



## Department Application Bronze and Silver Award



## **ATHENA SWAN BRONZE DEPARTMENT AWARDS**

Recognise that in addition to institution-wide policies, the department is working to promote gender equality and to identify and address challenges particular to the department and discipline.

## **ATHENA SWAN SILVER DEPARTMENT AWARDS**

In addition to the future planning required for Bronze department recognition, Silver department awards recognise that the department has taken action in response to previously identified challenges and can demonstrate the impact of the actions implemented.

Note: Not all institutions use the term 'department'. There are many equivalent academic groupings with different names, sizes and compositions. The definition of a 'department' can be found in the Athena SWAN awards handbook.

## **COMPLETING THE FORM**

**DO NOT ATTEMPT TO COMPLETE THIS APPLICATION FORM WITHOUT READING THE ATHENA SWAN AWARDS HANDBOOK.**

This form should be used for applications for Bronze and Silver department awards.

You should complete each section of the application applicable to the award level you are applying for.

Additional areas for Silver applications are highlighted throughout the form: 5.2, 5.4, 5.5(iv)

If you need to insert a landscape page in your application, please copy and paste the template page at the end of the document, as per the instructions on that page. Please do not insert any section breaks as to do so will disrupt the page numbers.

## **WORD COUNT**

The overall word limit for applications are shown in the following table.

There are no specific word limits for the individual sections and you may distribute words over each of the sections as appropriate. At the end of every section, please state how many words you have used in that section.

We have provided the following recommendations as a guide.

Department application	Bronze	Silver
<b>Word limit</b>	<b>10,500</b>	<b>12,000</b>
<i>Recommended word count</i>		
1. Letter of endorsement	500	500
2. Description of the department	500	500
3. Self-assessment process	1,000	1,000
4. Picture of the department	2,000	2,000
5. Supporting and advancing women's careers	6,000	6,500
6. Case studies	n/a	1,000
7. Further information	500	500

<b>Name of institution</b>	Cardiff University	
<b>Department</b>	Chemistry	
<b>Focus of department</b>	<b>STEMM</b>	
<b>Date of application</b>	April 2019	
<b>Award Level</b>	<b>Silver</b>	
<b>Institution Athena SWAN award</b>	<b>Date:</b> April 2015	<b>Level:</b> Bronze
<b>Contact for application</b> <small>Must be based in the department</small>	Prof Damien Murphy	
<b>Email</b>	HoS-Chemistry@cardiff.ac.uk	
<b>Telephone</b>	02920875850	
<b>Departmental website</b>	<a href="http://www.cardiff.ac.uk/chemistry">http://www.cardiff.ac.uk/chemistry</a>	

### 1. LETTER OF ENDORSEMENT FROM THE HEAD OF DEPARTMENT

**Recommended word count: Bronze: 500 words | Silver: 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.

Cardiff School of Chemistry  
Head of School Prof Damien M Murphy  
Ysgol Cemeg Caerdydd  
Pennaeth yr Ysgol Yr Athro Damien M Murphy



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**Athena SWAN Silver Award Application**  
**School of Chemistry**  
**Cardiff University**

29<sup>th</sup> April 2018

Dear Athena SWAN Members,

It gives me great pleasure to submit this application for an Athena SWAN Silver Award, presenting the attached case that highlights how our SAT team have advanced the Athena SWAN charter since our last Bronze award in 2015.

The previous HoS, Prof RK Allemann (2013-2017) oversaw the submission of our 2014 application, and immediately started to implement the positive action points through the SAT team from 2015. An immediate success for the School was the appointment of three female academics (two at professorial level) in 2015. Following my previous roles as Deputy Head of School and Director of Research (2013-2017), I was appointed as HoS in 2017. I have continued to engender the positive culture of gender equality in the School, and since 2017, have Chaired the SAT team. During this time, I have refreshed the management structure within the School, to include a new Athena SWAN standing committee (the SAT team), which has helped to raise the importance of ED&I issues across the School. Our success with academic recruitment, through a more inclusive recruitment process, and support for promotions, continued with a further female appointment in 2017 and a female promotion from lecturer to senior lecturer in 2018. Collectively this brings the number of female academics in the School to 16%, which remains below the 21% sector average, but above the 11% figure in our previous submission. We recognize that significant challenges remain with our gender balance among academic staff and I will continue to actively implement our improved inclusive recruitment policies, highlighting and encouraging our flexible policy arrangements. At the same time, we have also seen improved female recruitment among our professional service staff (44% female) and post doctorate researchers (23% female).

As a School, we offer the broadest range of Chemistry programmes in Wales, and have worked hard to improve student recruitment in areas, from foundation year, to UG courses (BSc, MChem), to postgraduate taught and post graduate research degrees. The improvements in our online and printed course materials and brochures, along with the enhanced visibility of our female staff and students at recruitment events, has been very successful resulting in our largest ever 46% female UG student cohort.

Going forward, the University is supporting the School through a new *Translational Research Facility* building, which has been designed to foster a culture of collaboration and collegiality among staff and students, whilst providing a considerable expansion in space. I am committed to leading colleagues in fulfilling our next phase action plan and creating a School environment that supports all staff in their career development with ED&I at its core. Our stated strategic ambitions are to fully embrace all facets of a modern, forward thinking School of Chemistry, performing excellent, internationally recognized teaching and research, becoming more innovative and creative in our science, whilst ensuring a positive culture of ED&I is demonstrated by all.

In summary, I confirm that the information presented in this application (qualitative and quantitative data) is an honest, accurate and true representation of the School.

Yours sincerely,

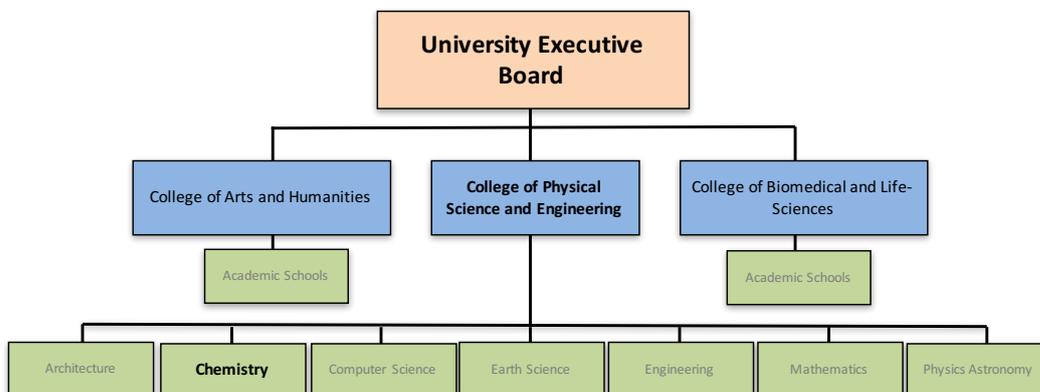
Prof Damien M Murphy, FRSC FSLW

500 words

## 2. DESCRIPTION OF THE DEPARTMENT

Recommended word count: Bronze: 500 words | Silver: 500 words

The School of Chemistry is based within the College of Physical Science and Engineering (CPSE), one of seven Schools within this College. Originally founded in 1883, the School has occupied the historic Main Building of Cardiff University since 1928, and has a long history of chemical education and research. The School is classified as an average sized department within the UK, and the largest Chemistry Department in Wales.



The School has grown since the last Athena SWAN submission (Nov 2014) with 50 full or part-time academic staff, of which 16% are female (compared to 35 academic posts, of which 11% were female in Nov 2014, based on previous and new Action Plan 2.1). This is still below the sector average of 21%, but represents an improvement since our last Bronze award with 4 new female academics appointed (2 at professorial level and 2 at Fellowship level, with 1 internal promotion; A2.2). Among the 50 academic staff, 18 are professorial appointments, including two 2 female professors (or 11%, consistent with the 12% T&R sector average, but still below the national average of 24% across all subject areas), 5 are part-time male professorial posts, and 27 are non-professorial academics. Two full time professors (1 male and 1 female) hold senior Pro-Vice Chancellor posts in the University. The School has also grown the postdoctoral researcher cohort to 74 (23% female), up from 52 (30% female) in November 2014. The School has 38 professional services (PS) staff, with almost equal parity of gender; 45% are female (above the 30% chemistry sector average). Furthermore, 76% of the administrative staff and 19% of the technical staff are female, compared to 66% and 9% female in November 2014.

Our research-led teaching offers higher education opportunities in the chemical sciences with UG, PGT and PGR programmes. Our current student numbers are:

Student Cohort	Total	Cardiff		Russel Group Average	
		%M	%F	%M	%F
UG	166	54	46	54	46
PGT	35	60	40	49	51
PGR	41	80	20	58	42

Over the last 4-academic years (2015-2019), the average number of female students was 43%, 38% and 30% for our UG, PGT and PGR programmes (Actions 2.3, 2.4). The percentage of female students on these degree programmes is commensurate with the sector average (see Table), and according to the Royal Society of Chemistry, a female intake of 46% UG is evidence of a relatively healthy gender balance. In terms of ethnicity our UG, PGT and PGR programmes are primarily white (81%, 69%, 62% respectively), and we are working to address this, whilst recognising that Cardiff is a less popular destination

for overseas students compared to many competitors. We encourage internationalisation among our students, with 30% of students taking the opportunity to study or work abroad.

We continue to develop non-traditional degrees at foundation and higher (MBA) levels, enabling greater access to or continuation of University education (Action 2.5). With financial support from the University, a considerable expansion in space will be created with the opening of a new research institute (4000 m<sup>2</sup>) creating opportunities for the School and better provisions for staff and students. All benchmarking data presented herein are latest FPE/FTE Russell Group sector averages for chemistry departments (RGSA): *HESA Heidi+ Portal 2019*.

507 words

Action	Description
2.1	Continue to review academic recruitment procedures to achieve the 21% RGSA female representation.
2.2	Encourage and support more female academic staff to apply for promotion or senior appointments within the University.
2.3	Monitor and review the declining number of female students progressing from UG to PGT to PGR.
2.4	Review and improve the PGR admissions processes to ensure all applications and interviews have input from both male and female academic staff.
2.5	Improve the quality of the School website to create and distribute marketing materials, cases studies, that help to enhance the recruitment of female students and staff.

### 3. THE SELF-ASSESSMENT PROCESS

**Recommended word count: Bronze: 1000 words | Silver: 1000 words**

#### 3.1 Description of the self-assessment team

Prof RK Allemann was Chair of the Self-Assessment Team (SAT) for our previous Bronze Award, until April 2017 when he was appointed Pro-Vice Chancellor. Prof DM Murphy subsequently took up the post of HoS in 2017, and has been Chair of SAT ever since. As Deputy HoS since 2013, and a member of the School Staff Opportunities Committee (SOC), Prof Murphy was already fully engaged with the Athena SWAN programme before commencing his current role, ensuring continuity in the delivery of the Actions Plans. Dr Akhtar, as School Manager (SM), has been Co-Chair since 2014 whilst Prof SH Taylor (as Deputy HoS), is the third standing member of SAT. Membership of SAT is representative of the staff and student cohort across the School, UG and PGT/PGR students, and professional support staff (Table 3.1). All members are passionate about the importance of diversity and inclusion, and regular expressions of interests (via email and staff meetings) are advertised.

**Table 3.1.** Membership of the self-assessment team (SAT)

<b>Member</b>	<b>Job</b>	<b>SAT Role</b>	<b>Further Information</b>
Damien Murphy	Head of School (HoS)	SAT Chair	Joined the School in 1996 as a Lecturer, and lives locally with wife and three daughters.
Stuart Taylor	Deputy Head of School (DHoS)	Representative for senior academic staff	Joined School in 1997, as Lecturer on a FT contract becoming permanent in 2000, Lives locally with family.
Mahmoud Akhtar	School Manager (SM)	SAT Co-Chair	Joined the School in 2005 as a FT Project Officer, permanent in 2008 and later School Manager (2013). Lives with family in Birmingham so works condensed hours to spend time with them.
David Willock	Director of Engagement (DoE)	Representative for senior academic staff	Joined the School in 1997 as Lecturer, promoted to Senior Lecturer then Reader. Lives 20-minute bike ride away and regularly leads hill walks for local group.
Emma Richards	University Research Fellow (URF)	Representative for all early career staff	Appointed to a Research Fellow position in April 2015, after several PDRA contracts and studying for her PhD in the School (2008).
Joseph Beames	University Research Fellow (URF)	Representative for junior academic staff	Appointed as an independent Research Fellow in March 2015. Commutes from Bristol, and has a wife who is an academic at a different University.
Alastair Baker	School HR Officer	Provides expert input on all HR matters	Joined the University in 2012, School in 2015. Member of several University ED&I groups and currently studying, & supported, in a Level 5 CIPD qualification.

