Examples of the Athena SWAN posters displayed throughout the Chemistry Department

Athena SWAN Silver department award application

Name of university: University of Cambridge

Department: Department of Chemistry

Date of application: November 2015

Date of university Bronze and/or Silver Athena SWAN award: Silver Award September 2014

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

Not all institutions use the term 'department' and there are many equivalent academic groupings with different names, sizes and compositions. The definition of a 'department' for SWAN purposes can be found on the Athena SWAN website. If in doubt, contact the Athena SWAN Officer well in advance to check eligibility.

It is essential that the contact person for the application is based in the department.

Sections to be included

At the end of each section state the number of words used. Click here for additional guidance on completing the template.

1. Letter of endorsement from the head of department: maximum 500 words [502 words]

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

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

The Cambridge Department of Chemistry has a world-class reputation for research and teaching, and central to our aspiration to remain world-class are the people who work and learn in the Department. The Athena SWAN process has shown us what we do well and the many things we could be doing better in order to generate a happier, more supportive, and ultimately more productive and rewarding environment.

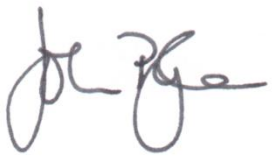
My predecessor as Head of Department (Prof Daan Frenkel) and I are unequivocally behind the work of the Athena SWAN Working Party. We appreciate the efforts of all our colleagues who have responded so positively to the Athena SWAN actions, but are particularly grateful to the stewardship of the process by Prof Jane Clarke and the involvement of Prof Melinda Duer, Dr Deborah Longbottom and Ms Marita Walsh – all of whom are identified as role models by both female and male members of the Department. The postgraduate and postdoctoral (PDRA) members of the Working Party (the majority of whom are female) have contributed significantly to the Athena SWAN meetings and have galvanised their communities behind the Bronze actions. Jane and Nick Bampos (previous and current Chairs of our Working Group) have taken what we have been doing in the Department and initiated interactions with other departments across the School. If we are going to have any impact on the STEMM subjects, we can only do so by forging institutional relationships rather than acting as independent entities.

The Bronze Award recognised the work that has been done to identify the deficiencies in our institutional processes and culture. The Silver submission shows that we have made a meaningful and lasting impact on our working environment, but also recognises that there is still work to do.

Under our Bronze Action plan, we sought to improve in many areas of postgraduate and postdoctoral support. For our staff, flexible working hours, provisions for maternity and paternity leave, a returning carers scheme, and better-managed Staff Review and Development are improvements that we are proud of. For academic staff, we have improved recruitment and appointment processes and created a better sense of work-life balance, but the evidence suggests that we still need to address mentoring, career development and the distribution of workloads. We still need to be more effective in encouraging more female undergraduates to stay in research and to address the gender differences in academic attainment at undergraduate level.

As Head of Department I will not only work with the team to develop all our actions, but will focus my efforts during my tenure to encourage female postgraduates and PDRA researchers to stay in research, and put in place early career funding for women starting their academic careers in the Department.

The best summary of my position is simply to paraphrase one of the statements in Daan's introduction to the Bronze submission, that the Athena SWAN award scheme is not a matter of compliance, but a process we *now have* and *will continue* to develop even if the Athena SWAN scheme did not exist. [493 words]



Prof John Pyle FRS
Head of Department, Department of Chemistry, University of Cambridge
Member of the Athena SWAN Working Party

2. The self-assessment process: maximum 1000 words [1056 words]

Describe the self-assessment process. This should include:

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

Members of the ASWP drawing representatives from across the Department (left), and the postgraduate members of the ASWP (Gabi Schneider-Rauber and Ines Heimann) with the Bronze award in the Department of Chemistry foyer (right).

The Athena SWAN (AS) Working Party (ASWP) (8 men and 9 women) consists of the Head of Department (HoD), Deputy HoD (DHoD), and individuals representing constituencies from across the Department.
(* Member of Bronze submission panel)

Dr Nick Bampos (Convenor): DHoD; one of four University Equality and Diversity (E&D) Champions; School of Physical Sciences (SoPS) Gender Champion; member of many College and University committees (including the E&D Committee)

Victoria Blake and Nicola Taylor (while Victoria was on maternity leave): Departmental Welfare, Training and Development advisors with responsibility for post-doctoral affairs.

Dr Krishna Bulusu: Post-Doctoral Research Associate (PDRA) and member of the Post-Doctoral Affairs Committee (PDAC); previously post-graduate member of the ASWP at the Institute of Cancer Research, London.

***Prof Jane Clarke FRS:** previous DHoD and Convenor of the original ASWP. Jane embarked on a research career as a PhD student at 40 with two young children and a husband working in the banking sector. Jane was recently elected as a Fellow of the Royal Society and has become one of the most influential members of the University for championing gender issues.

***Dr Stuart Clarke:** Reader; previous DHoD; experience of graduate affairs; father of two.

***Prof Daan Frankel ForMemRS:** HoD (until Sep 2015); Head of Theoretical Chemistry; champion of the AS process from the start. His career has been shaped around his family commitments.

***Dr Vivien Gruar:** E&D Consultant coordinating AS activity across the University.

Mrs Diane Harris: Project Delivery Coordinator; responsible for developing and implementing

the department's communications strategy. Diane has three sons, the eldest of whom has complex special needs.

***Dr Neil Harris:** Principal Research Associate. He is a father of three sons, the eldest of whom has complex special needs.

Ms Ines Heimann: Second year postgraduate student with an interest in equality issues who sees AS as a way of ensuring scientific progress is accelerated by diversity.

***Dr James Keeler:** Director of Teaching; international reputation as a teacher; and involved throughout the collegiate University in undergraduate recruitment and the recruitment of academic staff in the Department.

***Dr Deborah Longbottom:** Head of Graduate Education (HoGE) and responsible for the development our graduate courses, and professional and career development. Deborah is the mother of three children born while a member of the Department.

***Dr Amanda Maycock:** PDRA, member of PDAC. Amanda is about to begin her independent research career at the University of Leeds with a NERC Research Fellowship which she was awarded while working in Cambridge.

Mrs Tanya Radic: Tanya joined the Department in 2003, after which she gave birth to her youngest son. Her experience in those early years was not an entirely happy one, which is why she has been a member of the group, ensuring that future generations of her colleagues enjoy a more constructive and supportive working environment.

Ms Gabi Schneider-Rauber: Member of the Graduate Social Committee. Gabi plans an independent academic research career in Brazil and also aims to work with children in science-related projects in poor and rural communities.

***Prof David Spring:** Professor of Organic Chemistry. David manages one of the largest research groups in the department while sharing childcare duties with his wife who works as a patent attorney.

***Dr Richard Turner:** Research Laboratory Technician. Richard manages a large research group and oversaw the development and running of the staff and student surveys.

***Marita Walsh (Secretary of the Committee):** Support Services Manager; member of Senior Management Team (SMT). Responsibilities include the oversight of personnel matters for all categories of staff in the department, and overseeing the dissemination of information about E&D and the implementation of initiatives/policies including Dignity@Work and leadership training.

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

Reflection: The Bronze submission highlighted problems that the Department embarked on addressing since 2012 through better communication (BA 3.1),[1] standing items on committee

[1] http://www.ch.cam.ac.uk/content/athena-swan-bronze-award

agendas (e.g. Faculty and SMT meetings, (BA 3.5)), leadership training programmes(BA 3.1 & 3.3), questionnaires and consideration of the data collected (BA 2.2), better engagement with the University E&D team, involvement in School initiatives, and recent involvement of the members of the Royal Society of Chemistry (RSC) E&D team through our hosting of the Joliot-Curie Conference in September 2015.

ASWP Meetings: The working party has met on a monthly basis since 2012 to:

(i) track progress on our action plan; (ii) establish the best way to collect the data (questionnaires and surveys); (iii) analyse the data in the context of the action plan and what new information might have emerged; (iv) consider future actions plans; and (v) identify what actions might be applied at the earliest opportunity to address any problems.

Effectiveness of Process: Members of the department have been asked to complete a number of questionnaires (both internal and external to the Department) - the return rates have been very good:

Athena SWAN postgraduate questionnaire: 37% (101 in total of which 57% female, 38% male, 5% prefer not to say)

Athena SWAN PDRA questionnaire: 54% (115 in total of which 37% female, 62% male, 1% prefer not to say)

Athena SWAN academic staff questionnaire: 89% (52 of academic staff, including Teaching Fellows and Research Fellows, of which 15% female, 72% male, 13% prefer not to say)

72% of postgraduates indicated that they were aware of AS and the Departmental policies relating to gender equality (up from 47% in 2012).

92% of our PDRA colleagues indicated that they were assessed on their merit, irrespective of their gender (compared to 88% in 2012)

The proportion of Academic staff 'disagreeing' that the Department has made its policies on gender equality clear dropped from 16% to 8%.

Implementation: Information collected has been considered as part of our broader objectives in the Department (leading to the preparation of the Silver submission) and used to develop more effective relationships with groups outside the Department (e.g. other departments both within Cambridge and with other universities, the University, industry and professional bodies like the RSC) in order to make a more significant and lasting impact on gender related issued in the sector(BA 1.1, 2.3 & 3.7).

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

The ASWP will continue to meet on a monthly basis for the foreseeable future to ensure that the Department:

- embeds recent initiatives in the structure of the Department (e.g. E&D training, gender awareness and unconscious bias in undergraduate teaching; graduate mentoring; career development and training for PDRAs; leadership training for academic staff), and gather evidence (e.g. through surveys and focus groups) to help inform improvements to the working environment in the Department (BA 3.1 & 3.8)
- evaluates the impact of progress against our action plan and improve communication with all constituencies through the appropriate committees (BA 3.5)
- tracks the career development of all members of department (e.g. though data collected and contact with alumni) with a specific focus on female students (BA 1) and staff (BA 2)
- ensures action plan progress is clearly reported at committee meetings within the Department (in particular Faculty and SMT), termly at the SoPS E&D Forum and annually to the University E&D Committee.

SA 4.6 Committee Structure will address membership of ASWP

3. A picture of the department: maximum 2000 words [2041]

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

Overview of the Department: The Department is one of the largest chemistry departments in the country and one of the largest departments in the University. In the 2014 Research Excellence Framework (REF), the department came first in the ranking with 57% of submitted staff rated 4* quality research.

Academic/Research Staff: We currently have 46 academic staff (13% female), including 12 Fellows of the Royal Society (FRS) compared to 8 in 2012; 12 academic and senior research fellows (16% female); 229 PDRAs (34% female), 23 professional staff (43% female), 112 assistant support staff (41% female).

As of October 2015 the Department will have three female Professors (two of whom are FRS, and one who was promoted to Professor from October 2015), one female Reader, two recently appointed female Lecturers (overall, two more female members of academic staff than in 2012) and two female Teaching Fellows on permanent contracts supported by the Department.

Teaching Staff: The Director of Teaching (DoT) oversees a team of 4 Teaching Fellows. One of these one leads a research group, one is also in charge of graduate education, and two also hold senior positions in Cambridge Colleges.

Postgraduate Students: The Department supports around 300 postgraduate students (42% female). The Director of Graduate Education (DoGE) and the HoGE coordinate graduate support, mentoring and education. Our graduate education programme now (BA 1.3), includes career development sessions and workshops[2] that are also available to the PDRA community.

Undergraduate Students: The Department hosts around 900 undergraduate students across 4 years of courses (37% Female). Despite a relatively low proportion of female academic and teaching staff, every effort is made to expose our students to female colleagues as a way of raising the aspiration of female students, so since 2012 female academics present lectures in each of the four years of the undergraduate course. Three female academics (two of whom have been awarded the University's Pilkington Prize for teaching excellence) present compulsory courses in the first and second year and so have high visibility.

[2] http://www.ch.cam.ac.uk/pgapp/academic-and-careers-lectures-and-workshops-2015-16

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

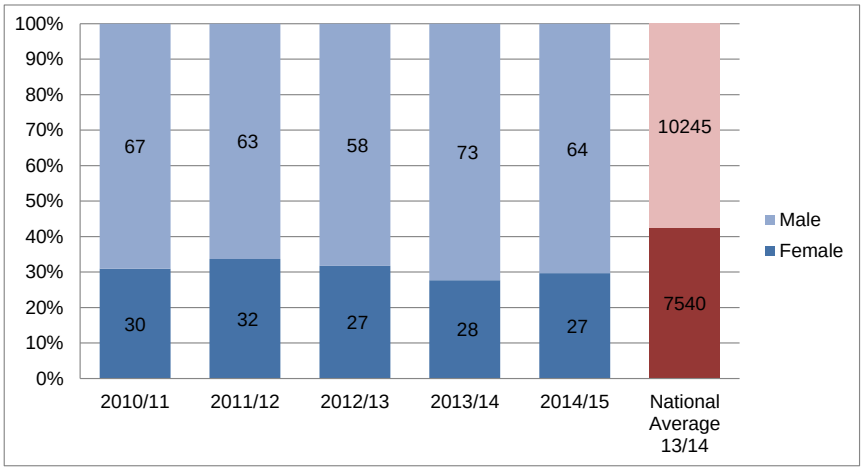
Student data

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

N/A

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

Cambridge does not directly admit students to chemistry courses,[3] but rather to Natural Sciences which covers a broad range of subjects in the first two years, after which students develop a degree of specialisation by the third and fourth years.



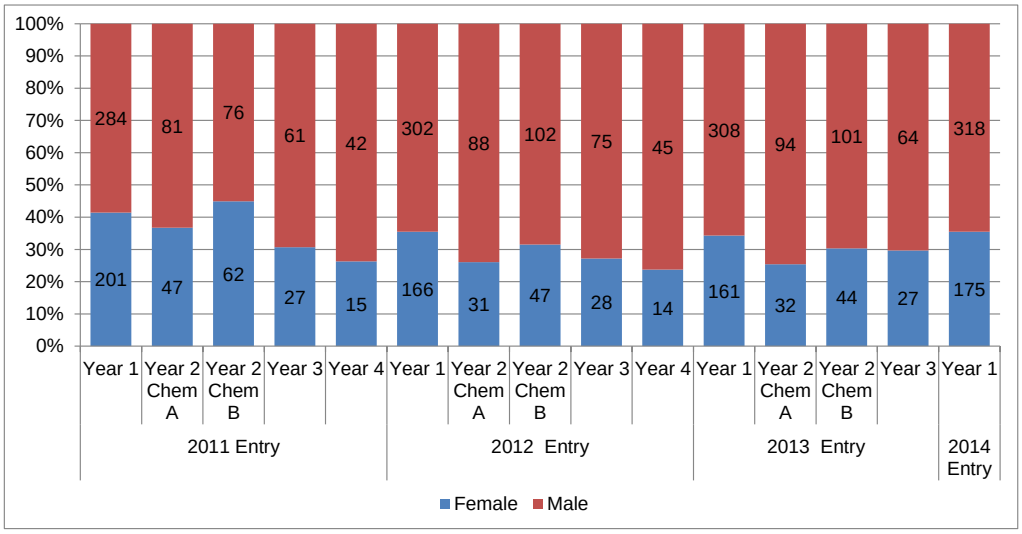
Graph 1 Third Year undergraduate numbers by gender 2010-2015: the Department has seen the proportion of female undergraduates *below* the national average for students studying chemistry by the third year, as we lose female students to other subjects in the Natural Science degree after the first year (about 40% in the first year since 2011).

The overall picture for full-time[4] final year chemistry students has not changed significantly since 2012 (Graph 1) and is below the national average. Despite actions to encourage more of them, particularly women, to specialise in chemistry after the first two years (BA 1.1 & 1.2), further work is required.

If we consider the progression of any cohort over the past four years (Graph 2), we find that the gender ratio is comparable for any year of the degree but the proportion of women drops across the four years as students specialise in Chemistry. In order to improve the gender balance, we need to recruit more effectively (which is under College control) and improve retention (for which the Department exercises greater control) by convincing women in the

[3] Unlike most other HEIs, the Department is not directly involved in the recruitment and admission of undergraduate students since they are admitted by the 31 autonomous undergraduate colleges.
[4] Cambridge does not offer part-time undergraduate courses.

first year that chemistry provides options (*via* Chem A and Chem B)[5] to continue to the higher years.



Graph 2 Undergraduate numbers by gender across the four years of the degree 2011-2014: cohort are tracked from their first year through to the fourth year, beginning with those undergraduates admitted in 2011. The data shows that female proportion drops from 35-45% in the first year to under 30% in the fourth year.

Note: The second year preferences for the 2014 undergraduates are not confirmed until December 2015, and therefore not captured above.

Gender balance of undergraduate students will be addressed by the following:

SA 1.1 Monitor undergraduate numbers and outcomes

SA 1.2 Encourage more female first year students to take Chemistry in the second year and beyond

The Departmental website will: continue to highlight the profile of our female colleagues (e.g. Women in Chemistry[6] (BA 3.6)); increasing presence through social networks (Twitter); improve undergraduate (and postgraduate) recruitment through more effective social interactions (like the popular 'pizza' events) and outreach activities (BA 1.1) (see Organisation and Culture section, b(v)). The Department is working with other science departments in the University through relevant education committees and through the recently constituted SoPS E&D Forum, and with the RSC.

The profile of female achievement in the Department will be addressed by the following:

SA 1.7 Outreach activity and engagement with College Admissions Tutors/Admissions Offices to encourage female students to choose chemistry in first year of Natural Sciences degree

SA 4.4 Communication within the Department

SA 4.5 Communication beyond the Department

[5] in the second year students can take Chem A (theoretical and physical chemistry options) and/or Chem B (organic, inorganic and biological chemistry options) in addition to other courses (three courses overall). The breakdown across the two chemistry options gives an indication of the intention of students' preferences when they specialise in the third year.

[6] http://www.ch.cam.ac.uk/page/women-chemistry

The lack of female lecturers of undergraduate courses (identified in the previous submission) has been addressed by ensuring that the lecture-load for courses amongst female academics (BA 1.1 & 1.3) is distributed across each of the four years of the degree, but most significantly in the compulsory courses in the first and second years (23% and 20% of the lecture hours respectively).

"it would be great if there were more female lecturers, but equally filling a quota shouldn't be the reason they get the job. Almost all of our female lecturers (so far, at least) have been totally awesome, and fab role models"
quote from female undergraduate

From 2013, 5 female lecturers presented 4 of the 20 specialised courses in Year 3, and 4 female lecturers presented 3 of the 17 courses in Year 4. All female academics leading research groups take final year project students, and from 2012 the option of specifically working with a female Principle Investigator (PI) is now offered to all final year students (BA 1.2) – none have asked to do so.

