

Application details

Name of institution	University of Liverpool
Name of department	School of Physical Sciences
Date of current application	March 2022
Level of previous award	Silver
Date of previous award	Nov 2016

Contact details for application

Name	
Email	
Telephone	

Question	Words used
Letter of endorsement from the Head of Department	595
Description of the department	514
The self-assessment process	1446
Previous action plan*	
Progress report	2730
Current self-assessment and future priorities	1817
Future action plan*	
Overall word count	7102

*The previous and future action plans should contain no commentary contributing to the overall word limit

ADDITIONAL WORD LIMIT CONFIRMATION

Email from Advance HE [26/01/2022]:

Thank you for your email. We are happy to grant an additional 1,000 words to the School of Physical Sciences (for its forthcoming renewal application) due to its faculty-like structure. The additional words are to: provide relevant contextual information in respect of the structure of the School (section 1.2); draw out the differences, as appropriate, for each

of the three departments in respect of the evaluation of the main barriers and facilitators with regard to action implementation (section 2.2 Progress Report) and; allow the School to analyse relevant data effectively by gender for each department (section 3.1 current self-assessment and future priorities).

We used the additional 1000 words to describe the School structure in section 1.2, differences between departments in implementation and outcomes of actions in section 2.2 (specifically for actions A2, A3, A5, A8, A13, A25, A26a, A27a), and to analyse data and propose different departmental actions in section 3.1 (specific actions T6, C5, S1-3, B3, B5-7).

In addition to this, the School has a new Dean since 1st February 2022 whose support for this application was included in the Dean's letter (additional 200 words).

We also used the additional 500 words to discuss new actions related to the impact of Covid-19 in section 2.2.

Overall word limit: 7700 = 6000 + 1000 (additional) + 200 (new Dean's letter) + 500 (impact of Covid-19) words

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1. Section 1 – Introduction to the department and the self-assessment process

In Section 1, applicants should evidence how they meet Criterion 1:

an organisational structure is in place to carry the action plan forward and continue the self-assessment process.

1.1 Letter of endorsement from the head of department



Dean's Office

School of Physical Sciences
Chadwick Building
Peach Street
Liverpool
L69 7ZF

Dear Athena Swan panel,

As the outgoing and incoming Deans of the School of Physical Sciences we are delighted to present our Athena Swan Silver renewal application. We fully endorse the principles of equity and fairness of opportunity championed by Athena Swan. Our shared vision is an environment where the choice of career comes without the need to compromise on work-life balance or wellbeing for all and we have taken substantial steps towards this. We also aspire to be sector-leading in this area of our activity.

The School's Equality, Diversity and Inclusion Committee, chaired by the Dean, has been responsible for ensuring that the Athena Swan Silver 2016 actions were implemented. We believe we have made very substantial progress, and the evidence to justify this statement is to be found throughout the document. Some representative impacts arising from our action plan activities are:

- Female representation on the School Leadership Team is now 44%, and Senior Leadership Team 40% (as of May 2021).
- The Department of Physics (in partnership with the Liverpool John Moores University Astrophysics Research Institute) has been chosen by the Institute of Physics to host the 2023 UK Conference for Undergraduate Women in Physics (CUWiP UK).
- We now exceed sector benchmarks for proportion of female UG students in all three departments.

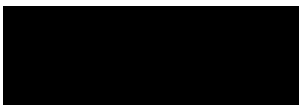
- Workload models have been used in each department for the past few years, and from 2021-22 we will have a school framework, which includes allocation for EDI work, and which follows recommendations from the School EDI Committee.
- The School formed a Wellbeing Team in September 2018. The objective is to promote positive mental health and wellbeing within the School. The team has organised over 17 activities and initiatives and provides a dedicated Wellbeing room sponsored by the School.
- The School Researcher Forum continues to enhance the development and career prospects of PDRAs through activities such as Annual Awards and the Coaching Programmes.
- We developed a best practice guide to our appointments and interview processes, which has EDI at its heart and has been adopted across the Faculty.
- Support for high quality EDI training and development opportunities for all staff; for example, compulsory Race Equality Training has been rolled out in the School since 2020.

We note that progress in some areas of our previous action plan is still ongoing, and we have also identified new challenges in our application, and provide an action plan to address them, with the main focus on the five key priorities: recruitment and progression of female academics, improved family leave, increase in numbers of female PGT students and tackling bullying and harassment.

As the incoming Dean I am pleased with the progress the School has made. I am committed to delivering the success of the new action plan outlined in this application and will Chair the School EDI committee. To ensure success I will allocate resource to deliver our EDI goals (£■■■■) including additional resource for: the Wellbeing Team (£■■■■); development of our PDRA community (£■■■■) and the CUWiP UK (£■■■■). I will also ensure that our EDI work is valued and recognised on our workload model.

In summary, we are proud of the substantial progress made since 2016. We have developed a new action plan exemplifying our ambition of being a beacon School for this University, and to renew the Silver Award. Finally, we verify that the information included in this application is an honest, accurate and true representation of the School.

Yours sincerely



Prof Rick Cosstick, outgoing Dean of the School of Physical Sciences.



Prof Karl Coleman, incoming Dean of the School of Physical Sciences

Recommended word count: 595/500+200 words

Please insert (with appropriate letterhead) a signed letter of endorsement from the Head of Department.

If the Head of Department is soon to be succeeded, or has recently taken up the post, applicants should include an additional short statement (additional 200 words) from the incoming Head of Department demonstrating their personal commitment to supporting Athena Swan activity in the department.

1.2 Description of the department

Please provide a brief description of the department including any relevant discipline or contextual information. Present the most recent data on the total number and proportion of academic staff, professional and support staff and students by gender.

Acronyms and Definitions	
STAFF	
T&R	Teaching and Research career path
T&S	Teaching and Scholarship career path
Academic staff	T&R and T&S staff
PDRA	Post-doctoral research assistant
HoO	Head of Operations
HoD	Head of Department
STUDENTS	
UG	Undergraduate
PGT	Postgraduate Taught
PGR	Postgraduate Research
COMMITTEES AND GROUPS	
SSLC	Staff Student Liaison Committee
SRF	School Researchers Forum (open to all PDRAs in the School)
PSLT	Physical Sciences Leadership Team (Figure 1.2)
SLT	Senior Leadership Team (Dean, HoO, HoDs)
PDR	Professional Development and Review
OTHER	
PDR	Professional Development and Review
LJMU	Liverpool John Moores University
HESA	
benchmarks	Benchmarks are sourced from HESA data and are quoted for 2021
Colour coding:	Tables: F-yellow, M-blue Figures: F-red, M-blue Improvements in survey results are shown in green

The University of Liverpool has three Faculties: Health and Life Sciences, Science and Engineering, and Humanities and Social Sciences. The School of Physical Sciences is one of four constituent Schools of the Faculty of Science and Engineering. The School was formed from the three departments of Chemistry, Mathematical Sciences and Physics in 2010 (Figure 1.1). It is the largest School in the Faculty, with 344 (67F/277M) academic staff (T&R, T&S and PDRAs), 48% of total Faculty academic staff. We have 453 (118F/335M) staff members in total, and 2908 (1294F/1614M) students. The Dean and Head of Operations are the budget-holders and have oversight of all academic and professional service matters. The Senior Leadership Team (SLT) consists of three Heads of Departments (HoDs), the Dean and Head of Operations (HoO). Two members of the SLT are female (40%). The HoDs line-manage academic and research staff. Each department has research and teaching sub-structures. The Dean position is a permanent appointment. HoD posts are held for 5 years (renewable) and are externally advertised. Professional Services are organised at School level and led by the HoO; the HoO and 6 of the 13 professional services team leaders are female (46%).

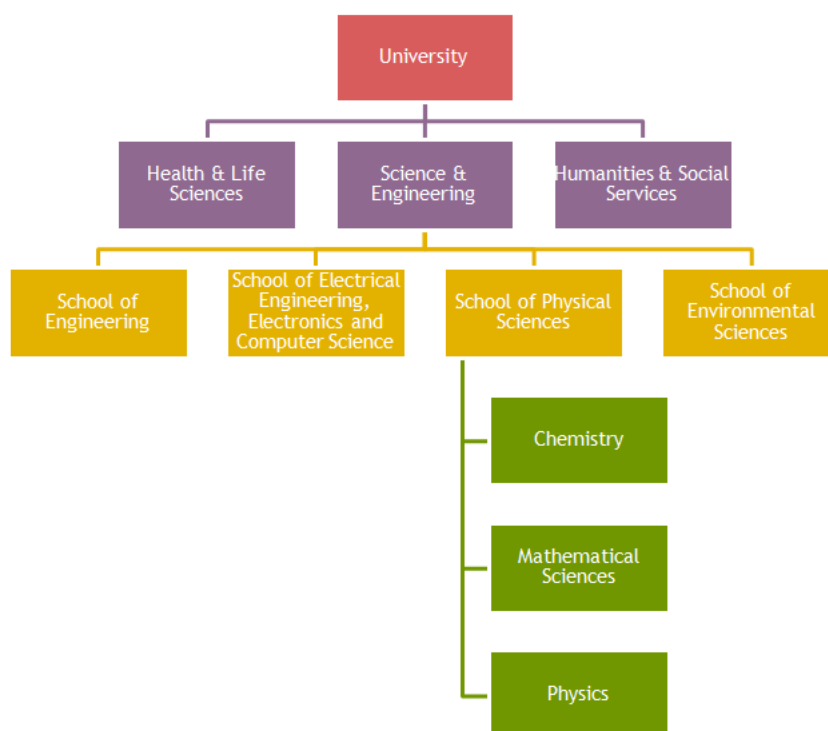


Figure 1.1: School of Physical Sciences within the University structure.

The three main departmental buildings are located close together in the central campus area. The School office is located in another building in the geographic centre of these three buildings. Each department has a separate student office to facilitate access for students to advice and information. Each department also has a social area where students and staff can meet informally. Teaching classes are centrally timetabled, but teaching activities are scheduled preferentially in adjacent accommodation where possible. Figure 1.2 shows a schematic of the School structure; the main committee is the Physical Sciences Leadership Team.

There are two academic pathways, T&R and T&S. Table 1.1 gives some overview data on the numbers of academic and professional services staff and students in the School in February 2022.

