEng	Master of Engineering (undergraduate degree)
DAM	Department Administration Manager	MSc	Master of Science (postgraduate degree)
DEC	Departmental Executive Committee	MSE	Department of Materials Science and Engineering
DDEDI	Departmental Director of Equality, Diversity and Inclusion	OEC	Open-ended contract
DDRI	Departmental Director of Research and Innovation	PGR	Postgraduate Research student (PhD)
DRP	Departmental Review Panel	PGT	Taught Postgraduate student (MSc)
DTM	Department Technical Manager	PhD	Doctor of Philosophy
EDI	Equality, Diversity and Inclusion	PSDG	Professional Staff Development Group
EDIt	Equality, Diversity and Inclusion Team	PT	Part-time
FDEDI	Faculty Director of Equality, Diversity and Inclusion	PtE	Pathway to Engineering
FEDC	Faculty Equality & Diversity Committee	RAE	Research Assessment Exercise 2008
fHEA	Fellow of the Higher Education Academy	RC	Research Committee
FoE	Faculty of Engineering	REF	Research Excellence Framework 2014
FT	Full-time	ROO	Recruitment, Outreach and Student Experience
FTC	Fixed-term contract	RSO	Research Support Officer
FY	Foundation Year	SAT	Self Assessment Team
GTA	Graduate Teaching Assistant	SRDS	Staff Review and Development Scheme
H&S	Health and Safety	UB	Unconscious Bias
HoD	Head of Department	UoS	University of Sheffield
HR	Human Resources	WAM	Workload Allocation Model

* Refers to actions made in previous Action Plan

Objective	Action Ref No.	Planned actions	Rationale (i.e what evidence is there that prompted this action/objective?)	Timeframe Start date	End Date	Job title of person responsible	Success criteria and outcome
Section 3	Self Assessment Process						
Timely progress in Action Plan	3A	SAT meet fortnightly through next assessment period.	Accountability to and implementation of action plan	June 2021	Next AS subm date	DEDI	Action plan implemented
	3B	Continue to engage with FEDIC to discuss best practice.	Sharing of good practice between other departments across the Faculty will enable rapid progress towards goals.	June 2021	Next AS subm date	SAT	Adoption of Faculty best practice
SAT & EDI teams reflect department make-up	3C	SAT membership to broaden remit to include wider intersectionality.	Greater degree of representation, and gather a wider diversity of opinions and experience	June 2021	Dec 2021	DEDI	New members join the SAT
	3D	25% SAT membership turnover per annum.	In order that workload is shared and to allow, to enhance awareness and to allow for input from a wider range of people.	June 2021	Ongoing	DEDI	
	3E	Invite UG and PGT students to represent their cohorts on SAT/EDI Committee.	Increase representation more reflective of the wider Department population	June 2021	Dec 2021	SAT	Students join SAT
Increase external profile of EDI Activities	3F	External audit of SAT by 2023	To allow for a constructive critical and unbiased appraisal of the Department approach and processes.	June 2022	Dec 2023	SAT	Audit findings report to DEC
	3G	SAT member to attend AS network event each year.	Keep up to date and share good practice across other Athena Swan groups.	June 2021	Annual thereafter	SAT	SAT members attend events, good practice incorporated.
	3H	Provide volunteer on AS assessment panel each year.	Critical assessment of other applications enables better reflection on internal policy and actions	June 2022	Annualy	SAT	SAT member(s) to volunteer AS assessment panel.