The number of female academics in the Department will be addressed by the following:
SA 1.3 Review undergraduate teaching to ensure no negative impact on the achievement of women
SA 1.4 Analysis of student course selection and development of guidelines for lecturers
SA 3.1 Increase the number of female academics

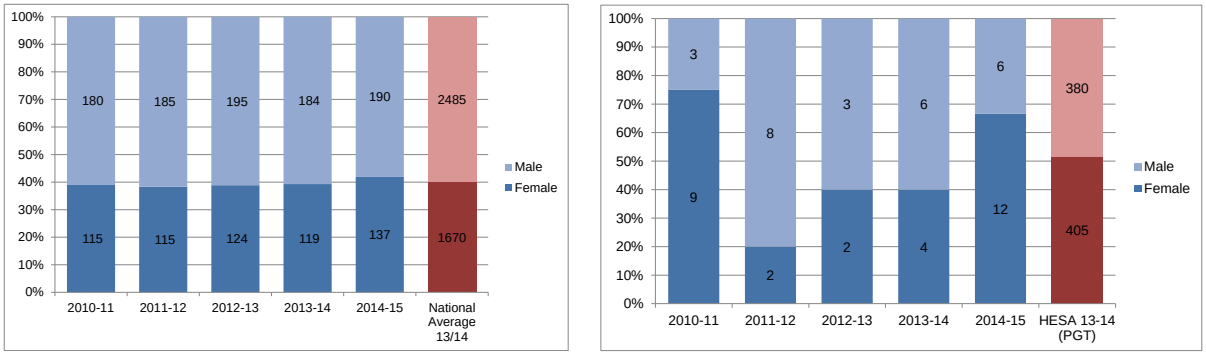
The DoT now presents a session at the start of the academic year (BA 1.3) for supervisors[7] as a way of disseminating good practice and addressing gender related issues in the teaching environment (for both supervisions and laboratory demonstrations). The Department runs undergraduate practical classes for which the junior demonstrators are recruited from the current postgraduate and PDRA communities. In the 2014-15 academic year, the proportion of female laboratory demonstrators was 64% in Year 1, 47% in Year 2 and 31% in Year 3 –this will depend on the turn-over of postgraduates and PDRAs, and will also be affected by the numbers undertaking supervisions. Among senior laboratory demonstrators, 20% are female in the organic/inorganic practical classes, but none in the physical/theoretical practical classes as there are so few females in those areas of research in the Department.

[7] The Cambridge course benefits from small group teaching (tutorials referred to in Cambridge as 'supervisions'), but as these sessions are organised by the Colleges, the Department exercises little control over the choice of supervisors.

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

N/A

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

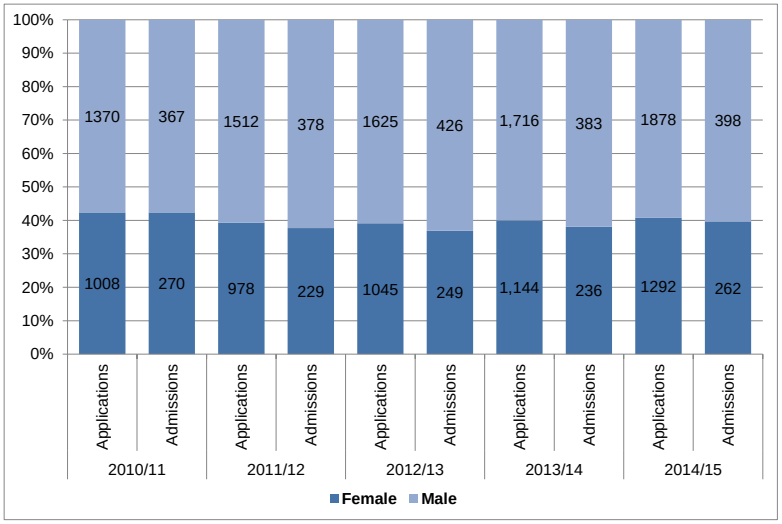


Graph 3 Postgraduate PhD (left) and MPhil (right) numbers by gender 2010-2015: the data shows the proportion of female in both categories increasing since 2012 as a result of the Bronze actions.

The proportion of female PhDs has been just under 40%, consistent with the national average – in 2014-15 this figure was above the national average for the first time. For MPhils (where the numbers are small) we see a similar increase. Through the undergraduate experience (see section above) we are starting to track the number of our own students continuing to graduate programmes in Cambridge or elsewhere – this data will better inform our success and strategy for keeping more females in the discipline. The Graduate Open Day (a new initiative coordinated by the Graduate Education Committee (GEC) that began in 2014 in response to BA 1.3) offers a relaxed and inclusive environment at which in 2014 40% of the participants were female. The AS actions are raised regularly at Faculty meetings to address unconscious bias when assessing female applicants.

The number of female postgraduates in the Department will be addressed by the following:
SA 2.1 Actively review postgraduate numbers
SA 2.3 Recruitment of postgraduates and PDRAs
SA 4.2 Promote career pipeline options for women

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



Graph 4 Undergraduate admissions to the Natural Science degree by gender 2010-2015: the Cambridge Colleges are admitting a smaller proportion of female undergraduates relative to the proportion of applicants. The average over five academic years is just under 40%, and it is from this baseline that the Department is competing to keep female students in chemistry beyond the first year.

Undergraduate –The data (Graph 4) indicates that offers to female students are slightly below the proportion of applicants (there is no directly comparable national benchmark for Natural Sciences which covers both biological and physical sciences). The Department will continue to contribute to policy development through the SoPS (e.g. the SoPS E&D Forum) and University.

The number of female postgraduates in the Department will be addressed by the following:
SA 1.7 Outreach activity and engagement with College Admissions Tutors/Admissions Offices to encourage female students to choose chemistry in first year of Natural Sciences degree
SA 4.10 Influencing policy development outside the Department

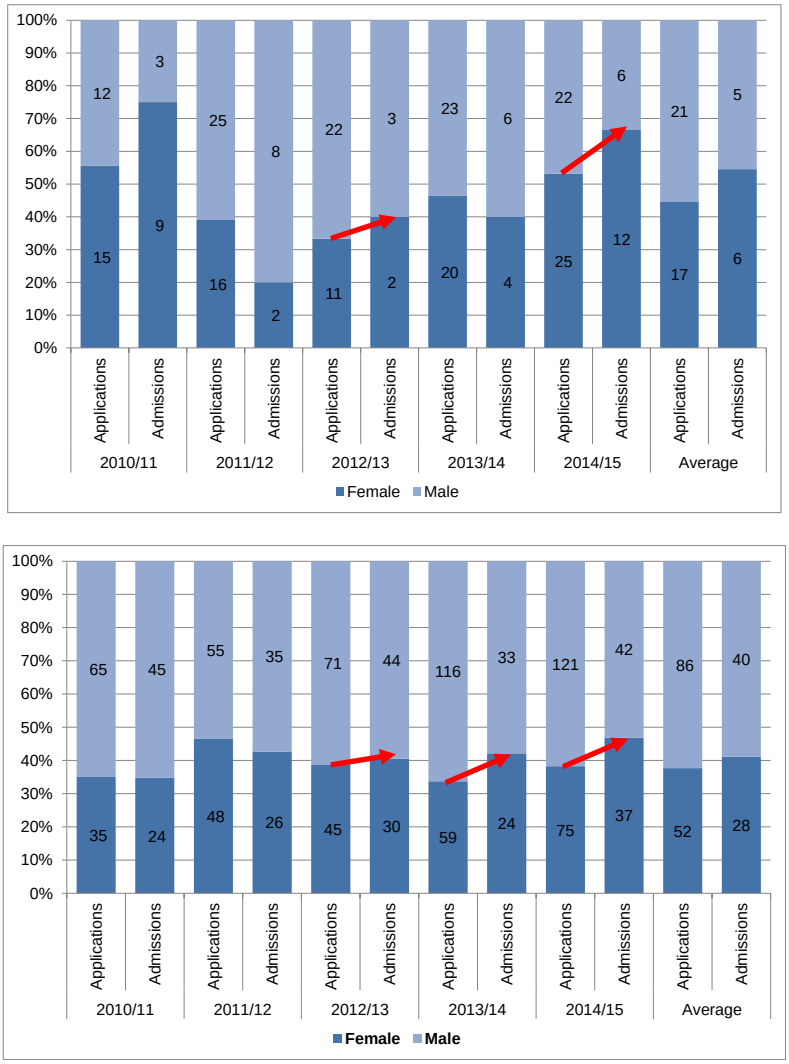
Postgraduate – applications for postgraduate places are processed through the University and are well-advertised by the University and the Department.[8] The majority of students are accepted by individual supervisors, but even if accepted by the Department, admission is dependent on external funding. To improve the recruitment and admissions process, since 2014 the Department has (for both PhD and MPhil applicants):

- invited potential applicants to a high profile Graduate Open Day[9] in October coordinated by the Head of Graduate Recruitment (HoGR) and HoGE, highlighting the diversity of the academic experience in the Department and including presentations from academics (including all the female PIs).

[8] http://www.ch.cam.ac.uk/pgapp
[9] http://www.ch.cam.ac.uk/pgapp/graduate-admissions-home

- interviewed all candidates (nominated by PIs) by two additional academics as a way of assessing the merits of applicants by a larger number of people.
- made it compulsory for all members of staff involved the recruitment and appointment process to complete the on-line E&D training module.

The impact of the AS Bronze actions over the past three years has resulted in the proportion of female postgraduates (MPhil and PhD) being admitted *increasing* relative to the proportion of applicants (Graph 5) – except for MPhils in 2013-14.

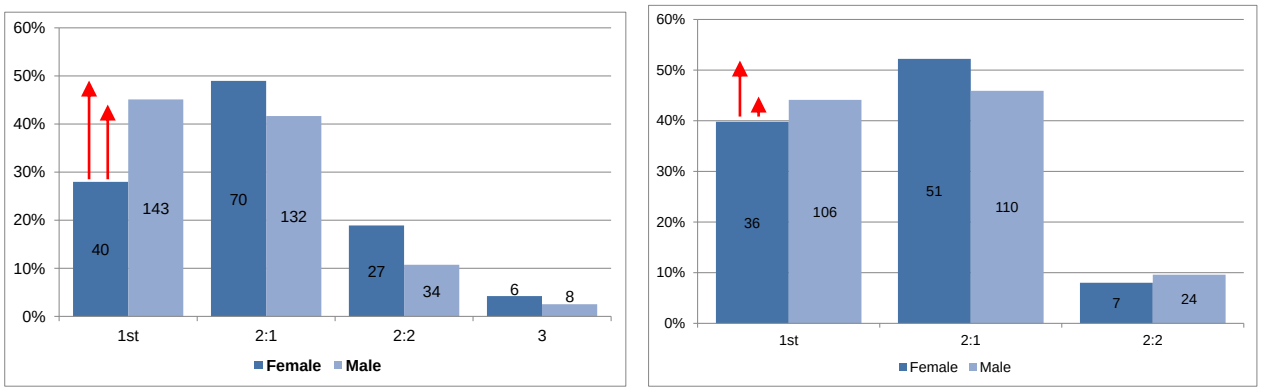


Graph 5 Postgraduate admissions to MPhils (top) and PhDs (bottom) by gender 2010-2015: the impact of the many actions addressing graduate admission (over which the Department has significant influence) since 2012 have resulted in an increase in the average proportion of female admissions relative to applicants since 2010.

The proportion of female postgraduate admissions will be addressed by the following:
SA 2.3 Recruitment of postgraduates (and PDRAs)
SA 2.9 Introduce women support groups

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

The data we consider (Graph 6) deals with the third and fourth years of the course during which students take exclusively chemistry options.[10] In the third year female candidates on average do better in achieving 2.1 results, while the males candidates do on average better in achieving a 1st (and better overall). In the fourth year the gender attainment gap *decreases significantly* for 1st as does the difference between 1st and 2.1 for female candidates.



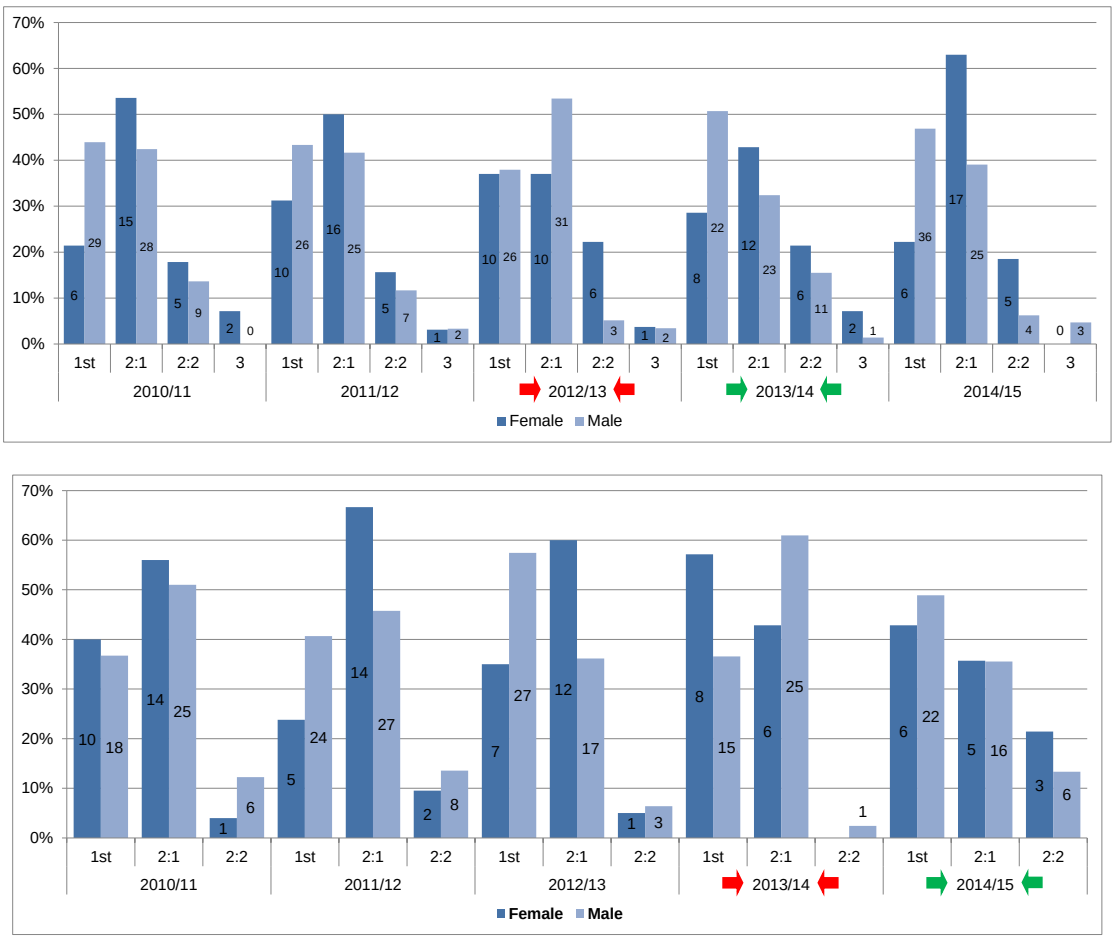
Graph 6 Average degree classification in third year (left) and fourth year (right) by gender 2010-2015: While male candidates do better than their female counterparts in being awards 1st in the third year, the attainment gap decreased significantly in the fourth year. In both years female candidates do better at 2.1s, and are more balanced at 2.2.

The attainment gap across the two years has not improved significantly since the previous submission (despite the actions outlined in BA 1), but the data collected (linked to survey results) is only now starting to provide a level of granularity that allow us to make meaningful conclusions about the impact of our actions.

A breakdown (by year) of the data helps track performance by gender in the third and fourth years of the degree (Graph 7) leading to the average picture (Graph 6). Since 2012 it is noteworthy that:

- the 2012-13 third year cohort (in which the attainment gap is negligible for 1st) becomes the 2013-14 fourth year cohort in which 57% of the female candidates achieved 1st.
- the 2013-14 third year cohort (which shows the expected distribution of degree classification) becomes the 2014-15 fourth cohort in which the gender gap for both 1st and 2.1 is small and in which there is a significant bias towards 1st amongst the female candidates.

[10] BA awarded for those graduating after the third year, and MSci for those graduating after the fourth year.



Graph 7 Degree classification for third (top) and fourth (bottom) year of degree by gender 2010-2015: A breakdown of results by year shows the expected distribution of results in which males candidates on average outperform female candidates, and a bias of female candidates towards 2.1. Tracking a cohort across the two years (e.g. 2012/13 in third year to 2013/14 in fourth year, and 2013/14 in third year to 2014/15 in fourth year) helps identify the impact of AS actions.

In the undergraduate survey, the prediction of grades was surprisingly similar to the actual average distribution of grades over the past five years, suggesting a larger proportion female candidates expect to achieve a 2.1 compare do their male colleagues – the aspiration of female undergraduates will need to be addressed in future work.

The T&OC will look into: (i) the style of the supervision questions,[11] and (ii) the style and wording of examination questions in order to understand if gender performance is influenced in any subtle way by these two factors. Furthermore, we will investigate performance at a level of detail which takes into account (as much as is practical) the performance by gender in papers across the scope of disciplines being taught (e.g. biological, synthetic organic, inorganic, theoretical physical etc.) to identify if course performance is influenced by teaching prior to students coming to university.

The gender profile of undergraduate examination results will be addressed by the following:
SA 1.6 Address examination performance by gender

[11] http://iopscience.iop.org/article/10.1088/0143-0807/36/4/045014/pdf

Staff data

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

The impact of our actions since 2012 has seen:

An increase in the number of research staff (PDRAs and other funded fellowships)

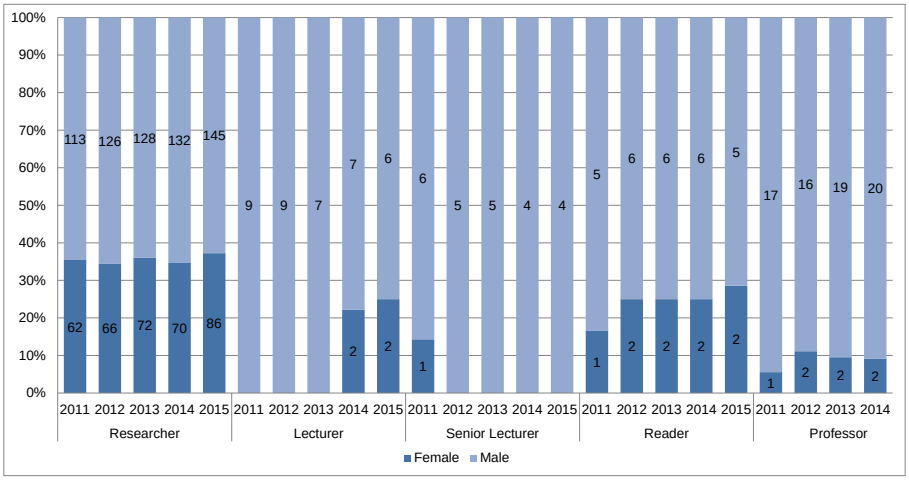
The appointment of two female lecturers (the last was appointed in 2000)

Increasing the number of female academics from 4 to 6 (50% increase)

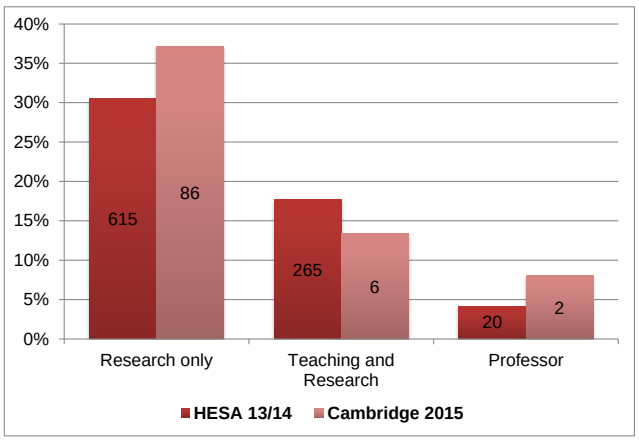
Researchers: Since 2012 the AS actions now provide career support opportunities (e.g. more supportive relationship with their PIs, mentoring, career development and CV development workshops) for all contract researchers leading to improvement (Graph 8 and 9) in the proportion of female staff (BA 2.4, 2.5, 3.2 & 3.6).