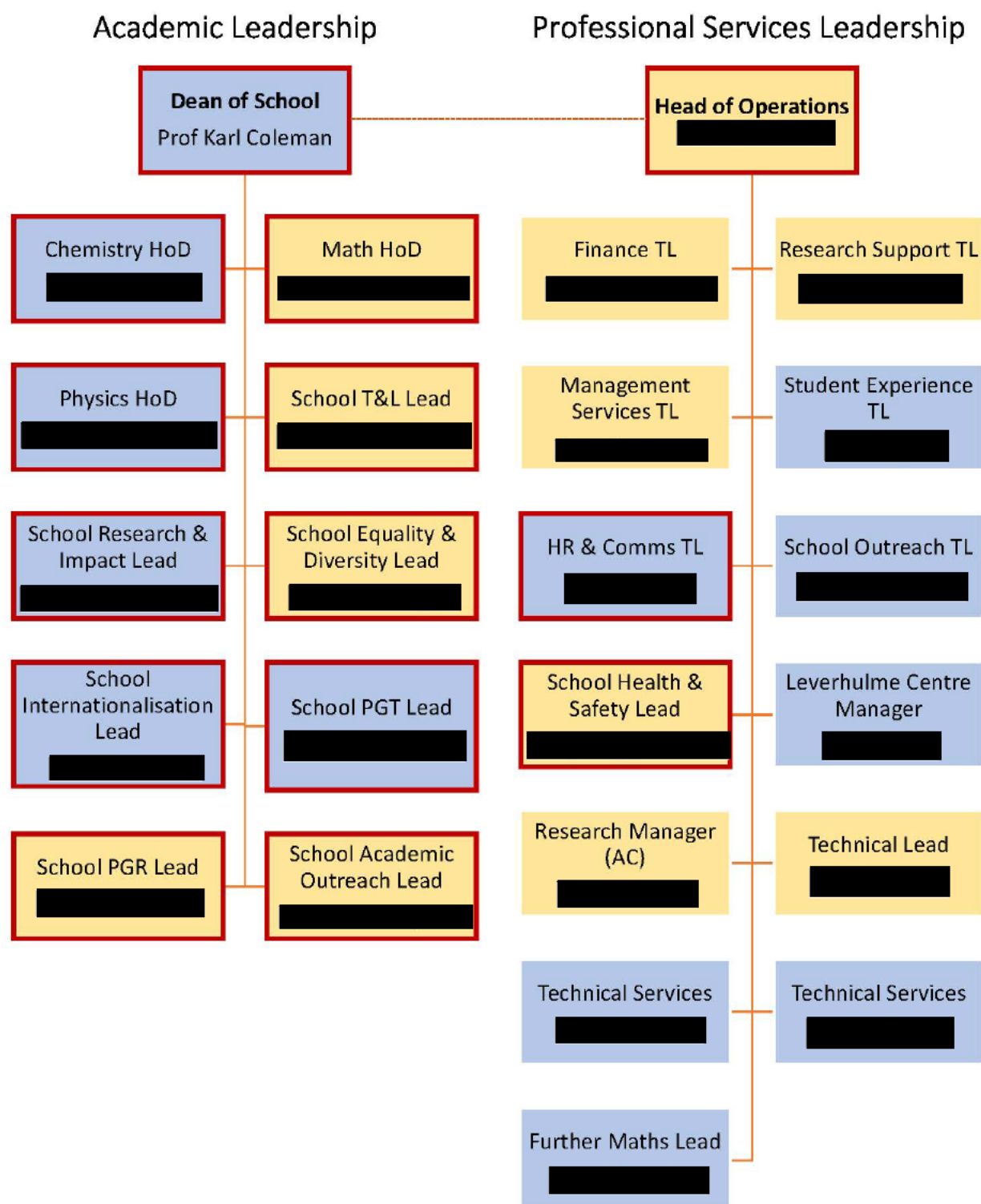


Figure 1.2: The School organisational structure. Female colleagues are highlighted in yellow, male in blue; members of PSLT are outlined in red. TL- Team Leader.

	School			Chemistry			Maths			Physics		
Type	M	F	%F	M	F	%F	M	F	%F	M	F	%F
UG			47%			45%			54%			28%
PGT			41%			33%			30%			45%
PGR			34%			43%			25%			29%
Research			20%			22%			40%			14%
T&R staff			17%			13%			20%			16%
T&S staff			35%			43%			33%			25%
PS			47%									

Table 1.1: Summary data for student and staff numbers in February 2022.

In **Fig. 1.3** we plot these data for the School – this gives the gender pipeline.

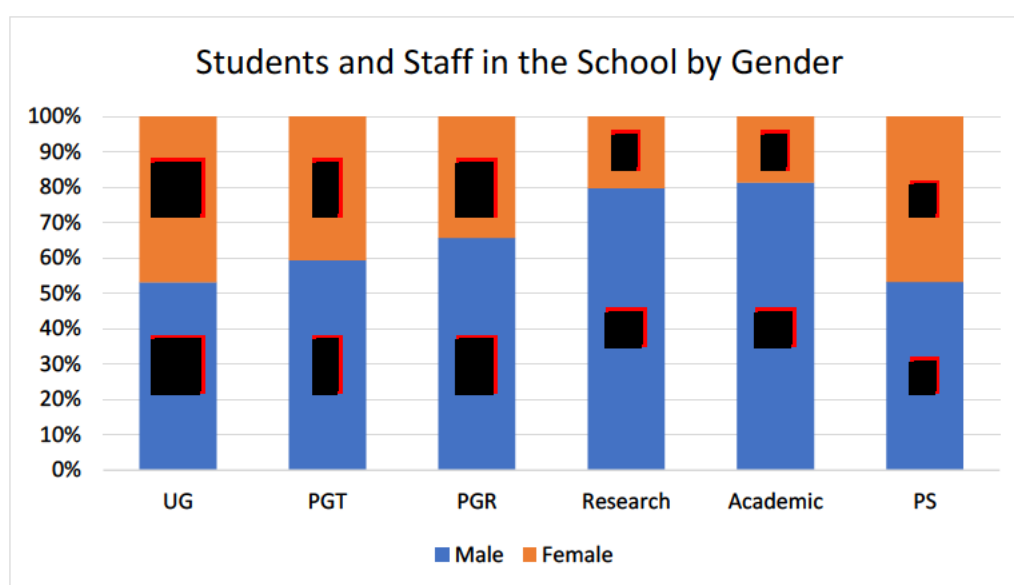


Figure 1.3: Student and staff numbers by gender (February 2022 snapshot).

Recommended word count: 514/500 words

1.3 The self-assessment process

Describe the self-assessment process. This should include:

1. a description of the self-assessment team
2. an account of the self-assessment process
3. plans for the future of the self-assessment team

1) *The Self-Assessment Team*

The core Athena Swan Self-Assessment Team (SAT) which wrote this document was formed in March 2021 and comprises departmental and School EDI Leads, the Dean, the HoO, the EDI Communications Champion, and other members of the EDI Committee who had significant experience in working on previous applications (Table 1.2). The SAT was formed to ensure input from all departments and both academics and professional services. The group met monthly.

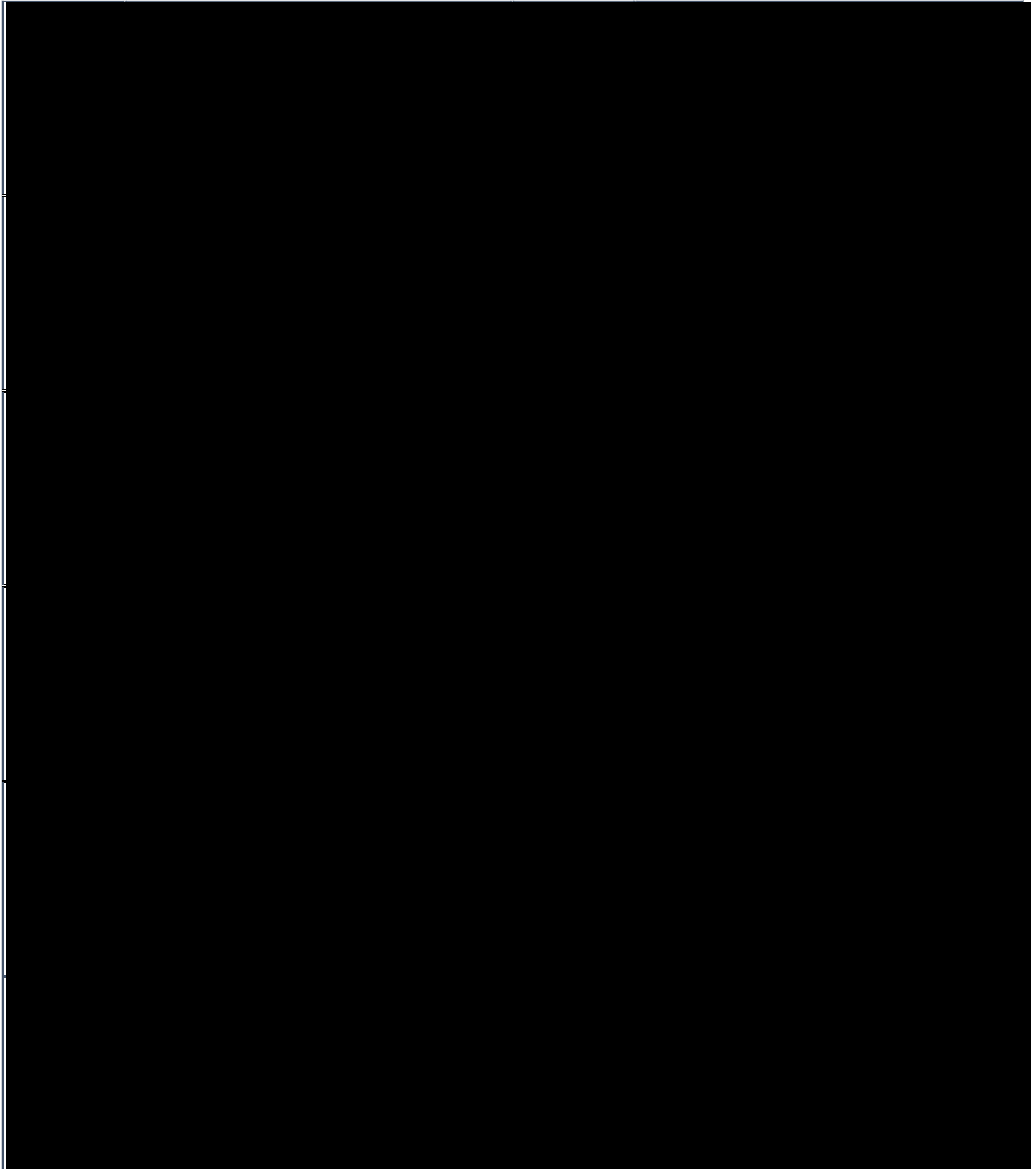


Table 1.2 The Self-Assessment Team profiles.

Input from a wide breadth of representations was ensured through the EDI Committee of which SAT is a sub-group of. The EDI Committee (Figure 1.4) was established in 2012 and has a large membership drawn from academic staff, professional services staff, researchers, PhD students and undergraduates; any members of the School can join. The EDI Committee is Chaired by the Dean, and HoO, HoDs and the Chair of School's Researchers Forum (SRF) are ex officio members. Each of the departmental Undergraduate (UG), Postgraduate Taught (PGT) and Postgraduate Research (PGR) SSLCs nominates their representatives to the EDI Committee, who then act as liaisons to ensure feedback is received from students and information on EDI work provided to students. An update from Athena Swan Lead is a standing item on the EDI Committee agenda.

The EDI Committee also works closely with the School Wellbeing Team (established in 2018) and University LGBT+, BAME and Disabled Staff and Student Networks. We are in the process of establishing an EDI Champions group in each department, which will focus on gender and EDI work in each department but will work closely with the EDI Committee.