Athanasia Dervisi	Lecturer (L)	Teaching & Scholarship representative	Joined the School in 1999 as a Lecturer on a 5-year FT contract, made permanent in 2004. Lives locally with partner, who is also an academic in the University.
Niklaas Buurma	Senior Lecturer (SL)	Workload allocation model coordinator	Appointed to School in 2006. Works a compressed week to accommodate family commitments. Taken two periods of leave (paternity) during the review period.
Thomas Tatchell	Education and Students Manager	Provides expert input on all UG matters	PhD alumni from the School (2006) with a healthy work-life balance with young family. Took one period of leave (paternity) during review period.
George Summers	Admin Assistant in Postgraduate Research Programmes	Provides expert input on all PGR matters	Joined School in 2014 as a PT member of admin staff and lives locally with her partner and son.
Simon Waller	Analytical Services Technician	Professional services support representative	Joined the School in 2014 as a Technician, lives locally with family.
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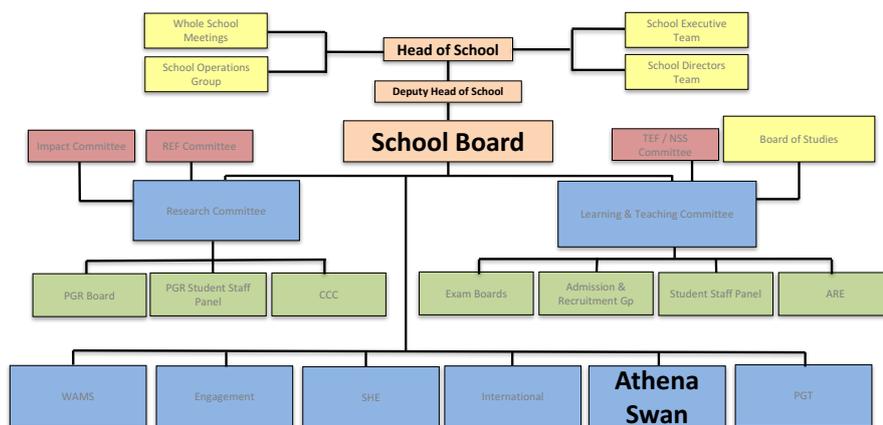
Direct secondment of members is sometimes sought, to address specific action points where specialised knowledge, expertise or skills are required. Participation and involvement on SAT is recognised in the School's Workload Allocation model (Athena

SWAN tariff allocation). Only 6 female members sit on SAT (37%), reflecting the overall female cohort amongst academic, PS and PDRA staff (28%), and we will seek to increase this number going forward (Actions 3.1-3.4).

### 3.2 Account of the self-assessment process

#### Meetings

The School's SAT team was formed immediately after the submission of our Bronze award. Whilst membership changes periodically, the structure has remained unchanged. SAT met bimonthly during 2015-2017 and then monthly from the start of the 2017/18 academic session until now. SAT is one of several standing committees in the School (see Scheme below).



One of the standing SAT agenda items covers the implementation and progress on actions plans, where performance is reviewed, actions are assigned and taken, and best practice is shared. However, a second standing item covers ED&I generally across the entire School, and for this reason the HoS continues to Chair the SAT. Members or sub-groups of the SAT also partake in other School meetings (PGR forum, UG/PGT staff-student panel, Staff Opportunities Committee) where specific action points are considered, or they will organise specific focus group sessions dedicated to activities that address items in our Bronze action plan. The groups all report back to SAT (Action 3.5).

#### Communication

ED&I and Athena SWAN are a standing item on the School Board (the formal decision making board in the School), with minutes released to all staff via the intranet and a University shared drive (with email alert from HoS). As HoS / SAT chair, Prof Murphy can also raise matters associated with our action plan directly at School Executive, School Operations or School Directors Meetings. Furthermore, awareness of the activities undertaken by SAT are highlighted to all staff at the dedicated annual Athena SWAN meeting (i.e., monthly themed all-staff meetings are held in the School covering all of the standing committees). A number of online compulsory training sessions are available to staff (see section 5.3.1), including modules in unconscious bias and ED&I training. These modules are widely promoted by all senior staff in the School and through PDR. Additionally, dedicated training was provided to all senior staff and line managers; in Sept 2015, a 1-day unconscious bias training course was run; in September 2016 a 1-day effective leadership course was run (including modules on ED&I); in 2018, a Line Manager Training course was organised by the University which all staff attended; in Jan 2018, a 1-day all staff training course was organised by the School on effective communication.

All these events have helped to improve communication, including ED&I awareness, among staff (Action 3.6).

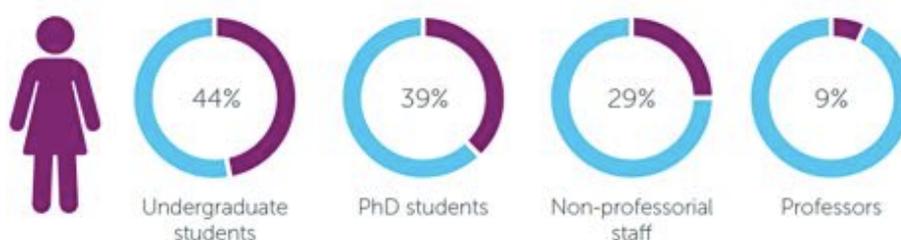
The HoS formally meets with all UG/PGT/PGR students twice per year (at the start of each term) where students are updated on ED&I issues, and requests submitted for support and participation on planned focus groups. The HoS informally meets members of the Cardiff University Chemistry Society regularly, who are extremely committed and passionate about ED&I issues, and this very effectively raises awareness for the action plans amongst the students.

### External Communication

██████████ and ██████████ were panel observers on Athena SWAN assessment panels in the Nov 2017 application round (Action 3.7). ██████████ is PI on an RSC Large Outreach grant aimed at providing curriculum enhancing opportunities for KS4/5 pupils and encouraging the uptake of Chemistry (for all genders) at higher education level. ██████████ is also a STEM ambassador for the School. ██████████ is also a member of the College Equality Diversity and Inclusion Committee. This committee acts as a forum to provide University-level support and direction, and sharing of good practice, for School-level SATs. The action plan of this committee is representative and common to all Schools. School membership on this committee ensures a good line of communication and consultation, such as recent improvements in our Returners Policy scheme.

### 3.3 Plans for the future of the self-assessment team

Current membership of SAT is reflective of academic staff (both early career and senior), PS, workload allocation coordinator and HR Officer, along with the three ex-officio members (HoS, DHoS and SM). This membership structure will continue for the next implementation phase based on the current submission. However, we will seek enhanced representation from our student cohort at UG, PGT and PGR levels, with additional representation from the research staff (PDRAs). According to the Royal Society of Chemistry, the greatest drop up in female progression occurs at UG level (see Scheme below), demonstrating the importance for student (voice) participation on SAT, hence the need for Actions 3.3 and 3.8.



Source: Royal Society of Chemistry *Diversity landscape of the chemical sciences 2018*: Proportion of women in Chemistry and Physics departments

SAT currently has access to funds that specifically help to promote events focussed on inclusivity and gender, but access to these funds will be broadened to include members of the Staff Opportunities Committee, enabling them to attend suitable nationwide events (Action 3.9). Members of SAT will be encouraged to put themselves forward as Athena SWAN Panel Members. The SAT committee will continue to meet monthly, in phase with the monthly College ED&I forum.

1014 words

Actions	Descriptions
3.1	Create an annual survey for all UG students on ED&I, and monitor changes in attitude and perceptions across the 4-year of the degree.
3.2	Provide greater flexibility in workload model tariffs to allow for administrative tasks or organising events that promote the work of SAT.
3.3	Enhance student representation and participation on SAT from UG to PGR level.
3.4	Continue annual call for new members of SAT, including improved communication to staff.
3.5	Continue to improve the visibility of the Athena SWAN committee at School and University level.
3.6	Organise another all-staff refresher training course in unconscious bias in the next 24 months.
3.7	Encourage more interactions and participation among SAT members to sit on Athena SWAN assessment panels.
3.8	Organise additional workshop with PDRAs to better understand, and thereby support, the marked drop-off of female PDRAs entering academia.
3.9	Increase School funding to approved activities or events that support the action plan.

#### 4. A PICTURE OF THE DEPARTMENT

Recommended word count: Bronze: 2000 words | Silver: 2000 words

##### 4.1. Student data

###### 4.1.1 Numbers of men and women on access or foundation courses

The School provides an alternative access route for students without appropriate UCAS tariff points to enter Yr1 of an UG degree, via the *Preliminary Year Programme*. Upon successful completion, students progress into Yr1 of the BSc. Subject to satisfactory academic performance in Yr2/3, they can subsequently transfer to an MChem degree.

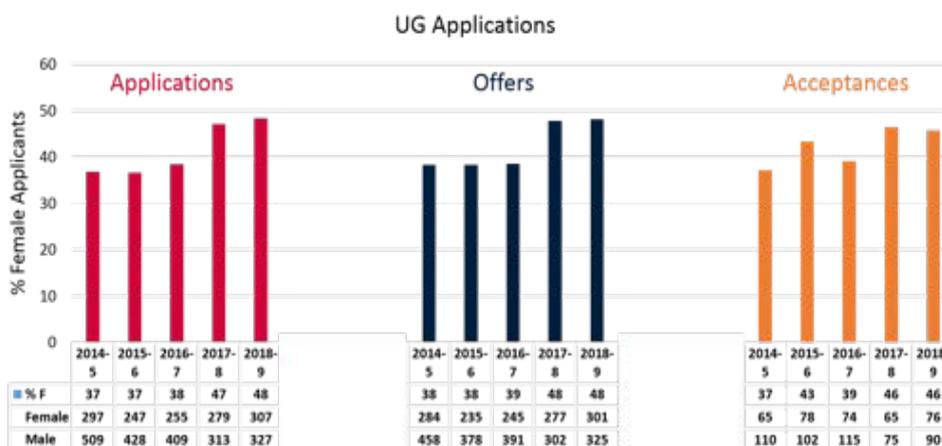
The numbers of female/male students enrolled on the foundation course has increased tenfold (Table 4.1) with the number of females in 2018-19 higher than males (due to our ongoing Action 4.1.1). The significant increase in students allows a more statistically meaningful analysis of data, hence a specific action (Action 4.1.2) will be to monitor the degree performance of students progressing onto the BSc via this route, and explore any differences in achievement between genders.

**Table 4.1** Preliminary Year (foundation) Programme gender balance by academic year.

Chemistry	2014-15	2015-16	2016-17	2017-18	2018-19
Female	2	1	5	6	22
Male	1	2	6	9	14

#### 4.1.2 Numbers of undergraduate students by gender

All of our undergraduate (UG) BSc and MChem courses are full time, and accredited by the Royal Society of Chemistry (RSC). These programmes provide opportunities for a year abroad or a year in industry. In the review period, good progress was made towards improving the number of female UG students (an objective from our 2014 submission), rising from 34% (2015/16) to 46% (2018/19) over a period when RGSA values have remained unchanged. We have also increased offers made to female students (48% in 2018/19). This demonstrates an excellent conversion rate between offers and acceptances (Figure 4.1). The percentage of female students enrolled across our UG schemes is now 46% (2018/19), identical to the 46% RGSA. The overall number of students has decreased slightly from 175 (2014/15), to 166 (2018/19); this -5% drop is better than the -13.4% decrease nationally in chemistry applications and -9.1% decreases in acceptances across the sector during the review period (UCAS end of cycle data). This indicates that we must put actions in place to continue to increase the proportion of female students (Action 4.1.2). Following our previous Action Plan, we have thus ensured there is a minimum of one female staff member at all recruitment events (School and University Open Days). Additionally, we have good representation of female PGR student ambassadors assisting in these activities.



**Figure 4.1** Applications, offers and acceptances for female/male students on UG Chemistry degrees.

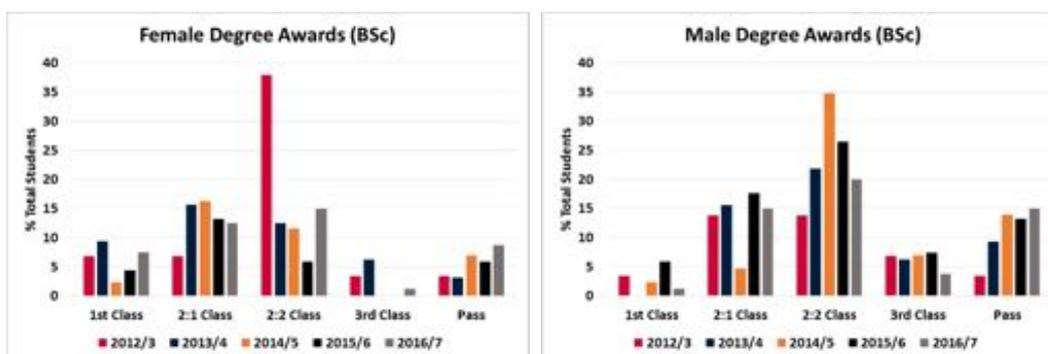
Compared to previous years (Table 4.2), the overall performance of the MChem students remains consistently high, with a small increase in students graduating with a 2.2 degree. For the BSc, a small drop in students obtaining the higher degree classifications is noted.

**Table 4.2** Percentage of degree classification in Undergraduate BSc and MChem degrees.

	Number	1 <sup>st</sup>	2.1	2.2	3	Dip/BSc	% 1 <sup>st</sup> & 2.1
<b>BSc</b>							
2017/18	84	8.33	19.05	36.90	3.57	15.48	27.38
2016/17	84	8.33	23.81	29.76	5.95	9.52	32.14
2015/16	56	12.50	35.71	41.07	8.93	1.79	48.21
2014/15	38	5.26	23.68	52.63	7.89	10.53	28.95
2013/14	25	8.00	28.00	40.00	24.00	0.00	36.00
<b>MChem</b>							

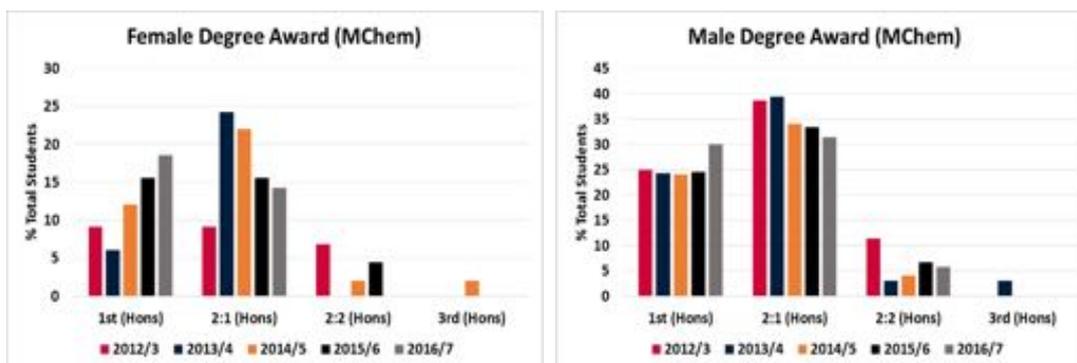
2017/18	84	41.67	45.24	9.52	0.00	3.57	86.90
2016/17	74	45.95	43.24	5.41	0	5.41	89.19
2015/16	47	36.17	48.94	14.89	0.00	0.00	85.11
2014/15	50	36.00	56.00	6.00	2.00	0.00	92.00
2013/14	33	30.30	63.64	3.03	3.03	0.00	93.94
<b>Total</b>							
2017/18	168	25.00	32.14	23.21	1.79	9.52	57.14
2016/17	158	25.95	32.91	18.35	3.16	7.59	58.86
2015/16	103	23.30	41.75	29.13	4.85	0.97	65.05
2014/15	88	22.73	42.05	26.14	4.55	4.55	64.77
2013/14	58	20.69	48.28	18.97	12.07	0.00	68.97

Within the review period, our female BSc students consistently achieve a higher percentage of 1<sup>st</sup> class awards compared to BSc males (Figure 4.2). Since 2014/15, a decrease in the number of female students achieving a 2.1 degree is noted, but this correlates to an increase in the number of 1<sup>st</sup> class degree, indicating we are continuing to improve the performance of the higher achieving female students. There is a worrying trend towards an increased number of pass degrees awarded across the entire cohort (i.e. female and male). This suggests that whilst we are facilitating learning opportunities for talented students, there are clearly actions required to support less able learners (Action 4.1.3). The final year research project contributes 60 credits (50% of the final year), hence underperformance in this module can significantly affect the final degree average.