The ratio of female:male researchers (PDRAs) will be addressed by the following:
SA 2.4 Embed mentoring and support schemes
SA 2.6 Writing workshops for postgraduates and PDRAs

All committees dealing with the appointment of PDRAs are asked to (i) consider the gender balance of any long and short-lists (BA 2.4), and (ii) ensure that those involved in making appointments have completed the necessary E&D training modules (BA 2.1). Candidates considered suitable for fellowship applications are encouraged to apply for such positions either in Cambridge or in other departments that suit their career aspirations, and are supported accordingly (BA 2.4 & 2.5). The HoD reviews the recruitment and appointment process annually, and is empowered to block appointments if they are not made in line with the aspirations outlined above.



Graph 8 Academic 'pipeline' by category of staff in the Department 2011-2015: the Bronze actions have seen a small increase in the proportion of female 'Researchers' where the turnover and overall numbers (which are increasing) can give a better indication of impact on current and future generations. For 'Lecturer' to 'Professor' the numbers are relatively small, so the loss in a junior category is a gain at the promoted level which has improved since 2012. The data excludes the promotion of one female Reader to Professor with effect from October 2015.



Graph 9 Comparison of proportion of female academic and research staff against national benchmarks in 2015: seen against the national figures, the Department has done well at the 'research' and 'professor' categories, however less well in the career levels in between for which there has been low turnover and too few new appointments since 2012. The data excludes the promotion of one female Reader to Professor with effect from October 2015.

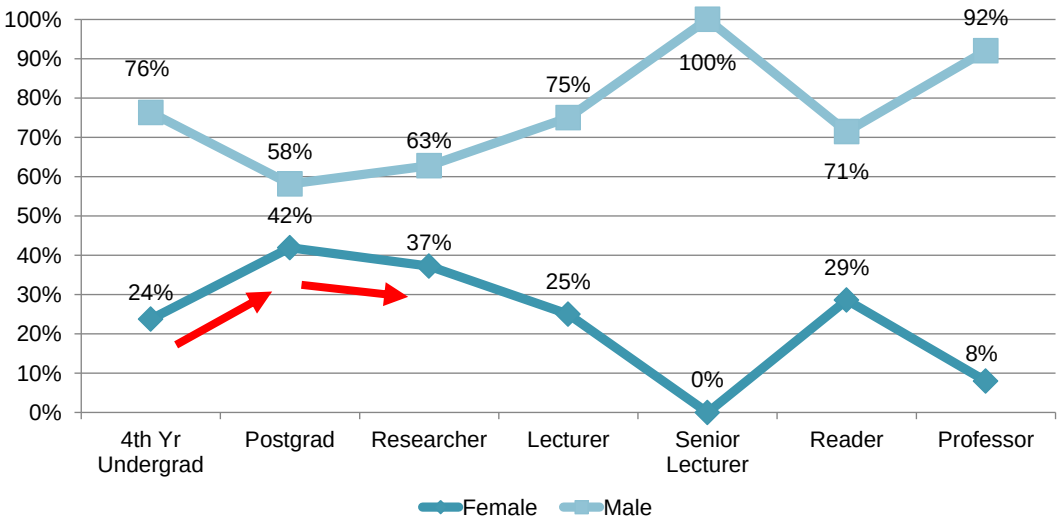
Academic Staff: The impact of the AS actions has seen the appointment of *two female lecturers in 2013* (BA 2.4), despite the low turnover of this category of staff.

The areas in which the greatest effort has been invested has been the recruitment of female staff at junior level (through the pro-active processes outlined elsewhere in the document (BA 2.3)), and supporting female researchers early in their careers to apply for research and charity funded fellowships (BA 2.4).

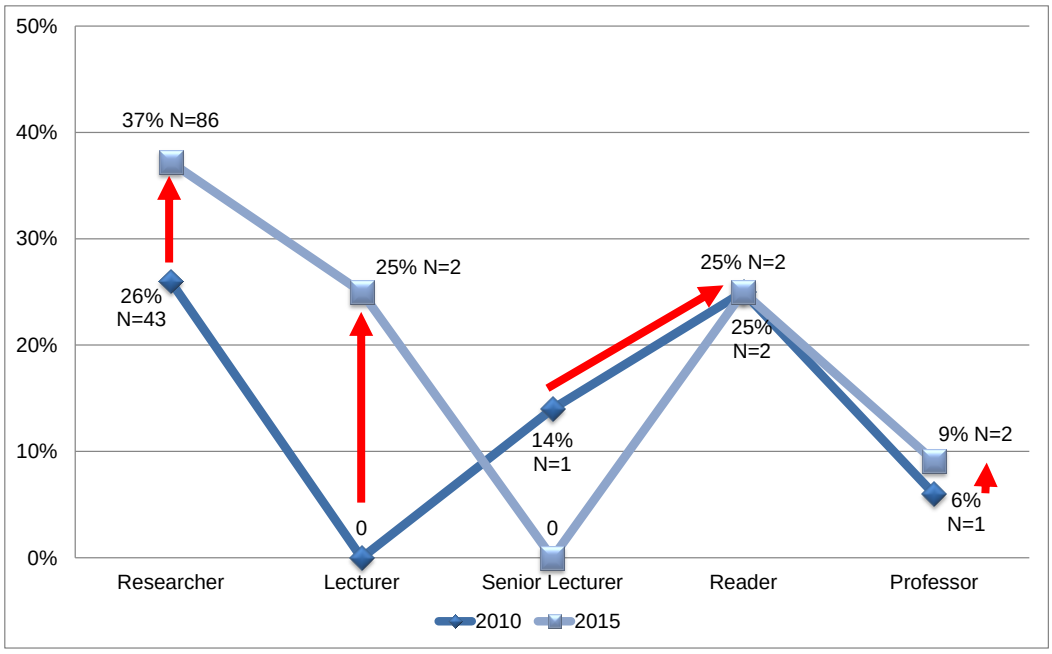
We see an increase in the proportion of female staff (2015) going from undergraduate to postgraduate, and then a drop to 'researcher' (Graph 10). From 'researcher' through to 'Professor' the variations are based on the relatively small numbers involved in each category. Compared to the national averages, we have done well in the proportion of female 'research only' and 'Professors', but are still lower in the proportion of 'teaching and research'.

The impact of the AS actions can be tracked by changes in the proportion of female staff in the Department over the past five years (Graph 11), during which we see a relative increase in 'researcher', 'Lecturer' and 'Professor' - the drop in 'Senior Lecturer' has resulted from promotion to 'Reader'.

Recruiting a team of senior 'Industry Mentors' will provide a critical mass of female mentors for female staff at all levels.



Graph 10 Proportion of gender across all career stages 2015: the data outlines the increase in the proportion of female chemists from undergraduate to postgraduate, but a steady decline in the proportions (when the numbers are also smaller) thereafter.



Graph 11 Change in proportion of female staff 2010-2015: the impact of the work leading to the Bronze Award has seen the proportion of female staff change: (i) *increase* in all categories of researchers, (ii) *increase* in newly appointed lecturers, (iii) decrease in the number of senior lecturers as they have *all been promoted*, (iv) Readers remain constant as promotions to professors balance the those promoted from senior lecturers, (v) *increase* in the number of professors. The data excludes the promotion of one female Reader to Professor with effect from October 2015.

The career trajectory of female academic will be addressed by the following:

SA 3.1 Increase the number of female academics

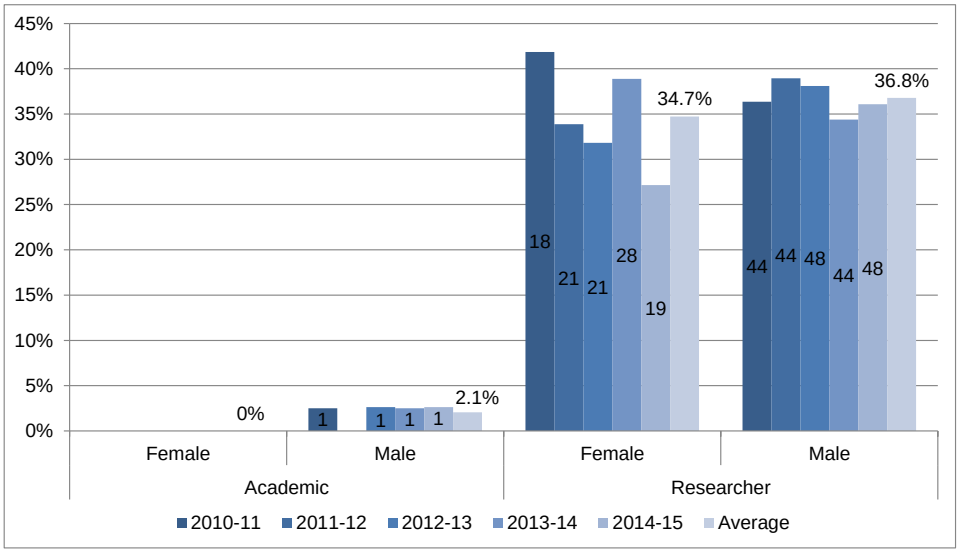
SA 3.2 Increase the number of women holding early-career fellowships

SA 4.2 Promote career pipeline options for women

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

Turnover of staff is consistent with contractual arrangements and retirements, and there is no evidence to suggest systemic problems which lead to a greater turnover in any particular category based on gender.

In the academic category (Graph 12) the changes by one or two a year derive from short term lectureships ending or (male) colleagues taking up positions in industry or other departments. Under the researcher category the data are consistent with turnover due to end of contract or securing permanent positions elsewhere.



Graph 12 Academic and research staff turnover 2009-2014: the data captures five years over which a clearer picture can emerge. This shows that there has been no loss of female academic staff, while the turnover of research staff shows no significant gender bias over this period.

Research staff who completed exit survey (42% completion rate):

16% gained an academic position elsewhere (Assistant Professor/PI)

31% went into industry

28% went to a postdoc position elsewhere

7% had no plans

end of contract reason for leaving the Department

4. Supporting and advancing women's careers: maximum 5000 words [5030 words]

Key career transition points

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

(i) **Job application and success rates by gender and grade** – comment on any differences in recruitment between men and women at any level and say what action is being taken to address this.

Academic staff recruitment: Prior to 2012 only 15 of 90 applicants for the previous four academic positions were female, and for the 2 professorial vacancies we failed to attract any female applicants.

The Department has adopted a more pro-active approach to the recruitment of academic staff (BA 2.1, 2.3 & 2.4) by seeking and encouraging suitable individuals to apply (especially female candidates), and agreeing to adopt the following wording in future advertisements to encourage a more diverse pool of applicants:

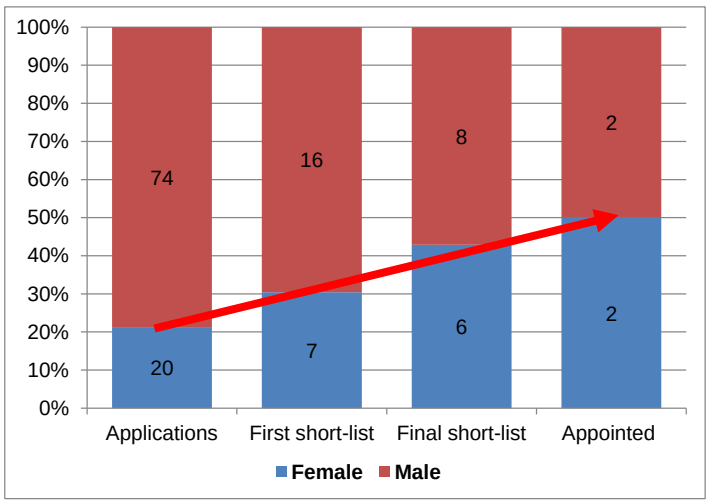
"The University of Cambridge values diversity and is committed to equality of opportunity. The Department would particularly welcome applications from women, since women are, and have historically been, underrepresented on our academic staff."

Since 2012 the department has advertised 4 lectureships (and 2 temporary lectureships, where both appointees were male), for which we attracted 94 applicants (21% female and 79% male) and appointed two females (50%) from a shortlist of 43% female and 57% male (Graph 13). This is a *significant improvement on previous years*, and resulted from (i) emphasis on addressing the problem at Faculty meetings since 2012 (BA 3.1); (ii) a more pro-active recruitment process (BA 2.1 & 2.4); (iii) the long-listing and short-listing meetings consider historical gender imbalance (BA 2.3), and (iv) committees were challenged not to appoint candidates in 'their own image' (BA 2.3). The changes in the recruitment process are now embedded, however we anticipate that there will only be a small number of academic positions becoming available in the foreseeable future.

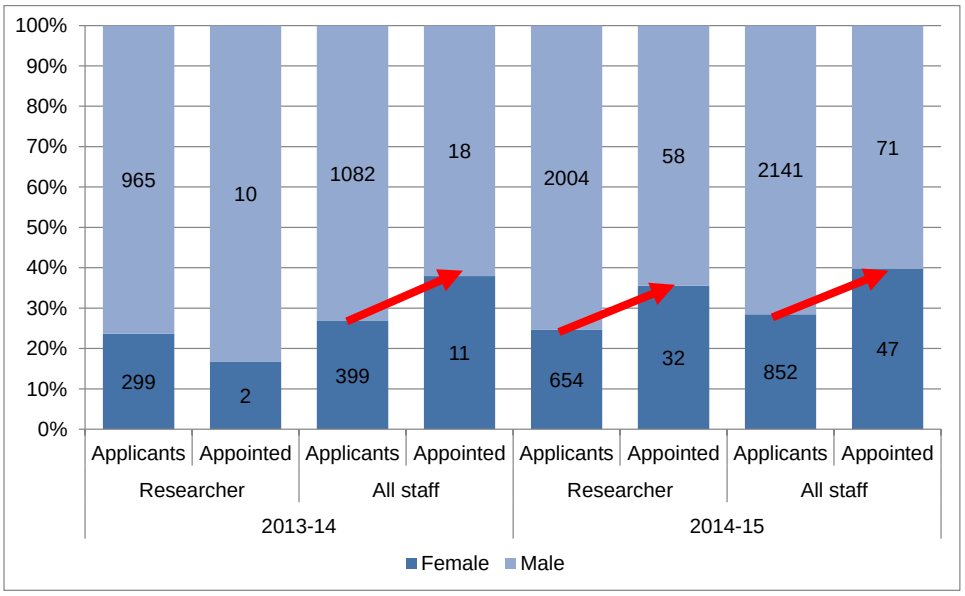
The recruitment profile of female academics will be addressed by the following:
SA 3.1 Increase the number of female academics
SA 3.2 Increase the number of women holding early-career fellowships

Research staff recruitment: Between 2013-2015 (Graph 14) the impact of the AS action outlined in this submission show *an increase in the proportion of female staff*, with *an accompanying overall increase in numbers*.

The recruitment profile of research staff (PDRAs) will be addressed by the following:
SA 2.3 Recruitment of (postgraduates and) PDRAs



Graph 13 Appointment to lectureships 2012-2015: the data shows a dramatic improvement in the number of female applications, short-listed candidates, and appointments compared to any period previous to this as a result of the AS action plan.

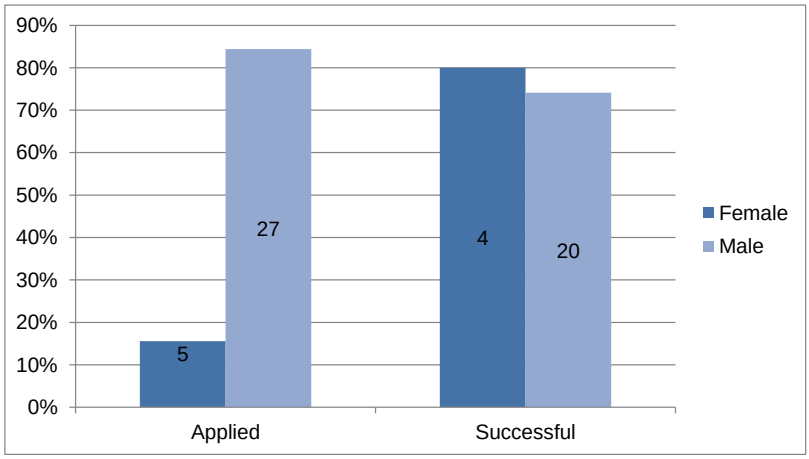


Graph 14 Recruitment data by gender 2013-2015: overall we see an increase in the proportion of female 'researchers' and 'all staff', with a slight decrease in the 'researcher' category in 2013-2014 when the numbers were also significantly lower than in the following year.

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

Women who apply for Senior Academic Promotions (SAP) have a higher success rate (Graph 15), but the small number of women amongst the academic staff limits how many can apply in any year depending on the stage in their career (Table 1). The HoD has taken a very active role in meeting with and advising all members of staff, and especially women, who are eligible for promotion (BA 2.5). The two most recently appointed women are involved in the

second cycle of leadership training (see 'induction and training' under Section 4) and will be supported to apply for promotion at the earliest opportunity.



Graph 15 Promotions by gender 2010-2015: the low number of female applicants is restricted by the number of female members of staff, however the data shows a higher success rate for those who apply.

Applicants for Senior Academic Promotions (SAP)					
		Female		Male	
Year	Office	Applied	Succeeded	Applied	Succeeded
2012	Professor	0	0	3	2
	Reader	0	0	2	2
	Senior Lecturer	0	0	0	0
2013	Professor	1	0	2	2
	Reader	0	0	3	2
	Senior Lecturer	0	0	0	0
2014	Professor	0	0	2	2
	Reader	0	0	2	1
	Senior Lecturer	0	0	0	0
2015	Professor	1	1	2	2
	Reader	0	0	2	1
	Senior Lecturer	0	0	0	0

Table 1 Applicants for SAPs by gender 2012-2015: the data above shows the breakdown since 2012 for all categories of promotion.

The application and promotion success rates by gender will be addressed by the following:
SA 3.4 Encourage promotion opportunities for female academics

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

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

The impact of the AS actions relating to recruitment and appointment of staff are demonstrated in 3a(vii), 4a(i) and (ii). The key development since 2012 is that *all* members of the Department involved in recruiting and appointing staff have now complete the E&D training module. The Department will shortly embark on *unconscious bias* training being developed by the University (but we will explore running our own work-shops in the meantime), and the gender balance of the recruitment process will continue to be raised and monitored by the HoD at Faculty and committee meetings.