Build a shared sense of purpose to achieve EDI objectives	3I	Update Department on actions and opportunities three times per year.	In order that awareness and profile of the Athena Swan objectives and aims are maintained.	June 2021	Reviewed every four months	DEDI	Holding of three sessions per year to report back to the department.
	3J	Departmental Seminar program to include a presentation on EDI related topics from a visiting speaker	To raise the profile, prestige and awareness of EDI issues within the Department.	June 2021	Ongoing	DEDI	Speakers with an EDI focus invited each year as part of the seminar
Embed principles of EDI in MSE	3K	EDI standing item on all Dept committee agendas.	EDI becomes part of the normal agenda which helps to create a culture of equality, and takes into account the diversity of experience across the Department.	June 2021	Ongoing	DEDI	EDI a standing item on committee agendas.
	3L	Dept survey and feedback sessions annually.	As a mechanism of feedback and dialogue with staff, and a means to identify issues and best practice.	June 2021	Annual thereafter	EDI Committee	Survey results reported and used in planning.
Equality in pay and gender pay gap	3M	Report Gender Pay Gap data to department.	Visibility and transparency of pay gap helps to identify and address issues where/if they exist . Data should be available from Jan 2022 planning round.	Jan 2022	Annual thereafter	DAM/HR	Accurate paygap data available to staff.
Recruitment, Outreach and Students							
Section 4.1		Student Data					
Maintain fairness in recruitment processes for UG and PGT students.	4.1i) A, B	Continue to monitor MSE-linked FY student numbers by gender each year.	To maintain and monitor recent increases in number of female FY students, to fill gaps in the data and to encourage retention of students between FY and MSE programmes.	Ongoing	Annual thereafter	Admissions Team	Maintain or increase 30% female intake, track FY to MSE progression.
	4.1ii) A	Collect data on USIC applications process.	Women are currently underrepresented in this application route. In order that trends can be monitored and to allow for the impact of interventions to be identified.				Systematic updating and reporting of plots.
	4.1ii) E	Maintain monitoring of UG applications and entry by gender.	In order that trends can be monitored and to allow for the impact of interventions to be identified.				
	4.1iii) D	Maintain monitoring of PGT applications and entry by gender.	Women are currently underrepresented in application numbers. So that future trends can be monitored and to allow for the impact of interventions to be identified.				

Increase number of women applying for UG places	4.1i) C	Investigate suitability of Pathway to Engineering for MSE applicants.	Given that only 21.5% of A-level Physics students are female we will also explore the FoE's 'Pathway to Engineering' (PtE) for applicants without Physics A-level to increase the pool of potential female students	Dec 2021	Sept 2022	Admissions Team	Decision on adoption of Number of PtE, towards possible admission of more female students in 2023 intake.
		Undergraduate Focussed Actions					
Increasing %F of UG female applications	4.1ii) B	Maintain USIC visits and Open Days.	Continue advocating for MSE programs in a gender balanced and inclusive way.	2021-22 Admissions Cycle	Ongoing	ROO	Increased USIC %F in MSE students from current 3 year average of 26%F
	4.1ii) C	Develop strategy of ROO engagement of female applicants.	More engagement with female applicants will lead to an increase in likelihood of offer acceptance	June 2021	Ongoing	ROO	Increase female Accepts (target of 30% rolling 3 yr average, increased from 23%)
	4.1ii) D	Review impact of offer grades on students with lower predicted grades.	To identify trends in admissions based upon these criteria.	2022-23 Admissions Cycle	Ongoing	Admissions Team	Recommend appropriate actions to address issues if trend identified.
	4.1ii) F	Investigate scholarships targeting female and BAME students.	Encourage and increase female and BAME representation in the UG population.	Feb 2022	Ongoing	DAM/DEC	Increase in female and BAME UG students
		Postgraduate Focussed Actions					
Increase percentage of female PGT students	4.1 iii) A	Change interview day to a Visit Day for UK-based applicants	Data indicate that the current process favours male applicants, the new approach is intended to be more gender balanced.	2022-23 Admissions Cycle	Ongoing	Admissions Team	Increase female applicants numbers.
	4.1 iii) B	Invite USIC applicants to Visit Days	Again, the data indicate that the current process favours male applicants Inviting USIC applicants to visit days is intended to increase the number of female registrations.	2022-23 Admissions Cycle	Ongoing	Admissions Team	Increase female student registered numbers.
	4.1 iii) C	Develop strategy of ROO engagement of female PGT applicants to support increased registration rate.	Investigate the factors that lead to Female applicants having a 10% lower registration rate than their male counterparts.	Nov 2021	Nov 2022	ROO	Reduce the M:F Registration differential to <5%