**Figure 4.2** Degree classification (by gender) for the UG BSc programme.

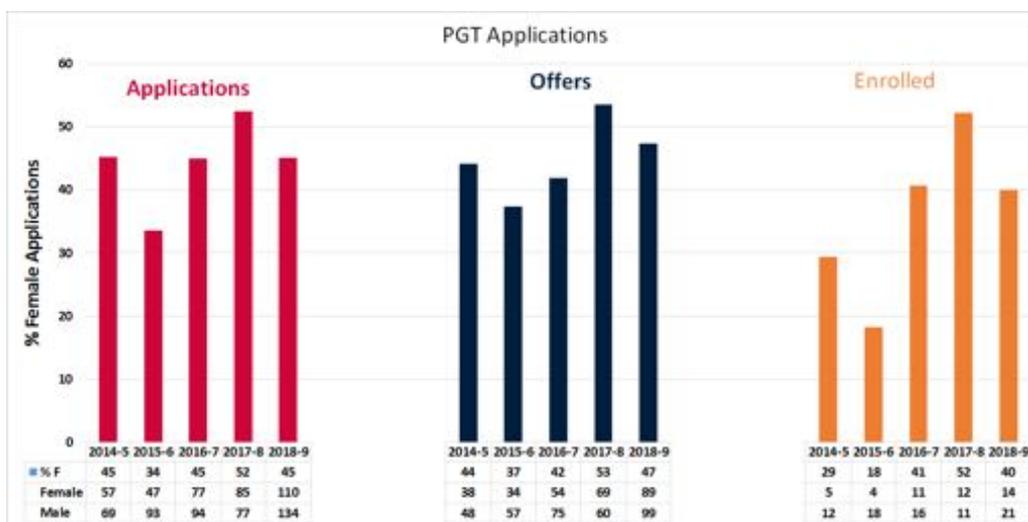
The percentage of male students within the cohort awarded a 1<sup>st</sup> class MChem degree has remained fairly constant. Whilst this is consistently higher than the corresponding female achievement, it is particularly encouraging to see the percentage of female students within the entire cohort awarded a 1<sup>st</sup> class degree has steadily increased since 2014/15 (Figure 4.3, Action 4.1.4). A breakdown by gender from 2017/18 onwards was unfortunately not available at the point of submission; however, it remains an on-going action to monitor degree performance by gender across the entire cohort (BSc and MChem; Action 4.1.4).



**Figure 4.3** Degree classification (by gender) for the UG MChem programme.

#### 4.1.3 Numbers of men and women on postgraduate taught (PGT) degrees

Applications for PGT courses have doubled over the review period, from 57 female & 69 male (2014/15) to 110 female & 134 male (2018/19). The proportion of female applicants has remained steady at ~45 % (Figure 4.4) indicating no loss of female applicants between UG and PGT courses. Whilst a slightly higher proportion of total offers are made to male students (53 % male), the proportion of female applicants offered a place is consistently higher (67 % success in 2015/16, rising to 81 % in 2018/19 for female students; 61 % in 2015/16 rising to 74% in 2018/19 for male students). However, the conversion rate between offers and enrolment is only 16% for females compared to 21% for males; we will seek to understand this through Action 4.1.5. Overall, females represented 40% of our 2018/19 PGT intake, compared to the 51% 2017/18 RGSA, although it is likely this sector average is artificially high for 2017/18 (46% 2014-2018).

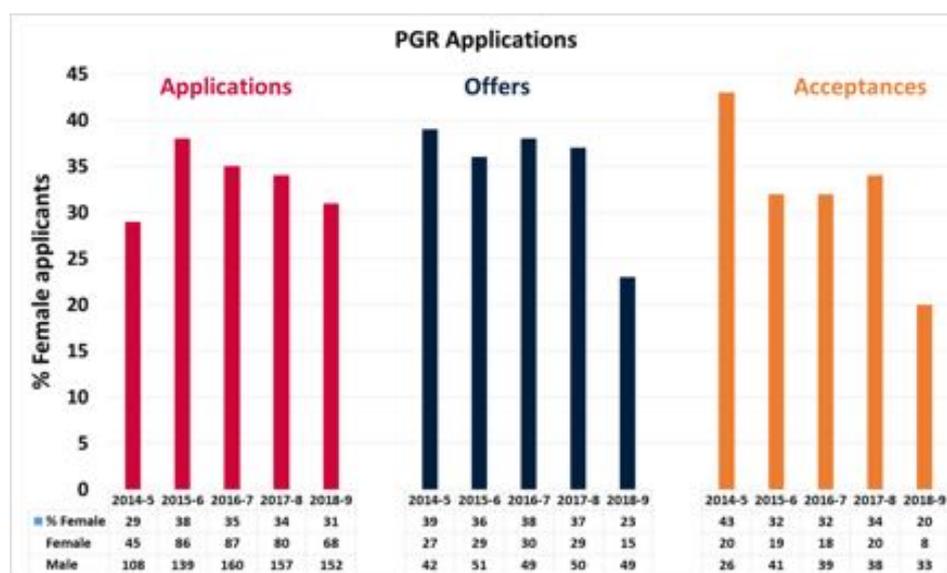


**Figure 4.4** Applications, offers and enrolments for female and male students on PGT Chemistry degrees.

To help improve role-model visibility, a female professor has recently been appointed as Director of PGT, and regularly updates all academic staff on PGT matters, including recruitment. A specific action will be to identify reasons for the low female conversion rates, which will be led by the Education and Student Manager (Action 4.1.5).

#### 4.1.4 Numbers of men and women on postgraduate research (PhD) degrees

Applications for PhD studies have decreased slightly, whilst the numbers of offers and acceptances have remained broadly constant (Figure 4.5). This reduction is largely due to the increase in applications from overseas students who often have limited funding opportunities. The percentage of females applying for PGR has remained low. A higher percentage of offers made to female students are accepted compared to men, indicating that our recruitment process is successful. Figure 4.5 indicates that the pipeline between application and acceptance is good for female students, therefore our greatest challenge remains encouraging more female applicants (Action 4.1.6) to meet the RGSA of 42% for female PGR students.



**Figure 4.5** Applications, offers and acceptances for female and male students on PGR Chemistry degrees. **NB** – data for the 2018-9 academic year is incomplete due to submission of this AS application mid-way through the academic cycle.

**Table 4.3** Completion rates (within 4-year period after start date) for PGR students by gender.

	Intake Year						
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Total Headcount	34	36	27	37	54	52	60
FT: PT Headcount	34:0	36:0	27:0	36:1	53:1	52:0	60:0
% Males	58	68	88	59	69	65	72
% Females	42	36	13	42	31	35	28
% Total Finished	85	88	100				
% of Male Finishers	93	100	100				
% of Female Finishers	73	56	100				

Completion rates of students enrolled between 01/10/2011 – 30/09/2013 showed an increase across the review period (Table 4.3), with 100% of the 2013/14 intake year submitting their theses within a 4-year period. The low % of female completions for the 2011/12 and 2012/13 intake were due to approved extensions with successful completions at later dates. Through increased monitoring of PGR progression, we have seen a decrease in the number of student withdrawals, and in October 2018 we implemented a PGR Skills and Self-assessment questionnaire to enable students to keep a regular record of their skills. A future action will be to review the data from this questionnaire, seeking correlations with the completion rates (Action 4.1.7).

#### 4.1.5 Progression pipeline between undergraduate and postgraduate student levels

There are several mechanisms within the School to encourage and support progress from undergraduate to postgraduate studies, including a research-directed final year project (60 credits for MChem students, 30 credits for BSc students). We have also hosted a number of Cardiff University Research Opportunities Placement (CUROP) students, providing an avenue for Yr2 students to undertake a paid (~£2000) 8-week research project in the summer vacation. Over the last three years the proportion of females with CUROP awards has increased to about 50%.

**Table 4.4** Gender balance of students progressing from UG to PGR studies in the School.

	2016/17	2017/18	2018/19
Male	12	19	17
Female	6	10	6

At least twice as many male students progress from UG to PGR studies within the School (Table 4.4). However, we do not currently have statistics on the number of our graduates who enrol on PGR studies at other institutes. A future action will be to improve our leaver's destinations records, in order to gain better insights into the PGR destinations of our female students (Action 4.1.8).

Action	Description
4.1.1	Increase the number of female applicants to UG courses (eg., through targeted recruitment material; section 5.6.7).
4.1.2	Perform statistical analysis by gender of degree attainment for students entering UG programmes through the foundation year route.
4.1.3	Provide enhanced ongoing support for less able learners (male and female) to improve their performance.
4.1.4	Monitor degree performance by gender across UG programmes.
4.1.5	Investigate poor female conversion rates between offers and acceptances for PGT courses.
4.1.6	Increase female applications to PGT.
4.1.7	Analyse data from PGR Skills and Self-assessment questionnaire to identify further training needs to be provided for career progression.
4.1.8	Keep record of destinations of leavers via exit interview forms with HR.

## 4.2. Academic and research staff data

### 4.2.1 Academic staff by grade, contract function and gender: research-only, teaching and research or teaching-only

As of 2018, the total number of academic staff within the School was 50, of which 8 (16%) were female (Figure 4.6). Although this is below the RGSA of 21%, this shows a marked improvement since our previous submission (in 2013, 6.5% female academic staff). This resulted from a period of new appointments to these academic positions, in the course of which improvement of gender balance has been central.



Figure 4.6 Academic staff gender profile in the School.

This recruitment process benefited from our Bronze action plan including changing the wording of adverts to encourage flexible working arrangements (see extract from our University job advert below), and ensuring there is at least one female (academic or PS staff) on the appointment panels. Changes to marketing and web site material also now reflects the gender and ethnic diversity of students and staff in the School.

Cardiff University is committed to supporting and promoting equality and diversity and to creating an inclusive working environment. We believe this can be achieved through attracting, developing, and retaining a diverse range of staff from many different backgrounds who have the ambition to create a University which seeks to fulfil our social, cultural and economic obligation to Cardiff, Wales, and the world. In supporting our employees to achieve a balance between their work and their personal lives, we will also consider proposals for flexible working or job share arrangements.

The percentage of female research staff has remained steady since our last submission at ca.29% (Figure 4.7). This strong representation of women in research (predominantly PDRA research associates) shows a continued commitment to female recruitment and is in line with the RGSA of 31%.

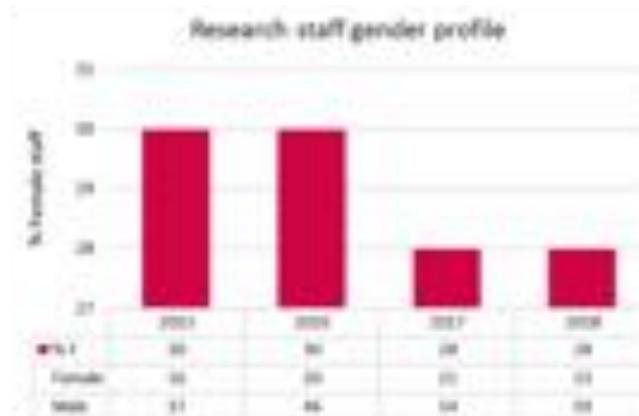


Figure 4.7 Research staff gender profile in the School.

Since our last submission, changes in these recruitment practices from previous action have led to positive impact in female recruitment (Action 4.2.1). Crucially in 2013, 21% of research applications (both academic and research only) came from women, but this increased to 34% during this census period. More significantly, we have also seen 37% female recruitment to research posts since 2014.

Our previous submission also highlighted the poor representation of females in senior grades (Figure 4.8), hence several actions were implemented to address this, such as improved appraisal training for line managers, broadening mentoring opportunities, ensuring female representation on promotion panels and mandatory unconscious bias training (Action 4.2.2). Progress has been made, with one female lecturer being promoted to senior lecturer and 2 female Professors recruited since 2014. We are intending to introduce a shadowing scheme, whereby junior colleagues sit in School management committees to gain experience of senior administrative practices (Action 4.2.3). Given the increasing number of early career female academics, there is good reason to be optimistic about future progression. We have few staff on T&S career pathways (five in total), among which one is female. Our T&S staff are therefore not included in the above Academic staff statistics, as these numbers are not statistically significant.