The recruitment of female staff will be addressed by the following:
SA 2.3 Recruitment of (postgraduates and) PDRAs
SA 3.1 Increase the number of female academics
SA 3.2 Increase the number of women holding early-career fellowships
SA 3.3 Tackle unconscious (and conscious) bias

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

Graphs 10 and 11 reveal that the key career attrition points for women are as follows:

Postgraduate to PDRA: As a result of AS actions, postgraduate students are aware of: (i) the appointment of a mentor at the start of their studies and how to make best use of the mentoring scheme (BA 3.2); (ii) female academics invited to give formal research seminars and named lectures as a way of raising aspirations (BA 3.6); (iii) pro-active career advice to all graduates through the graduate education programme (BA 2.5)

Support of PDRAs at key transition points will be addressed by the following:
SA 2.4 Embed mentoring and support schemes
SA 2.8 Exit surveys for postgraduates and PDRAs
SA 2.9 Introduce women support groups
SA 3.5 Mentoring and Staff Review & Development (SR&D)

PDRA to academic: The Department has since 2013 ((BA 2.4) through a committee that screens applicants based on research excellence) encouraged a larger number of female applicants (Table 2) to apply for competitive research fellowships (e.g. Royal Society URFs, and other research council and charity funded fellowships) – prior to 2013 anyone wishing to apply for such fellowships was permitted to do so. The *increase in the proportion of female*

applicants put forward for these competitive fellowships and the high success rate are both significant improvement on the previous six years (Table 3).

		Royal Society URF		Royal Society Dorothy Hodgkin RF[1]		EPSRC Fellowship		BBSRC Fellowship		NERC Fellowship		Wellcome Trust Fellowship	
		Applications	Successful	Applications	Successful	Applications	Successful	Applications	Successful	Applications	Successful	Applications	Successful
2012	Male	4	1	0	0	2	0	1	0	0	0	0	0
	Female	0	0	1	0	0	0	0	0	0	0	2	0
2013	Male	2	1	0	0	1	0	0	0	1	0	0	0
	Female	0	0	1	1	0	0	0	0	0	0	1	0
2014	Male	0	0	0	0	0	0	0	0	0	0	0	0
	Female	1	0	1	1	0	0	1	0	1	1	1	0
2015[2]	Male	1		0		0		1		0			
	Female	1		2		1		0		1			
Total (2012-2015)	Male	7 (77%)	2	0	0	3 (75%)	0	2 (66%)	0	1 (33%)	0	0	0
	Female	2 (33%)	0	5 (100%)	2	1 (25%)	0	1 (33%)	0	2 (66%)	1	4 (100%)	0

1 Dorothy Hodgkin Fellowships are specifically for those requiring a significant degree of flexible working (e.g. for childcare, c
2 outcomes for 2015 applicants will not be known until 2016

Table 2 Applications for Fellowships by gender 2012-2015: the number of applicants and success rate is outlined in the data since 2012, during which the Department has supported a larger proportion of female applicants resulting in a higher success rate.

		2006-2012	2013-2015
Applicants	Male	60 (67.4%)	13 (45.4%)
	Female	20 (*32.6%*)	15 (*53.5%*)
Successful	Male	10 (17.7%)	2 (6.9 %)
	Female	2 (*6.9%*)	3 (*20%*)

Table 3 Applications for Fellowships by gender for 2006-2012 vs 20013-2015: the impact of our recent actions has resulted in a process since 2012 by which the Department screens those candidates it supports for fellowship application based on research excellence. The result has been a significant increase in the proportion of female applicants and success rate.

Support of academic staff at key transition points will be addressed by the following:

SA 3.1 Increase the number of female academics
SA 3.2 Increase the number of women holding early-career fellowships
SA 3.5 Mentoring and Staff Review & Development (SR&D)
SA 3.6 Leadership training (including university programmes)

Career development

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

(i) **Promotion and career development** – comment on the appraisal and career development process, and promotion criteria and whether these take into consideration responsibilities for teaching, research, administration, pastoral work and outreach work; is quality of work emphasised over quantity of work?

The Department encourages promotion of academic staff (BA 2.5) at the earliest opportunity (and for which the success rate is high), but we have failed to embed Staff Review and Development (SR&D, BA 3.1) as part of ongoing career progression, despite efforts to do this at regular intervals. In the academic staff survey, this is one of the few categories of questions for which the results have not improved since the 2012 survey. Across the University, SR&D is poorly embedded.

35% of staff agree that the Department values the full range of skills and experience, including pastoral work, teaching, administration and outreach work, compared to 22% in 2012 (28% disagree compared to 42% in 2012), however the breadth of comments underlies a frustration with the balance of commitments that lead to promotion. While some argue that they *"don't know how criteria are assessed for promotion"*, others state that *"promotion is not up to the Department"* and that while *"research is still the key element of promotion, the Department certainly seems to look at the other contributions"*.

There has also been no identifiable improvement in the perception that there is a system in place which provides mentoring for academics. Comments from female academics indicate a *"total absence of any mentoring support"*, while male respondents suggest that they tend to *"find someone to help them"*. Amongst the academic staff, there is a view that *"the Department does a good job with the graduate students and post-docs in this area"* suggesting there is still work to do here.

Since the Bronze submission, the key actions that have led to an inclusive and supportive culture include: (i) compulsory E&D training for academic staff (BA 2.1); (ii) in-house leadership training (BA 3.3) that addresses the 'culture' problems raised in the last submission; and (iii) more pro-active engagement with academic staff to support them at key points in their careers (BA 2.5).

The Department will instigate a much more rigorous and 'top-down' approach for coordinating SR&D learning from the experience of other Cambridge Departments.

Career and promotion development of academic staff will be addressed by the following:
SA 3.4 Encourage promotion opportunities for female academics
SA 3.5 Mentoring and Staff Review & Development (SR&D)
SA 4.1 Promote good citizenship and an inclusive environment

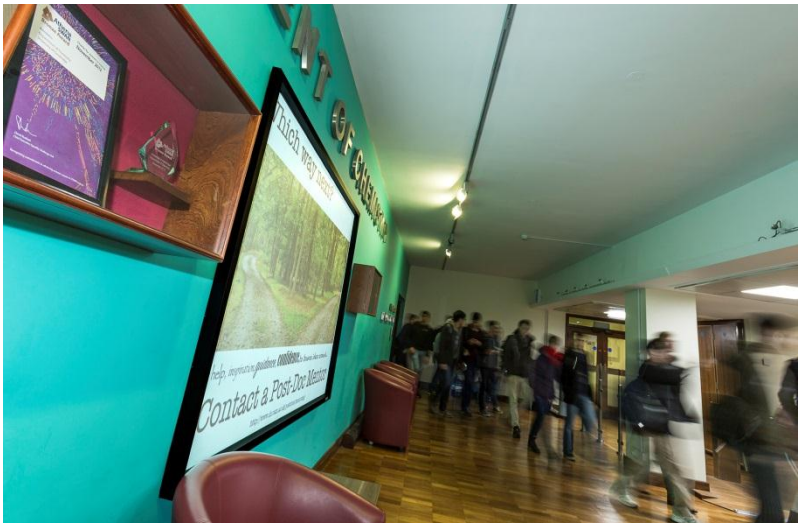
For research staff more generally the picture is better. SR&D activities are coordinated through the HR function in the Department, with 43% of our PDRAs 'agreeing' that the Departmental SR&D process is effective towards career development, with 42% 'neither agreeing nor disagreeing'. Prior to 2013 there was no formal process in place, but since then

the completion rate in any calendar year has been 63% (2013), 76% (2014), 74% (as of September 2015) – there is no gender bias in the breakdown.

Amongst our postgraduates, 68% indicated they felt supported in career development by the Department (this translated to 72% of female and 68% of male respondents in 2015 compared to 55% and 44% respectively in 2012)

It is our view that the greatest impact and improvement in the postgraduate and PDRA experience regarding career development and promotion is based on our Graduate Education programme which is available to both constituencies. Through this we are providing a constructive environment in which our postgraduates can look for career opportunities with greater confidence (BA 2.4). We are grateful for the ongoing support of PDAC (established in 2012 to work closely with the ASWP and senior management team) and GEC with whom the ASWP (through the PDRA members) have worked closely on SR&D, the mentoring scheme, social activities, and the Departmental website.

Career and promotion development of PDRAs will be addressed by the following:
SA 2.7 Career progression support
SA 2.8 Exit surveys for (postgraduates and) PDRAs



The mentoring scheme for PDRAs is widely advertised in the Department, including in the entrance foyer (above) where presentation slides also highlight other Athena SWAN activities.

Research staff who completed exit survey (42% completion rate):

76% had received an induction
96% received sufficient support from PI for their role
92% felt they were given learning opportunities
87% felt their work environment was open communicative and informative
89% felt they were always treated professionally with dignity and respect
88% would recommend the department as a good place to work

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

The Induction and Training structures were outlined in our Bronze submission (details outlined in attached Bronze Action Report), and at that time included good practices at the departmental and broader institutional level which helped us better understand the needs of our diverse staff community. Academic Staff have benefited from a comprehensive induction programme arranged by the University, but also have access to the Departmental schemes. Listed below are the actions arising specifically from the AS work since 2012, and which will inform future work for *all* categories of staff in the Department.

Induction and Training will be addressed by the following:
SA 1.5 E&D training for all (small group) supervisors and laboratory demonstrators
SA 2.10 Induction and welcome sessions
SA 2.11 E&D training
SA 3.3 Tackle unconscious (and conscious) bias

Induction
The Department offers and monitors (*via* meetings, surveys, and exit interviews) the following:

- Induction program by the PI/Supervisor/Line manager (or nominated other) for new staff to be presented with the updated Group Protocols and Staff Handbook; the Group Expectations document; and all necessary Safety and regulatory information.
- A Departmental Welcome Induction Meeting takes place in the first month of employment and includes:
  - introduction to the University and the Department from the Welfare, Training and Development Advisor to foster a supportive and inclusive working environment, and inform new staff of the members of the Department they can consult if needed (e.g. HoD, DHoD, Academic Secretary, SSM).
  - completion of the online E&D Training module (30% in August 2015)
  - introduction to Dignity@Work policy (100% since 2013).
  - awareness of the family friendly policies (monthly Families@Chemistry bulletin, http://www.ch.cam.ac.uk/content/athena-swan-bronze-award) including maternity, paternity, returning carers and flexible working (see sections later in this submission).
  - support available from the University's Occupational Health & Counselling services and the Disability Resource Centre (University E&D Disability Champion is a member of the Department).
  - Updated Mentoring schemes, SR&D, and PDRA forums.
  - opportunities to join working-groups and committees (of particular value to the AS work has been the dedicated membership of PDAC).
  - Customised induction event for new PDRAs led by the Welfare, Training and Development Advisor, DHoD and Career Advisors from the University's Careers Service.
  - Inclusion of PDRAs in the Graduate Education programme.

Training

At probation meetings, individual training needs are identified and supported by the Department All members of staff are encouraged to complete the online E&D Training module (100% completion rate amongst PIs by August 2015 compared to 33% in August 2014, and 30% of all staff in the Department compared to 21% in August 2014) (BA 2.1). All staff will in future be asked to complete the Training module, seeking >50% completion rate for PDRAs by Dec 2016, and above 50% for all staff by 2017.

The Department has since 2013 run a successful and popular Leadership Training Programme (£16K for four half-day sessions over an academic year, approx. £2330 per participant) through an outside provider to ensure that we invoke fresh thinking into our leadership development for academic staff (BA 3.3), and to deal with some of the issues about leadership that were raised as part of research leading to our Bronze submission. So far 14 academic members of staff have taken part over two years (33% female) and the impact is evident in the high satisfaction rate (*all* rated the programme highly and beneficial to their career development), and number of request to participate in subsequent years. The expectation is that within four years all members of staff appointed within the past ten years (and all more senior staff with leadership roles) will have been given the opportunity to take part in the programme

The 100% completion rate amongst academic staff in the Department of the SoPS Staff Survey helps both the Department and School to understand better those areas of E&D and gender policy that need more attention and the best actions to remedy identified problems.

Leadership Training programme will be addressed by the following:
SA 3.6 Leadership training (including university programmes)

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

Formal support of undergraduate students is provided by the colleges through Tutors and Directors of Studies, many of whom are members of the Department and therefore exposed to the AS actions and initiatives.

Mentoring: Mentors for postgraduate students (for which the Department has greater influence) are allocated upon arrival (BA 3.2), and there is excellent support from the University Careers Service, who not only offer advice on research based careers, but provide guidance and advice on any career. 49% of post-graduates indicate an awareness of mentoring in the Department. Despite efforts to properly embed and advertise such schemes, many still feel that "*the Department might provide some support, but it is not*

"I think that the Department provides most of those things if a student wants them. I've never really used any of those support networks though"

"I have used all other sources of help, which are very good".

very well advertised". We will improve communication through the regular induction meetings, and the appointment of a web development programmer to transform the structure and content on our website.

The Bronze submission provided evidence that female (and male) students felt under-supported by their research supervisors during their graduate studies. The increased profile of the AS actions at staff and committee meetings (BA 2.1), together with leadership training and Group Expectation documents (BA 3.3), has resulted in a change in the culture of the department and a sense of support of graduates in their career aspirations (as outlined in previous section).

Support for female postgraduates will be addressed by the following:
SA 2.4 Embed mentoring and support schemes
SA 2.9 Introduce women support groups

The Group Expectation Documents: These documents provide greater clarity on the research expectations within groups and are agreed after consultation with members of the individual research groups. *All* research groups have adopted and submitted their documents for the start of academic year 2015. The need for such documents was evident after the Bronze submission, and will be review by the HoD on an annual basis. The impact can be measured by those who report that the preparation of the document *"provided an opportunity for my research group to spend a considerable amount of time scrutinising all aspects of our working environment, and we are working better for it"*.

Group Expectations Document will be embedded by the following:
SA 4.1 Promote good citizenship and an inclusive environment

Profile of Women: In addition to profiles and careful use of images on our website, the Departmental magazine (Chem@Cam) has highlights the work of the ASWP (our Silver submission will be profiled in the forthcoming issue) and the achievements of our female colleagues. We aim for one third of the covers to show images of female colleagues (Figure 1) - the remainder have shown male members of the department or images of equipment/events.

Prof Carol Robinson (former member of department) gave the WiSETI lecture in 2012 and a lecture in 2015 as part of the Churchill Series hosted by Dame Athene Donald.

'Heroes and Mentors' feature article in Chem@Cam by Prof Jeremy Sanders and Prof Jane Clarke.

Contribution by Prof Jane Clarke to the 'Meaning of Success' publication celebrating the achievement of women in Cambridge.

Figure 1 Covers of Chem@Cam: this in-house publication is sent to alumni and friends of the Department twice a year (since 1998), and helps highlight the achievement of women in chemistry.

Visiting Speakers: The ASWP asked the 2015 Lord Lewis lecturer, Prof Joanna Aizenberg (University of Harvard) to present a (non-research) lecture to over 100 postgraduate and PDRA researchers giving an overview of her early careers, obstacles and challenges of work-life balance. The feed-back from female postgraduates and PDRAs was most encouraging, suggesting that the session *"put things in perspective"* and *"made me think that a career as a scientist is feasible and desirable and possibly worth working for in a way that previously I didn't"*. Comments from female members of the audience suggest that this initiative has had an even greater impact than had been expected, so we will continue with such presentations in the future and consider the viability of also advertising these to undergraduates.

"my take home message was that it's good to pick up as many techniques and skills along your PhD and postdocs as possible. My project is quite interdisciplinary and I was worried I was going to graduate 'a jack of all trades, but a master of none', but as she stressed the importance of trying new things I was less worried afterwards."

"we need to define our career plans as early as possible and talk to people who followed similar career paths in order to find the optimum ways to achieve our goals."

"I felt encouraged to broaden my horizons beyond the PhD and that it doesn't tie me to a particular subfield, that actually it may be advantageous to learn a new set of skills which help when forming a research group at a later stage. I also got the impression that mobility is important, but that it doesn't preclude a family life - just makes compromise important."

"it was great to see Professor Joanna Aizenberg supporting this idea of well-being at work! For sure, it improved my confidence and helped me believe that we can build a better environment for all of us to work with equal conditions, regardless of our personal differences, choices and conditions."

The profile and career progression of women in the Department will be addressed by the following:
SA 2.7 Career progression support
SA 4.4 Communication within the Department
SA 4.5 Communication beyond the Department

Organisation and culture

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

(i) **Male and female representation on committees** – provide a breakdown by committee and explain any differences between male and female representation. Explain how potential members are identified.

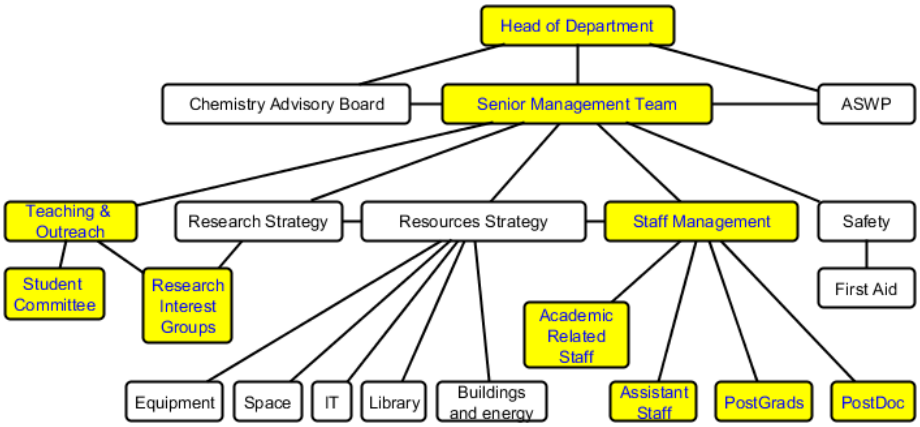


Figure 2 Departmental organisational chart: those committees that have the Athena SWAN remit as part of their business are highlighted (in yellow) and are joined by members who also serve the ASWP.

The Department committee structure includes staff and students (Figure 2) and ensures that five of the six senior committees (SMT, T&OC, Research Strategy, Resources Strategy, and Staff Management, Table 4) have *at least* one female academic representative (BA 3.5).

Committee		2012-13	2013-14	2014-15
Senior Management Team (SMT)	M	9 (75%)	9 (75%)	9(75%)
	F	3 (25%)	3 (25%)	3(25%)
Teaching & Outreach (T&OC)	M	11 (82%)	12 (86%)	11 (79%)
	F	2 (18%)	2 (14%)	3 (21%)
Research Strategy	M	9 (75%)	9 (75%)	9 (75%)
	F	3 (25%)	3 (25%)	3 (25%)
Resources Strategy	M	9 (69%)	9 (69%)	9 (64%)
	F	4 (31%)	4 (31%)	5 (36%)
Staff Management (SMC)	M	7 (64%)	8 (73%)	8 (73%)
	F	4 (36%)	3 (27%)	3 (27%)

Table 4 Gender representation on five key committees: The HoD oversees committee representation, in consultation with the Chairs, to maintain a diverse and inclusive membership.