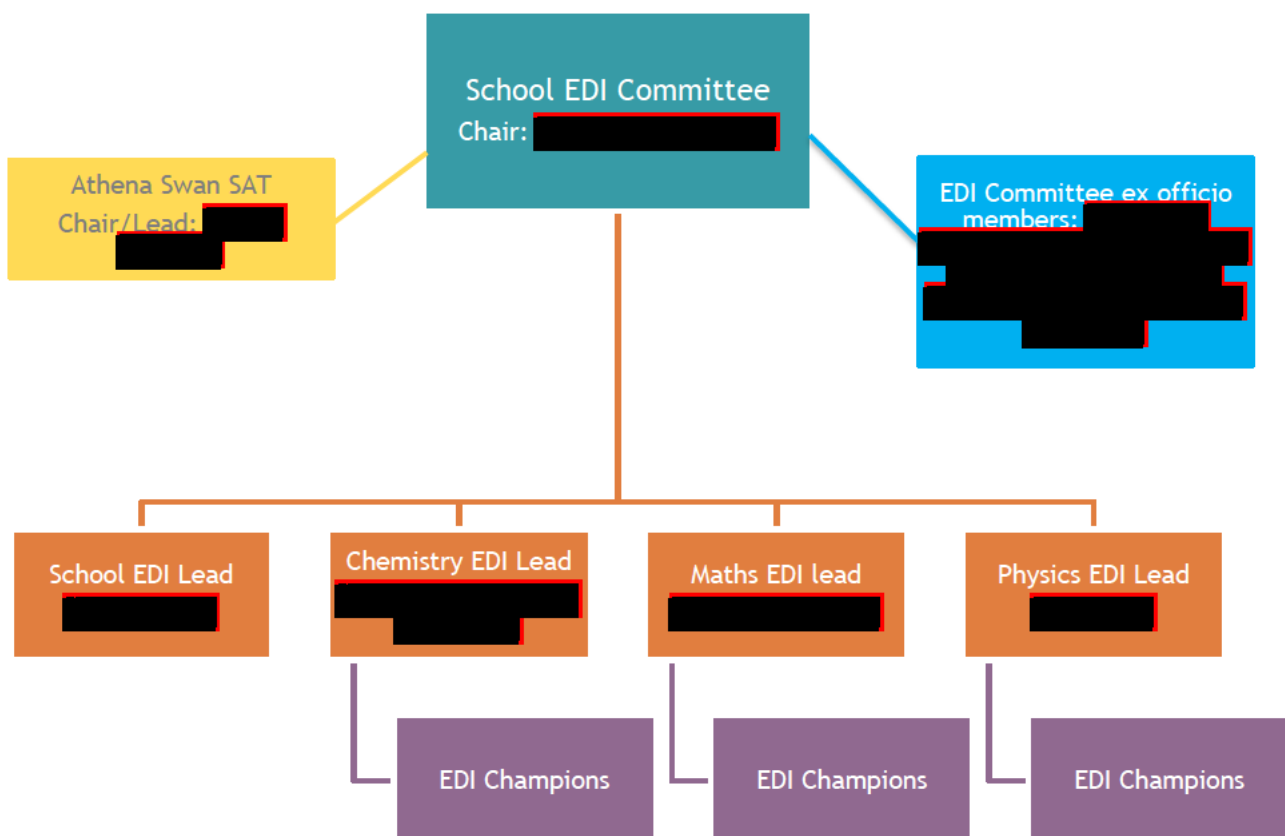


Figure 1.4: School EDI Committee Structure.

2) The self-assessment process

The EDI Committee meets at least 6 times a year and is represented at University Athena Swan Steering Group meetings three times a year. The School EDI Lead is a member of the PSLT (Figure 1.2) and feeds back to PSLT on EDI matters including progress on the Athena Swan Action Plan.

Progress on the previous action plan was monitored and implemented by the EDI Committee. We use an Athena Swan diary, located in a SharePoint space (now Microsoft TEAMS), to continuously log updates on actions and impacts.

We used results of multiple surveys to inform our new action plan and to demonstrate progress on the action plan from the previous application. The two main surveys used here were our School survey in November 2019 and University 2021 Survey for which questions were modelled on the Athena Swan Culture Survey. The former enabled us to make comparisons against our 2014 and 2016 surveys used to inform past applications, whereas the latter will be used for comparison against future applications when the Culture Survey becomes compulsory.

	Chemistry		Maths		Physics		School		Total	% of Eligible Staff
	M	F	M	F	M	F	M	F		
PGR										19.0%
PDRA										18.6%
Academic										46.7%
Professional Services										90.2%

Table 1.3: 2019 surveys: responses in each staff category by department and gender. Respondents who did not provide their gender are counted in the 'total' column.

Our School survey was intended to inform our submission in November 2020 (postponed due to the pandemic) and was sent to PGR students, PDRA staff, Academic staff, and Professional Services staff, with the questions adapted for each staff grouping. Table 1.3 shows the participation numbers and rates. The Pulse Survey was centrally administered, and all School Staff were invited to take part.

In addition to the results from the surveys, we have used informal feedback and anecdotal evidence from EDI Champions, the Family Friendly Advisor and departmental networks to inform our future actions. We believe that such input is very important as not all issues can be captured in responses to survey questions.

The 2019 surveys in general show positive improvement in satisfaction and attitudes, particularly for academic staff. The 2021 Survey responses were less positive. This might have been influenced by the pandemic and the long period of industrial action in a dispute over redundancies in another Faculty, which ended shortly before the survey was issued, and the on-going dispute on USS pensions.

	2014		2016		2019	
	% Agree	% Disagree	% Agree	% Disagree	% Agree	% Disagree
Academic	81%	8%	94%	4%	87%	4%
PDRA	51%	27%	82%	9%	68%	13%
PGR	30%	51%	64%	19%	77%	17%
Professional Services			91%	0%	80%	4%

Table 1.4: Agree and disagree responses to “I am aware of the School’s Athena Swan application” from the three School surveys (2014-2019). Professional Services were not included in the Athena Swan applications pre-2016.

	2014		2016		2019	
	% Agree	% Disagree	% Agree	% Disagree	% Agree	% Disagree
Academic	77%	8%	94%	0%	86%	7%
PDRA	58%	11%	82%	2%	87%	3%
PGR	59%	22%	71%	12%	72%	13%
Professional Services			91%	0%	98%	0%

Table 1.5: Agree and disagree responses to “I am aware of the University’s policies concerning Equality and Diversity.” from the three School surveys (2014-2019). Professional Services were not included in the Athena Swan applications pre-2016.

As an example of the survey analysis, and to highlight our approach throughout the document of evidencing the impact of our actions, we focus on awareness of Athena Swan and EDI in the School. Tables 1.4 and 1.5 show the responses to the question about Athena Swan and EDI, respectively. The awareness increased hugely from 2014 to 2016, and although it dropped slightly, it remained very high in 2019 (at least 68%). The EDI Committee and Wellbeing Team organised many awareness-raising activities including:

- Compulsory Race Equality workshops for all academic staff in the School;
- “Celebrating Success in the Physical Sciences”: annual events since June 2019 in which recent success of staff and students from a variety of backgrounds are celebrated;
- Three online events on decolonising the curriculum in 2021;
- Wellbeing events (see Table 1.7).

A full list of events is in Tables 1.6 and 1.7. These events are generally very well appreciated; for example, in the survey following the LGBT event in May 2019 (Table 1.5), 100% respondents agreed or strongly agreed that it gave them a better understanding of issues related to EDI in academia. As a result of this greater awareness, the EDI Committee increased from 24 members in 2018 to 42 in 2021.

Staff and students in the School are kept informed of our activities via School and departmental newsletters, through the School’s Researcher Forum and through links with

Staff-Student Liaison Committees. We also have a dedicated EDI page on our website, and from January 2022 a dedicated page on our Virtual Learning Environment Canvas. All staff and students in the School are automatically enrolled to this page.

Date	Title
Jul-21	Small Steps, Long Journeys, and Positive Change: Decolonizing the Curriculum - [REDACTED]
Apr-21	Decolonising the 'STEM' Curriculum - [REDACTED]
Mar-21	International Women's Day 2021: "Let's Shine a Light on Women in STEM", [REDACTED]
Feb-21	Developing Inclusive Curriculum - [REDACTED]
Nov-20	"Celebrating Success in Physical Sciences" (on-line event)
Sep-19	Careers Event (Physical Sciences)- What do you want to be when you grow up?
Jun-19	"Celebrating Success in Physical Sciences" (event organised together with BAME Staff network)
May-19	"LGBT Event: No Sexuality Please, We're Scientists" [REDACTED]
Jan-19	"Sharing Best Practice: How can Industry and Academia work together to tackle inequality and discrimination?"
May-18	"Inequality and Discrimination: How we must talk about intersectionality" [REDACTED]
Sep-18	"How to be a Woman.....Scientist" - [REDACTED]

Table 1.6: List of events organised by the EDI Committee 2017-2021; blue- decolonising curriculum events, orange-annual Celebrating Success events.

The team has developed its competences. [REDACTED] and [REDACTED] have been Athena Swan panellists and have completed Panellist training. All EDI Leads attended workshops "Introduction to Allyship" and "First Steps to Trans Inclusion" organised by Stonewall in April 2021. [REDACTED] attended the Advance HE workshop Enhancing Practice: Athena Swan UK Networking Event in May 2021.

In addition to the compulsory EDI training for staff, all academic staff in the School attended a series of Race Equality Workshops delivered by Sea-Change Consultancy and designed in collaboration with EDI Leads in each department (Chemistry January 2021, Maths October 2021, Physics January 2022). University training on Unconscious Bias is recommended for all staff members. Since Sep 2020 all new UG and PGT students at the University have been required to complete the Good Citizenship Module. We have supplemented this by a student-led session dedicated to EDI in each of departmental induction in September 2021. A session on EDI is embedded in the PGR induction.

Date	Activity/Event
Feb-22	Analysis and action planning of the comms survey
Dec-21	Attendance [REDACTED] and presentation at the National Student Mental Health Conference London
Dec-21	School Communications survey (distribution)
May-21	Wellbeing week: craft macrame on-line lunchtime session & gardening lunchtime sessions outside the CTL
May - Sep 21	CBT Programme for the Faculty
May-21	Podcast for Materials World (IoM) and a blog for 'let's talk' column by [REDACTED]
Mar-21	Stress awareness month - 30-day challenge. Actions to promote physical, mental and emotional wellbeing
Feb-21	Time to Talk Day - promote UoL video
Feb-21	Anxiety Murals (on-line)
Dec-20	Christmas Crafting
Dec-20	Shout-Out Awards
Oct-20	Step Challenge (world mental health day)
Mar-Sept 20	CBT Bazaar Programme (School pilot) 10 participants
Jan-20	Bazaar CBT Workshop
Jan-20	VC School Meeting/presentation
Dec-19	UoL Staff Awards (nomination for Health & Safety Wellbeing award)
Oct-19	Launch of Wellbeing room (World Mental Health Day) cake sale, charities in attendance, relaxing music
May-19	Tai Chi workshop
Mar-19	Wellbeing workshop on mindfulness
Nov-18	First Wellbeing workshop
Sep-18	Formation of School wellbeing team

Table 1.7: List of School Wellbeing Team activities; events organised by the team are in blue, awards and external engagement in orange.

3) The future of the self-assessment team

The School Athena Swan Lead will be responsible for updates on progress on the Action Plan and any new initiatives planned. A full review of progress on each action with associated RAG rating (where possible) will be completed annually by the Athena Swan SAT and presented to both EDI Committee and the Physical Sciences Leadership Team. We will appoint a lead for each theme of the current action plan who will liaise with persons responsible for the actions under their theme. Membership of the Athena Swan SAT will be reviewed annually and drawn from members of the EDI Committee.

The EDI Committee incorporate the SAT and will continue to meet every two months to monitor progress and organise actions. These will be reported to the Physical Sciences Leadership Team by the School EDI Lead. Updates from the University and Faculty steering groups will also be reported to the Physical Sciences Leadership Team.

The EDI Committee will continue to organise events which raise the profile of Athena Swan and broader EDI issues. We will also continue to be involved in supporting the Athena Swan

principles and sharing good practice more widely. [REDACTED] and [REDACTED] have acted as internal reviewers of draft applications for the University. We will continue to offer support to applications from other Schools and Institutes within the University and externally. We will also volunteer for Athena Swan panels annually. We are ambitious to develop our profile in this area, by working with subject professional bodies and research councils. This is discussed further in section 3.