Actions Relevant to Undergraduate and Postgraduate Students							
Maintain gender balance in publicity and communication	4.1 iii) E,	Maintain review of marketing for gender bias.	Inclusive representation in communications will lead to	June 2021	Ongoing	MCO	Routine use of gender balanced communications.
	4.1 iii) G and H	Develop female case studies, role model visibility and images in marketing.	Representation is hugely important, increasing female visibility in the department will inspire others. Gender-biased language can lead to female candidates being deterred from accepting offers.				Ensure equal female representation across all publicity and marketing.
	4.1 iii) I	Review information sent to offer-holders for gender bias.					Increase in number of female accepts.
Achieve best gender-inclusive practice in recruitment	4.1iii) F	Routine use of focus groups (including by gender) to feedback on recruitment process.	Focus groups allow for granular and nuanced identification of issues and successes and can be used to inform best practice.	June 2021	Ongoing	ROO	Feedback between staff and the student voice to inform gender inclusive practice.
Student Progression							
Section 4.1							
Maintain fairness in recruitment processes for PGR students.	4.1iv) A	Continue monitoring of UG to PG progression, PhD admissions and registrations by gender.	Monitoring systems already in place, scholarship awarding panels are held gender-blind, aim is to maintain gender balance.	June 2021	Ongoing	DPGR	Increase in proportion of female PhD registrations from current value of 33% (3 yr average) to 37% by 2023
	4.1 v) A	Continue to monitor UG-PG progression by gender.	UG to PG progression is already close to equal by gender in MSE, monitoring to identify introduction of gender bias.	June 2021	Ongoing	DPGR	Achieve gender-equality in progression rates from UG to PG
Increasing in-time completion of PhD studies with no gender gap.	4.1iv) B	Establish robust monitoring of PhD submission rates by gender.	Monitoring of submission rates will identify any patterns in gender. Data collection can be improved here to capture completion time by gender. Appropriate support put in place to support by gender if needed	June 2021	Ongoing	PGR Progression Tutor	Identify any issues with submission rates across different genders.

	4.1v) D	Visual signposting of PhD trajectory to support annual progress reviews.	Currently achieving c.70% in time completion, irrespective of gender. Late completion inhibits career progression and has financial implications (e.g. working without funding).	Sept 2021	2025	PGR Progression Tutor	Increase 'in time' PhD completion to 80% across all genders by 2025.
Support female UG transition into research environment	4.1v) B	Hold female PG focus groups to learn why they chose this route and how they learned of it.	Understanding the decision-making process will enable targeting sign-posting to encourage more female students to undertake PG study.	June 2021	Dec 2022	ROO	Increase number of females undertaking PG study to 5 p.a. (up from 3 p.a.).
	4.1v) C	Encourage female Y2 UGs to apply for summer research placements.	Research experience at UG level is helpful in career decisions, and may encourage more students to undertake PG research degrees. Targeting this to female students will increase the pipeline from UG to PG.	June 2021	Annual	ROO, UG tutors	Increase the number of female 2nd year UG students taking up summer research placements, potentially leading to
Increase %F of PGR students	4.1v) C	Develop female case studies, role model visibility and images in marketing.	Representation is hugely important, increasing female visibility in the department will inspire other female students to pursue this career.	June 2021	Ongoing		Ensure equal female representation across all areas of publicity and marketing.
	4.1v) D	Invite UGs to PhD and PGT student presentations.	Increasing exposure to research in the department will help UGs to choose their research projects, and gives them an overview of research available to them on a PG research degree, creating a pipeline of potential research candidates.	June 2021	Ongoing	PSS	UG involvement in PGT and PhD seminars.
	4.1v) E	Hold information sessions and workshops on postgraduate study.	Need to address small gender imbalance in progression to PG study, information sessions will help aid decision-making.	June 2021	Ongoing	ROO, DPGR	More UG students moving to PG study to 14 from 11 (3 year rolling average).
	4.1v) F	Run research lab tours for UG students.	In person experience of labs helps to solidify ideas and understanding of real research environments; this may help in the decision making process	June 2021	Annual	ROO, UG tutors	Increased uptake of UG research placements.
	Staff						
Section 4.2							