Great care is taken not to overburden female colleagues with administrative duties and to recruit them to committees that will benefit from their participation, and which in turn helps with their career development and promotion opportunities. In those committees in which female representation is lower than would be preferred, the Department ensures that male colleagues who sit on the ASWP, or are involved in gender-aware activities, are members. The relatively larger number of female key support staff ensures female representation on all the

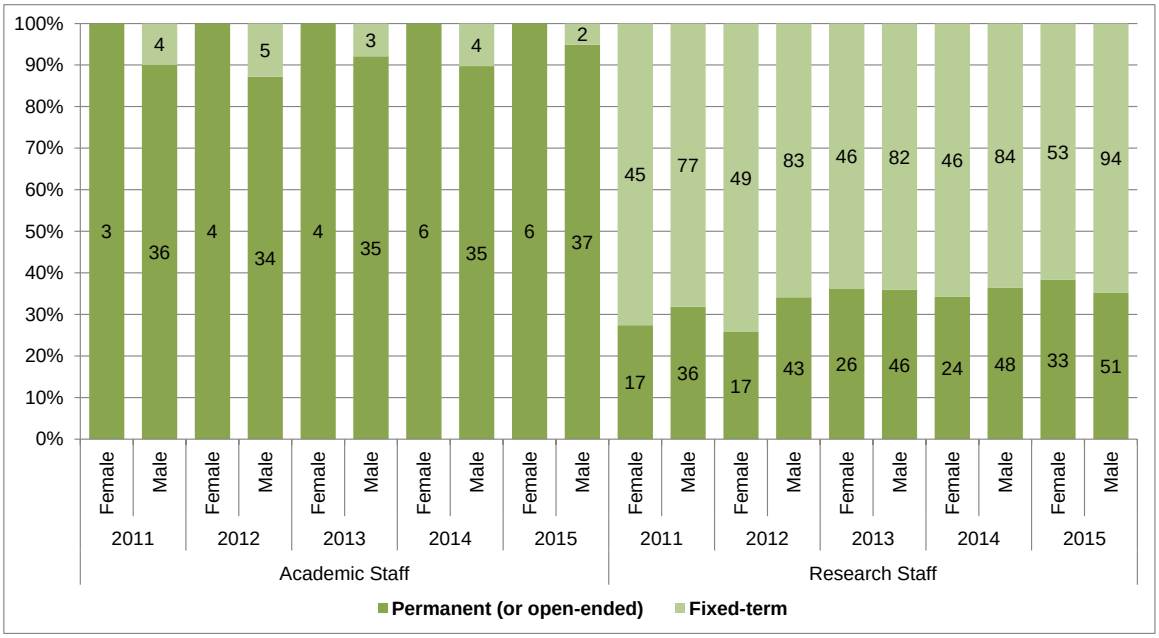
committees in the Department. In the academic year 2015-16, the Department will be looking at the efficiency of the committee structure and making changes accordingly.

University committees (e.g. the Faculty Board/Degree Committee, Appointments Committees for academic staff, and Boards of Electors for Professors) generally enforce a gender balance policy of at least one, and preferably two female members.

Gender representation in Departmental committees will be addressed by the following:
SA 4.6 Committee structure

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

Research contract appointments (fixed-term and open-ended) are subject to securing suitable funding, the lifetime of a grant, and the area of specialisation outlined in the grant. On the whole, the proportions shown in Graph 16 (where the numbers are large enough to be statistically relevant) show no evidence of identifiable gender bias (positive or negative) (BA 2.2).



Graph 16 Permanent vs fixed term academic and research staff by gender: the numbers for academic staff does not change significantly from year-to-year, but for research staff there has been a steady increase in proportion (and number) of permanent staff both males and females.

Amongst academic staff the numbers have not changed significantly in recent years due to the limited number of new appointments. We now have 6 female members of staff appointed to established academic posts. Of those on academic (teaching) posts, 2 are female (50%). Fixed term contracts (recently all male) are 'buy-outs' for permanent staff holding major grants.

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

(i) **Representation on decision-making committees** – comment on evidence of gender equality in the mechanism for selecting representatives. What evidence is there that women are encouraged to sit on a range of influential committees inside and outside the department? How is the issue of 'committee overload' addressed where there are small numbers of female staff?

The Department endeavours to benefit from an inclusive management structure and clear channels of communication (BA 3.1 & 3.5). All staff have an opportunity to be involved in management roles, and the Leadership Training programme aims to better equip members of academic staff for such roles. There is a requirement for female members of the Department to be involved in Appointment Committees, but for all other committees we are careful to deploy the experience of female colleagues on committees in such a way that it does not overburden them and have a negative effect on their research and personal time. Chairs of key committees (overseen by the HoD) identify female members from the academic, PDRA, and postgraduate communities, and where appropriate from the research and assistant staff.

Representation on decision-making committees in Departmental be addressed by the following:
SA 4.6 Committee structure

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

Academic Staff: the Department has started collecting data over the past two years, overseen by the HoD and DHoD, in order to develop a workload model (BA 3.1) in which duties and responsibilities beyond research will be taken into account and used to support and guide academic staff applying for promotion, and also inform the SR&D meetings. The DoT tracks this information (together with the HoD) to ensure a good spread of department organised teaching amongst the academic staff. Terms of service on committees are typically 3-5 years in order to provide the flexibility to better serve the gender balance, without overburdening individuals. A 'work-load algorithm' is being developed to balance various commitments and identify how to make best use of our female colleagues in the appropriate, high-profile committees. There is no evidence of significant differences in workloads between male and female staff, however this is one area in which the Department needs to make more progress in the next three years.

Based on survey results, 63% of academic staff (compared to 59% in 2012) have indicated that they 'agree' (48%) or 'neither agree nor disagree' (15%) that the teaching and examining workload is allocated on a clear and fair basis while 36% 'disagree' (compared to 41% in 2012) – there is no clear imbalance according to gender. Comments from female academics suggest that the allocation *"is generally fair but how the allocation occurs is sometimes not clear"* or *"it seems like a free for all"*. Male responses refer to *"an extremely haphazard system which*

at best manages to function without major mishaps through overburdening staff" and *"there is greater transparency and structure than say, five years ago"* but *"the process has many strengths and some mysterious aspects"*.

Significantly, 77% of academic staff (compared to 57% in 2012) 'agree' (34%) or 'neither agree nor disagree' (43%) that the non-teaching duties are allocated on a clear and fair basis, with 23% disagreeing (compared to 43% in 2012). The Faculty meetings have highlighted the work of the ASWP, including the contributions of our female academics, and helped address gender imbalances and our broader outreach activities.

It is important in the next phase of our work that we put in place a clear and universally adopted process for assessing the overall workload, including the requirement to share the duties if they fall disproportionately on a small number of colleagues.

Research Staff: the Department does not interfere in the work-load allocation of PDRA and other contract research staff, as this is dependent on the nature of research and size of the group they work in. The Department does however oversee what is formally requested by PIs from their teams through the Group Expectations Document (BA 3.3). Furthermore, the actions and feed-back arising from the Bronze submission have highlighted problems (perceived and identifiable) that have been discussed at Faculty meetings and (more importantly) at individual group meetings at which the Group Expectations were considered and the resulting document adopted.

The aspiration of developing a 'work-load' model will be addressed by the following:
SA 4.1 Promote good citizenship and an inclusive environment

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

Departmental committee meetings are now held between 10am-4pm, while research group meetings, seminars and social events are now arranged between 9am–5pm (compliance can be tracked through the on-line calendar on which meetings rooms are be booked) (BA 3.3). On occasions when meetings have been arranged outside these hours, this has been done with the agreement of the members of the specific research group to accommodate colleagues who have carer responsibilities. Social events now tend to be more inclusive and sensitive to cultural and social sensitivities (e.g. in respect to the food and beverages served).

Amongst academic staff, 75% 'agree' and 17% 'neither agree nor disagree' (92% in total) that it is important that meetings in the Department take place in core hours to enable those with caring responsibilities to attend, compared to 84% in 2012, with the proportion of those 'disagreeing' with the statement dropping from 16% in 2012 to 8% in 2015. The feeling amongst academics is that *"the important issue is enabling those with caring responsibilities to attend; flexibility can be more helpful than rigid timetables"*.

The majority of post-graduates and PDRAs (comparable to 2012) indicate that working outside the agreed hours results from personal choice. 80% stated that working longer than the 'core hours' was driven by themselves or their colleagues.

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

The Dignity@Work policy, the substance and tone of communications throughout the department (e.g. e-mails from the HoD), and social events to encourage people to develop personal relationships outside the day-to-day professional interactions, all play a role in improving the institutional culture.

88% of academic staff indicated that the Department would deal effectively with any complaints about harassment, bullying or offensive behaviour (65% 'agree', 23% 'neither agree nor disagree'), marginally better than the 82% in 2012.

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



The Department is involved in a number of successful and high-profile Outreach events (BA 1.1) which since 2013 have also been considered by the ASWP:

Sutton Trust Summer School – Participants are UK students currently studying in Year 12 are allocated by the Sutton Trust which ensures *an equal gender balance*, and is focussed on students from backgrounds with lower progression to higher education.

Salters' Science Camp – Participants are allocated by the Salters' Institute on a *strict gender balance* and are secondary school students. The camp is teacher-led and supported by departmental female and male PhD students.

Salters' Festival of Chemistry – run in partnership with the RSC, these one-day events provide the opportunity for young students to visit the Department and take part in practical chemistry activities (coordinated by *Dr Deborah Longbottom*).

'Futures' outreach event – part of TeachFirst which brings 30 year 12 and 13 students to Cambridge for two days of chemistry teaching (coordinated by *Dr Sally Boss*). The aspiration of this program is to end educational inequality.

Cambridge Festival of Science – the department hosts an extremely popular Open Day during which 2000 parents and children visit to the department for lectures, demonstrations and hands-on experiments. This event involves the participation of staff at all levels of the Department, with *female and male members of the Department being equally represented*.

Further outreach activities within the University include College Open Days and the Oxbridge Conferences, both aimed at potential undergraduates, and at both of which there is a *representation by both female and male staff*.

The popular Year 12 Cambridge Chemistry Challenge, which *benefits both male and female* students, has been developed and is run by one of our Teaching Fellows (Dr Peter Wothers).

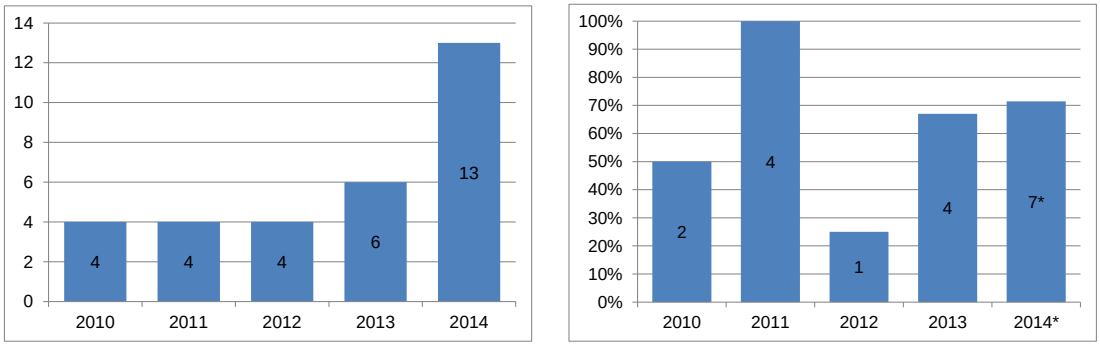
When possible, work experience opportunities are provided with our technicians for up to three school children from local schools (in year 10), and our academics on occasion also provide work experience. There is no noticeable difference in the boys or girls taking up these opportunities, all of whom benefit from the experience that working in the department gives them.

Gender participation in recruitment and outreach activities will be addressed by the following:
SA 1.7 Outreach activity and engagement with College Admissions Tutors/Admissions Offices to encourage female students to choose chemistry in first year of Natural Sciences degree

Flexibility and managing career breaks

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

(i) **Maternity return rate** – comment on whether maternity return rate in the department has improved or deteriorated and any plans for further improvement.



Graph 17 Number of staff taking maternity leave (left) and the return rate (right) 2010-2014: the impact of the awareness of the policy on maternity leave has led to an increase since 2012, and a good return rate for those returning.

Over the past five years (which provides a larger window over which to assess the data, Graph 17) 31 staff have taken maternity leave (9 assistant staff, 21 research staff, 1 academic-related staff). 11 staff left the University either during or after maternity leave for personal reasons. 15 staff members have returned to the Department after maternity leave of which 10 were research staff. 4 members of staff are still on leave (3 research staff and 1 assistant staff).

Maternity (and paternity) leave (BA 3.7) are now well embedded in our administrative structures, and there have been no identifiable problems with members of staff going on leave or returning. Every effort is made to make the transition in both directions as smooth as possible, whereby meetings are arranged with DHoD or Support Services Manager to cater to the individual requests.

The Department is particularly alert to the fact that contract research staff are at stages in their professional careers during which decisions about starting families might be influenced by their working environment. As was the case in our previous submission, the number of contract research staff requesting maternity leave over the past three years is relatively small and may reflect the age demographic of this group (i.e. the majority, both male and female, are young and on their first or second contract research positions). At induction meetings all new contract research staff are informed of the provisions for maternity leave and who they can contact (outside their research groups) to seek advice. Exit questionnaires and interviews continue to be used to assess if our research working environment is having an adverse effect on people thinking about having children, what careers these individuals pursue, and for what reasons. Based on recent evidence (e.g. SR&D meetings and individual interviews) there is nothing to suggest that career decisions are based on any of the concerns outlined above. We do however need to develop the way we deal with contract research staff who take maternity break well-before the end of a fixed term contract. The way to overcome such mixed

experiences is to continue to make best use of the induction meetings to register the institutional position on maternity leave.

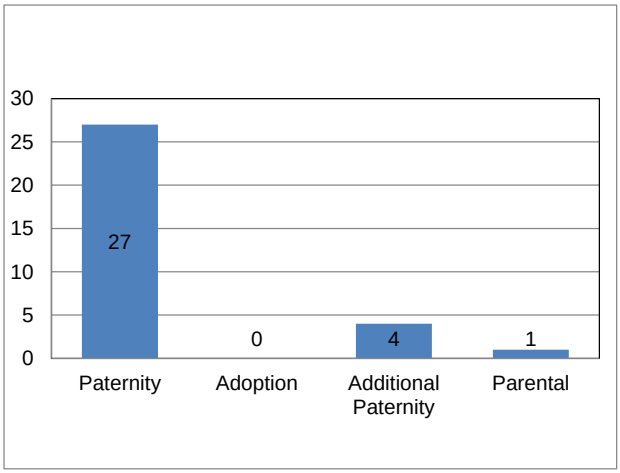
Our conclusions and observations are influenced by the fact that the number of women decreases significantly in post-graduate, to PDRA and then academic and senior research roles. Based on the observations and actions of our Bronze submission, the Department endeavours to be more pro-active in offering information and support, and we look more carefully at our colleagues in the early stages of their research careers - including those individuals supported to apply for competitive early career fellowships (e.g. URFs, Research Council Fellowships, Wellcome Trust Fellowships).

In our previous submission the Department registered a concern about those senior researchers on 2 to 3-year projects funded by research councils which vary in the level of financial support they offer to overcome any disruption due to periods of maternity leave. As part of this, the Department was prepared to pilot a scheme to cover an additional 6 months of salary, however, there has been no individual over the past three years to whom this would apply. We will keep this action active in the foreseeable future should a suitable case arise.

'Keep In Touch' days, facilities for children in the departmental cafe and access to departmental resources are available during maternity leave and will continue to ensure that staff are connected with their work and to help with the transition upon their return.

Supporting members of staff during and returning from maternity leave will be addressed by the following:
SA 4.3 Provide support staff who take maternity leave (and men on paternity leave)

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



Graph 18 Adoption, paternity, additional paternity and parental leave 2010-2015: data shows an increase in paternity and other related leave.

In the last five years (Graph 18), 27 staff took paternity leave (8 assistant staff ,17 research staff), which is a significant increase compared to the previous submission (4 staff; 1 assistant and 3 research staff). Anecdotal evidence suggests that male staff take short periods of leave when their partners have children, but on an informal basis.

The Department also offers additional paternity leave since 2011 (all 4 since 2013, 1 PDRA, 3 assistant staff) – the PDRA who took the leave was extremely grateful as his wife is an academic in London, so the Department's support was beneficial to both working in research careers.

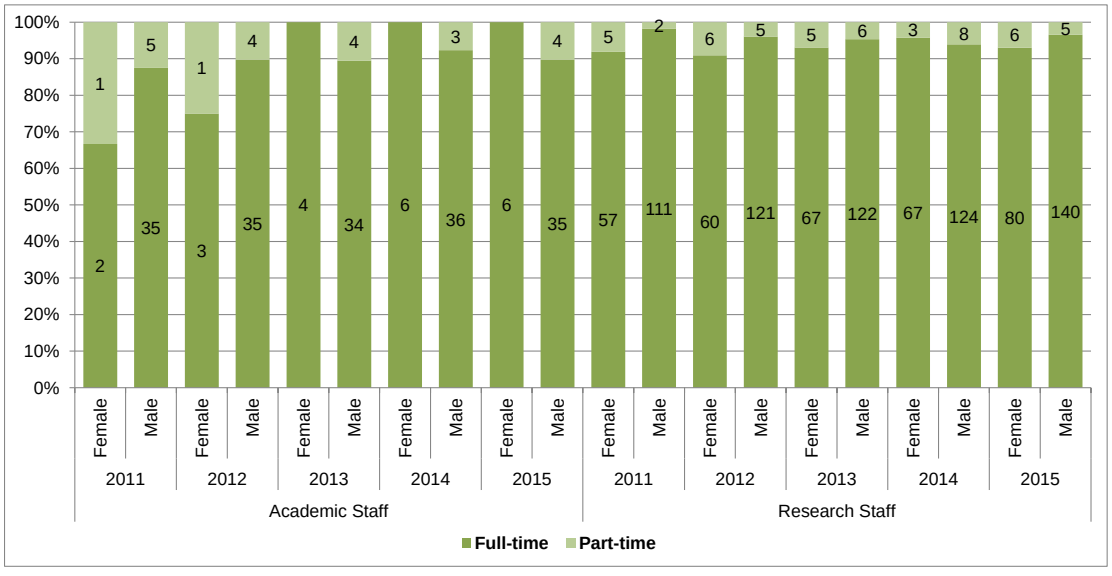
Supporting members of staff on paternity, adoption, additional paternity and additional parental leave will be addressed by the following:
SA 4.3 Provide support to staff who take maternity leave (and men on paternity leave)

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

Applications for flexible working amongst the academic and contract research staff are determined in consultation with the individual's PI or line manager (none have been declared to the Department), but this does not fully reflect the numbers of informal flexible working arrangements currently in practice. 3 teaching fellows currently 0.5FTE with the other 0.5FTE being met by a college (33%female).

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

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



Graph 19 Full-time vs part-time academic and research staff by gender 2011-2015: the proportion of categories of staff has improved for female academics but remained comparable in recent years for the large number of research (PDRA) staff.

There is a formal process by which people may request flexible working (based on personal circumstances of joint appointments within the University). At present there are 11 contract

research staff (55% of whom are female) and 4 academic staff (all male) who currently work part time (Graph 19). However, 78% of female and 74 % of male respondents to the PDRA survey reported that they found it very easy or easy to work flexibly and to adjust their working hours to suit their personal life.

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

All female staff discuss the impact of their research and other obligations on their period of leave with their line-manager (PI or HoD) with the intention to make suitable alternative arrangements rather than stockpile a backlog of work to be dealt with upon returning. Any necessary support needs or potential concerns are directed to the DHoD, HoD and HR team.

In response to individual requests, the Department accommodates a reduction in teaching load and admin duties for faculty returning from maternity leave, and the provision for short-term lab management support is considered. However the only academic member of staff who has had maternity leave over the past three years was a teaching fellow without a research group so there has been no need to implement these arrangements for laboratory support – as outlined in the previous section. Where other arrangements need to be made (e.g. flexible working hours) the Department responds on an individual basis through the HoD, DHoD and the HR team (BA 3.4).