Recommended word count: 1446/1500 words

2. Section 2 – Evaluation of progress against the previous action plan

In section 2, applicants should evidence how they meet Criteria 2 and 3:

“progress has been made on the previous action plan”

“learning has been demonstrated from the evaluation of progress.”

2.1 Previous Action plan

Please provide the most recent iteration of the action plan associated with the department's previous award. The actions should be 'RAG' rated (rated 'red', 'amber' or 'green') dependent on progress.

Ensure that colour is not the only method of indicating rating, such as through the use of letters or icons. For example: **R** **A** **G**

Our action plan from the previous application was extended in June 2020 when we applied for a one-year extension to our award. We include the extended actions and deadlines (where applicable) in bold in the action plan below.

Beacon Activities

	Rationale	Action planned/extended	Timeframe		Outcome measure	Rating
			Start	End		
1	Ambition to be sector-leading		Now	2020	National recognition as a lead in this area	A
2	Aspiration to be sector leading in % F UG students		2017	2020	Exceed the sector in %F UG students	G
3	Awarding gaps Physics at national level		Mar. 2017	Sept. 2017	Published report on Awarding gaps at local and national level	G
4	Support for the wider Athena SWAN agenda; draw on international good practice		Now	2020	Local and wider recognition of the School as a lead in this area	G

Culture, communication and organisation

	Rationale	Action planned/extended	Timeframe		Outcome measure	Rating
			Start	End		
5	Low satisfaction with sense of community in the School amongst PDRAs and PGRs		Mar 2017	Mar 2018	20% higher satisfaction with level of respect and community in the School	G
6	No female representation on some of the departmental committees		Now	Dec. 2017	Gender representation on all major committees	G
7	School workload models imperfect		Begun	Dec. 2019	University workload model established	G
8	Gender balance of academic staff on outreach teams unequal		Jan. 2017	Dec. 2018	Gender - balance in outreach teams	G
8a	Flexible working offered for the period of lockdown and longer if family circumstances require it		Mar. 2020	Dec. 2020	Positive responses to effectiveness of support after lockdown.	G
8b	Staff wellbeing		Mar. 2020	Dec. 2021	Positive responses to questions on effectiveness of support after lockdown.	G

Key Transition points: appointments and promotions

	Rationale	Action planned/extended	Timeframe		Outcome measure	Rating
			Start	End		
9	Unequal gender representation on appointments panels		Now	Mar. 2017	Policy of equal representation on appointments panels in place	R
10	Unconscious bias in panels		Now	Mar. 2017	Policy about use of Unconscious Bias training or guidelines before panels in place	G
11	Lack of female candidates		Now	Mar. 2017	Growing numbers of female applicants on long- and short- lists	G
12	Lack of female candidates		Begun	Jan. 2018	Growing numbers of females on long- and short- lists from recruitment agencies	R

Academic T&R and T&S staff

	Rationale	Action planned/extended	Timeframe		Outcome measure	Rating
			Start	End		
13	Low numbers of women in fixed-term contracts		Mar. 2017	Sept. 2017	Improvement in statistics wrt HESA benchmarks	A
14	Surveys show lack of understanding of promotion criteria		June 2017	June 2018	Annual communications schedule in place	G
15	Gender return to REF2014 unequal		2017 reading cycle	On-going	Reading programmes reflect performance fairly	G
16	No sabbatical policy in place		Jan. 2017	Dec. 2020	Sabbatical system running effectively	G

Research staff

	Rationale	Action planned/extended	Timeframe		Outcome measure	Rating
			Start	End		
17	Low satisfaction with induction		Begun	Sept. 2017	10% higher satisfaction with induction	G
18	Low satisfaction with training opportunities		Jan. 2017	Dec. 2019	10% higher satisfaction with training in surveys	G
19	Dissatisfaction with professional development review system for PDRAs		Jan. 2017	Dec. 2019	20% higher satisfaction with training in surveys	G
20	Good reception for post-doctoral development award		Feb. 2017	Jul. 2017	Annual event established	G
21	Low satisfaction with flexible working support		Jul-17	Jul. 2018	20% higher satisfaction with flexible working in surveys	A

Professional services staff

	Rationale	Action planned/extended	Timeframe		Outcome measure	Rating
			Start	End		
22	Low satisfaction with flexible working support		Jan. 2017	Jul. 2018	20% higher satisfaction with flexible working in surveys	A
23	Low satisfaction with training and development, PDR of professional services staff		Begun	2020	Higher take-up of development opportunities, 20% increase in staff survey satisfaction with PDR	G

PGT and PGR students

	Rationale	Action planned/extended	Timeframe		Outcome measure	Rating
			Start	End		
24	Dip in conversion to PGR for Chemistry and Mathematics		Begun	Jun. 2017	Report on conversion rates by gender with recommendations	R
25	Outreach programme for PhD recruitment/ Evaluate on-line possibilities		Jan. 2017	Jul. 2017	Annual programme in place	A
26	Annual PGR Induction including EDI training		Begun	Jan. 2018	Maintain high levels of awareness of EDI issues among PGRs as measured in surveys	G
26a	PGR/PGT Student wellbeing		Begun	Sept. 2021 (or end of Covid crisis)	Feedback from PGR Student staff liaison Committees, PGR survey	G

Undergraduate and Foundation students

Athena Swan Departmental Renewal Application

	Rationale	Action planned/extended	Timeframe		Outcome measure	Rating
			Start	End		
27	Lack of information on E&D aspects of our student cohorts		Mar. 2017	Sep. 2018	Report on E&D make-up of our student populations to inform future decision-making	G
27a	Student wellbeing		Begun	Sept. 2022 (or end of Covid pandemic)	Feedback from student staff liaison committees	G
28	Behind national benchmark for female Foundation students		Admissions cycle 2017-18	2020 entry	Improved percentage of female Foundation students	A

2.2 Progress Report

Recommended word count: 2730/2000 words

Consider the panel feedback on the department's previous application. How has the department responded to and acted on the panel feedback provided on the previous application?

Consider the department's previous action plan.

1. what methods were used to evaluate the department's progress on actions?
2. what were the department's main barriers and facilitators with regard to action implementation and the meeting of success measures? What steps were taken to further inform and adjust actions?
3. have new initiatives or actions been introduced to improve outcomes or impacts?

4. what are the main learnings and outcomes from the evaluation of the action plan? How will the department apply this learning to the future action plan?

Panel feedback from previous silver application:

We received detailed feedback following our successful Silver application in November 2016. Suggestions related to presentation of the results and inclusion of additional information have been used to improve the presentation of this application. We were pleased that there were many points of positive feedback; below we focus on the points raised “for future consideration”.

Self-assessment process: **Undergraduate and PGT students are now members of the School’s EDI committee**; and along with other members of the EDI committee provided feedback on this application.

A picture of the department: It is impossible to **make exit interviews mandatory**; they are offered and carried out where possible.

Key career transition points: The feedback about REF returns have been superseded in the intervening 5 years; as they are now mandatory for all T&R staff. Regarding **support for PS female and male staff**, team leaders have been made aware of discrepancies in support and have acted to ensure this is addressed.

Career development: The **actions addressing awareness and take-up of training opportunities for PDRAs** were superseded by the launch of the University’s UKRI funded Prosper project (detailed below.) We **investigated gender differences in applying for and obtaining research grants** and there was no discernible difference in either application rates or success rates for female and male staff in the period 2016-2021: of 926 applications 797 had male PI and 129 had female PI (14% F); of the 445 grants awarded 381 had male PI and 64 female PI (also 14% F). This is similar to the proportion of female T&R staff: 10% - 18% over this period.

Flexibility and managing career breaks: **All requests for reduced hours on return from maternity leave were accepted. Staff retention after maternity leave** is 100% for all permanent staff. The **number taking paternity leave** has risen since 2015; anecdotal evidence suggests that paternity leave is often agreed with HoDs but not registered with HR.

Organisation and culture: **Comments around culture and friendliness have been discussed with PDRAs.** Each department addressed female representation on committees. The University approach to workload model changed since 2016 with the proposed university-wide tariff system replaced by the Academic Workload Planning Framework in 2019; the School and departments are still working on local implementation of this framework, thus **we are not able to obtain meaningful feedback yet.** Monthly **staff meetings** are held between 10.00 and 16.00: Chemistry at 13.00, Physics at 14.00, and Maths at different times. The gender imbalance in outreach has been addressed.

Previous action plan:

BEACON ACTIVITIES

Further engagement with EPSRC ([A1](#)) was mainly through the quarterly UoL-EPSRC engagement meetings with one (5/5/2021) devoted to EDI, with EPSRC's EDI lead [REDACTED] attending. Our Staff Researcher Forum idea was taken up firstly at Faculty level and further at University level and was a driver for the University's £[REDACTED] [Prosper](#) project funded by Research England, in collaboration with the Universities of Manchester and Lancaster.

[REDACTED] has worked with the Institute of Physics (IoP) on gender awarding gaps in Physics ([A2+A3](#)). [REDACTED] focus pivoted during Covid to establishing a national [Physics Teaching and Learning in Higher Education Network](#) which has run monthly seminars supported by the IoP, with approximately 50 attendees from all over the UK. These discussions have included EDI issues encountered during Covid.

We increased the visibility of female role models in open days and outreach events ([A2](#)). For example, Girls in Maths events (partly supported by London Mathematical Society) encouraged girls to continue with mathematics beyond GCSEs. The proportion of female students has been above current benchmark since 2016/17 for Maths, for last three years in Physics, and for the last year in Chemistry (Figure 2.1).

We have been involved in many EDI events for the School, the University and the public (Tables 1.6 and 1.7). Members of the School have taken part in several EDI initiatives and beacon activities ([A4](#), Table 2.1). We will build on our successes through [Actions B1-B7](#).

CULTURE, COMMUNICATION AND ORGANISATION

We have strengthened links with University Staff Networks (LGBTQ+, Disability, BAME Networks) and ensured consistent communication on EDI in each department via the appointment of EDI Communications Champion.

Networking events increased ([A5](#)) with many EDI, wellbeing and research events open to all School's staff and students (Tables 1.6 and 1.7). There are also coffee mornings for PGR students, and informal Women in Maths and Women in Physics networks. The 2019 Surveys show an increase of [16%](#) (54% in 2016; 70% in 2019) in PDRAs agreeing that the department is friendly, and an increase of [30%](#) (53% 2016, 83% 2019) in PS staff agreeing that they are treated with respect.

All School committees (Table 2.2) now have representation from women ([A6](#)). Committee membership is usually 3 years, hence only a recent snapshot is presented.

The University workload model ([A7](#)) was established in 2019 with continued input from our EDI Committee. The School is now finalising local Academic Portfolio Principles for departmental workload models, which are being evaluated by the EDI Committee before wider consultation ([Action T8](#)).