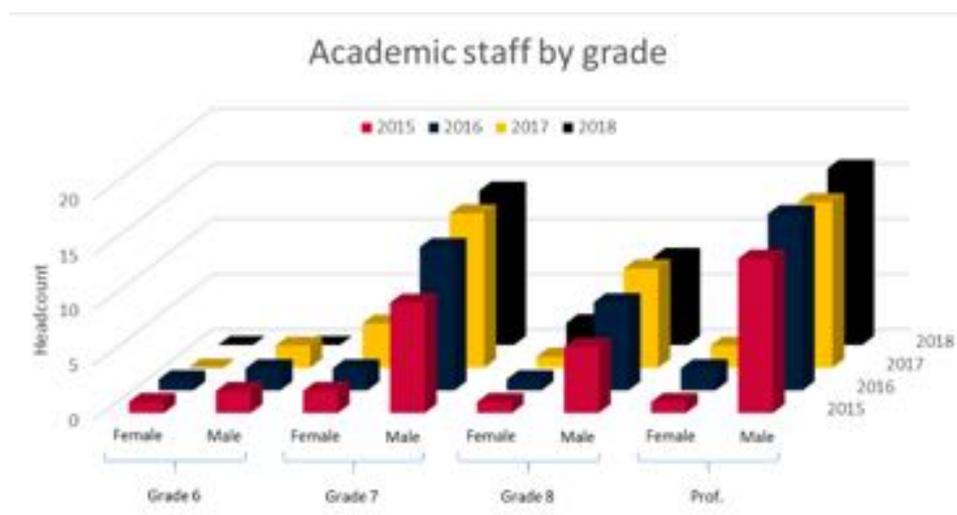


Figure 4.8 Academic staff by grade in the School.

#### SILVER APPLICATIONS ONLY

Where relevant, comment on the transition of technical staff to academic roles.

During the review period, no technical staff have transitioned to academic roles.

However, one member of technical staff has been granted part-time study leave to pursue a School funded PhD in Chemistry, alongside his contracted duties. Two technicians are involved in PGR/PGT teaching (in particular, by offering training courses in specialised experimental techniques) and they also contribute to / underpin research activities in the School, in two cases leading to co-authorship on a number of research publications.

#### 4.2.2 Academic and research staff by grade on fixed-term (FT), open-ended (OE) and permanent (P) and zero-hour contracts by gender

The number of female academic staff (both T&R and T&S pathways) on FT contracts has remained low, with just one female on a FT contract in 2018 (Figure 4.9). We do have a number of total academic staff on FT contracts (15%, compared to the RGSA at <1 FTE). Our research staff have also seen increasing numbers of FT contracts (2015:79%, 2016:86%, 2017:91%, 2018:89%), where the female ratio (R, FT) has moved in line with the percentages of female researchers (Figure 4.9). We have also some staff on OE contracts with relevant factors, accounting for 25% of the female academics in 2018 (or 2 staff members), and but just 7% of male staff. With such small numbers, these percentages are misrepresentative: 3 males are on such contracts, as opposed to 2 females. Within the R staff, 3 females are on these contracts (5 males), with only a single male on an open ended (OE) contract within the R pathway.

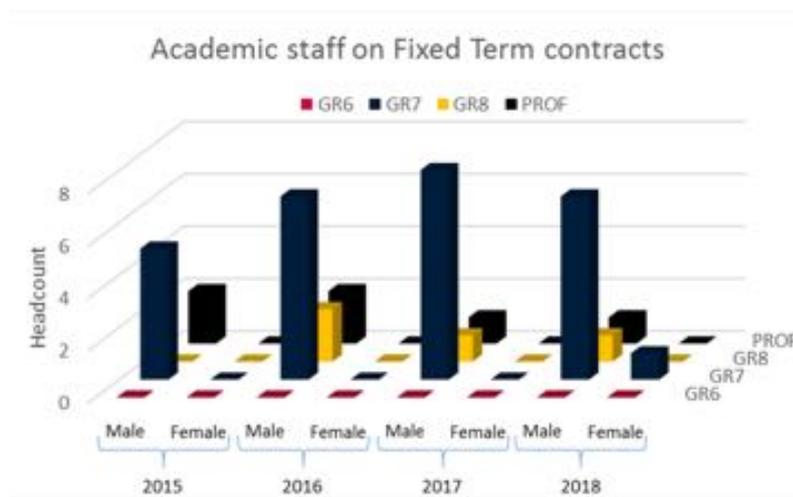


Figure 4.9 Academic staff in the School on fixed term contracts.

The academic staff data shows a positive trend in progression for academic staff. Since 2014 the number of academic staff on Gr6 has reduced, with both genders showing trends towards higher gradings. However, despite an increase of 5 male professorial positions on OE contracts, there is only a single additional female member on an OE contract at this grade (Figure 4.10, 11% comparing reasonably favourably to an RSGA value of 12%).

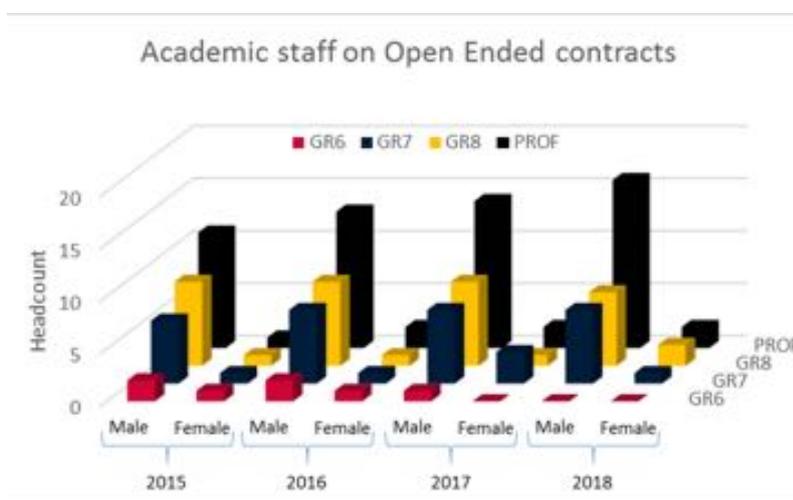


Figure 4.10 Academic staff in the School on open ended contracts.

The School encourages staff coming towards the end of their fixed-term contracts to apply for other available positions; meetings are arranged with the Line Manager, HR Officer and HoS respectively to discuss and explore options. Support is also provided for FT Researchers to prepare Fellowship applications; a particular success of this process is detailed in Case Study 2. The University redeployment scheme is open to all staff in post for at least 12 months and are within 6 months of the end of their contract.

#### 4.2.3 Academic leavers by grade and gender and full/part-time status

The main reasons for academic leavers in the review period were retirement or the completion of fixed-term contracts. As shown in Figure 4.11 and Table 4.6, only three females left in this period, all three being PDRA researchers on fixed-term contracts who took up positions elsewhere. We will seek to better understand the specifically why our female researchers are leaving (Action 4.2.4) and explore how to improve role model visibility for this cohort of staff (Action 4.2.5). The University maintains a record of leavers, along with “dismissal” (not applying to the individuals here). It maintains a partial record of what positions people move on to, in that staff are asked (but not required) to provide the information on leaving.

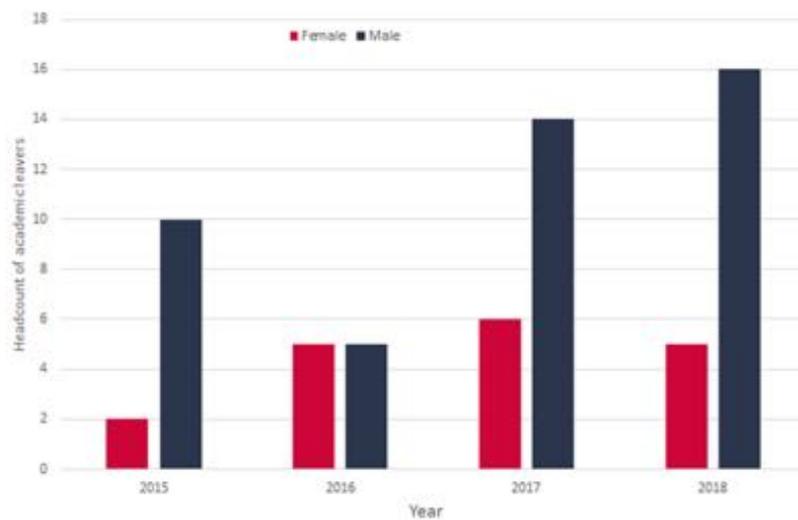


Figure 4.11 Number of academic leavers from the School.

Table 4.6 Academic leaver’s by career pathway.

	2015		2016		2017		2018	
	Female	Male	Female	Male	Female	Male	Female	Male
<b>R</b>	2	8	5	4	5	14	5	9
<b>T&amp;R</b>	0	2	0	1	1	1	0	6
<b>T&amp;S</b>	0	0	0	0	0	0	0	0
<b>Total</b>	2	10	5	5	6	15	5	15

2065 words

Action	Description
4.2.1	Continue to scrutinize job application procedures for ways to encourage female applicants.
4.2.2	With increased female staff numbers, introduce quarterly informal group meetings for female members of staff with HoS.
4.2.3	Introduce shadowing scheme for junior staff members to gain experience of senior committees.
4.2.4	Engage with PGR / PDRAs following lunchtime seminars to identify if engagement with speakers is successful at demonstrating role models.
4.2.5	Role model visibility – consider inviting more speakers from industry, to highlight variety of chemical careers and draw from a larger pool of candidates.

## 5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

Recommended word count: Bronze: 6000 words | Silver: 6500 words

### 5.1. Key career transition points: academic staff

#### 5.1.1 Recruitment

Since our Athena SWAN Bronze award, we have scrutinised the School's recruitment procedures and introduced changes in the text of our adverts to include positive statements about gender equality, and flexible working policies that enable staff to achieve a good work-life balance (see Section 4.2.1).

Academic recruitment panels are chosen to include at least one female staff member to promote female visibility. This goes beyond the University advisory policy on female representation. We require all panel members and Chairs to have undergone mandatory ED&I and unconscious bias training before taking part in recruitment. We also advise panel members to focus on quality rather than quantity, especially when reviewing achievement of outputs. We also require this of other Schools, where staff are linked to our School in joint appointments. The HoS writes to all candidates following their interview, giving personal feedback on their application and performance at interview, with an offer to also provide verbal feedback. In the action plan for the next phase, we will extend this process to the recruitment of PDRA positions and the PhD recruitment process (Action 5.1.1).

Alongside these initiatives, we continue to review the text and imagery of our web site, social media and marketing materials, to ensure they promote a positive culture of equality and diversity (including gender and ethnicity). A specific action (Action 5.1.2) will be to appoint a social media champion within the School, to identify and drive engagement in suitable marketing opportunities (eg., International Women's Day, and National Women in Science events).

The number of applications for all of the academic posts recruited to within the review period are shown in Table 5.1 There remains a disproportionately low number of female applicants, although this has increased within the review period reflecting the positive impact of our amendments to the recruitment process. Notably, the percentage of female applicants for the junior academic positions (URF/ lecturer) were much improved. Applications to the senior academic positions (Chairs/ Directors) are reflective of the low

numbers across the sector. Encouragingly, the percentage of female applicants invited to interview is, on average, commensurate with the percentage of shortlisted male applicants (16% versus 18%; Table 5.1).

**Table 5.1** Number of applicants and shortlist application for academic posts.

		2015			2016		2017			2018		
Application Headcount	Male	41	11	12	25	28	9	74	1	40	5	19
	Female	5	2	2	6	6	4	20	1	12	0	5
Application %	Male	89	85	86	81	82	69	78	50	77	100	79
	Female	11	15	14	19	18	31	22	50	23	0	21
Shortlisted Headcount	Male	8	4	2	0	3	0	2	1	6	3	4
	Female	1	1	0	0	1	2	1	0	2	0	1
Shortlisted %	Male	20	36	17	0	11	0	3	100	15	60	21
	Female	20	50	0	0	17	50	5	0	17	0	20
		Chemistry Chair	URF Computational	URF EM Microscopy	SL/Reader Biochem	Lecturer BioChem	URF BioChem	Lecturer Materials	Chair BioChem	Lecturer Materials	Director CCI	SL/Reader Chemistry

### 5.1.2 Induction

The HoS meets all new staff on their first day of appointment to welcome them to the School. All new staff are required to complete two levels of induction, at School and University level. The University Induction Programme (now separate for academic and PS staff) introduces staff to a wide range of support and training facilities, including mechanisms by which staff can meet and interact with others across the University, through the “*Your first 90 Days*” initiative and a two-and-a-half-day academic orientation programme covering all aspects of academic life in Cardiff. Uptake is monitored by the central HR team; opportunities to feedback are provided via internal school communication channels to monitor the effectiveness of the programmes.

The School has developed induction events tailored to the Chemistry working environment. New colleagues are introduced through all staff emails (sent from the HoS) and announcements at all-Staff meetings. New staff members are introduced to key personnel related to their own role. These meetings are organised by the line manager of the new staff member. Staff involved in teaching are also assigned a teaching mentor to advise them through the mandatory training programme, which leads to Fellowship of the Higher Education Academy (FHEA). The staff survey also includes questions on these modules, and staff can comment in the survey on any aspects of training.

Following the advice of the AS committee, the School also runs a regular programme of Away Days at which general topics of interest are discussed (*e.g.*, communication and engagement, teaching opportunities for all). Table plans are arranged to generate groups that contain colleagues from all areas of the School’s activity, to enable staff to gain an appreciation of roles not immediately within their everyday remit. An all staff Away Day on *Effective Communication* was held in January 2018, to help all staff better understand the barriers to communication and communication skills.

Led by our School HR Officer, we will continue to review the University and School induction processes, acting on the feedback from new staff to ensure clarity on their role and expectations (Action 5.1.3). According to our 2017 Staff survey, 69% of staff agree

that I am clear about the strategic objective of my School and 87% agree that I am clear what is expected of me, so we have achieved good progress in this task.

### 5.1.3 Promotion

In the 4-year period from 2014-2018, there were 11 applications (2 female (18%), 9 male (82%)) for academic promotion to senior lecturer, reader or professor. One of the successful female applications was from an early career lecturer who was promoted to a senior lecturer. In the same 4-year period, 7 male staff were promoted (4 senior lecturers, 1 reader, 2 professors). A fixed term Research Fellow (male) was also promoted to a Senior Lecture position in this period (Table 5.2).