Increase the proportion of female academic staff	4.2i) A	Continue monitoring Academic and Researcher numbers by grade, PT/FT and gender.	Need to monitor overall picture of department to ensure promotions, retirements, changes to PT/FT working do not affect reduction in female academic staff numbers by marginal gains.	June 2021	Annual thereafter	SAT	Systematic updating and reporting of data.
Support career progress for RAs	4.2i) B	Introduce visual signposting of Fellowship opportunities and hold Fellowship workshops for PhDs and RAs	Career pathways for researchers were identified in the staff survey as being unclear and RA staff survey responses indicate lack of clarity about career progression and "openness" of career pathways. Focussing support on this staff group will help address this problem.	Oct 2021	Annual thereafter	DEDI & DDR	A majority positive response to Career Pathways in staff survey.
	4.2iii) A	Strengthen the exit interview process to gather anonymised data on reasons for leaving.	Enhanced focus on exit interviews will allow issues that might impede gender equality to be identified and addressed.	June 2021	Ongoing	DEC	Routine collecting and reporting this information.
	4.2i) D	Develop support for AFHEA recognition for RAs	Teaching at PDRA level is often ill acknowledged, and the ad hoc nature can lead to a lack of recognition or reward for PDRA teaching efforts. HEA recognition allows PDRAs to demonstrate this experience to new employers.	June 2021	Dec 2022	DEC	Increase in number of PDRAs gaining FHEA status to aid career progression.
Gender equality in Graduate Teaching Roles	4.2ii) A	Ensure equality of opportunity by gender for Graduate Teaching Assistants in the FoE.	Need to ensure that GTA's are recruited equitably from the MSE student body. Diverse representation of GTAs ensures equity for the GTAs and diverse representation in the classroom or lab to students.	June 2021	Ongoing	PSS	Representation of women to match or exceed FoE gender balance.

Section 5.1	Key career transition points: academic staff						
Increased the proportion of female academic staff recruited	5.1i) A	Continue to monitor recruitment processes by gender.	Women are currently underrepresented in application numbers. Monitoring will be used to evaluate efficacy of search panels and promulgate best practice.	June 2021	Dec 2024	DEC	Increase %F to 40% Researchers and 32% Academics to targets from 3yr av of 30%F and 23%F
	5.1i) B & C	Continue to review recruitment adverts for gender bias, family-friendly policies and career-support information.	Inclusive representation in communications will lead to better engagement with female applicants, routine appraisal of this will ensure it becomes standard Departmental practice.	June 2021	Ongoing	MCO	Routine and standard use appropriate images and text.

Supporting career development of RAs	5.1i) D	Develop and communicate guidance to recruiting staff on using RAs on interview panels.	RA develop experience of interview, assessment and clear communication by being a panel member. RAs provide a useful perspective on potential candidates.	June 2021	Dec 2022	DEC	RAs regularly invited to sit on recruitment panels
Gender equality in RA pay	5.1i) E	Clarify procedures around starting salary for new RAs.	RA starting salary can vary depending on support from Line Manager and candidate's negotiation skills, which could disproportionately disadvantage some groups, including female applicants.	June 2021	Dec 2022	EDI Committee w RSO	Clear, transparent and fair guidance on RA starting salaries.
Supporting new staff	5.1ii) A	Annual review of induction pack content.	Details and contacts will change year on year, an annual review keeps the detail up to date, relevant and useful.	Annual	Annual	DEC and MSE PSS	Induction handbook is kept up to date
	5.1ii) B	Develop buddy system with MSE contact for new recruits pre-arrival.	A buddy will give new recruits a point of contact before arrival for questions, advice and support (potentially beyond just life in the department), and after arrival as the new recruit settles into their role	Sep 2021	June 2022	DEC w PGR Forum	All new arrivals are assigned a Buddy.
Promotion of Female Academic staff	5.1iii) A	Amend academic staff SRDS to explicitly include 'promotion readiness' in review discussions.	Many Researchers, particularly females, tend not to put themselves forward for promotion, a promotion readiness discussion will ensure fair access to promotions for all, and help to address reticence often seen in some groups.	June 2022	Sep 2022	DRP	Fair access to promotion when ready.
	5.1iii) B	Start annual submission of all academic staff CVs to HoD/panel.		June 2021	Aug 2022	DEC	Increase in %F applying for promotion (current 3 yr av 28%F)
	5.1iii) C	Review internal process to increase Academic promotions transparency and objectivity.	Review (including external FoE staff) will enable benchmarking of department requirements against other departments in the FoE, ensuring a fair process across the FoE.	Sept 2022	April 2023	DEC/DAM	Transparency in process and fair promotions across the FoE
Section 5.2		Key career transition points: professional and support staff					
Support career development of PSS	5.2ii) A	Monitor applications and outcomes of PSS regrading.	Regrading for PSS is rare and so monitoring to ensure fairness will allow any issues to identified.	Sept 2021	Ongoing	DAM	Transparency in process and fair regrading when