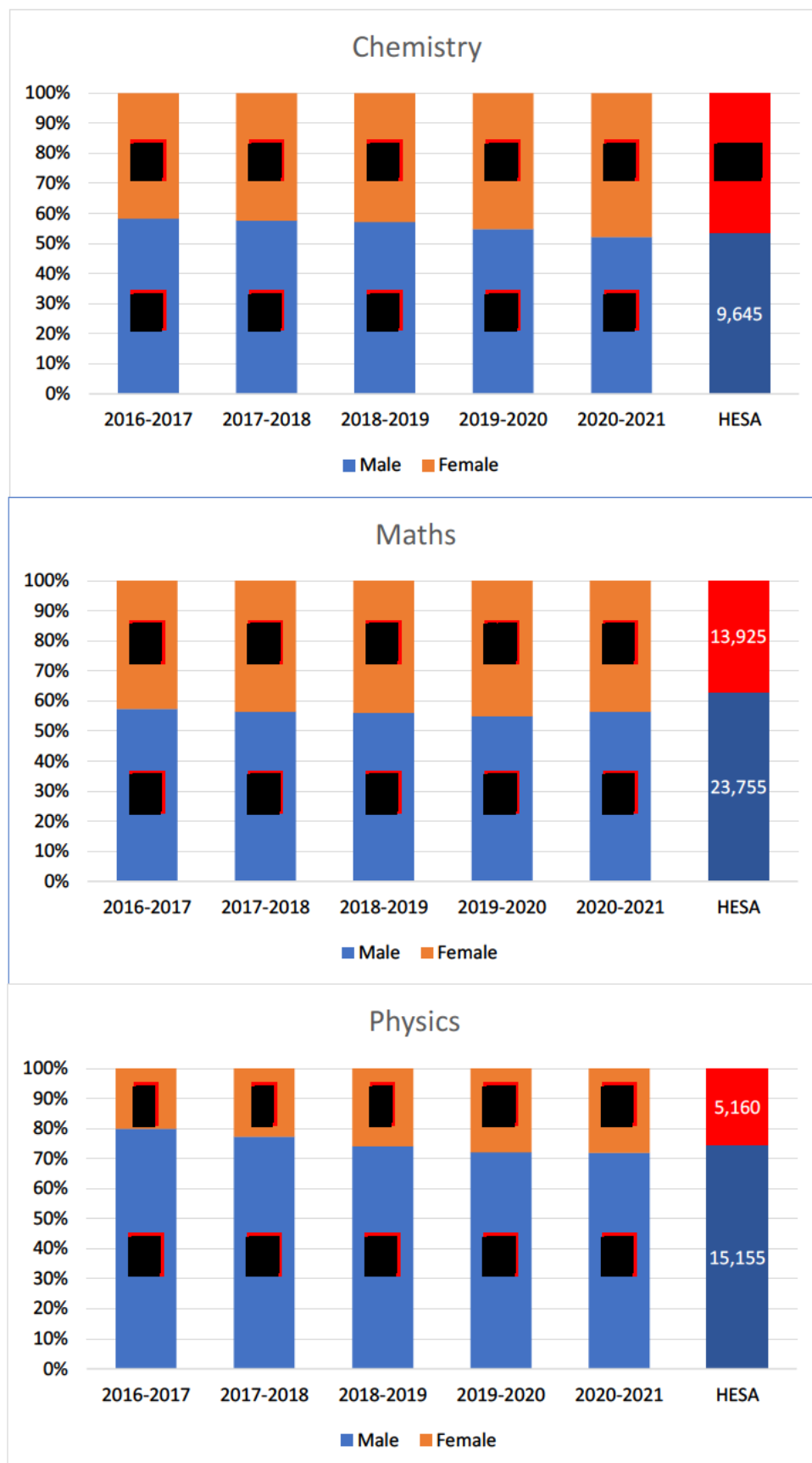


Figure 2.1: Numbers of UG students by gender in each department since 2016-2017 together with HESA benchmarks.

Athena Swan Departmental Renewal Application

Who	When	Activity	External Organisations	Details
Dr Anna Slater	Feb-22	Published Article "Pregnancy in the lab"		Slater, A., Caltagirone, C., Draper, E. et al. Pregnancy in the lab. Nat Rev Chem 6, 163–164 (2022).
	Jan-22	Mathematics: Inclusive or Exclusive: Putting colour, culture and context into the curriculum	 LONDON MATHEMATICAL SOCIETY EST. 1865   ROYAL STATISTICAL SOCIETY DATA EVIDENCE DECISIONS  THE OPERATIONAL RESEARCH SOCIETY  BRITISH SOCIETY FOR THE HISTORY OF MATHEMATICS 	
	Jul-21	International Conference of Women in Physics (ICWIP)		
	2020	Support for School of Engineering and Physical Sciences for their successful Bronze Athena Swan award application		
	2019	Vitae Researcher Development International Conference (2019) Dial-a-Molecule/Directed Assembly Network ECR Meeting 2019 Leaflet: "Tips for researchers taking maternity, paternity, adoption or parental leave and advice for institutions and employers."	 vitae realising the potential of researchers  UK Research Staff Association supported by Vitae	
	2019	School of the Arts Away Day		
	2017	Marie Curie Day	 The Cockcroft Institute of Accelerator Science and Technology  UNIVERSITY OF LIVERPOOL  LMU  LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN 	

Table 2.1: List of Beacon Activities since 2016.

	Committee	M	F	%F
School	EDI Committee			59%
	Health & Safety			40%
	Learning & Teaching			25%
	School Scrutiny Panel			57%
	Research & Impact			29%
	School PGR			13%
	Outreach			40%
	Physical Sciences Leadership Team			44%
	Senior Leadership Team			40%
Chemistry	Executive Group			35%
	Undergraduate recruitment			50%
	Learning and Teaching			21%
	Honours Panel			17%
	Research Committee			15%
	EDI Champions			67%
	Health & Safety Strategy Committee			50%
	UG SSLC			55%
	PGR SSLC			44%
Maths	Board of studies/Curriculum board			23%
	Education committee			29%
	REF Output Selection			40%
	Research committee			30%
	UG SSLC			14%
	EDI Champions			63%
	PGR Committee			17%
Physics	Physics Executive Group			20%
	Research			22%
	Learning & Teaching			25%
	Board of Studies in Physics			13%
	UG SSLC			50%
	PGR SSLC			29%
	Research & Impact Board			33%
	EDI Champions			45%
	Management Committee			20%
	Admissions Committee			20%

Table 2.2: List of all major departmental and School committees with membership split by gender in Dec 2021; EDI Champions numbers from March 2022.

Outreach in schools was largely suspended during COVID, but some events ran online, including an Ada Lovelace Event and a physics summer school in 2020. In general staff and students involved in outreach events are ~50% female (**A8**), but this varies somewhat depending on event type from 25% to 100%.

Most staff moved to on-line working during the pandemic and were offered flexibility in arranging work around caring responsibilities, moving to hybrid working after lockdown (**A8a**). Academic staff can work from home whenever possible since many meetings are held online or in a hybrid mode. The hybrid-working model for PS staff requires only 50% of staff being present on campus. These measures received very positive feedback: **78%** of

academic staff and 67% of PS staff agree in the 2021 Survey that their department enables flexible working.

The School Wellbeing Team enhanced their work during the pandemic (A8b). The team organised online events (Table 1.7), including a pilot study of a Cognitive Behavioural Therapy programme (2020) which is now being rolled out across the Faculty following extremely positive feedback from participants (100% positive responses). In the 2021 Survey 84% of PS staff and 64% of academic staff agreed that they felt informed about School wellbeing initiatives.

KEY TRANSITION POINTS: APPOINTMENTS AND PROMOTIONS

These actions were incorporated in the Faculty Recruitment Guide for academic appointments in January 2018 (). This was superseded in November 2021 by a website giving guidance on all aspects of recruitment from advertising to job offerings, including:

- Requirement of unconscious bias training for panel members and reminder about guidance at the start of the panel (A10)
- Information about Positive Action
- Requirement to seek at least one appointable female candidate on the short-list (A11)

It was not possible to have gender balanced panels for academic appointments (A9) due to current gender imbalance in the Faculty. The issue of gender balance on recruitment panels is re-addressed in Action T3.

Since our last application the University policy on using recruitment agencies (A12) changed and they are now used only for appointments at Faculty level.

ACADEMIC T&R AND T&S STAFF

The plan to organise focus groups to investigate the low Female to Male ratio on fixed-term contracts was not practical (A13), because they would not capture views of those who decided not to apply or accept the offer. However, the changes made in recruitment (see *Key transition points*) had a positive effect here with marked improvements in two departments: the percentage of female staff remains below the sector benchmark for Chemistry, and it has been above benchmark for most of the period in Maths and close to the benchmark in Physics (Figure 2.2).

Our plans to organise workshops on promotion criteria (A14) were changed as similar workshops were organised by University. In the 2019 Survey only 5% F disagreed (20% in 2016) that they understood criteria for promotions (Figure 2.3). A considerable proportion of neutral responses on understanding promotion is likely due to staff only seeking information about the process when planning to apply.

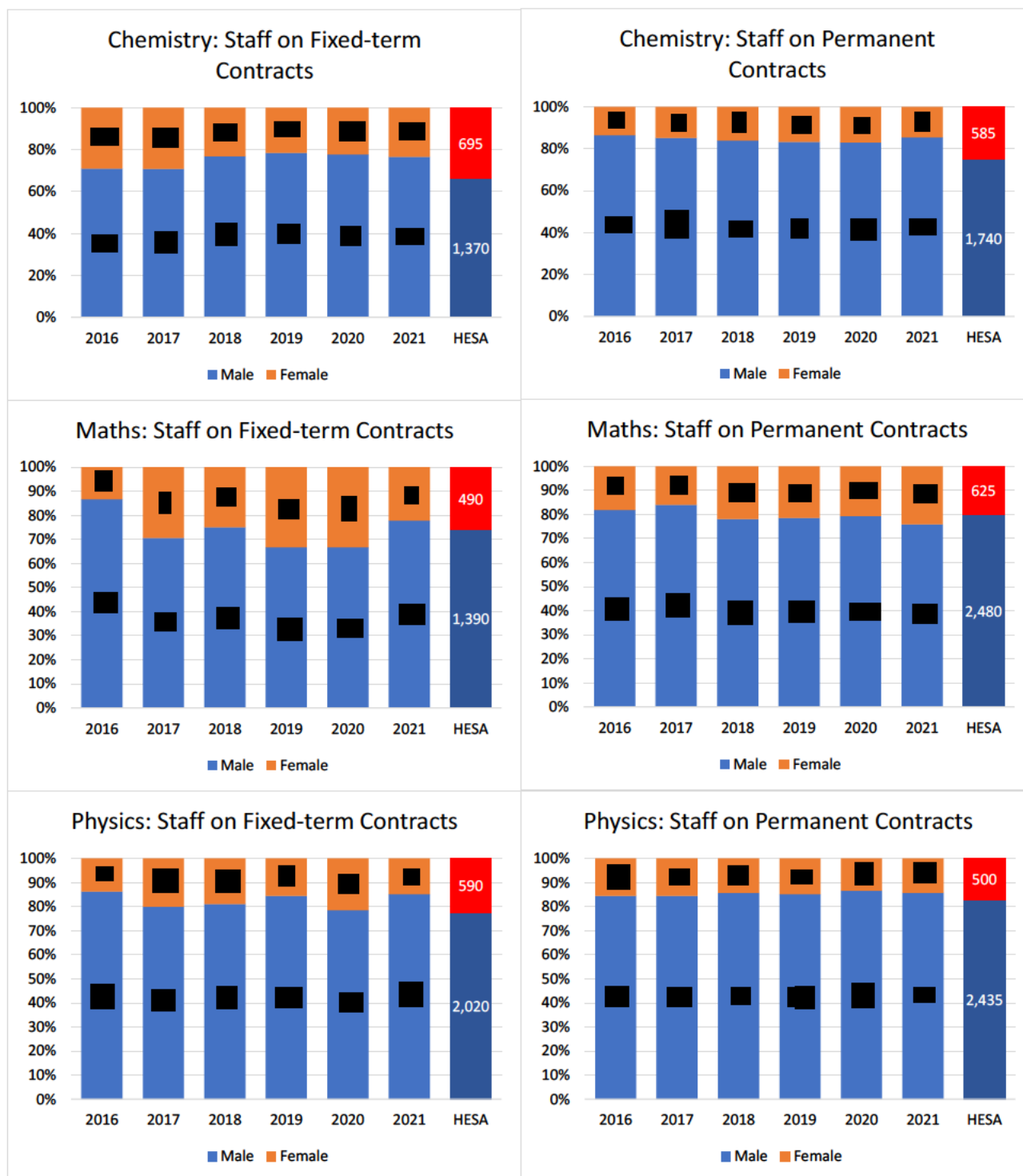


Figure 2.2: Numbers and percentages of staff by gender and contract type in the three departments and their HESA benchmarks.