**Table 5.2** Academic promotions for the 2015-2018 period.

Grade	Female		Male	
	Application	% Success	Application	% Success
SL	1	100%	5	80%
Reader	1	0%	2	50%
Professor	0	N/A	2	100%

As a direct action from our previous award, all staff now directly discuss their plans for promotion with line managers as part of their annual appraisal (PDR). Following our previous action plan, all line managers must have completed the online compulsory unconscious bias training module prior to conducting the PDR with the appraisee. Potential applicants are strongly encouraged to speak to their line manager and HoS prior to making an application. The University also provides promotion workshop sessions, online promotion profiles and the opportunities to view previous successful applications. Applications from female staff have increased from 13% to 18% since our previous 4-year census period (2009-2013), demonstrating that our actions are having a positive influence on encouraging more female staff to apply (Action 2.2). There are two stages to the promotions process at Cardiff. All applications from the School progress to Stage 1; candidates who are unsuccessful at the next stage University procedure, are invited to a meeting with the HoS and the PVC or Deputy-VC to look at the applications and provide support and guidance on how to support their career.

### 5.1.4 Department submissions to the Research Excellence Framework (REF)

In REF2014, 26 academic staff were returned in the submission (REF2014, Staff members, REF1a/c; available online) including 1 female senior lecturer (4% female return). At the REF2014 staff census date (July 2013), there were 2 female academics in the School, among a total cohort of 32 eligible staff. The second female academic at the time, a junior Research Fellow, was not returned. For REF2014, Cardiff University implemented a highly selective policy for staff returns, but with a strict requirement of meeting a threshold score requiring four outputs at 4\*/3\* level. In RAE2001 and 2008 the School returned 3% female research eligible staff in both exercises.

**Table 5.3** Female representation in the research excellence frameworks

	Female	% of Staff Returned	Male
RAE2008	1	3	36
RAE2014	1	4	25
REF2020	8	16	42

According to REF2020 guidelines, all academic staff (grade 7 and above) must be returned and the School will return all eligible female staff (16%). All of these female staff have already achieved the required number of 4\*/3\* outputs. All staff are supported through the internal rolling REF process overseen by the DoR and line managers are tasked with guiding staff. Furthermore, Cardiff University has published guidelines and policy on the assessment of all outputs, with strict guidelines requiring all assessors to attend a 1-day training course that includes unconscious bias. The DoR reviews engagement with training by staff used for this internal review process (Action 5.1.4).

Action	Description
5.1.1	Extend recruitment arrangements for staff positions to include PDRA positions and review the PhD appointment procedure to enhance inclusion of female staff in decision making process.
5.1.2	Appoint an ED&I social media champion, to maintain and update outward looking social media and website.
5.1.3	Continuously review induction process and activities in light of feedback from staff, both University and School run events.
5.1.4	Monitor engagement of staff involved with the REF review process with the required training.

## SILVER APPLICATIONS ONLY

### 5.2 Key career transition points: professional and support staff

#### 5.2.1 Induction

The University induction process changed in 2016/17 to separate the induction for academic and PS staff. For academic staff see Section 5.1.2 above. Specific information is provided on the strategic aims and values of the University plus career development opportunities for PS staff.

PS staff are welcomed into the School and personally introduced to their working colleagues, and also more widely via an introductory email to all staff from the HoS. The content of the School induction processes (including one-to-one Chemistry Safety induction workshop) is under continual review, with feedback from recently appointed staff informing this process through discussion with their line managers.

Mandatory training for new staff in ED&I, unconscious bias and security and safe working are also introduced and time made available during core hours for their completion. These are administered by on-line modules and completion rates are monitored by the School HR Officer; currently the average level of completion for the 5 core on-line training modules is 70% for female PS staff and 34% for male PS staff (Table 5.4). The low male engagement figure indicate staff in post from before the introduction of the on-line training.

#### 5.2.2 Promotion

We do not have a promotion procedure *per se* for PS staff in Cardiff; instead a regrading process applies, requiring PS staff to justify significant changes in their role, or make a competitive application for a new position (which will involve open

competition with external candidates). PS staff are encouraged to take up these initiatives by their line manager, specifically through conversation at annual appraisals. Examples of regrading, appointments and changes in career pathway during the review period include:

3 male staff were regraded (2 technical staff promoted from Gr3-4 and Gr5-6, plus 1 administrative staff promoted from Gr6-7). No applications for regrading were received from female staff members (Action 5.2.1). Furthermore, 1 postgraduate researcher was appointed to a temporary position (3-months) as a teaching technician (during the writing up stage of their PhD) in the undergraduate laboratories. Finally, 2 postgraduate researchers from the School (one male, open-ended; one female, fixed-term) were appointed to experimental officer positions.

Action	Description
5.2.1	Encourage and support a greater number of PS staff to apply for re-grading.

### 5.3. Career development: academic staff

#### 5.3.1 Training

The University offers a wide range of training courses covering professional and personal development, and personal wellbeing. These opportunities are accessible to all staff, regardless of grade or career pathway. Completion of some training courses is mandatory, with completion rates indicated in Table 5.4. Staff are encouraged to discuss attendance at relevant optional courses during their annual appraisal (PDR) with their line managers. In the 2017 staff survey, 87% of staff within the School indicated that they have received the right training and development for their role.

The University intranet and HR Core Portal provides all individuals with details of the wide range of professional and personal development opportunities. Additional *ad hoc* courses are typically advertised through University and College newsletters and emails. A record of staff attendance at courses is maintained through the on-line HR Core Portal and by the HR Officer in the School.

In 2017/18, the University introduced a mandatory Leadership & Management training course for senior staff. All senior staff in the School (including Professors and senior line managers) have now completed this 5-module 2.5 days training course.

**Table 5.4** Mandatory training course attendance as percentage of F/M across all academic/PS staff.

Contract	Course	Female	Male
PS staff	ED&I	83	24
Academic		44	24
PS staff	Unconscious Bias	72	40
Academic		33	44
PS staff	Security Training	72	32
Academic		33	33
PS staff	Prevent	50	28
Academic		26	18
PS staff	Fire Awareness Training	78	48
Academic		37	27

Moving forward, we will encourage the uptake of training courses through PDR, and increased advertisement of opportunities in staff meetings (Action 5.3.1).

### 5.3.2 Appraisal/development review

Newly appointed staff participate in a 1-year (PS and research) or 3-year (academic) probation process. Their progress against mutually agreed objectives is reviewed at regular intervals. Early career lecturing staff take an additional “Academic practice” training programme, leading to Fellowship of the Higher Education Academy (FHEA).

Upon successful completion of probation, all staff participate in the annual Performance Development Review (PDR; aka appraisal). The PDR provides an opportunity for self-reflection on performance, and a mechanism for the staff member and their line manager to reflect on progress in the previous year and plan forward. Career aspirations and development strategies are an important part of PDR. PDR is used to identify opportunities for staff, such as involvement in particular projects, academic/industrial secondments, specific types of mentoring, as well as participation in University training courses or external training schemes.

All line managers leading the PDR must additionally attend line manager training modules, and must themselves have completed their own PDR prior to reviewing other staff performance. The School has 100% completion of annual PDR process, and was the 5<sup>th</sup> School/Unit in the University to complete PDRs in 2018. Attitudes towards PDR are monitored separately through the staff survey. In 2015, 81% of School staff participated in the staff survey, rising to 88% in 2017. The results indicate that 84% of staff considered that their line manager treated them fairly and with respect, and 79% of staff indicated that their line manager provided help and support when needed. Both of these statistics show an increase since the 2014 survey (up 9% and 18%, respectively). We will continue to strive towards maintaining a positive trajectory through inclusive discussion with staff on how to improve the PDR process (Action 5.3.2).

### 5.3.3 Support given to academic staff for career progression

All academic staff, including postdoctoral researchers, receive regular guidance and support for career progression through PDR. All new staff are made aware of mentoring schemes at induction. The School has provided funding for two female academic staff members to attend the Aurora National Leadership Programme, and one of these is now a mentor for junior colleagues.

The University offers training courses specifically targeted at postdoctoral and early career stage staff. Postdoctoral researchers are given the opportunity to develop their teaching skills, by assisting academic staff at UG workshops, through delivery of laboratory-based classes and through the School’s Post-Graduate Lecture programme. Occasionally, senior postdoctoral researchers with a demonstrable aptitude for teaching are given responsibility for delivering lecture components in taught modules. During the review period 3-female and 8-male research associates have been engaged in teaching activities. Notably, 2-females and 2-males were subsequently appointed to independent fellowships or lecturer positions within the period, with support from the School.

Many PGR students and postdoctoral staff that have left the School during the review period (at the end of their fixed-term contracts) have moved to positions in the chemical industry. In the following period we will work to increase the number of interactions with industry, such as inviting external speakers, to provide better networking opportunities for our PDRAs seeking alternative careers within the chemical sector (Action 5.3.3). In the next phase we will increase the number of staff (in particular ECR’s) with mentors beyond

the PDR process and encourage female staff to participate in external mentorship schemes (e.g. WISE) (Action 5.3.4).

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

Our PGR/PGT students are encouraged to attend internal subject specific training within their first two years (e.g. Risk and COSHH, advanced characterisation methods, Gas Cylinder Training), with available courses regularly updated on the student intranet. In addition, the Doctoral Academy provides training to all Cardiff University students and the uptake on these courses from the School is very good (ca. 65% in 2017/18).

As an action point following our last submission, we held a focus group for female PGR students to discuss routes and obstacles to a sustainable academic career. As a result we have developed a skills and self-assessment online questionnaire that forms part of the internal progression monitoring process. The questionnaire asks for feedback on the internal training courses, provides opportunities for students to make suggestions for new courses and, importantly, monitors career aspirations throughout their studies. An action for the DPGR and PGR team going forward will be to review existing data to identify any common themes or issues that need to be addressed (Action 5.3.5).

Our PGR students work alongside academic staff in teaching related tasks as stated above with positive uptake; i.e., 73 students (33% female) in 2016-17, 69 students (29% female) in 2017-18, and 102 students (31% female) in 2018-9. UG and PGR students also participate in School-based and public outreach events, which are excellent opportunities for developing their broader transferable skill set and employability.

The School also has a linked Careers and Employability Adviser from the University Careers Service, who is responsible for all aspects of chemistry focussed student career progression. The School and Careers Service work together to organise the annual STEM careers fair, which is open to all UG/PGT/PGR students and is advertised to the student cohort through email shots and announcements in lectures. Careers and Employability advisors also guide students with preparing CVs, writing job applications, and helping with general career planning. These skills are also integrated into the core Yr1 Key Skills module. Students are encouraged to enhance their employability prospects, by undertaking work experience through our Year in Industry and Year abroad schemes. There is active promotion of schemes, such as GO Wales, Cardiff UG Research Opportunities Programme (CUROP) and the Cardiff Award (see below).

The GO Wales program offers work experience, targeted at students who have a disability, caring or childcare responsibilities or are from a BAME background. The Cardiff Award is a University-wide structured employability programme for students, providing opportunities for students to gain recognition for skills obtained through a range of extra-curricular activities, broadening their experience and employability.

The School provides summer placement opportunities through participation in the CUROP programme, providing students with a funded grant to enhance their research skills during the summer recess. Since 2015, the School had 34% female participation (17 female, 33 male), of whom 5 students were supervised by female academics. We will seek to improve this percentage female participation through continuous engagement with the female student cohort (Actions 4.1.3 and 4.2.4).

Opportunities for industrial placement and research placement abroad in another University are available to all our students, who are supported by a dedicated School Industrial Placement (Year Abroad) Coordinator. Students also maintain contact with their personal tutors during placement by email and two site visits by the personal tutor. Academic staff making work trips abroad will also visit any internationally placed students, eg., [REDACTED]. Since 2014, 198 students have been on industrial placement or on the year abroad (51% female). The numbers of female students taking the option of the year away from Cardiff has increased faster than that for male students (Table 5.5).

**Table 5.5** Summary of Students taking Industrial Placement or Year Abroad.

Year	Female Headcount	Female %	Male Headcount	Male %	Total
2014	6	38	10	62	16
2015	18	46	21	54	39
2016	26	52	24	48	50
2017	28	56	22	44	50
2018	23	53	20	47	43

International placements can also lead to the start of a student's career. For example, in 2018/19 a female student placed at the University of Toronto became interested in her research project and wished to return for her PhD, which required passing a highly competitive application with entrance exams held in Paris. In consultation with her personal tutor (supported by time management advice), the School gave deadline extensions to her assessed work and allowed time away from her UG studies to complete the assessment process – she will begin her PhD studies in 2020.

### 5.3.5 Support offered to those applying for research grant applications

The University provides training courses for staff in applying for research funding, eg., the EPSRC New Investigator Forum, the Royal Society University Research Fellowship support programme and EU fellowship support programmes. Opportunities are available for ECRs to sit on mock panels, and this will be highlighted moving forward (Action 5.3.6).

Individual funding applications are discussed at annual PDR meetings as well as within their respective School research groups. Staff also meet with the Director of Research and Research Manager once a year to discuss their planned research grant pipeline for the coming year. All staff have access (via the Research Manager) to a library of successful (and unsuccessful) research applications, plus the reviewers' comments and PI responses. The College has a weekly Research Bulletin which advertises funding opportunities and research training events and monthly newsletters from WHEB.

**Table 5.6** Summary of grant submissions from the School by female members of staff.

Year	Number of applications with female PI	Value of applications with female PI
2014/15	9	£ 2,669,305
2015/16	22	£ 6,448,616
2016/17	26	£ 3,951,690
2017/18	25	£ 5,528,944
2018/19	20	£ 6,358,041

Most grant applications are collaborative (internally or externally), with early career staff encouraged to engage in research projects with senior colleagues. The School operates a mandatory peer-review scheme for grant applications in which a minimum of two colleagues (sometimes three for larger grants and fellowship applications) provide feedback on proposals. No applications over the value of £50,000 are submitted from the school without having gone through the formal internal peer review process.