The University runs a Returning Carers Scheme[12] with which those returning from maternity leave (or other carer responsibilities) can request funds to assist their being able to focus on their research upon returning to work (e.g. paying for teaching cover or administrative assistance). This scheme has proven popular across the University and will continue to be part of the support structure offered by the department.

Funds are available (typically up to £10K per award) to support those going on, or returning from a period of caring (this may include but is not restricted to: maternity leave, adoption leave, or leave to care for a dependant). The scheme has been taken up by 5 returning carers since 2012 (ranging from £1450 to £17240 for teaching cover, research assistants, research consumables, conferences and travel) – the impact can be measured by the fact that all are still in chemistry related research.

With regards to achieving a suitable work-life balance on their return, there are formal arrangements that can be made through the University's policies and procedures, but it is widely recognised that flexible working is being achieved at an informal level in agreement with the individuals and their line managers.

[12] http://www.admin.cam.ac.uk/offices/hr/policy/carer/

5. Any other comments: maximum 500 words [497 words]

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

Athena SWAN works. If the Bronze submission provided convincing evidence of the areas of the Department which needed to be addressed, the work leading to the Silver submission has embedded effective practises and transformed the culture in which we work. The most significant (and lasting) development has been the acceptance that gender related imbalances can and should be addressed, and the evaporation of any resistance to change. As a result, we are a better place in which to work as a result.

This document provides evidence for improvements in graduate and postdoctoral recruitment, appointment, mentoring/support, and career development. The excellent relationship between the ASWP and the graduate and postdoctoral communities will ensure that we improve communication and support to these important constituencies, and in so doing encourage more female chemists to progress onto the next phase of their careers.

The surveys, recent appointments, and SAPs tell a good story about our academic community. However the limited number of potential appointments in the near future compel us to identify funds and mechanisms by which to appoint and support early career female researchers. Asking research groups to think about their working environment when completing the Group Expectations Document has resulted in a greater acceptance of the value of flexible working, core hours in which to conduct formal business, and improved working relationships between members of the individual research groups.

The impact of our work on the undergraduate community has been less effective, and it is in this area of the student experience that will direct our efforts over the next three years. Our T&OC will collect data with enough granularity (by paper in all courses across all years) to help us understand why female undergraduates gravitate away from chemistry over the four years of the degree. This will allow us for the first time to challenge the way we deliver our teaching (e.g. presentation and content of our lectures and practical classes, and the assessment of knowledge in small group teaching and examinations).

Culture change requires on-going developments to sensitise members of the community that we are not standing still, and the profile of the ASWP through posters, publications, lecture presentation and standing agenda items at meetings will ensure that all groups are working towards a fairer, friendlier and more inclusive community of scholars.

The investment of a Web Development Programmer to refresh the departmental website and carefully assess the content to improve the profile of female aspiration and achievement will go some way towards improving internal and external communication with the Department. Greater engagement with bodies such at the RSC, other departments in the university and local industry will broaden the horizon of all those involved and set challenging targets to collectively work towards. As we have little scope to dramatically increase the number of academics in the near future, identifying prominent female alumni and friends will provide a critical mass of senior women to engage with the work the ASWP embarks on undertaking over the next 3-5 years.

6. Action plan

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

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

Progress against Bronze Action Plan and new Silver Action Plan appended below

7. Case study: impacting on individuals: maximum 1000 words [993 words]

Describe how the department's SWAN activities have benefitted **two** individuals working in the department. One of these case studies should be a member of the self assessment team, the other someone else in the department. More information on case studies is available in the guidance.

Professor Melinda Duer

My research career in the Department of Chemistry started in 1985 when I began my PhD degree. Then there were no women in positions more senior than my own. When I was appointed to a temporary lectureship in 1988, I was the first woman to be appointed to any kind of lectureship in the Department. These were, with hindsight, difficult times for women in academic roles. My colleagues were usually pleasant enough in their everyday dealings, but it was clear that male scientists undervalued women in research and saw them as suitable for secretarial and support roles – many times, people came into my office asking for, "Dr Duer," assuming I was "his" secretary. My "wife" was invited every year to the Department Wives lunch. I did not feel part of the 'team' and nobody thought to remedy a culture which made young scientists (especially female) feel unvalued and limited in their career progress. I had a long running battle with technical support services (and their girlie calendars) to gain sufficient respect to warrant them doing anything for me – I did win, but it took a lot of planning, not to say some subterfuge. This was a generational culture, pervading most professions and society as a whole. The worst aspect was not being able to talk about it, for fear of being labelled "hysterical" and losing what felt like a hard-won respect. Change has been slow, but has had a transformative effect on the culture of our Department.

The Department's work on the Athena SWAN objectives has had a huge impact for me personally and professionally, resulting in my recent promotion from Reader to Professor. Some colleagues have argued that the promotion was timely and well-deserved, but I am not sure I would have applied or been encouraged to apply had it not been for the outcomes for improving the institutional culture in the Department as part of the Athena SWAN effort. First, the Department's policy to have greater diversity of people on the various Departmental committees led to me chairing the (new) Faculty meetings and membership of the Department's Senior Management Team (SMT). The Faculty meetings were devised by the Head of Department specifically to lead discussion on issues, ranging from general human resource matters, resource and research strategy, leadership and inclusivity. These roles gave me a higher profile and visibility in the Department, which was a significant factor in finding the confidence to apply for promotion. Equally, when it came to the decision as to whether or not to apply for promotion, I received a lot of constructive advice, and when I made the

decision to actually apply, a huge amount of genuine, well-judged support and guidance was offered. The fact that the encouragement, support and advice came from so many people reflecting the diversity of the Department made the whole experience all the more rewarding and I think my recent experience reflects just how far the atmosphere in the Department has changed over the past five years. It is no longer unseemly to offer support, and success is celebrated in an inclusive way that I am convinced means that we all benefit from our collective success stories. And best of all, now we can talk about how culture and decisions impact on women, and we're listened to. [550 words]

Dr Deborah Longbottom

I have been a member of the Chemistry Department since the beginning of 2004, returning from a stint of post-doctoral work in America and commencing a second post-doctoral period of research in the laboratory of Professor Steven Ley. In terms of Career progression, Steve was supportive right from the start, realising that my passion for teaching was equal to that for research. He allowed me in those early days to take on a 25% Teaching Fellowship at Trinity College in order to develop my career in line with my academic interests and was content to take the loss of research output that this might cause.

In turn, this put me in an excellent position to apply for a Departmental Teaching Fellowship (50%) at the same time as a College Teaching Officer (50%) became available at Homerton College, both positions which I was successful in securing in 2007 thanks to the profile and experience I had developed in the Department with the backing and encouragement of my colleagues.

I subsequently had two children (2008, 2010) and found myself extremely well supported in both College and the Department, not least by receiving funds from the Returning Carer's scheme in 2012. This allowed me to pursue some (graduate level) research and teaching activities I would not otherwise be able to do.

In 2014, I was promoted to the full-time Departmental role of 'Head of Graduate Education', a new position that offers the opportunity to develop graduate support and training in a way that will add tremendous value the research experience of our post-graduates. I was fortunate enough to then have my third child in 2015 and have experienced nothing but flexibility and support in my return to work. This has enabled me to carry out my entire job in the most effective way (e.g. working from home when practical to do so) and the return to work has been relatively painless.

Over the past decade, I have seen changes in the institutional culture of the Department, largely due to the work that many people have been doing as part of the Athena SWAN agenda to make us a more welcoming, inclusive and gender-aware community of scientists. No doubt in a Department as large, high profile and diverse as ours we will have to deal with 'difficult' individuals, but I feel confident that the structures are now in place to respond to problems and that collectively we have become a happier and friendlier Department. I look forward to coming to work, I am passionate about the work I do, and just as importantly I both like and respect my colleagues. [435 words]

Department of Chemistry Athena SWAN Bronze Action Progress 2012- 015

Progress on actions listed in the Bronze submission are outlined below, outlining what has been achieved (tracked by the 'traffic light' indictors) and the impact of the actions under the appropriate headings. The ASWP collected the data through surveys, and with the HoD (who has also been a member of the working party) coordinated the work that has led to the various 'impacts'.

	Objective	Action(s) achieved	Impact
BA 1 Improve the proportion of women undergraduate students and PDRAs			
1.1	**Encouraging more female students to take chemistry beyond the first year**	• T&OC have monitored numbers and discussed gender objectives at their committee to address any issues of gender bias in teaching. (yellow) • Tracking of the work done by other departments (especially Physics who hold a Gold Award) and colleges to establish the impact of any related initiatives. (yellow) • Report to teaching related committees in the department and raise the profile of gender (and other under-represented groups) issues with academic staff. (green) • Female lecturer giving a key first year course as a direct result of the Athena SWAN Bronze actions - previously students not exposed to female lecturers in the first year. (green) • 'Pizza Social' event in 2014 & 2015 with female speakers to encourage more young women to consider Chemistry in the higher years of the degree (50-60 participants, 30% female). (green)	Number of female students taking chemistry is dropping across four years of the degree. Despite the actions that have been completed, the impact is not clear. Need to do work over three years of detailed data (not accurately collected thus far) to improve retention of female students.
1.2	**Support female third year students progressing to the final (fourth) year**	• Consultation by T&OC and ASWP established a process (since 2013) by which third year students progressing to the fourth year could request a female project supervisor. (green)	To date no student has requested a female project supervisor but we will continue to offer this option and ensure it is widely communicated.

	Objective	Action(s) achieved	Impact
1.3	**Provide a supportive environment where all students feel able to succeed.**	• Since Spring 2013, ASWP, T&OC, PGC and PDC have consulted their constituencies through surveys and regular meetings throughout the year to identify key issues and outline suitable actions. As part of this objective, student satisfaction have been monitored through surveys (355 undergraduates responded, 41% female; 101 postgraduates responded, 57% female) and addressed under the various actions. • Supervisor Training sessions at the start of the academic year, since 2012, to highlight inclusive teaching practices and gender awareness in teaching (unconscious bias to be addressed in future sessions). • Group Expectation Document adopted by research groups for the start of academic year 2015. These documents provide greater clarity on the research expectations within research groups and are agreed by members of the individual research groups. The need for such documents was evident after the Bronze submission, and 100% or research groups have submitted their document for the HoD to review on an annual basis. • Improved engagement since 2013 between the ASWP and DHoD, and the PGC and PDC. These committees drive the survey collection (used for the submission and published on the Departmental website), termly social events (used to highlight initiatives like mentoring and career progression), and communication with Departmental committees (all committees include student and PDRA membership). • Exposure to female academics will encourage more female students to consider a career in research and teaching.	Monitoring mechanisms have now been embedded into the Departmental committee structure (reporting to the SMT, staff and Faculty meetings). Engagement with all constituencies has helped identify and develop supportive mechanisms.

	Objective	Action(s) achieved	Impact
BA 2	**Support the recruitment, retention and promotion of female staff**		
2.1	**Ensure recruitment processes are open and fair**	• Departmental Administrators and Staff Management Committee collect and report E&D information (since early 2013) for Contract Research Staff recruitment to senior committees and the ASWP.  • All academics involved in recruitment have received recruitment training provided by HR.  • Interview training available to all other members of staff involved in recruiting (since June 2014, arising from a review in May 2013), and completion of online E&D Training Module compulsory for all PIs (100% completion by PIs as of August 2015, compared to 27.5% in October 2014).  • Postgraduate student recruitment and admissions process revised in 2014. Invite potential applicants to a high profile Graduate Open Day and ensure all candidates (nominated by PIs) are interviewed by two additional PIs. 	Recruitment of staff (especially female staff) has achieved a higher profile within the Department and senior committees informed of gender breakdown of applicants and successful candidates. The proportion of female PDRAs has increased by 11% to 37% in the last 5 years. Changes in postgraduate recruitment process have resulted in a higher proportion of successful women students relative to the proportion of applications every year since 2012.

	Objective	Action(s) achieved	Impact
2.2	**Gather intelligence on why women leave the Department to take up non-academic roles or academic roles elsewhere**	• Exit Questionnaires introduced in May 2013 to monitor the professional trajectory of research staff leaving the department (and gender break-down looked at in more detail). - they have not highlighted any gender issues as the reason to leave. 2013 42% completion rate (32% female); 2014 44% completion rate (38% female); 2015 (first six months of data) 34% completion rate (10% female). • Key finding reported to appropriate groups (e.g. SMT and Faculty Committees) via the Staff Management Committee and monitored by Deputy HoD. The HoD has taken a key interest in the information gathered through this exercise.	Exit data now routinely collected and analysed. Exit survey completion rates over 2.5 years are 42% (32% female). Currently only 4 of the 69 responders had no immediate plans with the rest moving on to academic positions (16%), industry (31%), PDRA positions elsewhere (28%). The main reason for leaving was the end of a fixed term contract (33%). Data about careers beyond the department inform our professional development strategy (in collaboration with the University Careers Service).particularly for researchers who have the highest turnover

	Objective	Action(s) achieved	Impact
2.3	**Increase the number of women applying for academic positions**	• Greater effort has been made to identify and actively encourage suitable candidates from within the Department and externally to apply for vacancies. Appointment Committees (all members have successfully completed E&D training) are asked to report to HoD about the long- and short-listing process, with an expectation that female candidates are looked at carefully to overcome under-confident CVs. • The SMC monitor and review the number of women applying for advertised positions and recommendations accordingly transmitted to the SMT. • The department has introduced changes to the published advertisements, further particulars and the departmental website (since early 2013) to highlight the University's family friendly policies and flexible working, as well as Athena SWAN award status. • Advertisements now incorporate the University text in advertisements which announces that "female candidates are especially welcome to apply to address the historical under-representation of women". • Statistics (relating to the protected characteristics) for contract research staff are collected and compared with those of other SET Departments in Cambridge as well as other Chemistry Departments in the UK. Information is considered by the SMC and SMT.	Changes to the advertisements and recruitment process have resulted in an increased awareness among PIs for open and fair appointment processes (appointment committees need to report to HoD about process and shortlists). E&D training completion has increased for Academic staff from 13% in 2012 to 100% in 2015. Between 2006 and 2012 only 13.9% of applications for lectureships were from women. 20% were shortlisted but no women were appointed. Since the changes to the recruitment process 4 lectureships have been advertised (all in 2013). The impact of the changes is significant. The proportion of women applying increased to 21.3% which included particularly high calibre women candidates as 43% were shortlisted - two women (50%) and two men were appointed.

	Objective	Action(s) achieved	Impact
2.4	**Increase the proportion of female junior academic appointments**	• Fellowship Committees identify potential applicants (especially female colleagues early in their careers) and provide support for application preparation and rigorous interview coaching. Such committees have RIG Chair representation and data is fed into various committees including SMT. Only 4% of academic staff disagreed with the statement that "the Department takes positive steps to encourage women to apply for posts" compared to 13% in 2012. • Junior Research Fellowship (JRF) competitions are run independently by the Cambridge Colleges, but as fellows of colleges are inevitably academic members of the Department, the information disseminated through the mechanisms outlined above attempt to encourage serious consideration of female appointments in SET disciplines. • Surveys have provided an opportunity to collect data, identify issues relating to career development opportunities for female academic staff, and the information considered by the ASWP and SMT. Actions are then directed to the committees that serve the various constituencies to address comments relevant to the various stages of career development (graduates, PDRAs, junior academics). • Transition from PDRA to research (or other) careers is tracked annually using exit data and interviews. The resulting data is presented annually at a Faculty meeting and actions directed to the relevant groups (office-holders, committees and administrators) to respond accordingly (e.g. recruitment strategy, career development, more effective staff review and development.	Greater effort in this objective has resulted in a significant increase in the number of female applicants supported by the department for competitive research fellowships. This has resulted in 20% of JRFs now being female compared with none in 2012. More female applicants have been supported for competitive research council funded fellowships. There has been an increase in applications fellowship applications from women from 33% in Bronze submission to 50%. The success rate has also increased significantly from 7% to 27% while the success rate for men has remained constant (17% vs 18%).

	Objective	Action(s) achieved	Impact
2.5	**Ensure staff promotion processes are fair and transparent**	Appraisal • Since 2013 all PDRAs have been offered Staff Review and Development meetings, and have access to training and support through the graduate training program (this is seen as an effective way to nurture closer a professional and personal relationship between graduates and PDRAs at a critical time in their professional careers, especially as many graduates may not intend to pursue a research career). The completed forms are processed centrally by the Departments Welfare, Training and Development Officer and key findings reported to Deputy HoD and HoD. *Completion rates:* 2013 63%; 2014 76%; 2015 (as of September) 74%; approx. 30% female across all years. 96% of responders felt they received sufficient support from their PI for their role and 92% felt they were given learning opportunities. 🟢 • Academic staff (PIs) are encouraged to undertake regular reviews, but this is one area in which the take-up has been low. 🟡 Promotion • Staff have access to information about promotion processes and this matter is raised at review meetings. The HoD is proactive in identifying candidates for promotion, and provides mentoring and active support for the application process. 🟢 • The Department promotes the University Senior Academic Promotion Open fora which highlight the changes to the promotion process in which candidates must pass a threshold in Research, teaching and General Contribution to be considered for promotion. The University also runs a SAP CV scheme which provides additional mentoring and support. Uptake from the Department has been low. 🟢 • The Department has led a campaign to broaden the recognition of achievements that include teaching. – teaching only routes for promotion are being developed by the University. Teaching Fellows (50% female) are not eligible for the traditional SAP process, and the Department looks for available mechanisms to recognise contributions to the Department. 🟢	The Department (through the HoD and SMT) monitors applications for promotion annually, and extends the support and recognition beyond the SAP. Success rates for women are higher than for men (75% vs 65%). Since 2012 one woman has be promoted to Professor – see case study. The Department is perceived as a fairer place to work since our 2012 submission as confirmed by comments from the academic survey results: 73% in 2015 agree that in promotion the Department values a range of contributions and is supportive in promotion application, compared to 59% in 2012. 2012 – Not all members of the Department are treated equally and there is a strong sense that some are encouraged and promoted more than others.

	Objective	Action(s) achieved	Impact
BA 3	**Provide a culture where everyone can succeed**		
3.1	**Encourage good citizenship and an inclusive environment**	• Success in the Bronze submission and the process of addressing the objectives outlined in preparing for the Silver submission have highlighted the impact of the Athena Charter across the department, and led to significant improvements as confirmed by the available data. Also Athena SWAN and the merits of adopting this approach have been discussed at the Faculty meetings and Departmental presentations: e.g. Prof Daan Frenkel (former HoD) at the annual address to all members of the Department, and annual PDAC summer party; Dr Deborah Longbottom (HoGE) at a Faculty meeting focused on graduate education and support; Prod Jane Clarke (former DHoD) at postgraduate and PDRA meetings and SMT. (●) • Introduction of the Laboratory Expectations document in 2014-15 has allowed the HoD to assess if all research groups are setting comparable, reasonable and agreed expectations for members of their group. If any group is identified as being out of line with the general 'expectations' (which might vary slightly based on the research areas), the HoD would speak to the PI to address the point of concern, and sanctions on space and/or taking on new postgraduates or PDRAs applied. No such sanction needed to be enacted as all groups complied accordingly. (●) • The Department is developing a 'workload model' based on the data gathered over the past two years to better manage teaching, administration and research contributions to the Department. (●) • Leadership training program (four half-day sessions over one academic year) for academic staff in the Department, which includes behaviour training. 14 participants (33% female) over the past two years (£2300 per participant). (●) • Two academics have been provided with external mentoring to help with group leadership and management (this was suggested as part of the Bronze submission). (●) • We display our Athena SWAN award with pride in a display cabinet in the foyer and use the large electronic noticeboard to promote Athena SWAN, mentoring and other gender equality initiatives. (●) • Posters to highlight the Department's commitment to Athena SWAN were developed in 2013 and refreshed in 2015, and these are display in multiple locations across the building (100% of academic staff agreed with the work of the ASWP in "achieving gender equality". (●)	Since 2013 the ASWP has been tracking the work being done in the Department to improve the working environment, and through the HoD and Deputy HoD committee and working groups have been tasked to implement the necessary changes to satisfy the objectives for the Silver submission. Implementation of a workload model has not yet been implemented (yellow on our actions achieved), but data has been collected (all academic staff submitted details of their various commitments for the academic year 2014-15) to identify the parameters which will independently address individual contributions to the Department. Initial data shows that all members of staff have heavy workloads, but the administrative and teaching duties can be more equitably distributed. There is no initial evidence of a gender bias in the workload distribution.