	5.2ii) E	Monitor 'The Deal' awards to staff who regularly exceed performance for their role and may be candidates for regrading/promotion.	Staff who regularly perform beyond their role may be candidates for regrading/promotion.	June 2021	Ongoing	DAM/DEC	Identification of potential regrading cases through The Deal
Directly address concerns about PSS Career Pathways	5.2ii) B	Use UoS guidelines to prepare and communicate career development and regrading guidance for MSE PSS.	Clear communication of guidance will ensure PSS are well informed of career development and regrading available to them	Ongoing	Aug 2022	DRP/HR/DAM/DTM	Production and release of guidance documents to PSS. Increase in %Agree "Career pathway is
	5.2ii) C	Ensure SRDS for PSS staff includes reflection on appropriateness of role/grading.	Changing of responsibilities could be a case for regrading, or change of role; annual reflection will enable cases to be identified more easily	June 2021	Aug 2022	(respons. with DAM&DTM)	SRDS form for PSS to include self-reflection prompts
	5.2ii) D	Ensure all supervisors are aware of regarding/promotion policies.	Clear communication of guidance to supervisors will ensure equal opportunities for all PSS	June 2021	Aug 2022		Production and release of guidance documents to PSS supervisors

Section 5.3 Career development: academic staff

Increase the availability of training for Academic staff	5.3i) A	Request FoE and other training providers create accessible training databases.	A database of available training will enable easier signposting of and access to opportunities	June 2021	June 2022	DEC/FoE	Increase in Academic staff undertaking training
	5.3i) B	Establish budget to cover Academic training time.		Feb 2022	Sept 2022	DAM/DEC	Budget made available.
	5.3iii) B	Create and communicate MSE policy on financial support for Academic staff development.	Clear policy will aid signposting and uptake of financial support	June 2022	Sept 2022	DAM	Increase in staff training uptake
	5.3ii) A	Review the DRP remit to drive specific staff development plans for different staff groups	Academic staff continue to find time is unavailable for development, (only 30% of Academic staff respondents (5/17) agreed that they have time for CPD. All were male).	May 2022	Sept 2022	DRP	Increase % of Academic staff who indicate that they have time to engage with CPD and training.