All REF selection panels had Unconscious Bias training ([A15](#)). It was not practical to impose such training on reading panels as they were fluid and involved many staff in the School. The selection criteria changed from REF2014 to REF2021 with all T&R staff being submitted, thus it does not make sense to compare these REF returns by gender.

The Sabbatical Policy was created in Sep 2016 ([A16](#)) and is now available on our Intranet; 16 staff took Research leave but only 2 of these were female staff. This is addressed in [Action T10](#).

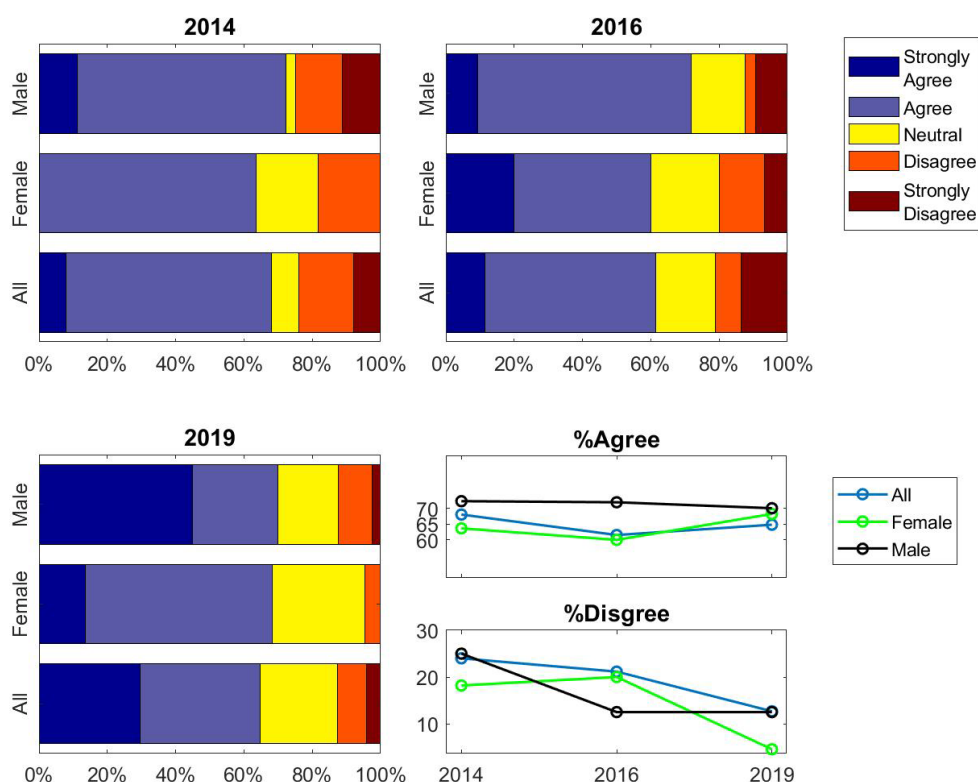


Figure 2.3: Responses to the question “I understand the processes and criteria to attain promotions and discretionary awards” in School Surveys 2014-2019 for Academic Staff.

RESEARCH STAFF

New PDRAs are invited to an annual school-wide induction event (**A17**) to meet key people. A checklist is worked through with line managers to ensure key areas are covered (Health and Safety, security, mentoring). This improved induction resulted in a **13%** greater agreement in the 2019 Survey that information given when starting employment was sufficient (Table 2.3).

Opportunities for research development (**A18**) have undergone a step-change with the launch of the University’s UKRI funded Prosper project, which provides many training and placement opportunities for researchers, and guidance for PIs on supervision best practice. These improvements resulted in a **17%** increase in satisfaction with training in the 2019 Survey, and **30%** increase in agreeing that PDRAs can take up training opportunities (Table 2.3).

Training opportunities were reduced during the pandemic (only 59% Research staff were satisfied in the 2021 Survey) but they are restarting now.

Question	Percentage Agree		
	2014	2016	2019
When I first started my post the information given to me as a new PDRA was sufficient	49%	22%	45%
I am aware of training opportunities provided by the University	65%	61%	68%
I am able to take up training opportunities where I would like to	53%	46%	77%
I have been encouraged to take up training opportunities by my supervisor	32%	39%	55%
Where I have taken up training opportunities, I have found them useful	48%	54%	71%
Do you agree that your most recent PDR was useful and productive?	46%	41%	52%
I feel I would have full support for flexible working/career breaks	47%	33%	48%

Table 2.3: List of questions related to induction, training and PDR with percentages of responses Agree/Strongly Agree in the three School Surveys for PDRAs 2014-2019.

To ensure that Researchers' PDR is useful and productive (**A19**), improved guidance has been created, which includes a PDR checklist and guidance on a Personal & Professional Development Plan. This resulted in a **11%** increase in satisfaction with PDR (Table 2.3).

The Post-doctoral Development Award is a small grant funding pump-priming activity which started in 2016. After very good feedback from the first event, it was turned into an annual event (**A20**) since 2018 (2020 postponed to 2021 due to pandemic). There were 4 awards in 2018 (2F/2M), 4 in 2019 (1F/3M) and 3 in 2021 (1F/2M).

The guidance for managers and staff on flexible working has been improved (**A21**). Researchers who are considering family leave are also advised to discuss their plans and options with School Family Friendly Adviser. There was a **15%** higher satisfaction rate regarding flexible working (Table 2.3); also, **90%** of Research-only staff agreed that their department enables flexible working (2021 Survey).

PROFESSIONAL SERVICES STAFF

Using induction process and staff updates, we implemented flexible working across the School (**A22**), yet there was little change in Staff Survey results: agreement that managers support flexible working was constant (64% in 2016, 63% in 2019) and agreement that the department offers excellent support for caring responsibilities very similar (53% in 2016; 57% in 2019). In the 2021 Survey, the results improved: **67%** of PS Staff agreed that the department enables flexible working, and **69%** agreed that it provided good support for flexible working during the pandemic.

Discussion of training and development opportunities takes place in the Professional Development Review (PDR) process for PS staff (**A23**). The School paid for individual

training courses relevant to the specific roles. As a result, there was remarkable improvement in responses about training opportunities and usefulness of PDR, with over 80% agreeing both that they were encouraged to take up training and that their PDR was useful in the 2019 Staff Survey (from 57% and 66% in 2016, respectively).

PGT AND PGR STUDENTS

After further discussion, we decided that focus groups with current PGR students (A24) will not help to understand low conversion from offers to places accepted because they would not capture views of those who turned down offers. We focused our attention instead on increased visibility of role models (A25) and improved gender balance in PGR recruitment, which resulted in good conversion for female students from PGR applications in 2017-19, but in 2019/20 acceptance rates for female students dropped significantly, particularly in Maths (Figure 2.4). This is addressed again in Action S3.

Outreach activities addressing the “leaky pipeline” (A25) took many forms, from supporting UG students to attend external events, to organising events for schools and undergraduates. We planned to establish the participation of PGR students in outreach more consistently, but the pandemic disrupted such extracurricular activities. As they restart, there are renewed efforts to involve PGR students.

We introduced EDI training to the School PGR induction events and postgraduate demonstrators undertake staff EDI training (A26). In the 2019 Survey, the awareness of EDI issues remained high; 72% of PGRs stated awareness of EDI policies (Figure 2.5).

PGR student wellbeing (A26a) was addressed by establishing PGR wellbeing ambassadors within the School in 2020. Four students were recruited and trained. They organised events focusing on different aspects of wellbeing. PGR funding extensions for both UKRI- and University-funded PhD students during the pandemic prioritised students whose research was negatively impacted by disability or caring duties.

To address PGT student wellbeing during the pandemic (A26a), different approaches were taken in each department. In Maths, PGT students were invited to Zoom drop-in sessions by the student office with support on general welfare offered. In Physics, the PGT administrator and programme director received mental health first-aider training and used this to support students. In Chemistry, regular meetings were held between students and the programme director, peer support was put in place and additional tutorials were arranged with PGR teaching assistants.

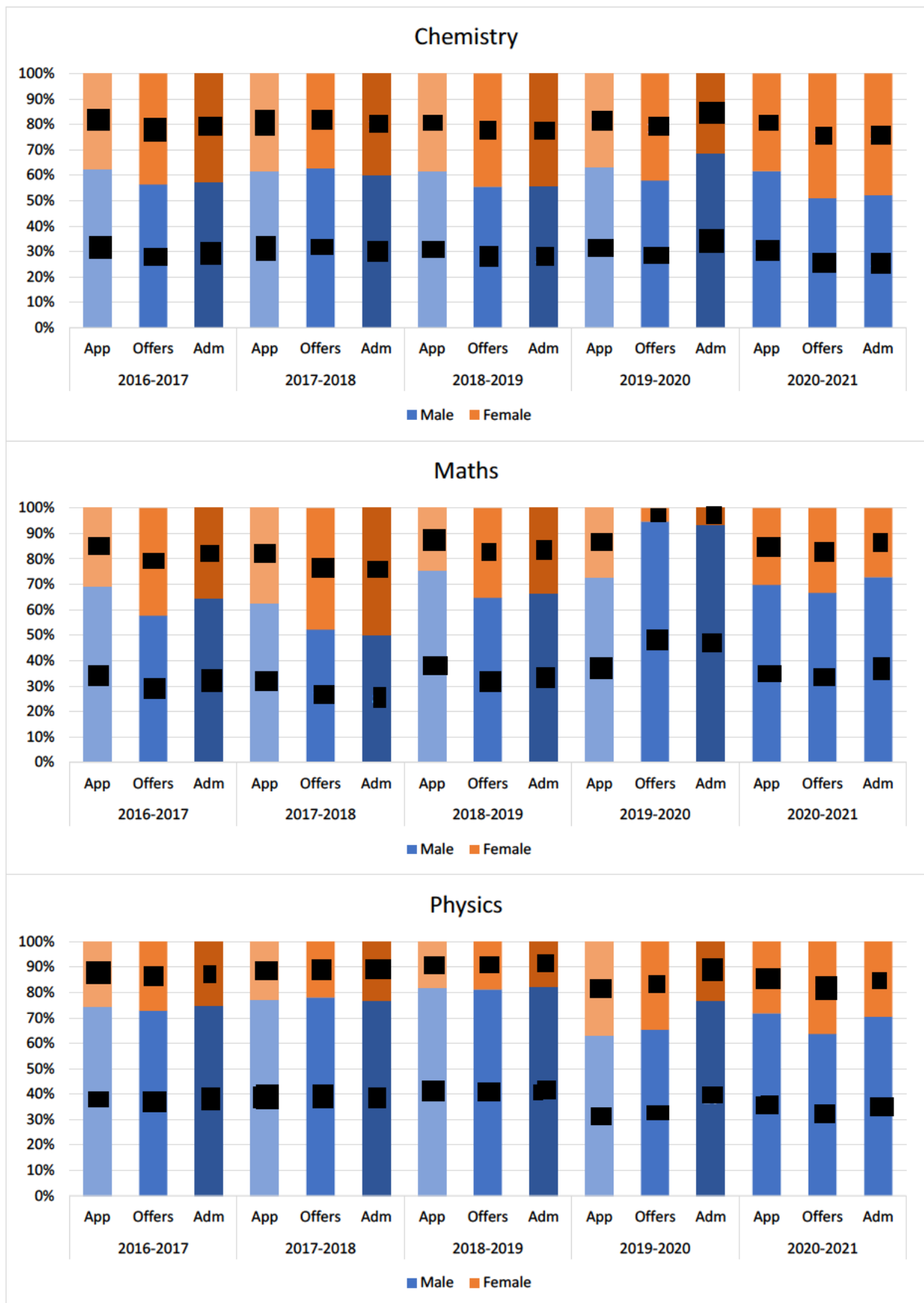


Figure 2.4: Percentage of Female applications, offers and admissions for PGR students in the three departments from 2016-2021.