	Objective	Action(s) achieved	Impact
3.2	**Provide mentoring opportunities**	• Introduced a mentoring system throughout the Department. • 24 PIs and senior members of staff (of whom 29% are female) are listed as Mentors (this initiative has been supported and championed by the PDAC and SMT. • PDAC hold events to highlight the mentoring scheme • All (new) PDRAs participate in an induction session that highlights the support mechanisms and the Mentoring Scheme.	A Mentoring Scheme is in place and is highlighted at induction sessions, PDAC events and on the Departmental website. Feed-back from initial surveys suggested that the scheme was not well advertised. This is being done more effectively *via* induction meetings and on the website.
3.3	**To foster a culture of inspired and enthused members of staff who aspire to carryout world-class research whilst maintaining a healthy work life balance**	• A more inclusive culture has been achieved by scheduling all departmental meetings and seminars within the core hours of 9am-5pm (prior to 2012, a number of research group meeting and lectures were scheduled outside these hours) as those with childcare and carer responsibilities want greater flexibility in the available times covered in the 'core hours' to make the most of the opportunities available throughout the collegiate university. This has also applied to group meetings ('compliance' can be tracked through the on-line room booking system). All PIs have been made aware of the core working hours through the Faculty Meetings and communication from the HoD. PIs consult members of their group when setting times of meeting to accommodate childcare and carer responsibilities. This objective now commands the support of all PIs. • Group Expectations Documents (designed to combat the culture of long working days and inappropriate behaviours identified in the surveys leading to the Bronze submission) have been adopted by all Research Groups in the Department, based on a template which aims to fulfil the objectives identified in the Bronze submission. While group expectations may vary slightly depending on the research being undertaken, the documents have been discussed amongst the individual research groups to capture the views of graduates, PDRAs, and senior researchers. • Department now provides support/mediation/training for PIs and for their research teams to develop the skills to address difficult situations, and the confidence that reported problems will be addressed. • The Department has embarked on a customized Leadership Training program to equip PIs with the skills to manage and lead successful, diverse and productive research teams. This also includes a pilot 360 Degree for PIs of large research groups.	100% of meetings, seminars and group meetings are now held between 9 and 5. Adoption of Group Expectation Document by ALL research groups. Ongoing Leadership Training of PIs will continue to develop better management skills to add to their research skills. The Department is perceived as a more inclusive place to work since our 2012 submission as confirmed by the academic survey results. For example in response to the question "I feel able to manage my work-life commitments", in 2012 only 30% responded positively but in 2015 45% responded positively. We have made the Cyber Café more child friendly – introduced high chairs.

	Objective	Action(s) achieved	Impact
3.4	**Support flexible working**	• Department now promotes flexible working to all staff in order to accommodate personal circumstances and caring responsibilities. 🟢 • Surveys at Departmental and School level will continue to inform policy on flexible working. 🟢 • Flexibility for Carers paper adopted (and available on our website) to detail the Department's supportive position to new and existing members of staff. Greater clarity will encourage part-time and/or flexible working amongst those who have carer responsibilities. 🟢	Increase in P/T and/or flexible working amongst staff 15 in 2015 compared to 4 in 2012.
3.5	**Ensure women's representation in Departmental decision-making**	• The Department identifies key committees (through the HoD, Deputy HoDs, and SMT) at which female representation can have the greatest impact. 🟢 • Committee membership is assessed on an annual basis to ensure effective and fair representation. 🟢 • Committee membership reviewed annually and where appropriate rotation of membership is applied. 🟢	Departmental Committees have two or more (>25%) female representative. Higher profile of gender related issues in committee business (Athena SWAN is a standing item on Faculty, SMT, SMC, Academic Related and Assistant Staff meetings).
3.6	**Raise the profile of Women in the Department**	• Departmental website used more effectively to highlight women's success at all levels (e.g. Athena SWAN page, Women in Chemistry, and Twitter-feeds to highlight activity in the department of our female colleagues). 🟢 • Based on feedback from Athena SWAN related surveys, the Department has (in 2014) completed work to improve clarity, navigation and highlight achievements. A Web Development Programmer has been appointed to improve all aspects of the site and address the impact of this objective. 🟢 • The Department's outward facing publication, Chem@Cam, in now used more effectively by the Editorial Board to highlight female achievements within the Department (e.g. 'Heroes and Mentors' feature by Prof Jeremy Sanders and Prof Jane Clarke, one third of covers show female members of the department, and feature articles on the work of the ASWP). 🟢 • The Department set an aspiration to invite at least 25% female seminar speakers in 2014, but achieved 20%. 🟢 • Posters and leaflets promoting Athena SWAN were produced for Open Days and used throughout the building following the Open Day. 🟢	The profile of women and their achievement in the Department have been highlighted through the many actions, and is an ongoing objective for all major committees: 'Women in Chemistry' webpage (established in 2014) features 4 profiles. Prof Jane Clarke was featured in a high profile University project in 2014 "The Meaning of Success". The Department hosted the RSC Juliot-Curie Conference in Cambridge (16-17 September 2015).

	Objective	Action(s) achieved	Impact
3.7	**Improve support provided to staff starting or with an existing family.**	• Maternity leave offered to staff, and the Departmental administrative team has been ensuring that return to work provides flexibility to accommodate childcare needs. The HR team and DHoD oversee each case to respond to individual needs before, during and after maternity leave. • The University Returning Carers Scheme is offered to all staff returning from a period of leave. 5 members of the Department were awarded funds through this Scheme (80% female) ranging from £1450 to £17240 for teaching cover, research assistants, consumables, conference and travel. The Department promotes the scheme to eligible members of staff and the HoD fully supported applications. • The Department provides support to staff whilst on maternity/paternity leave and on their return (e.g. 'Keep In Touch' days during maternity leave to ensure staff remain up to date with their work while they are on leave – 4 (50%female) since 2013 compared to none prior to 2013). • Since 2012 a new Families@Chemistry document highlighting key family friendly information has been developed and is being distributed to all new starters. • The Department will monitor the needs of staff through focus groups and by tracking data and survey results through the SMC, SMT and ASWP.	In the past 5 years 31 staff have taken maternity leave compared to 21 reported in Bronze submission for the same period. Flexible working available to staff, and maternity leave provided and tailored to meet the needs of the individuals. (as in 3.4 above). The impact of the Athena SWAN actions means that the Department is now in a better position to contribute to policy development through our representation on University and School Committees. Additional Paternity Leave successfully used in Department by 1 PDRA and 3 support staff since its introduction.

	Objective	Action(s) achieved	Impact
3.8	**Ensure support is provided to those with additional caring responsibilities**	• Staff are encouraged to declare caring responsibilities in order that the Department can make suitable adjustments. This is done through communication with PIs, senior management and administrative staff – as PIs are encouraged to be accommodating to such requests, none have been formally registered with the Department. • Caring responsibilities are taken into account when considering promotion, career development, flexible working. • Meetings with individual members of staff provide the Department with an opportunity to customize support as carer responsibilities vary significantly. • SMT adopted the Need for Flexible for Carers paper – prepared by members of the Department with carer responsibilities to outline practical ways in which PIs and the Department can be supportive. • the Department works with individuals to provide a constructive and supportive working environment that respond to their carer responsibilities.	Support of members of staff with carer responsibilities more clearly presented to the Department through induction meetings, the website and the adoption of the Need for Flexibility for Carers paper. (numbers embedded in 3.4)

Key: AS Athena SWAN; ASWP Athena SWAN Working Party; BA Bronze Action; DHoD Deputy Head of Department; DoGE Director of Graduate Education; DoT Director of Teaching; E&D Equality and Diversity; HoD Head of Department; HoGE Head of Graduate Education; HoGR Head of Graduate Recruitment; HR Human Resources; JRF Junior Research Fellow; PDAC Post-Doctoral Affairs Committee; PDRA Post-Doctoral Research Associates; PI Principal Investigator (Group leader); RSC Royal Society of Chemistry; SAP Senior Academic Promotion; SMT Senior Management Team; SoPS School of Physical Sciences; SR&D Staff Review and Development; T&OC Teaching and Outreach Committee; URF University Research Fellow.

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NOTE: Explicit in the following action plan is that progress will be monitored at regular intervals. The monitoring tools will be appropriate to any given objective (e.g. data collection, staff surveys, focus groups). The overall responsibility for progress lies with the Senior Management Team. Responsibility for prioritising actions and for developing the plan will lie with the Athena SWAN working party (ASWP).

	Planned action/ objective	**Rationale** (i.e what evidence is there that prompted this action/ objective?)	**Key outputs and milestones**	**Timeframe** (start/end date)		**Person responsible** (include job title)	**Success criteria and outcome**
SA 1 Undergraduate Students							
1.1	**Monitor undergraduate numbers and outcomes (see actions 1.2. and 1.6 for numeric targets)**	• Accurate student statistics help inform actions and better comparison with national figures. • Improved granularity of data (by college, subject and individual paper) provides an opportunity for the Department to understand more clearly the underlying problems and map a way forward.	• Establish reliable feed of data, including data for national comparisons. • Track numbers and outcomes over three years. • Preliminary review of data over summer 2016 to establish baseline.	April 2016	Sept 2019	• Dr James Keeler (DoT) • T&OC	• Consistent and reliable data available, including benchmark against national data. • Data used to inform actions (3 specific actions to be identified for implementation by September 2018), including sharing information with Colleges. • June 2016 – form informal working group with cognate department(s) to report within 12 months (5 recommendations for data collection, analysis, impact of proposed activities) to act-on over the next two years.

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1.2	**Encourage more female first year students to take Chemistry in the second year and beyond**	• Number of female students decreases across the four years of the degree (currently from 35-40% in First Year dropping to ~25% in the Final Year).	• Recruitment and information events throughout the year, and especially in the final term of the first year when decisions are being made about whether or not to progress to Chemistry – to include presentations on the projects available in the final years (especially from female staff), and the range of progression routes available under the chemistry umbrella. • HoD to send a welcome message at start of 2016-17 academic year to all first year students emphasising our commitment to the objectives of Athena SWAN. • Adopting good practice example from Physics, by undertaking 'intention survey' at the start and end of the first and/or second Year. Will aim at 50% completion rate and seek more clarity on why students might not choose chemistry within the Natural Sciences degree. • Investigate (including identifying resources) providing a 'Springboard for Chemists' programme in 2016-17 (implement 2018) to support female students continuing in Chemistry who might not otherwise do so due to a lack of confidence or awareness of career opportunities.	Feb 2016	Sep 2019	• Dr James Keeler (DoT) • T&OC	• Increase the proportion of female students studying Chemistry, especially in the second year and beyond (will focus on the third year when the level of specialisation develops, currently from 30% to >35% by 2018-2019). • Approach the National average of 40% females studying chemistry by 2019.

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1.3	**Review undergraduate teaching to ensure no negative impact on the achievement of women**	• Perception that teaching styles may favour male candidates – although in the 2015 undergraduate survey 95% or respondents (42% female) indicated that there was no gender bias in the chemistry lecture courses.	• Data collected (through course appraisal surveys) throughout the year about teaching material/delivery and discuss with undergraduate focus groups and T&OC. • Working group to be established (April 2016) to investigate (and trial) different styles of teaching and assessment, learning from good practice in other departments.	Mar 2016	Jul 2019	• Dr James Keeler (DoT) • T&OC	• Increase number of female students continuing beyond the first year. • Improve survey return rate to >50% (compared to 42% in 2015). • 1 survey per year (to avoid survey overload). • Maintain survey results suggesting that teaching has no gender bias.
1.4	**Analysis of student course selection and development of guidelines for lecturers**	• Too few female lecturers available in the Department (although female lecturers now present in first year). • Some courses (in the T third and fourth years) attract a low proportion of female undergraduates.	• Analysis of student feedback to identify gender bias in course selection. • Offer training to new lecturers. • Offer in-house work-shops for lecturers to discuss course delivery. • Inform all lecturers of the need to deliver lectures in a style that does not discourage female undergraduates (e.g. inclusive presentation style and content that highlights achievements of female scientists).	Oct 2016	Sep 2019	• Dr James Keeler (DoT) • T&OC	• Greater understanding of student choices by 2016/17. • Actions identified and implemented in 2017/18. • 100% of new lecturers trained within first year in post. • 100% lecturers aware of inclusive lecturing style.

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1.5	**E&D training for all (small group) supervisors and laboratory demonstrators**	• Department and Colleges rely on a diverse community of teachers throughout the academic year and degree (College staff are independent of University E&D training requirements). • Lack of awareness of gender (and more general E&D issues) may disproportionately affect female undergraduates.	• Offer supervisor training at the start of every term, and inform all supervisors of on-line information and guidance. • Compulsory for all first year PhD and MPhil students to participate in E&D training session. • Laboratory Demonstrators will be required to complete on-line E&D training module as part of their induction. • Recommend Colleges to require E&D training completion by supervisors. • Monitor feed-back from student survey.	Oct 2016	On-going	• Dr James Keeler (DoT) • T&OC	• Confirm that all first year PhD and MPhil students (who are likely supervisors and demonstrators) complete E&D training module – 70% uptake by 2016-17, >95% by 2017-18. • Survey College employed supervisors (starting 2016-17) to ensure that they have been encouraged to complete E&D training module.
1.6	**Address examination performance by gender**	• Survey returns suggest that female undergraduates expect to do less well than their male colleagues. • Female undergraduates underperform relative to male counterparts in both years 3 and 4	• Collect detailed data (starting June 2016), with a level of granularity (by question across all years) to better understand if particular papers/courses question styles affect female examination performance. • Establish an examinations working group (October 2016) to look at the data and make appropriate recommendations.	Jun 2016	July 2019	• Dr James Keeler (DoT) • T&OC	• Granular data collected and analysed in more detail by June 2016. • Working group to make recommendations by Feb 2017. • Recommendations to be actioned over 2018-19. • Gender attainment gap reduced by 10% by 2019.
1.7	**Outreach activity and engagement with College Admissions Tutors/Admissions Offices to encourage female students to choose chemistry in first year of Natural Sciences degree**	• A-level teaching and content may discourage women from considering chemistry as an option for their first year. • Gender balance of staff involved in outreach activities raised aspiration of female students and encourages more female applicants.	• Continue with successful Outreach activities. • Offer workshops for potential female undergraduate applicants as part of Outreach activities.	Jan 2016	On-going	• Dr James Keeler (DoT) • T&OC	• Increase the proportion of female undergraduates studying Chemistry in year 1 (37% over the past four years) towards the National average (42%) by start of 2018.

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	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person responsible	Success criteria and outcome
SA 2	**Postgraduate Students**						
2.1	**Actively review postgraduate numbers**	• In recent years, about 40% of applicants for PhD places have been female (numbers for MPhils too small to give meaningful data). • Recruitment events have also attracted ~40% potential applicants (in line with national average).	• Graduate Open Days to encourage more female attendees. • Highlight profile of women in the department and the ASWP activities through the website. • Engage with the RSC to encourage more women to apply (in Cambridge and elsewhere through their literature and conference events). • Identify long term trends in MPhil applications. • Work with other Departments in the SoPS to share effective recruitment strategies. • Compare to national statistics.	Feb 2016	Sep 2019	• Dr Paul Barker (DoGE) • Dr Rebecca Myers (HoGR) • Dr Nick Bampos (School Gender Champion) • GEC	• Increase female participation at Open Days (currently 40%) by 3% per annum. • Increase number of female applicants to 45% (currently under 40%). • Maintain the recent favourable proportion of PhD admissions relative to applications (over 40% since 2012).
2.2	**Greater understanding of PDRA numbers and background**	• The large and international PDRA community requires more detailed monitoring of gender and ethnicity statistics to take into account cultural barriers. • Understanding the composition of the PDRA community can help 'customise' support during the time PDRAs are the Department, and better advise them about their career aspirations.	• Departmental Welfare, Training and Development advisor to collect relevant data and identify groups with specific support needs. • DHoD to inform and get support from HoD and SMT for initiatives that address any specific needs. • PDRA focus-group(s) established by May 2016 (through PDAC) to develop appropriate support.	May 2016	Sep 2019	• Departmental Welfare, Training and Development advisor • Dr Nick Bampos (DHoD)	• Achieve high positive response (>80%) in surveys and exit questionnaires. • From exit surveys and focus groups identify, implement and evaluate one new initiative each year to support female PDRAs.

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2.3	**Recruitment of postgraduates and PDRAs**	• Wording and information in advertisements and recruitment literature influence the gender balance of applicants. • Selection process risks appointing candidates 'in the image' of the interviewer. • Style of interviews (likely conducted by male interviewers in the predominantly male department) may unconsciously bias against female candidates.	• Gender imbalance to be highlighted at all Faculty meetings. • Compulsory for those recruiting, interviewing and appointing to have completed on-line E&D Training module. • Adverts and recruitment literature reviewed annually to ensure gender neutral language and commitment to Athena SWAN. • Involve female members of staff in the appointment process. • Data about recruitment and appointment process presented to the HoD and DHoD termly, and presented at Faculty meetings annually.	Mar 2016	Sep 2019	• Dr Paul Barker (DoGE) • Dr Rebecca Myers (HoGR) • GEC • Dr Nick Bampos (DHoD)	• Increase the number of female applicants to above 40% over three years (currently 25% for PDRAs).
2.4	**Embed mentoring and support schemes**	• The mentoring scheme currently in place has not had the intended profile due to lack of communication (especially amongst students admitted before the current scheme was in place in 2013-14). • Lack of clarity about 'mentoring' and 'pastoral' support schemes.	• GEC to revisit the schemes to provide greater clarity based on recent consultation with focus-group. • Raise profile of schemes in website and Departmental literature. • Continue with October graduate 'Open Day' and track attendance by gender. • HoD to write to all postgraduates to 're-launch' schemes. • All new postgraduates to be informed of mentoring scheme prior to arrival. • Engage with Secretary of the Colleges' Graduate Tutors' Committee to make sure that the Colleges are aware of support mechanism that the Department offers.	Apr 2016	Jan 2017	• Prof John Pyle (HoD) • Dr Paul Barker (DoGE) • Dr Deborah Longbottom (HoGE) • GEC	• Scheme highlighted on website and relaunched in 2016. • Achieve 100% allocation of mentors/tutors to all incoming students from October 2016. • Improve survey results (compared to 2015) relating to mentoring and support, including awareness.