	5.3ii) B	Review academic SRDS format to include 'what are you learning/ will you learn?' as active enquiry.	Align individual career aspirations with development training. MSE will feed this into strategic planning and introduce funding covering staff time for significant training events.	May 2022	Sept 2022		
Career support for carers	5.3iii) A	Communicate fund for additional childcare costs due to work-related travel provided by FoE and monitor uptake in MSE.	Clear signposting is required for fair access to this fund; monitoring enables assessment of success of signposting.	June 2021	Ongoing annual review	DAM	Increase in uptake of fund.
Supporting Student Career progression	5.3iv) A	Review how UG courses can draw on MEng(Research) training activities.	MEng(Research) focuses on teaching many of the transferrable skills required in research focused jobs, application of these across the UG programmes will better equip students for research careers.	June 2022	June 2023	DLT, MEng(Res) module convenor	Incorporation of parts of MEng(Research) programme into other UG courses
Maintain gender parity in Grant award value	5.3v) A	Develop policy of supporting unsuccessful grant applicants.	Supporting grant rejections gives the opportunity for learning and staff development with scope for re-developing grant for re-submission.	June 2021	Ongoing	DDR	Increase in grants resubmitted and/or funded
	5.3v) B	Create strategy for research support to work with female academics to create larger grants (£500k+) and with PIs writing first large grant.	Grant award data show tendency of larger grant awards being won by men. This value gap was eliminated in most recent data, and strategy may be needed in order to maintain this.	Jan 2022	June 2022	DDR, DEDI	Increase in number of female PIs submitting large grant proposals
	5.3v) C	Hold group mentoring by large grant holders to develop ideas of early career and female academics.	Mentoring will help to pass on experiential knowledge of grant writing and ensure a strong grant pipeline.	Sept 2022	Ongoing	DDR	Increase in female large-grant submissions and successes
Section 5.4	Career development: professional and support staff						
Support development for PSS	5.4i) A	Facilitate training and development opportunities and maintain gender balance.	Our survey identified that 48% of PSS felt they had inadequate time to engage with training and development. Professional Services team leaders to continue encouraging staff engagement with SRDS-identified training and development.	June 2021	Ongoing	DAM & DTM (w DRP oversight)	Continued balanced uptake of training opportunities.

	5.4i) B	Develop methods to measure effectiveness and impact of training and development.	Share experience of effectiveness of training around teams. PSS response to survey questions around Development indicate highly diverged opinions (e.g. the availability of mentoring) indicating not all staff are aware of opportunities.	June 2021	Ongoing	Line Managers	Increased uptake of training. Survey response indicating awareness of opportunities.
	5.4i) C	Expand departmental training and development assessment and planning	Assess development needs via SRDS process and discussions within PSS teams.	June 2021	Oct 2022	Line Managers	Introduction of additional training, and subsequent uptake by PSS.
	5.4iii) A	Continue support for professional development for PSS.	MSE has resolved to train All Technical Team Leaders (and some "aspiring to Team Lead") technicians to NEBOSH standards, providing Technical Team Leads with gold standard professional qualifications.	June 2021	Ongoing	Line Managers and Supervisors	All Team Leaders to NEBOSH standards. PSS staff with Registration to RSciTech, RSci or CSci increased from 11 to 15.

Section 5.5 Flexible working and managing career breaks

Retain staff returning from Maternity/Parental leave	5.5 iv) A	Interview returners from maternity/parental leave to review Dept support to understand the challenges impact of support, and ideas for future improvements.	Each case will be unique and as a result require treating as such. Line managers are best placed to arrange suitable support and transition back to work, as well as to feed forward ideas for change. Information to be fed to DAM.	June 2021	Ongoing	Line Managers	DAM informed of transition between maternity leave and work.
	5.5 iv) B	Review support for maternity returners in light of the above interviews.	To allow oversight of the process at a departmental level such that processes can be refined and improved.	June 2021	Ongoing (at least annually)	DAM	A regular review of transition arrangements.
	5.5 iv) C	Managers to keep 'change logs' of significant changes to policies or practices for discussion with maternity/parental leave returners.	Ensure that all departmental and University updates enacted during leave period are recorded and communicated to facilitate a smooth return to work.	Sept 2021	Ongoing (as required)	Line Managers	Satisfactory review by DAM.