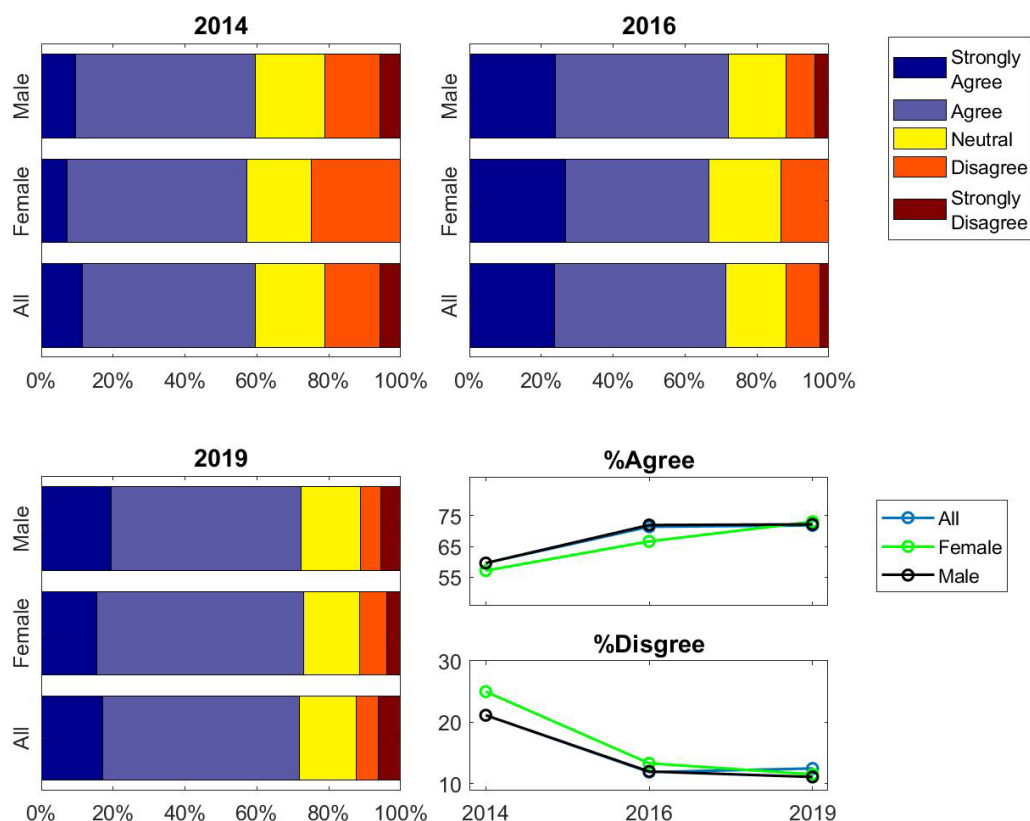


Figure 2.5: Responses from PGRs to the School Surveys 2014-2019 to the question "I am aware of the University's policies concerning Equality and Diversity".

UNDERGRADUATE AND FOUNDATION STUDENTS

Analysis of more detailed information on different aspects of our student cohorts ([A27](#)) was progressed in 2020 when the School EDI Lead was given direct access to student data reporting system. We secured a Summer Internship project which supported three students to perform data analysis on the ethnicity of our student cohort and provided evidence-based interventions to address issues uncovered ([A3](#)), and the work is continuing via another project ([Action B2](#)).

Departments made their own adjustments to best support the needs of their students during the pandemic ([A27a](#)). This included increased frequency of meetings with academic advisers and regular checks to monitor students' engagement with online material. Those not logging in regularly were contacted and offered support. In Physics, there were also monthly meetings between year groups and the HoD. On-campus space was provided for students who needed a quiet room for online exams. Chemistry organised catch-up lab sessions to rebuild student confidence. Feedback from SSLC was very positive in all three departments.

The proportion of female students on foundation degrees had been low compared to benchmark, and we planned to investigate if this resulted from higher performance of female students who then tended to meet entry requirements without a foundation year. Further

investigation of this correlation ([A28](#)) proved difficult because of the complexity of the recruitment process; foundation degrees are delivered via Carmel College with direct access to our degrees. Instead, we investigated biases in admission by comparing the proportions of female applicants and admissions to foundation degrees (Figure 2.6). They are very close each year; we conclude that there is no bias in admissions. Numbers on foundation degrees are very small and the proportion of female students fluctuates around the benchmark in each department (Table 2.4).

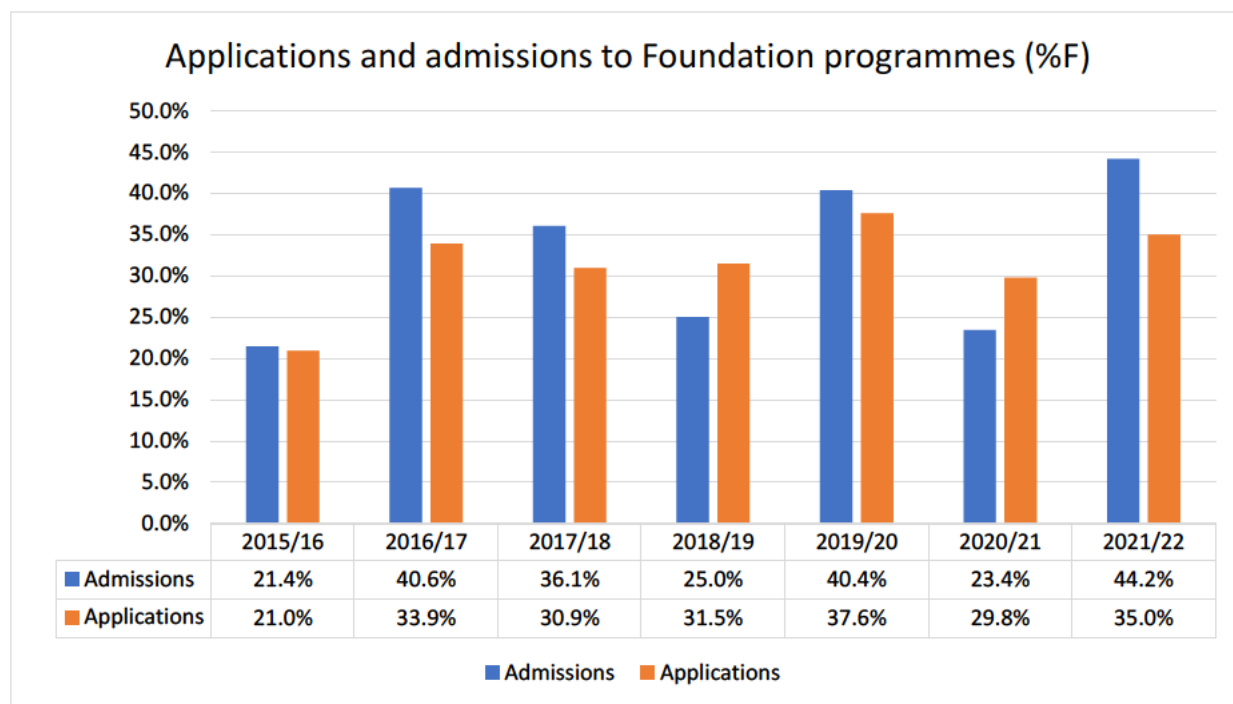


Figure 2.6: Percentage of female applicants and admissions for foundation programmes since 2015/16.

	2016/17			2017/18			2018/19			2019/20			2020/21			HESA		
	M	F	% F	M	F	% F	M	F	% F	M	F	% F	M	F	% F	M	F	% F
School			40			39			26			41			23	1084	532	33
Chemistry			46			48			31			56			27	257	234	48
Maths			53			13			27			38			20	412	184	31
Physics			23			46			19			30			22	415	114	21

Table 2.4: Foundation students by gender 2016-2021, and HESA benchmarks for each department and the School; years when we exceed the benchmark are in bold.

3. Section 3 – Future priorities and action plan

In section 3, applicants should evidence how they meet Criteria 4 and 5:

“key priorities have been appropriately identified, to direct future action”

“a specific, measurable, achievable, relevant and time-bound (SMART) action plan has been provided, which addresses priorities.”

3.1 Current self-assessment and future priorities

Recommended word count: 1753/1500 words

Consider the department's self-assessment (previous and current), data analyses and previous action plan with respect to the areas covered by the standard Athena Swan application form. These include:

student enrolment, progression and support
key career transition points
career development
flexible working and managing career breaks
organisation and culture.

1. have the department's gender equality issues changed, and if so, how?
2. what are the department's key priorities for future action?

KEY CAREER TRANSITION POINTS

This is an area which we made good progress in 2014-2016 but which now is posing new challenges in terms of recruitment and promotion of female staff (Figure 3.1). **We will make an increase in recruitment of female staff to be comparable with HESA benchmark (currently 23% for Chemistry, Maths and Physics combined) our first key priority.** The proportion of newly appointed staff who are female is low (varying between 17 and 29% female for research staff and 15% female for academic appointments since 2016). We will review and enhance recruitment through a set of actions:

- The content of advertising, job specifications and further details will be reviewed in order to increase the proportion of female applicants (**Action T1**).
- We will enhance communication about panellist recruitment training, including unconscious bias training (**Action T2**).
- Although the policy on gender representation on appointment panels is in place, data on panel composition are not routinely recorded. This will be now rectified allowing for better monitoring and enforcement of increased gender balance of recruitment panels (**Action T3**).
- Experience of cohort (i.e. two or more academic positions simultaneously) recruitment in 2016 shows that this resulted in a much higher proportion of female

appointments. We will have a policy of cohort recruitment for all academic and research staff whenever possible ([Action T4](#)).

A still hugely important factor in career progression is responsibility for childcare and our second **key priority will be an increase in satisfaction to 70% with family leave in academic survey for both genders**. We will provide clear guidance for line managers and staff taking leave on expectations, responsibilities, and support that can be provided; for example, cover arrangements ([Action T5](#)).