Table 5.6 shows the number and value of grant submissions with female PIs for the current period, indicating an increase by more than a factor of 2 since the 2014/15 academic year, representing a number and value of submissions commensurate with the proportion of female academic staff in the School. The success rate for grant applications is higher for female staff than male staff within the School.

Action	Description
5.3.1	Encourage uptake of training courses through PDR mechanisms, and increased advertisement of opportunities in staff meetings.
5.3.2	We will use staff meetings and emails to highlight the positive benefits of PDR and to take on board any criticism of the process that arises.
5.3.3	We will increase the number of networking opportunities for PDRAs with industrial contacts.
5.3.4	We will increase the number of ECR staff with mentors and encourage all staff, to participate in external mentorship schemes (e.g. WISE).
5.3.5	Review data from PGR student feedback on training and progression monitoring. Continue with data collection.
5.3.6	Highlight opportunities for mock fellowship panels, peer-assessing applications internally prior to external submission to funding agencies.

## SILVER APPLICATIONS ONLY

### 5.4 Career development: professional and support staff

#### 5.4.1 Training

The University offers a broad suite of training courses for PS staff, as part of the Staff Development Programme. The training courses include both online (including the mandatory courses in ED&I, unconscious bias and Managing Performance for Line Managers; Table 5.5) and face-to-face whole day training events. Since 2015, a number of large University wide projects have offered additional technical training using bespoke IT programmes (such as Finance, Business Intelligence, Admissions, Converis). Line managers are encouraged to complete the ILM courses to develop as effective line managers (through the *Cardiff Professional* training scheme).

During the review period we have provided additional School financial support to enable PS staff to enhance their training further by undertaking courses run external to the University. Of the 11 PS staff members who undertook these courses, 5 were female. The courses included a 2-year Level 5 CIPD in HR Management, a NEBOSH diploma and certificate in occupational health and safety, Prince2 foundation and practitioner course (project management), practical leadership for University

management, as well as a 1-day training course on evidencing the benefits of public engagement (Action 5.4.1).

#### 5.4.2 Appraisal/development review

The School achieved 100% PDR completion rate for all PS staff during the review period. Analogous to the procedures for academic PDRs, this offers PS staff an opportunity to assess their performance against agreed and benchmarked objectives over the previous review period, in addition to setting objectives for the forthcoming year and identifying suitable training courses. External courses, funded by the School, are often identified through these discussions. PS staff are encouraged to raise any concerns or issues with the PDR process, along with the results from the biannual staff survey; this collective information helps improve the overall culture in the School (through the *Cardiff Professional*).

#### 5.4.3 Support given to professional and support staff for career progression

In the past 12-months, the University has launched a successful PS mentoring scheme to support career progression. This is a professional partnership between PS staff and an experienced mentor to help develop specific skills and knowledge. Opportunities for secondment in other Schools are encouraged, although in the review period no secondments in or out of the School were realised.



Action	Description
5.4.1	Continue to support PS staff to develop their training skills by undertaking externally funded courses.
5.4.2	Continue to engage with external providers seeking placement and employment opportunities for young people with disabilities.

### 5.5. Flexible working and managing career breaks

Note: Present professional and support staff and academic staff data separately

#### 5.5.1 Cover and support for maternity and adoption leave: before leave

During the last review period, [REDACTED]. We utilise the University's checklist for staff and guidance for line managers on support for individuals whilst on leave, including for example childcare salary sacrifice schemes, medical appointments, manual handling, breastfeeding, arranging a health and safety risk assessment including pregnancy related issue. This guidance helps to inform line managers and individuals on what should be expected.

No requests were made for adoption leave.

We have worked towards improving support for staff before they take maternity or adoption leave. Arrangements for both academic and PS staff are made through discussion with the School HR Officer to ensure all practical arrangements are in place. Line managers meet with academic staff prior to their leave commencing, to discuss the different aspects of their role and to identify any duties that may require staff cover during their absence. An implementation plan to cover necessary research, teaching and administrative duties is produced with final approval of HoS.

PS staff maternity leave is covered by an existing member of staff, or a new staff member to the School, with an overlap period before the leave starts and on return to work. This approach helps the transition and eases the workload.

#### 5.5.2 Cover and support for maternity and adoption leave: during leave

For both academic and PS staff, the nature of support is tailored according to their duties. Contact is maintained between the staff member and their line manager plus School HR Officer; this is often by email, but can also include *face-to-face* meetings and by telephone, as guided by the staff member's personal preference. All staff maintain full access to School documents (eg., minutes of meetings and committees), and continue to receive all internal email notifications. For academic staff with PGR supervisory duties, a member of staff within the School is assigned as an interim mentor to the students.

*"Keeping in Touch (KIT) Days"*, with a maximum of 10-days attendance at the University, can be taken without losing entitlement to maternity/adoption pay (Action 5.5.1). These allow individuals to attend, for example, staff meetings and training events. They can also be used to meet with colleagues about teaching or research.

#### 5.5.3 Cover and support for maternity and adoption leave: returning to work

The School makes contact with returning staff 6-8 weeks before their return date, and will make arrangements for a *face-to-face* meeting prior to the return date (which can be taken as a KIT day). Staff returning after maternity and adoption leave have *returning induction* meetings with the HR Officer and their line manager. These are used to bring staff up to date on any significant changes and raise awareness of their options.

The School makes provision to allow for phased return, switching contracts from full to part-time, "compressed hours", and different forms of flexible working. Both academic members of staff returning from maternity leave have altered their work pattern to compressed hours, with both choosing to work their full contractual hours compressed over 4 days. On request, the returning PS staff member moved to part-time working, and the School appointed another member of staff to share the position.

We also review any specific requirements, such as breast-feeding arrangements, and in the last period we have provided a private room for this.

#### 5.5.4 Maternity return rate

All academic, PS and postdoctoral staff returned following their maternity leave (100% return statistics, following on from the 2015 submission). All staff returned under their existing contract with any changes agreed by the School on request.

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Provide data and comment on the proportion of staff remaining in post six, 12 and 18 months after return from maternity leave.

To date, all of the staff who have taken maternity leave during the census period have remained in post beyond 18 months.

#### 5.5.5 Paternity, shared parental, adoption, and parental leave uptake

We have several examples of paternity and shared parental leave (Table 5.7). Entitlements to paternity leave and shared parental leave are documented on the University Intranet pages and are highlighted during staff induction with School HR.

**Table 5.7** Parental and shared leave uptake by staff role in the School.

	2015-16	2016-17	2017-18	2018-19
		<b>Maternity</b>		
Academic	2	1	0	4
PS staff	0	1	1	0
		<b>Paternity</b>		
Academic	2	2	1	2
PS staff	0	1	1	2
		<b>Shared</b>		
Academic	0	0	0	0
PS staff	0	0	0	0

#### 5.5.6 Flexible working

The University has a well-publicised flexible working policy. The guidance is available for the initial application. All cases are dealt with on an individual basis, with final approval required from the HoS. [REDACTED].

Before the start of each academic year, all staff with teaching commitments are invited to a meeting with the HoS and Director of Teaching to review teaching allocations and timings of scheduled duties. Adjustments are made, particularly for staff with child care responsibilities, to enable lectures to be scheduled at convenient times. This adjustment has been made for 2 academic staff members in 2017-8 and 2018-9.

The School offers adjustable approaches to the flexible working scheme in a bespoke manner. One academic staff member reduced their working hours to 28 (0.8 FTE) after returning from maternity leave in 2015. This then increased back up to 35 hours (1 FTE) but was condensed over 4 days in order to provide as much flexibility as possible. We also supported a PS staff member with reduced working hours to 21 (0.6 FTE) upon their return to work post-maternity leave in 2018. The remaining 0.4 FTE was advertised/recruited to and now makes up a job-share within her immediate team.

[REDACTED]

### 5.5.7 Transition from part-time back to full-time work after career breaks

The University offers a career break scheme with the right to return to a post on the same salary and grade. Once again, this is facilitated at School level through initial discussions with the line managers and subsequently with the School HR Officer. In the review period,



Action	Description
5.5.1	Review activities offered during keeping in touch days to ensure activities for these days meet staff needs.
5.5.2	Continue to make staff aware of flexible working opportunities and promote discussion of these topics in annual performance review meetings.

## 5.6. Organisation and Culture

### 5.6.1 Culture

Since our last Bronze award, the School has strived to uphold the key principles of the Athena SWAN Charter in all activities. In accordance with Principle 8, we advance gender equality by inviting female staff participation on all committees, without over burdening them in doing so. In accordance with Principle 6, we do not use short-term contracts for retention and progression of staff in academia, and in relation to Principles 2 and 5, we support our talented female students and staff in their career progressions (2 of our female academic staff members completed their PhD degrees in the School, and were nurtured and mentored through the PDRA phases into their current academic roles).

All staff and students in the School are expected to treat each other with respect, in accordance with the Dignity at Work and Study policy. The percentage responses within the staff survey for treatment at work and dignity, are largely positive and predominantly show a positive upward trend compared to the 2015 survey (Table 5.8).

**Table 5.8** Selected results from 2017 Staff Survey, showing percentage scores and percentage variance from the 2015 survey (increase in green, decrease in red).

Staff Survey Questions	%	%
I believe my managers understand and act on their responsibility when dealing with protected characteristics	62	+16
My line manager treats me fairly and with respect	84	+9
My line manager provides me with help and support	79	+18
My line manager recognises and appreciates good performance	76	+14
I am treated with respect by my colleagues	77	-5
I feel able to report bullying	56	-5
There is effective leadership within my school	67	+11
I feel trusted to make decisions	75	+9

As part of our previous Athena SWAN action plan, we ran a PDRA focus group which was organised and chaired by a SAT member, focussing on the barriers to women progressing in their careers. The key barriers identified include work-life balance, eligibility for grant applications, visa requirements, communications to PDRA, lack of teaching opportunities and lack of recognition amongst academic staff. A series of action plans to overcome these barriers were established, with particular success in developing the postgraduate

lecture series, the encouragement of PDRA to engage in mentoring schemes, the provision of training and support for independent fellowship applications, and the provision of a training course on effective communication (Action 5.6.1).

Many of the female early career staff have been incredibly proactive in their engagement, visibility and outreach activities (Section 5.6.8). This is coordinated by a senior (male) academic member of staff (Director of Engagement and SAT member), who coaches all interested parties and ensures parity of engagement by gender. The visibility of our senior female professorial staff is less effective (largely due to their own time restrictions) and going forward we will seek to give greater prominence and visibility of senior female staff to the UG and PGT students (Actions 5.6.2, 2.5).

The School has an active Community and Wellbeing team (called CWtCH) chaired by the HR Officer. This team organise regular activities both within working hours (e.g. decoration competition for *Santes Dwynwen* (Welsh equivalent of St Valentine), liaising with the BBC One Show when filming a short sequence in the School) and after work events such as Quiz nights taking place with financial support from the School.

### 5.6.2 HR policies

A biannual staff survey is conducted by the University, which monitors issues around equality, dignity at work, bullying, harassment, grievance and disciplinary processes. Each School within the CPSE college leads on a specific action plan review of the survey, with best practice shared among other heads of Schools. Owing to the relatively small number of female staff, the results from the survey are presented for the whole School. The College HR team provide assistance with any grievance or bullying cases, with the School HR Officer acting as the *Dignity at Work* advisor. The College has highlighted wellbeing as a priority since 2017, and all line managers in the School have received specific training on Promoting & Supporting Wellbeing and Managing & Supporting Staff, including how to handle difficult personal conversations. Only 56% of staff felt *able to report bullying/harassment without worrying it would have a negative impact on them*, and this is a key action for the School going forward (Action 5.6.3).

### 5.6.3 Representation of men and women on committees

School operations are facilitated by the committee structure shown earlier (Section 3). Membership of these committees is identified through open invitation, in response to requests from line managers, and through direct invitation from the HoS. The current membership of these committees is given in Table 5.9, and is broadly representative of the number of female staff in the School overall. Nevertheless, we would like to have a more inclusive representation on all our committees so we will seek to attract more female involvement in School committees through action 4.2.3, and also by direct communication, encouragement and support from senior staff and HoS for greater female participation (Action 5.6.4).

Early career staff are supported to take on light administrative loads within the School. In most cases, the roles involve sub-group / sub-committee tasks, eg., organising School research seminars. To expose the early career staff to more senior administrative roles, we have created two shadow posts in the School for our early career female staff, so they can gain valuable experience without undue administrative burden or responsibility. Going forward we will continue to encourage female staff to take up shadow post opportunities before deciding whether to progress to the full-time roles (Action 4.2.3).

**Table 5.9** Membership of key school committees and associated number of male to females.

Committees	Male	Female
School Executive Team	9	0
School Directors Team	4	1
School Operations Group	3	0
School Board	12	2
Staff Meetings	All staff	
Research Committee	8	1
Learning & Teaching Committee	9	2
Workload Committee	3	0
Engagement Committee	3	1
International Committee	4	2
Athena SWAN Committee	9	6
Board of Studies	All Staff	
PGR Board	6	1
PGR Student Staff Panel	4	4
Admissions & Recruitment Group	5	2
Safety Committee	10	2
Student Staff Panel	15	13

#### 5.6.4 Participation on influential external committees

All academic staff are encouraged to participate with influential external committees. Examples from our female academic staff include membership/officer positions on the Royal Society of Chemistry interest group committees, (inter)national conference organisation, and associate editor roles of peer-reviewed journals. The support and encouragement is primarily directed *via* the line managers and senior management team. Such duties are recognised in the workload allocation model (under the Citizenship category). This includes visiting professorial appointments, appointments to international advisory boards, and leadership roles in industry. The take up of such involvement is evenly spread over male and female staff (neither is over represented).

We also encourage our PS staff to take up appointments on external influential committees. For example, one technical member of staff acts as a School link through his participation on a UK National scientific committee reviewing scientific instrument usage (called NMR).