Support uptake of parental leave	5.5v) A	Engage PhD students and RAs to understand their awareness of the availability of parental leave.	Routine inclusion of questions to assess the awareness of parental leave in staff survey and an equivalent PGR survey.	June 2021	Ongoing (at least annually)	EDI Committee	>90% awareness of policy.
	5.5v) B	Communicate the level and range of paternity support available at UoS.	Discussion of working conditions and rights as a standard part of the induction process supported by updates to Induction Booklet (5.1ii)A	June 2021	Ongoing (at least annually)	Line Managers and Supervisors	Continued uptake of parental leave by PhD students and RAs
Support for Flexible and Part Time Working	5.5vi) A	Survey staff on attitude to PT working and possible effect of guaranteed return to FT;	Identify any existing or perceived barriers to staff taking advantage of PT or Flexible working.	March 2022	June 2022	EDI Committee	Increased awareness of PT option.
	5.5vi) B	Discuss further with Paul Walton the impact of PT working guarantee on work practice and take up of flexible working.	External expert advice will be sought in evaluating potential changes to this policy	Nov 2021	June 2022	DEDI	Knowledge of Case Studies to discuss during Interviews.
	5.5vi) C	Interview staff on challenges and benefits of PT working.	Gathering direct opinions is useful for creating an acceptable policy based on the needs and wishes of people in the department.	May 2022	June 2022	EDI Team, Line Managers (re sp. with DEDI)	Discussions will help to inform department policy
	5.5vi) D	Recommend changes to Dept policy based on the engagement on PT working guarantee and working practices.	The expert input and examples of impacts from within MSE outlined above will inform policy revisions on PT and flexible working.	Sept 2021	March 2023	DEDI	Policy amended and released into the department.

Culture and Department

Section 5.6	Organisation and culture						
Supporting & Capturing EDI engagement across MSE Staff	5.6i) A	Monitor completion of EDI-training of staff.	UB training had a high take-up, and has been replaced with University EDI-training. Monitoring will indicate any changes in uptake.	Ongoing	Ongoing	DAM	All staff to have completed EDI-training.
	5.6i) C	Conduct annual Department surveys	Necessary to track changes in department with time. Additional surveys used to gather additional detail where needed (e.g PT/FT working, discrimination, homeworking/Covid) and these inform departmental decision making.	Nov 2021	Annually	EDI Committee	Survey conducted annually, with results fed back to participants, and findings acted upon

	5.6i) F	Nominate examples of Athena SWAN good practice for recognition via The Deal awards.	Formal recognition of positive action will encourage similar behaviour within the department, helping to reduce instances of discrimination.	June 2021	Ongoing	EDI Committee	Increased awareness of Athena SWAN best practice.
	5.6viii) A	Record gender distribution of participants in Outreach activities.	Monitor and ensure an accurate representation of the department at outreach events, ensure equitable allocation of roles and duties amongst contributors, demonstrators and organisers participating in all outreach events each year.	June 2021	Ongoing	ROO and Academic Staff	Records of outreach and engagement events collected, develop understanding of allocation of roles by gender
Building Inclusion and reducing discrimination	5.6i) B	Continue to hold Unconscious Bias/Implicit Bias training for all Y1 UG/PGR students plus PGT students.	UB training for UG, PGT and PGR students fosters an inclusive culture in the department.	June 2021	June 2022 for inclusion of PGT, ongoing annually	Coordinators for 1st years, DPGT, DPGR, with Louise Mason	UB training >90% participation in each student cohort (up from current 72%).
	5.6i) D	Campaign communicating inclusiveness of Department.	Annual survey data show that discrimination is experienced and witnessed at a higher rate than is reported.	June 2021	Ongoing	MCO	Annual survey data shows alignment of experience and witnessed discrimination; incidence of both decreased.
	5.6i) E	Establish annual workshops on recognising and challenging gender discrimination, and gather information on discrimination.	Annual survey shows that MSE males report witnessing less gender-based discrimination than females do. Anonymous details about instances of discrimination will be communicated to all staff to help establish common understanding of what constitutes unacceptable discriminatory practice, and inform revision of practices and behaviours.	June 2021	Annual thereafter	EDI Committee	Increased reporting of discrimination so that it reflects values gathered from the MSE survey.
Supporting RA Career development	5.6iii) B	Include PDRA Researcher in Research Committee.	To gather input from the Researcher staff group, engender inclusivity and to increase buy-in to Departmental decision.	Sept 2021	June 2022 and ongoing thereafter	DRC	Regular attendance by the designated researcher at the research committee.