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2.5	**Monitor postgraduate completion rates by gender**	• To confirm that support mechanisms are equally applied across the department and within all research groups.	• SMT and HoD to be presented with data annually to confirm that there is no gender bias in completion rates (especially within any group). • HoD to address any concerns should they arise with PIs.	Jun 2016	Sep 2019	• Prof John Pyle (HoD)	• Confirm no gender bias in postgraduate completion rates each year.
2.6	**Writing workshops for postgraduates and PDRAs**	• Lack of writing skills is often not addressed at the research group level. • Difficulties writing a thesis (or research publications) at the end of a PhD discourages some from continuing in research. • CV preparation and career applications suffer if potential candidates lack suitable writing skills.	• HoGE has been developing writing work-shops for graduates as part of the Department's Graduate Education programme • Capitalise on current writing skills a part of transferable skills offered by the Department. • Continue effective engagement with the Careers Service.	Oct 2015	Sept 2017	• Dr Deborah Longbottom (HoGE) • Careers Service	• Increase in number of graduates staying in chemistry related fields/professions (keeping a track of gender breakdown through exit surveys). • Writing workshops introduced by early 2016. Uptake and feedback monitored by gender (aim for >80% positive feedback on effectiveness of sessions through surveys).
2.7	**Career progression support**	• Loss of female chemists going from PhD to PDRA to research/academic careers. • There is a perception that a research career is incompatible with personal/family aspirations.	• Career events held in the final term of the academic year for (third year) postgraduates and PDRAs to raise awareness of career options. • Events to include female academics, female alumni (working in a range of careers) and the Careers Service. • Embed the recent success of inviting visiting named lecturers to give 'personal perspective' presentations about their careers. • Include question about career intentions for new PhD students and PDRAs in surveys.	Mar 2016	On-going	• Dr Nick Bampos (DHoD), • Dr Deborah Longbottom (HoGE)	• Improve survey results in 2018-2019 (compared to 2015) relating to career progression support by the Department - in 2015 78% of graduates, and 86% of PDRAs.

2.8	**Exit surveys for postgraduates and PDRAs**	• Lack of data about what the experience in the Department does for the next phase of the career of our female postgraduates and PDRAs. • Recently implemented exit surveys for PDRAs have provided useful information, however improving the completion rates (43% since 2013) and extending the process to postgraduates will better inform future initiatives.	• Use exit questionnaires/ surveys to assess how Departmental activities have influenced career progression. • Departmental Welfare, Training and Development advisor to circulate and track exit survey completion and data collection. • Data to be presented to the ASWP and the HoD. • Appropriate actions to be formulated and presented at the Faculty meetings annually.	Feb 2016	On-going	• Departmental Welfare, Training and Development advisor,	• Exit surveys analysed annually to assess impact and identify additional issues/actions • Achieve completion rates greater than 50% for PDRAs and postgraduates. • Develop protocol for collecting career data (especially if female members of the Department stay in chemistry-related fields) by December 2016 and implement by January 2017.
2.9	**Introduce women support groups**	• Providing women only groups to meet regularly provides a relaxed and supportive environment in which to share experiences and advice. • Including female chemists from various stages of careers provides a more constructive perspective about career aspirations. • Such groups are not exclusive, but simply respond to the clear evidence that females are underrepresented in the Department and in the field more generally.	• Offer termly sessions over lunch for female postgraduates, PDRAs and academics to meet informally.	Feb 2016	On-going	• Prof Melinda Duer	• Track participation over three years and evaluate annually at one of the sessions.

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2.10	**Induction and welcome sessions**	• Effective welcome sessions and clarity of information help postgraduates and PDRAs have a more productive and enjoyable time in the Department. • Postgraduates and PDRAs benefit from bespoke sessions to better address their specific working needs. • Sessions when people join the Department introduce them to policies (e.g. Dignity@Work, Dignity@Study, flexible working and maternity/paternity policies) and structures (e.g. mentors).	• These sessions have been in place since 2014, but we have not captured all those postgraduates and PDRAs who arrived before the current structures were introduced. For these groups, sessions will be made available to bring them up to date. • HoGE to embed all 'welcome' information into the Graduate Education programme. • PDRA induction sessions run monthly throughout the year to capture all new arrivals. • DHoD attends all induction sessions to welcome new PDRAs.	Oct 2015	On-going	• Dr Deborah Longbottom (HoGE) • Departmental Welfare, Training and Development advisor	• 100% attendance at all welcome meetings/sessions for new postgraduates. • 100% attendance at all induction meetings for new PDRAs. • >50% of current PDRAs attend catch up sessions.
2.11	**E&D training**	• Lack of E&D training early in career risks future bias (conscious and unconscious) and gender imbalances.	• All PDRAs and postgraduates to attend compulsory E&D training session (also see action 1.5), and any other in-house work-shops that are presented (often led by developments in the University that avoid replication and driven by good practice).	Mar 2016	Sep 2019	• Marita Walsh (SSM)	• Get as close to 100% completion rates for PDRAs within 4 years (currently 16% of PDRAs have completed the on-line E&D module, 50% by Dec 2016, >90% by December 2018). • 100% completion rate of postgraduates

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	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person responsible	Success criteria and outcome
SA 3	**Support the recruitment, retention and promotion of female staff**						
3.1	**Increase the number of female academics**	• 13.3% female teaching and research staff compared to 17.7% national average (HESA, 2013/14). • Academic appointments do not come up often, so important to ensure that appointment committees are E&D trained and alerted to the historical underrepresentation of women in the Department.	• Actively encourage appropriately qualified female researchers to apply for vacancies. • Minimum of 20% females on each recruitment shortlist. • Continue (and improve) effective and inclusive recruitment and appointment processes.	Feb 2016	On-going	• Professor John Pyle (HoD)	• Increase the number of female academics. • Despite the low number of positions in the near future (see 2.2), use the 18% national average as a target for the next 3-5 years.
3.2	**Increase the number of women holding early-career fellowships**	• Low number of early-career academic appointments has a negative impact on later career numbers.	• HoD and SMT to identify funds and available opportunities to appoint female researchers from those candidates applying for competitive research fellowships (e.g. Royal Society URF, EPSRC, BBSRC, etc) on similar terms as the bodies they applied to (e.g. length of appointment, research support). • Run 'proposal preparation' and 'grant writing' workshops for those applying for fellowships.	Mar 2016	Sep 2019	• Prof John Pyle (HoD) • SMT	• Appoint up to 2 female early-career research fellows within three years.

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3.3	**Tackle unconscious (and conscious) bias**	• Fewer female teaching and research staff than male at every level. • Unconscious bias has been identified as the next step to address in overcoming obstacles to female recruitment, appointment, attainment and promotion.	• Provide unconscious bias training for all academic staff. • Use the University modules. • Develop in-house sessions to address issues specific to the STEMM subjects. • Unconscious bias training to become part of induction and training.	Feb 2016	Sep 2019	• Dr Nick Bampos (DHoD)	• 100% academic staff to participate in unconscious bias programmes/ sessions by end 2017.
3.4	**Encourage promotion opportunities for female academics**	• Female academics tend not to apply for promotion at the earliest opportunity	• Allocate a team of 'promotion mentors' with the specific aim of annually assessing career progression and supporting female academics in the promotion process.	Feb 2016	On-going	• Prof John Pyle (HoD)	• Increase the number of female Senior Lecturers/Readers/ Professors - at least one promotion of the 3 eligible female academics by 2019.
3.5	**Mentoring and Staff Review & Development (SR&D)**	• Mentoring improves job satisfaction and helps structure career progression. • Regular SR&D helps highlight achievements, and is an area in which the Department failed to make progress in the last submission. • 80% of academic staff indicated in the Bronze submission that they wanted a SR&D process to operate in the Department.	• Offer 'mentoring groups' for all academic staff, as a way of formalising groupings in which colleagues can talk informally about career development and share experiences relevant to their role in the Department. • Put in place SR&D program in which all academic staff participate biennially. • Ensure PDRAs have access to regular SR&D. • Support School level action to collect information and review SR&D process.	May 2016	Sep 2019	• Marita Walsh (SSM)	• All academics to be assigned a 'mentoring group'. • 100% academics to have been involved in SR&D within three years (staggered over this period). • >90% of PDRAs reviewed in next 2 years (currently 75%).

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3.6	**Leadership training (including university programmes)**	• Academics are required to take on roles and responsibilities for which they have received no formal training. • Leadership training benefits both the individual and the institution. • Department has been running a scheme since 2014, and this has proved effective and popular with all those who have taken part. • *Individual leadership training support has proven extremely effective and much appreciated.* • The University runs leaderships training programmes which are more general but not as effective as Departmental schemes	• Continue the programme that is provided (and funded) by the Department using an external provider. • Programme involves four sessions run over an academic year. • Between 6-8 academics in any year makes the programme more 'participant responsive' and maximises impact. • *At current rate, all academic members of staff will have opportunity to participate in leadership training within five years.* • All new academic staff to also be directed to the relevant University schemes.	2014	Sep 2019	• Marita Walsh (SSM) • Dr Nick Bampos (DHoD)	• 80% of academic staff to have participated in leadership training by 2019, 100% by 2021. • One-to-one leadership training to be offered to academic staff who will benefit from such support.

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	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person responsible	Success criteria and outcome
SA 4	**Provide a culture where everyone can succeed**						
4.1	**Promote good citizenship and an inclusive environment**	• Faculty meetings have provided a much needed and appreciated forum to discuss Departmental business and agree on collective objectives/aspirations. • Rewarding good citizenships improves the working environment for all. • We have not yet fully developed and implemented a formal 'work-load' model which would provide a better way to monitor good citizenship, although data collection has been initiated and the HoD already considers relative workloads. • From the most recent academic survey, some colleagues were still concerned about workload and work/life balance.	• Implement 'workload model' to better assess contribution to the department (which covers teaching, administration, pastoral and research) – this is one of the few actions not completed from the previous submission. • Improve the distribution of workload amongst academic staff. • HoD to review the Group Expectation Documents annually. • Reduce the number of committees in the Department to improve governance and reduce unnecessary committee load within the 'core hours' in the Department. • Ensure women are distributed across committees in order to avoid 'committee overload' and gain experience in committees that will most effectively support their career development.	Mar 2016	Sep 2019	• Prof John Pyle (HoD) • Dr Howard Jones (Academic Secretary)	• Complete and implement 'work-load' model by 2016-2017. • Rationalise committee structure by June 2016. • Transparent comparative workloads for all academic staff by January October 2016.

4.2	**Promote career pipeline options for women**	• Women drop-out of the chemical career pipeline because of perceived limitations in (i) their background, and (ii) career options. • Better understanding of the available options and compatibility with family/carer responsibilities should help keep women in the chemical sciences.	• Establish where female PDRAs go when they leave the Department (see SA 2.8). • Provide career guidance sessions throughout the year, delivered by leaders in a number of fields that broaden career horizons. • Invite female 'industry mentors' from a broad range of professions to generate a critical mass of leading women to support our senior academics as role-models. • Use 'industry mentors' to give a better sense of working environments (e.g. mock corporate/policy meetings, board meetings, promotion meetings) in diverse professions that women tend to avoid applying to.	May 2016	Sep 2018	• Dr Deborah Longbottom (HoGE) • University Careers Service • PDAC	• 2 career guidance sessions offered annually (attendance and feedback monitored) • Identify 4 'industry mentors' by Sept 2016 and arrange 2 sessions per year that focus on 'career pipelines' for women thereafter.
4.3	**Provide support for women who take maternity leave (and men on paternity leave)**	• Supporting staff prior to, during, and returning from maternity leave is a key element of Departmental support for female staff. • Effective policy (well implemented) encourages women to stay in academia/research.	• Make all members of staff aware of the maternity policy. • Identify resources for practical assistance beyond the Returning Carers Scheme. • Lobby funding bodies that do not provide support for PDRAs and research fellows (though SoPS, and University HR and E&D Committees) over the next two years. • Collect survey/questionnaire data from female staff taking	Feb 2016	Sep 2019	• Marita Walsh (SSM)	• Ensure that all staff benefit from maternity structures in the Department (monitor through staff surveys and exit questionnaires). • For academics, fund cover for running research groups during maternity leave, (from Jan 2016). • Survey returning staff and achieve >90% satisfaction rate with support received.

			maternity leave. • Develop case studies from staff benefitting from Returning Carers' Scheme, and publish on website by June 2016.				• Increase maternity return rate to >80% (average over last 5 years is 63%).
4.4	**Communication within the Department**	• Information about opportunities/support mechanisms is generally difficult to find on the Departmental website. • Access to surveys, guidelines, training opportunities, and career progression help all students make the most of the Departmental resources. • Clarity and accessibility of information leads to more inclusive and productive management and decision making structures. • • Clear agendas and minutes of meetings provide transparency of governance structures.	• Appointment of Web Programme Developer to restructure the departmental website and make better use of images to highlight diversity in the Department. • Streamline navigation through the website in response to focus groups and the ASWP. • Use e-mail, meetings, and website content more effectively, and in particular to address AS actions. • Run focus-group(s) to provide feedback on website development and improvements • Communicate and update key policies (e.g. Dignity@Work, flexible working and maternity/paternity policies).	Jan 2016	May 2017	• Diane Harris (Project Delivery Coordinator)	• Web Programme Developer post filled by end 2015. • Focus-group(s) to meet in early 2016 and again in 2017 to report on effectiveness of communication in the Department. • Monitor 'page-hits' using analytics software. • Website accessibility measured by incorporating suitable question in future surveys.

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4.5	**Communication beyond the Department**	• 'Outward facing' publications, web content and social networking shape the perception of the Department as a place to work, learn and undertake research. • Effective communication of Departmental impact in teaching, research and professional support can have a lasting and transformative effect on engagement with the broader community and women wanting to work in science.	• Appointment of Web Programme Developer will help implement features that will make the site more accessible and interactive. • Focus-groups to identify areas that respond to different demographics and age groups. • Chem@Cam editor to assess the content of our publications (in paper and web form) to highlight the impact of activities in the Department, particularly those from women to ensure visibility.	Jan 2016	May 2017	• Diane Harris (Project Delivery Coordinator) • SMT • Carmen Pryce (Editor of Chem@Cam)	• Focus-group(s) to meet in early 2016 and again in 2017 to report on effectiveness of communication in the Department. • Track increasing number of searches of our website and followers on Twitter. • Track when work in the Department is reported by media and other sites (by gender).
4.6	**Committee structure**	• Committee structure does not make efficient use of the members of the Department. • Regular scrutiny of membership and remit improves impact and effectiveness of committee business. • Ensure female representation on all committees. • Standing items ensure that key actions (e.g. from the ASWP) are dealt with accordingly. • Effective ASWP membership informs Departmental policy.	• Restructure the committee structure to promote efficiency and better lines of communication. • Include standing items in key committees (e.g. gender and E&D). • HoD to meet with committee Chairs annually to (i) discuss key items of business, (ii) emphasise transparency, fairness and inclusivity in all business, and (iii) sensitise Chairs about the need to give all members of committees an opportunity to participate in discussions.	Mar 2016	Sep 2019	• Prof John Pyle (HoD)	• Complete committee restructure by June 2016, and map success by >80% positive feed-back in future surveys. • Ensure female representation on all committees by Jun 2016. • Avoid 'committee overload' of female academics by inviting female senior researchers, Teaching Fellows, and administrators to join committees as a career development opportunity. • Refresh the ASWP

							membership by December 2016.
4.7	**Staff exit survey**	• Exit questionnaires/ surveys for all staff provide valuable information about the working environment in the Department. • Data collected over an extended period gives a timeline of the effectiveness of actions and initiatives.	• Develop exit questionnaires/ surveys for all categories of staff. •	Mar 2016	Sep 2019	• Departmental Welfare, Training and Development advisor • Marita Walsh (SSM)	• Develop a better overview of the Department for all categories of staff. • Present the data annually to the ASWP and SMT, new actions result.
4.8	**Athena SWAN profile in policy development in the Department**	• To highlight and track progress on key objectives and actions on an ongoing basis at the highest level in the Department. • Engage members of staff beyond the membership of the ASWP and SMT through committee and Faculty meetings.	• HoD and SMT to consider ASWP minutes once a term and scrutinise progress and identify mechanisms by which to support key actions (especially if there are resource implications).	Mar 2016	Sep 2019	• Prof John Pyle (HoD) • Dr Nick Bampos (DHoD)	• Maximise impact of all ASWP activities and actions through committees and surveys.
4.9	**Data collection for Athena SWAN Working Party**	• The recent ASWP surveys have addressed the Bronze and new Silver actions. • Previous surveys have helped track progress on actions, but may no longer identify the areas that we should be addressing in the next cycle of work.	• ASWP to review the questions about actions that future surveys need to address. • Additional surveys and data collection (e.g. destination data) to be considered by the ASWP and SMT.	Mar 2016	Sep 2019	• ASWP	• Use relevant data that has not been previously available to inform future actions. • Use data to inform Silver to Gold Actions (identify 4 data sets for Gold application by Jan 2017 and implement collection by Mar 2017). • Maintain (or where possible improve) the high return rates for surveys (around 50% for

							postgraduates and PDRAs and above 90% for academic surveys leading to Silver submission).
4.10	**Influencing policy development outside the Department**	• The Department is large, diverse and has enough influence to shape gender related policy in the University and beyond. • Working with professional bodies and industry effects lasting change for female scientists at all stages in their careers. • Our academics can highlight the Departmental gender related activities, and in so doing influence a wider sphere beyond Cambridge. • SAP risks not taking into account personal circumstances which are likely to affect female members of staff.	• Engage with the SoPS and other departments about gender related policy, through one of the School Gender Champions (who is a member of the Department). • Good practice identified and shared via School level E&D forum and buddy system. • Engage with the University Gender Working Group and E&D Committee through members of the Department who are also members of these committees/groups. • ASWP members to engage with University Athena SWAN Network. Track involvement in local and national activities (e.g. ASWP member Prof Jane Clarke is very active on the national stage highlighting issues and promoting support for women in STEMM).	Mar 2016	Sep 2019	• Prof John Pyle (HoD) • Dr Nick Bampos (SoPS Gender Champion)	• Capture areas in which Departmental involvement has impact in gender related activities. • Over three years of action plan, identify at least 10 examples of 'beacon activity' in support of AS by members of the Department. • School Champion or nominated representative to attend >90% of E&D forum meetings and report outcomes to ASWP/HoD (SoPS Athena SWAN Buddy Scheme to be implemented in 2016). • At least one member of ASWP to attend all termly Athena SWAN Network events. • Identify at least 2 other members of the Department to champions gender equality within and outside the University by end 2017.

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Key: AS Athena SWAN; ASWP Athena SWAN Working Party; DHoD Deputy Head of Department; DoGE Director of Graduate Education; DoT Director of Teaching; E&D Equality and Diversity; GEC Graduate Education Committee; HEI Higher Education Institutions; HoD Head of Department; HoGE Head of Graduate Education; HoGR Head of Graduate Recruitment; HR Human Resources; PDAC Post-Doctoral Affairs Committee; PDRA Post-Doctoral Research Associates; PI Principal Investigator (Group leader); RSC Royal Society of Chemistry; SA Silver Action; SAP Senior Academic Promotion; SMT Senior Management Team; SoPS School of Physical Sciences; SR&D Staff Review and Development; T&OC Teaching and Outreach Committee; URF University Research Fellow.