#### 5.6.5 Workload model

For the past three academic years (2016-17 onwards), the School has implemented the University's academic workload model. Core duties and activities are given a standardised weighting, including modular teaching, module convenorship, non-modular teaching, PGR supervision, teaching-related scholarship, research, engagement, citizenship, and finally management and administration.

Currently, the individual staff workloads are reviewed by the School workload allocation team to ensure compliance with University guidelines (1500 hours per year) and to identify any potential over-allocation problems. Staff are recommended to discuss their workload with their line manager at the annual PDR process. Whilst the supporting IT system does not currently allow staff to view the workload allocation of colleagues, the School is sensitive to the requirement for transparency to create a supportive collegiate environment.

As the supporting IT system provides data on career pathway and gender, an action moving forward through the next review period will be to carefully scrutinise the workload allocation to ensure parity across the School (Action 5.6.5). In particular, if staff have traditionally been assigned duties that may hinder career progression, opportunities for reallocation of duties will be explored.

Cardiff University is currently reviewing the workload model to ensure it is sufficiently realistic and that the generated data is interpreted appropriately; an internal review within the School will be used to feed directly into the higher-level discussions across the wider University. There is no workload model for PS staff.

#### 5.6.6 Timing of departmental meetings and social gatherings

Departmental meetings that require all staff take place within core working hours (10.00-16.00 hrs). Dates and timings of smaller committee meetings (*e.g.* Learning and Teaching, School Executive Meeting) are published well in advance, and typically take place between 14.00-16.00 hrs on Wednesday afternoons (no teaching). The School organises a range of social events at various times to enable attendance from all staff (including lunchtime activities in the foyer area). Since 2016, the annual Christmas staff social event is a lunchtime meal. The day is chosen to accommodate part-time working by staff across the school (including condensed hours). The School HR Officer is involved in the organisation of all social gatherings, as they are fully informed of the various part-time contracts in place across the School.

#### 5.6.7 Visibility of role models

The School utilises several opportunities to enhance the visibility of role models for students and staff. Since 2015, we have increased the percentage of female speakers in the School Seminar Programme to 34% (from 16%, Figure 5.1). The School seminar team, who are responsible for organising the programme, encourage all staff to be mindful of ED&I and BAME awareness when forwarding their nominations. The seminars are scheduled between 13.00-14.00 hrs, and are timetabled for Yr4 students who may be considering further research careers.

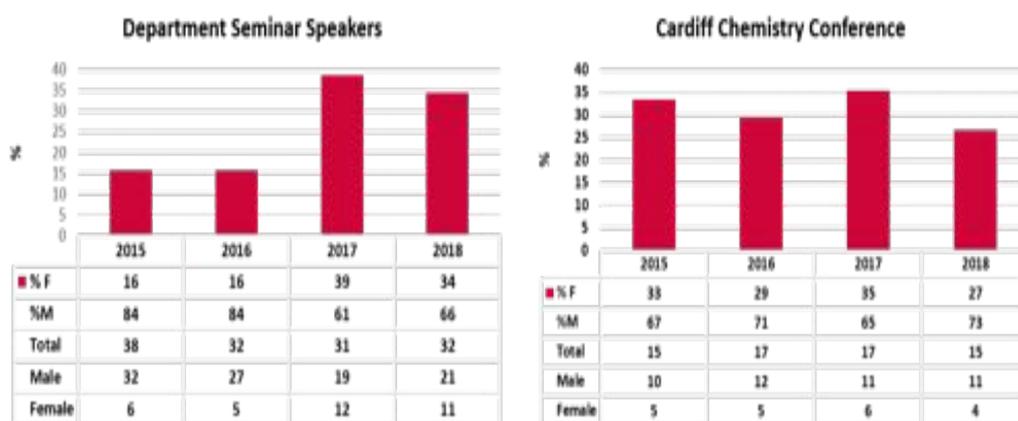


Figure 5.1 Percentage of female speakers in the departmental seminars and conference.

The percentage of female speakers at the annual Cardiff Chemistry Conference is on average ~30%. Members of the PDRA staff and PGR students are invited to attend lunch with the external speakers from our School seminar series. If possible, we encourage more female student attendance when the speaker is female, to demonstrate positive role models. We have been doing this for the last two years, as an action point included on our previous AS submission.

A further opportunity for role models is in the choice of external degree examiners. Table 5.10 lists the headcount by gender of internal and external examiners and Chairs at PGR *viva voce* examinations. The increase in female staff acting as internal examiners reflects the increased number of female staff in the School. We will continue to monitor these figures, and as an action for the PGR team (Action 5.6.6) will encourage all staff to consider diversity when appointing staff to the examination panel. Whilst the number of male external examiners has increased significantly since 2015-16, the number of female external examiners has remained static. Academic registry policies within the University requires external examiners and Chairs to be appointed at the Senior Lecturer or above; given the low number across the academic sector, this is a continual challenge. Following recent promotions within the School, there are now 3 eligible female staff, therefore we anticipate the numbers of female exam Chairs will increase across the next review period.

Since 2013-14 we have also had continuously at least one female academic serving as external examiner for our UG and PGT programmes.

**Table 5.10** Headcounts of examiners (internal and external) and chairs at PGR *viva voce* examinations.

	2015-16	2016-17	2018-19
<b>Internal</b>			
Male	29	20	34
Female	1	1	3
<b>External</b>			
Male	26	19	34
Female	3	2	3
<b>Chair</b>			
Male	29	21	37
Female	0	0	0

**Figure 5.2** Representative images from publicity brochures for UG/PGT/International courses, which are developed in strong partnership with the central University marketing office.





### 5.6.8 Outreach activities

The School provides a wide range of opportunities for staff and students to take part in outreach activities, which provide excellent opportunities to develop communication skills. As stated in Section 5.3.4, a PGR alumni from the School has moved to a permanent position within the University Communications and Marketing team (██████████). One female member of the SAT team (██████████) has secured two funding grants from the Royal Society of Chemistry to deliver curriculum enhancing workshops directly in local schools.

There are 61 students registered as outreach volunteers (32 female & 29 Male), 28 of whom are UG. Volunteers are engaged in a wide range of activities from primary to secondary schools and science festivals (eg., Royal Society Summer Science, New Scientist Live, Swansea Science Festival, Cardiff Museum events, Soapbox Science). Students are encouraged to register for STEM ambassador status and are provided with training from academic staff and external specialists (e.g., Science made Simple). Students taking part in engagement activities have transport and expenses covered by the School. Engagement is also integrated with our undergraduate program with a Yr1 module in Communicating Science and final year projects which can include placement at local schools. In 2018/19, 12 students took these projects (6 male & 6 female) working with local schools under the supervision of teachers and an academic member of staff.

Action	Description
5.6.1	Run regular PDRA forums & focus groups to provide support for career progression.
5.6.2	Seek greater visibility of senior female academics as role models.
5.6.3	Review arrangements for dealing with harassment & bullying in accordance with staff survey results.
5.6.4	Encourage greater inclusion and female representation on committees.
5.6.5	Review workload allocation by gender and grade.
5.6.6	Monitor number of female invited seminar speakers and chairs for examination boards.

6632 words

SILVER APPLICATIONS ONLY

6. CASE STUDIES: IMPACT ON INDIVIDUALS

Recommended word count: Silver 1000 words

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## 7. FURTHER INFORMATION

Recommended word count: Bronze: 500 words | Silver: 500 words

Please comment here on any other elements that are relevant to the application.

As stated briefly in Section 2, the School of Chemistry is currently housed within the Grade 2\* listed historic Main Building in Cardiff University. Whilst a very attractive and popular location for students and staff to study and work, the building is at maximum capacity, and does not have many of the modern open-plan spaces conducive to creating an inclusive environment to facilitate better communication and working environment. In the Spring of 2021, a large proportion of the academic staff will move to a new purpose built *Translational Research Facility* (TRF) building. The consultative design process for this building has placed emphasis on creating spaces to foster improved communication amongst both staff and students. Built into the design is the idea of how we approach diversity and inclusion to create safe, thoughtful and accommodating spaces that reflect the values and culture of our School. This for example includes provisions for non-gender specific facilities, shower and changing facilities, break-out office spaces, etc. Feedback from staff and students in the design stages has taken into consideration the need for a wide variety of spaces, from social seating and public collaboration spaces to individual study areas and project rooms. At the same time the remaining vacated space in the Main Building will be completely refurbished to provide additional staff offices, prayer room, study rooms, and common room, to enhance the quality of the workspace for the staff and students located in the existing rather cramped location. Over the two buildings, we believe this offers the School an opportunity to benefit from the more spacious and designed environment, that will promote wellbeing and inclusivity in the School.

273 words

**Total Submission Word Count 11970**

## 8. ACTION PLAN

The action plan should present prioritised actions to address the issues identified in this application.

Please present the action plan in the form of a table. For each action define an appropriate success/outcome measure, identify the person/position(s) responsible for the action, and timescales for completion.

The plan should cover current initiatives and your aspirations for the next four years. Actions, and their measures of success, should be Specific, Measurable, Achievable, Relevant and Time-bound (SMART).

See the awards handbook for an example template for an action plan.



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## LANDSCAPE PAGE



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### Action Plan Athena SWAN Submission April 2019 (Silver Award) – School of Chemistry, Cardiff University

Our action plan for the next review period will target three key challenges identified by our SAT team, as our highest priority; these are either underway due to begin immediately. Our new action plan contains builds on the successes from our previous action plan, with new actions implemented to address the key challenges.

#### Key Immediate Priorities

##### Priority 1: Address under-representation and support for females among academic staff and PS staff

**Recruitment** Actions 2.1, 2.2: Ensure advertisement materials is suitable, with targeted advertisement at senior levels, to achieve 21% female representation over the next 4 years.

**Retention** Actions 4.2.2, 5.3.4: Ensure we foster a more supportive and inclusive environment for female staff members.

**Progression** Actions 2.3, 4.2.3, 5.2.1, 5.4.1: Ensure more female applications are received for promotion, and opportunities for career progression (through committee membership and participation) are enabled.

##### Priority 2: Address declining number of female students progressing from UG through to PGR and academia

**Monitor** Actions 2.3, 2.4, 4.2.4, 5.3.5, 5.6.1: Ensure we monitor female progression by engagement and holding targeted focus groups.

**Participation** Actions 3.3, 3.8, 5.3.3: Ensure we provide opportunities for student voice/concerns to be raised and acted upon.

**Recruitment** Actions 4.1.1, 4.1.5: Ensure our procedures for female student recruitment are effective in achieving and exceeding sector average figures for female students.

##### Priority 3: Improve communication and culture within the School

**SAT Visibility** Actions 3.4, 3.5: Continue to improve visibility of Athena SWAN committee activities in the School and encourage membership.

**Training** Actions 3.6, 5.3.1: Organise additional (annual) training course in unconscious bias training.

**Communication** Actions 5.1.2, 5.5.1, 5.5.2, 5.6.3: Highlight opportunities for flexible working arrangements, through School website, staff meeting and ED&I Champion.

#### Long Term Ongoing Priorities

## Section 2 – Description of the Department

Ref	Planned Action	Rationale	Progress to date	Timeframe	Person Responsible	Success criteria/ outcome
2.1	Continue to review academic recruitment procedures to achieve the 21% sector average female representation.	<b>PREVIOUS BRONZE ACTION Point</b> Improve further our recruitment documents, selection and communication processes for potential female candidates.	Increased % numbers from 11% to 16%, including 2 professorial appointments.	Ongoing	HoS, SM, HR Officer	Achieve 23% female representation among academic staff.
2.2	Encourage and support more female academic staff to apply for promotion or senior appointments within the University.	<b>PREVIOUS BRONZE ACTION Point</b> We will continue (ongoing) to encourage female academics (including fixed term contracts) to apply for promotion; through line managers and PDR.	In current review period, 1 female academic promoted (from L to SL)	Ongoing	HoS, Line managers	Increase %age of female promotions commensurate with male promotions.
2.3	Monitor and review the declining number of female students progressing from UG to PGT to PGR.	Recognised sector problems that female representation drops off from UG to PGR. Thus, tackle this issue directly by generating more PGR focus groups, and engagement with UG body.	Have sector average UG numbers & good PGT numbers.	Start of 2020/21 academic year	DLT	Maintain same % number of female students from UG to PGT to PGR.
2.4	Review and improve the PGR admissions processes to ensure all applications and interviews have input from both male and female academic staff.	Owing to low number of female role models, fewer female academics offering PhD opportunities and fewer involved in interviews, which may put off potential applicants.	Declining trends in number of female applications.	Start of 2022 academic year	Director PGR	Bring PGR female numbers to sector average, commensurate with UG (43%).