	5.6iii) C	Other Committee Chairs to review possible inclusion of Researchers as committee members.	To gather input from the Researcher staff group, engender inclusivity and to increase buy-in to Departmental decision.	June 2021	June 2022	Committee Chairs	Target: Researchers on four committees.
Facilitating external career development opportunities for Female staff	5.6iv) A	Review Department strategy on external committee memberships	The department has strong representation across external committees, review will ensure this continues and will seek to identify opportunities to seek gender balance.	June 2021	June 2022	DEC	Increased representation of the department on external committees.
	5.6iv) B	Publicise external committee opportunities and seek nominations from underrepresented groups.	Evidence from Learned Societies & Research Councils that opaque and elaborate nomination processes are barriers that particularly discourages applications from women.	June 2021	Ongoing	EDI Committee	Increase in uptake of committee positions by under-represented groups.
	5.6vii) D	Provide details of external recognition awards to staff and encourage and support nominations.	Encourage and support nominations from female staff for awards to reduce gender Awarding Gap in prizes (see RSC report <i>Re-thinking recognition</i>).	June 2021	Sept 2021 and ongoing thereafter	DEC	Increase in nominations submitted.
Supporting Career development	5.6iii) A	Review Department strategy of Academic engagement in FoE posts.	As a mechanism to maximise departmental engagement and involvement with faculty level decisions	June 2021	June 2022	DAM	Strategy is reviewed and updated accordingly
	5.6v) A	Use WAM to enable staff progression and development.	Track changes in workload across WAM categories of Teaching, Research and Administration to focus efforts on targeted Academic Career Pathway categories to strengthen promotion cases. Encourage and enable staff to apply for promotion.	June 2021	Ongoing	DAM	Career Progression Survey 90% Agree (up from 83%), and increased number of staff applying for promotions.
	5.6v) B	Advertising leadership roles on fixed term.	In order that workload is shared, to enhance spread of opportunities and to allow for input from a wider range of people.	June 2021	Ongoing	HoD	Routine and regular turnover of staff in leadership roles.
	5.6v) C	Consideration of team as well as individual contribution.	Recognition that both individual and collective efforts are important and should be rewarded.	June 2021	Ongoing	DAM	Team activities used in promotion cases.
Building an Inclusive culture	5.6vi) A	Publish annual departmental calendar at start of academic year listing dates of key meetings.	Clear signposting of the time specific requirements within the department; allowing adequate time to prepare, taking account of PT working, annual leave etc.	June 2021	Sept 2021 and annually thereafter	DAM/HoD	Increased visibility of key dates, increased attendance.

	5.6vi) B	Provide round up communication of the 'Feel Good' news via the eHandbook.	Staff unable to attend due to PT/flexible working, teaching commitments or external duties report feeling left out.	June 2021	Ongoing	MCO	Increased Inclusion in Survey.
	5.6vi) C	Ensure sustained relationships of MATSOC & DEC.	MATSOC are a direct link between the student body and staff, maintaining this link enables easy flow of information, ideas and feedback.	June 2021	Ongoing	ROO	Good relationship between MATSOC and DEC.
Incoming External role models	5.6vii) A	Continue to monitor gender balance of invited speakers to the Dept.	Ensuring a balanced representation of gender in the invited speakers. Aim of gender balance within each academic year.	Ongoing	Ongoing	Colloquium Organiser Team	Balanced programme of speakers annually.
	5.6vii) B	Monitor career stage of visiting speakers and judge whether this should be managed to provide a more helpful range of role models to PGR students and RAs.	Discussions of best practice with UCL indicated significant impact of having speakers one career step on from the majority of the audience.	Sept 2021	Ongoing	Colloquium Organiser Team	Career stage speakers match MSE academic staff profile.
	5.6vii) C	Encourage invited speakers to discuss and reflect on their career pathway, milestones and work/life challenges they have managed.	International Women's Day discussion forum between Female Professors generated positive feedback around these aspects of academic career development.	Sept 2022	Ongoing	EDI Committee / Colloquium Organiser Team / MCO	2 seminar speakers per term highlighting positive experiences and challenges faced.