2.5	Improve the quality of the School website to create and distribute marketing materials, cases studies, that help to enhance the recruitment of female students and staff.	Enhance in particular the visibility of female role models, to encourage recruitment of new students and staff.	Marketing material has been updated ensuring female students are represented.	Start of 2021 academic year	DLT	10% growth in female PGR numbers over 3 years, and at least maintain positive UG numbers.
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### Section 3 – The Self-Assessment Process

Ref	Planned Action	Rationale	Progress to date	Timeframe	Person Responsible	Success criteria/ outcome
3.1	Create an annual survey for all UG students on ED&I, and monitor changes in attitude and perceptions across the 4-year of the degree.	Understand the changing views of students on ED&I matters and thereby address changing needs of the student cohort.	Discussed at Student Staff panels, and students have welcomed the idea.	Before Jan 2020	EaST Manager	Increase completion of survey rates for enhanced overall picture.
3.2	Provide greater flexibility in workload model tariffs to allow for administrative tasks or organising events that promote the work of SAT.	Outreach activities (including preparation and delivery) are not currently accurately represented in workload tariffs, therefore potentially creating time-pressures for staff involved.	Review of workload currently in progress (initiated late 2018)	End of academic year 2020/21	Workload Model Chair / HR Officer / SM	Improved response to question regarding completing work, in annual Staff Survey
3.3	Enhance student representation and participation on SAT from UG to PGR level, and communication to wider cohort through ChemSoc.	The experience of our UG students directly affects rates of continuation into PGR/PGT studies – increased involvement in the SAT team provides direct feedback.	UG and PGR representative on SAT team.	New members to enrol from Oct 2019	EaST Manager/ PGR Admissions Assistant	Better student professional engagement with the School

3.4	Continue annual call for new members of SAT, including improved communication to staff.	<b>PREVIOUS BRONZE ACTION Point</b> Refreshing membership of the SAT (whilst having some continuity with standing members) brings opportunities for fresh insight and new ideas.	Good annual turn-over of SAT members reflecting willing to engage	Continuous	HoS / SM	Ensure fair distribution of workloads for SAT members, particularly for junior staff
3.5	Continue to improve the visibility of the Athena SWAN committee at School and University level.	Important to highlight the on-going successes of the SAT team in order to maintain positive momentum on AS action plans.	AS is standing agenda item for all staff meetings and SET.	Ongoing	HoS, HR Officer	At least one positive suggestion directed to SAT through academic staff representative.
3.6	Organise another all-staff refresher training course in unconscious bias in the next 24 months.	Keep staff updated on new directives (internal and external), and ensure that ED&I remains at the fore-front of culture.	Excellent completion rates of annual on-line course.	Within 12-24 months	HR Officer	Full annual completion of ED&I training by all staff as part of PDR
3.7	Encourage more interactions and participation among SAT members to sit on Athena SWAN assessment panels.	Keep updated on agenda, and any new directives issued by ECU. Act as liaison with HoS to disseminate to wider staff cohort.	2 members of existing SAT team have attended panels.	April/November 2020 panels	HoS (SAT Chair)	At least one SAT member to sit on panel before next submission.
3.8	Organise additional workshop with PDRAs to better understand, and thereby support, the marked drop-off of female PDRAs entering academia.	Identify barriers for progression, and seek mechanisms to rectify where possible (with potential funding required to support enhanced external training opportunities)	One PDRA forum within last review period.	2019/2020	PGR Admin team	At least 1 female PDRA progressing to academic career internally.

3.9	Increase School funding to approved activities or events that support the action plan.	To continue to support activities organised through the Community and Wellbeing Team in the School	School has committed £1,500 pa to this activity.	Ongoing	HoS, SM	Greater visibility of AS promotion activities.
<b>Section 4 – A Picture of the Department</b>						
Ref	Planned Action	Rationale	Progress to date	Timeframe	Person Responsible	Success criteria/ outcome
<b>Section 4.1</b>						
4.1.1	Increase number of female applicants to UG courses.	<b>PREVIOUS BRONZE ACTION Point</b> This is the first point on the “leaky pipeline”.	Achieved the sector average figures for UG students.	Ongoing	UG Admissions Tutor	Increase number of female applicants.
4.1.2	Perform statistical analysis by gender of degree attainment for students entering UG programmes through the foundation year route.	Ensure that the foundation programme is a viable alternative route towards achieving success at UG level. The increased numbers of Foundation year students will enable a more meaningful statistical comparison.	Data from 2018/9 will be reviewed as soon as available.	Ongoing	DLT	Comparable degree performance for Foundation year females vs those entering directly to Yr 1
4.1.3	Provide enhanced ongoing support for less able learners (male and female) to improve their performance.	Seeing enhanced performance of higher achieving female students, but worrying trend of poor performance for less able students	Reviewing degree performance at pass level	Ongoing	DLT and Year tutors	Improved performance of under achieving students.
4.1.4	Monitor degree performance by gender across UG programmes.	Ensure the lower number of female progression is not due to poor degree performance.	Female performance equal to and exceeding male performance.	End of each academic year	DLT, EaST Manager	Increase percentage of female students achieving 1 <sup>st</sup> / 2.1 degrees.

4.1.5	Investigate poor female conversion rates between offers and acceptances for PGT courses.	The uncertainty of students enrolling on programmes can cause difficulties in preparation of teaching (inc. timetabling, project allocation).	To date only a small drop up in female numbers.	Annual	EaST Manager, DLT, PGT Admissions Tutor	Improved conversion rate for female applicants.
4.1.6	Increase female applications to PGT, through review of the course offerings.	PGT offers an excellent route towards PGR studies, which begins the academic career progression.	Currently undergoing review of the PGT course options.	Annual	PGT Admissions Tutor	Statistical analysis of PGT students across the 4 PGT courses available to identify trends in choices.
4.1.7	Analyse data from PGR Skills and Self-assessment Questionnaire to identify further training needs to be provided for career progression.	PhD programmes should offer extensive training opportunities for students, across research and soft skills. This directly feeds in to their suitability for continuation within academic (and chemical) sector.	Data from 2018-9 will be available in Summer 2019.	Annual	PGR Admissions Assistant	At least one new workshop to be delivered as direct result of questionnaire.
4.1.8	Keep record of leavers' destinations via exit interview forms with HR.	Develop enhanced understanding of reasons / motivations for leaving CU.	First poll and set of interviews conducted in 2018.	Ongoing	PGR Admissions Assistant	Comment back created, and common themes identified.
<b>Section 4.2</b>						
4.2.1	Continue to scrutinize job application procedures for ways to encourage female applicants.	Promotes inclusion and flexible working, maintaining our positive momentum in increasing females staff numbers.	Inclusion of text in recruitment material.	Continuous	HR Officer	Increased % female application for academic posts

4.2.2	With increased female staff numbers, introduce quarterly informal group meetings for female members of staff with HoS.	Fosters a supportive environment for female members of staff within the School, through informal quarterly lunches.	First quarterly meeting held with female PS staff.	Every 4-months	HoS & SET members.	Increased female applications for promotion.
4.2.3	Introduce shadowing scheme for junior staff members to gain experience of senior committees.	Gives junior staff development opportunities, and minimises risks associated with loss of senior staff.	Two female shadow posts successfully operating.	Before 2020 PDR cycle	HoS / Line managers	At least one ECR on each senior committee
4.2.4	Engage with PGR/PDRAs following lunchtime seminars to identify if engagement with speakers is successful at demonstrating role models.	Provide evidence that female PGR & PDRA engagement with external female role models (speakers) has a positive influence on career and choices.	All female speakers meet with female PGR student for talks.	Ongoing	Line managers & research section leads	Evidence of positive career decisions by interaction with external role models.
4.2.5	Role model visibility – consider inviting more speakers from industry, to highlight variety of chemical careers and draw from a larger pool of candidates.	School seminar speakers almost exclusively from academia. Invite greater number from industry and (chemical) business sectors to highlight diversity of careers.	Invited female Professor to share experience with setting up a start-up.	Ongoing	Line managers and School Seminar team.	Increased representation of female speakers from non-traditional sectors.

#### Section 5 – Supporting and Advancing Women’s Careers

Ref	Planned Action	Rationale	Progress to date	Timeframe	Person Responsible	Success criteria/ outcome
	<b>Section 5.1</b>					
5.1.1	Extend guidelines for recruitment panel membership to fixed-term PDRA and PhD recruitment.	Introduction of best practice and uniformity for interview process at all levels of recruitment.	Required mandatory training being highlighted to all staff.	12 Months (PDRA), 24 Months (PhD).	HR Officer	Transparency and consistency in appointment process.

5.1.2	Appoint School ED&I social media champion.	Plan and prepare for relevant marketing opportunities ( <i>e.g.</i> International Women's Day, International Day of Women and Girls in Science)	Discussion of new role at AS committee.	Immediately	SM	Enhance external profile of female staff
5.1.3	Review of induction process, and implement feedback received from staff for both University and School events.	Demonstrates commitment of the School to listen, and react to, staff comments; fosters strong work-place relationships	Process for gathering of data has been defined.	2019	HR Officer	At least one new process arising directly from feedback
5.1.4	Monitor engagement of staff involved with REF review process with the required training.	Ensure that internal REF assessment process is conducted in an unbiased manner.	Automated statistics gathering to date; DoR to discuss with staff.	Continuous	Director of Research	All staff aware of unconscious bias in their processing of REF data.
<b>Section 5.2</b>						
5.2.1	Encourage and support a greater number of PS staff to apply for re-grading.	In last review period, no female PPS staff were regraded.	Line managers discuss and encourage this at PDRs.	Annual PDR meetings	All PS line managers	Equal representation of male and female PS promotions.
<b>Section 5.3</b>						
5.3.1	Encourage uptake of training courses through PDR mechanisms, and increased advertisement of opportunities in staff meetings.	Diversify training of staff beyond mandatory training requirements. Promote staff members confidence that they understand new working methods.	Advice given to Line Managers.	Immediate	HR Officer / Line managers	Ensure staff skills and knowledge for role is up to date.
5.3.2	We will use staff meetings and email discussion to highlight the positive benefits of PDR and to	Any potential negativity about PDR process minimises its effectiveness	Feedback from the all staff annual	Annual	HR Officer / Line managers	Improve positive response rates

	take on board any criticism of the process that arises.	as a positive learning opportunity for career development	questionnaire process to improve the PDR process.			on questions pertaining to PDR in University Staff Survey.
5.3.3	We will increase the number of networking opportunities for PDRAS with industrial contacts.	Highlight the breadth of career opportunities available outside of academia.	Staff have been requested to identify suitable industrial contacts.	Immediate	Director of Research.	At least one lecture from industry as part of School seminar series.
5.3.4	We will increase the number of staff (in particular ECR's) with mentors beyond the PDR process and encourage all staff, particularly female, to participate in external mentorship schemes (e.g. WISE).	Engagement in external programmes brings new insight and fresh ideas to the School	AS committee has discussed best mechanism to increase engagement with mentoring.	12 months	HoS	At least one female staff member to be appointed new mentor
5.3.5	Review data from PGR student feedback on training and progression monitoring. Continue with data collection.	Make PGR students aware of training opportunities and encourage career goal setting.	Six months of data has been collected.	Ongoing	DPGR and PGR Admin team.	Increasingly positive feedback from PGR cohort.
5.3.6	Highlight opportunities for mock fellowship panel participation to early career researchers.	Improve application and success rates for ECRs to fellowship funds. Faster progress of ECR staff to international recognition through fellowship supported research.	Line managers have been informed of this requirement.	Ongoing	Line managers of ECRs	Increase in ECR applications to fellowship schemes.

	<b>Section 5.4</b>					
5.4.1	Continue to support PS staff to develop their training skills by undertaking externally funded courses.	<b>PREVIOUS BRONZE ACTION Point</b> Provide greater opportunities for PS to upskill beyond training courses offered by the University.	School provide financial funds to PS staff for external training.	12 months	Line manager & SM	Increased number of female PS staff enrolled on externally funded courses
5.4.2	Continue to engage with external providers seeking placement and employment opportunities for young people with disabilities.	Seek to provide greater opportunities for employment and work experience in the School for disadvantaged young people with disabilities.	Hired young PS staff on the <i>Engage 2 Change (E 2 C)</i> scheme (5.4.1)	Ongoing	SM & HoS	Hire another 2 PS staff members through the <i>E 2 C</i> scheme
	<b>Section 5.5</b>					
5.5.1	Review activities offered during keeping in touch days to ensure activities for these days meet staff needs.	Improve opportunities for staff on maternity or adoption leave to maintain contact with School.	AS committee have discussed innovations for tailoring KIT day activities.	12 months	HR Officer / HoS	Ease transition back to work from maternity / adoption leave.
5.5.2	Continue to make staff aware of flexible working opportunities and promote discussion of these topics in annual performance review meetings.	Provide more flexible working opportunities for staff that require such arrangements, but are hesitant to approach line managers.	Four staff (2 female and 2 male) currently hold such posts.	Ongoing	Line managers (to make staff aware)	Increased number of staff on flexible hours.
	<b>Section 5.6</b>					
5.6.1	Run regular PDRA forums & focus groups to provide support for career progression.	<b>PREVIOUS BRONZE ACTION Point</b> Monitor and support female PDRA progression to academic posts.	We currently run 6-monthly focus groups. Two PDRAs moved to	6-monthly meetings	DPGR	Avoid loss of talented female PDRAs, but proving opportunities

			academic posts.			to enter academic positions.
5.6.2	Seek greater visibility of senior female academics as role models.	Senior (professorial) female colleagues to join junior staff to enhance the role model persona.	One female professor spoken at the <i>ChemTea</i> student led event.	Ongoing	HoS / Line managers / HR Officer	Greater visibility of female professors at outreach & engagement events.
5.6.3	Review arrangements for dealing with harassment & bullying in accordance with staff survey results.	Only 55% of staff feel able to report bullying (according to the 2017 staff survey).	Since 2017 results, increased visibility of reporting procedures; HR Manager first point of contact.	Ongoing	HoS / Line managers / HR Officer	Significantly increase the percentage of all staff who feel confident about reporting bullying.
5.6.4	Encourage greater inclusion and female representation on School committees.	Ensure all committees have greater female representation and input, particularly in senior committees (such as SET).	Current level is reflective of female staff numbers in School.	Ongoing	HoS / Senior managers and Line managers	Females represented on every School committee.
5.6.5	Review workload allocation by gender and grade.	Ensure workload balance is comparable by gender within each Grade.	To date breakdown of load by gender not reviewed.	Between 2019-2020 PDR cycle	Chair Workload Allocation / HR Officer	Parity of workload by gender; review by gender and grade.

5.6.6	Monitor number of female invited seminar speakers and chairs for exam boards.	<b>PREVIOUS BRONZE ACTION Point</b> Provide more female role models for students.	30% average female speakers in school events in last 2-years	Ongoing	PGR Assistant Team	Increased percentage of females on examination panels.
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HoS = Head of School; SM = School Manager; DHoS = Deputy Head of School; DLT = Director of Learning and Teaching; EaST Manager = Education and Students Manager; SST = School Seminar Team; PGR = Post Graduate Research; DPGR = Director of PGR; SET = Senior Executive Team; ECRs = Early Career Researchers.