The proportion of female staff applications for promotion (Table 3.1) has fallen from an average of 41% for 2013-2015 to an average of 19% for 2016-2019 (promotions were paused during to the pandemic) despite the measures introduced in our previous action plan. This is mostly due to increased number of male applicants. To address the reduced proportion of female promotion applications, we will pilot a longer term “promotion plan” in PDRs for academic staff in Maths ([Action T6](#)) with the view to roll it out in other departments. To **increase the proportion of female staff promotions to a 5-year average of 30% is our third key priority**.

In the 2021 Survey, the statement “If I want to, there are routes to progress my career at the University” received a positive response from only 20% of male and 50% of female staff respondents from professional services. To address this, we will review and publicise options for career progression for PS Staff as the “PS Futures” programme, which will reshape all professional services in the University (see Action C6), progresses ([Action T7](#)).

School Academic Portfolio Principles give guidance on workload models with tariff allocation for teaching, research and leadership and are now being implemented in the departments. These will be published on staff intranet pages in 2024 ([Action T8](#)). Leadership roles will have clear descriptors and tariffs, and an internal recruitment process will be established ([Action T9](#)) with the aim of helping career progression and improved satisfaction with workload allocation (2021 Survey: only 31%F and 41%M agree that work is allocated in a fair way).

Although the sabbatical policy is in place only it is not widely advertised and out of 16 staff who used it since 2016 only ■ were female. We will improve advertising of sabbatical policy in order to increase uptake from female staff ([Action T10](#)).



Figure 3.1: School Research Staff (top) and T&R and T&S Staff (bottom) recruitment. The proportion and number of female and male applicants, people shortlisted and appointed in the School between 2017 and 2020.

	Grade applied for	Male		Female		% Applied Female	% Success Female
		Applied	Success	Applied	Success		
2017	Lecturer B						
	Senior Lecturer					22%	20%
	Reader					0%	0%
	Professor					20%	20%
	TOTAL					16%	16%
2018	Lecturer B					100%	50%
	Senior Lecturer					0%	0%
	Reader					0%	0%
	Professor					29%	33%
	TOTAL					20%	23%
2019	Lecturer B						
	Senior Lecturer					33%	40%
	Reader					40%	50%
	Professor					0%	0%
	TOTAL					27%	31%

Table 3.1: Staff promotions since 2017 by grade and gender; there were no promotions in 2020-2021.

COMMUNICATION AND CULTURE

The 2021 Survey results showed relatively high levels of bullying and harassment, with a higher proportion of female staff reporting as both a victim and a witness (Table 3.2). **A significant reduction in incidences of bullying and harassment (to below 15% in staff survey) is our fourth key priority.** A preliminary literature search into effective interventions suggests that training, raising awareness and improved case management and support for victims are the main ways to address this. We therefore will organise bespoke sessions for staff in each department in which we will explain the University system for reporting bullying and harassment and point staff to the support available to those affected. Staff will also be encouraged to complete University bullying and harassment training (**Action C1**). After the new University policy is in place (autumn 2022), we will organise a task and finish group which will plan further actions (**Action C2**).

We want EDI to be at the forefront of all School activities. We have established an EDI Leads and EDI Champions groups in each department, who will widen EDI involvement, create an EDI culture and promote EDI awareness across the School and departments. There will be representation from the EDI Champion groups in every committee within the School (**Action C3**).

We created an EDI portal, accessible to all School staff and students, on our Virtual Learning Environment (CANVAS). We plan further enhancement of this website (**Action C4**); e.g., we will create an EDI resource tool summarising policies and good practice. Athena Swan action plan and progress reports will also be included here.

Question	All Academic			PS	
	Male	Female	Prefer not to say	Male	Female
In the past 12 months, I have personally experienced bullying and harassment at the University	5.1%	25.0%	33.3%	20.0%	16.7%
In the past 12 months, I have witnessed bullying and harassment at the University	16.9%	30.0%	25.0%	26.7%	27.8%

Table 3.2: Responses (percentage agree) to 2021 Survey on questions related to bullying and harassment. All Academic =T&R+T&S+PDRA.

In addition to compulsory University EDI training, we introduced compulsory Race Equality Workshops for all T&R and T&S staff. These workshops were pioneered by Chemistry in January 2021 and were rolled out in Maths and Physics in 2021-22. We plan to continue to offer additional EDI training for staff in the School annually ([Action C5](#)).

In January 2021, a 3- to 5-year university-wide project began to change professional services, ("PS Futures") including establishing a "shared services centre" and undergoing "functional alignment." To address this, we will have an ongoing review of the transition needs of School PS Staff considering developments within "PS Futures" programme and ensure maximal communication within the School about it ([Action C6](#)).

STUDENT RECRUITMENT AND ATTAINMENT

Our data show that the proportion of female PGT students in Chemistry and Maths is below the HESA benchmark (Figure 3.2) and **increasing these to the HESA benchmark is our fifth key priority**. The number of applications and offers is also below the benchmark in Chemistry; in Maths, they are in line with the benchmark but admissions are lower (Figure 3.3). We need to identify and understand why female PGT enrolments are decreasing. We will work closely with the Marketing Manager for the Faculty of Science and Engineering and the Faculty Student Intake Strategy Group to find viable ways to increase the number of PGT students in Chemistry and Maths ([Action S1](#)). We will also promote the PGT programmes to the current undergraduate students ([Action S2](#)).

The proportion of female PGR students in Maths has fallen significantly in recent years (Figure 3.4). Further examination of the data suggested that this is mainly due to low numbers of female students applying for funded PhD places. The Maths PGR Committee organised an online event in Dec 2021 encouraging UG students to apply for a PhD. The event had mainly female speakers who were current or recent PGRs. We will turn this into an annual event and intend to run it in person allowing for greater informal networking opportunities between PGRs and UG students ([Action S3](#)).

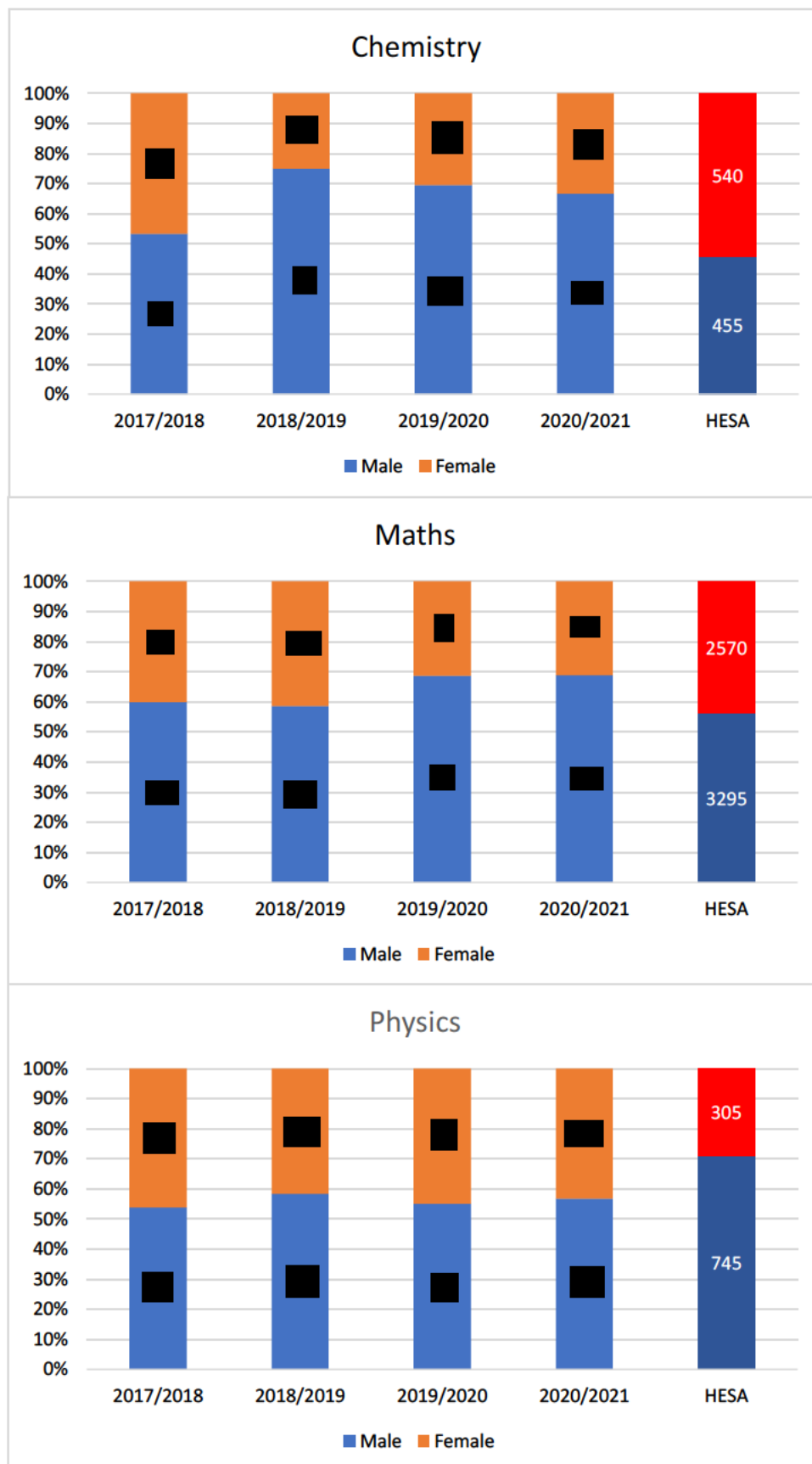


Figure 3.2: Numbers of male and female PGT students and HESA benchmarks.



Figure 3.3: Numbers and percentage of female Applicants, Offers and Admissions for PGT students in the three departments 2017-2021.

The proportion of female UG students is now in line with the benchmark for all departments and we want to move the focus to intersectionality. Following our project on BAME awarding gaps (A27), data on other protected characteristics will be analysed in our second project “Student - staff partnership: intervention to enhance EDI” which started in January 2022 funded by Faculty. We plan to monitor annually awarding gaps for gender, ethnicity and other protected characteristics ([Action S4](#)).

One of the recommendations of the summer project report is to explore how we can actively make teaching content and methods more inclusive. We have already organised three workshops on the topic (Table 1.6). The inclusive curriculum tool is being developed by the Centre for Innovation in Education (CIE) staff and Sedghi is one of the co-authors. We will launch the tool for use in all School modules in the academic year 2022-23 ([Action S5](#)).

We will also create an outreach webpage to showcase and celebrate the success and inspiring stories of our diverse community of staff and students, for example BAME women and students who are parents ([Action S6](#)).

BEACON ACTIVITIES

We made substantial progress in this area and plan to continue broadening our activities. We group our proposed activities in three categories: Local/Regional, National and International.

Local/Regional:

In our ongoing activities we will commit to continue providing support for other UoL Schools/Institutes in their Athena Swan applications, and to continue our programme of EDI events open to School, University and the wider public, such as our annual Celebrating Success in Physical Sciences event and events on Decolonising the Curriculum ([Action B1](#)).

We have run two short term EDI student projects funded by central university, and we will commit to continuing to offer such projects annually ([Action B2](#)).

National:

In 2023 the Physics department will host the UK Undergraduate Women in Physics conference, in partnership with LJMU, with financial support from the School ([Action B3](#)).

Since 2015 we participated in Athena Swan awards panels; our ambition is to continue to engage at the level of at least one panel per year ([Action B4](#)).

██████████ and ██████████ lead a Royal Society of Chemistry funded project (£5k) entitled “*Re-design of the assessment strategy in Chemistry curriculum: towards achieving inclusivity through promoting diversity*”, to be completed in 2022 ([Action B5](#)).

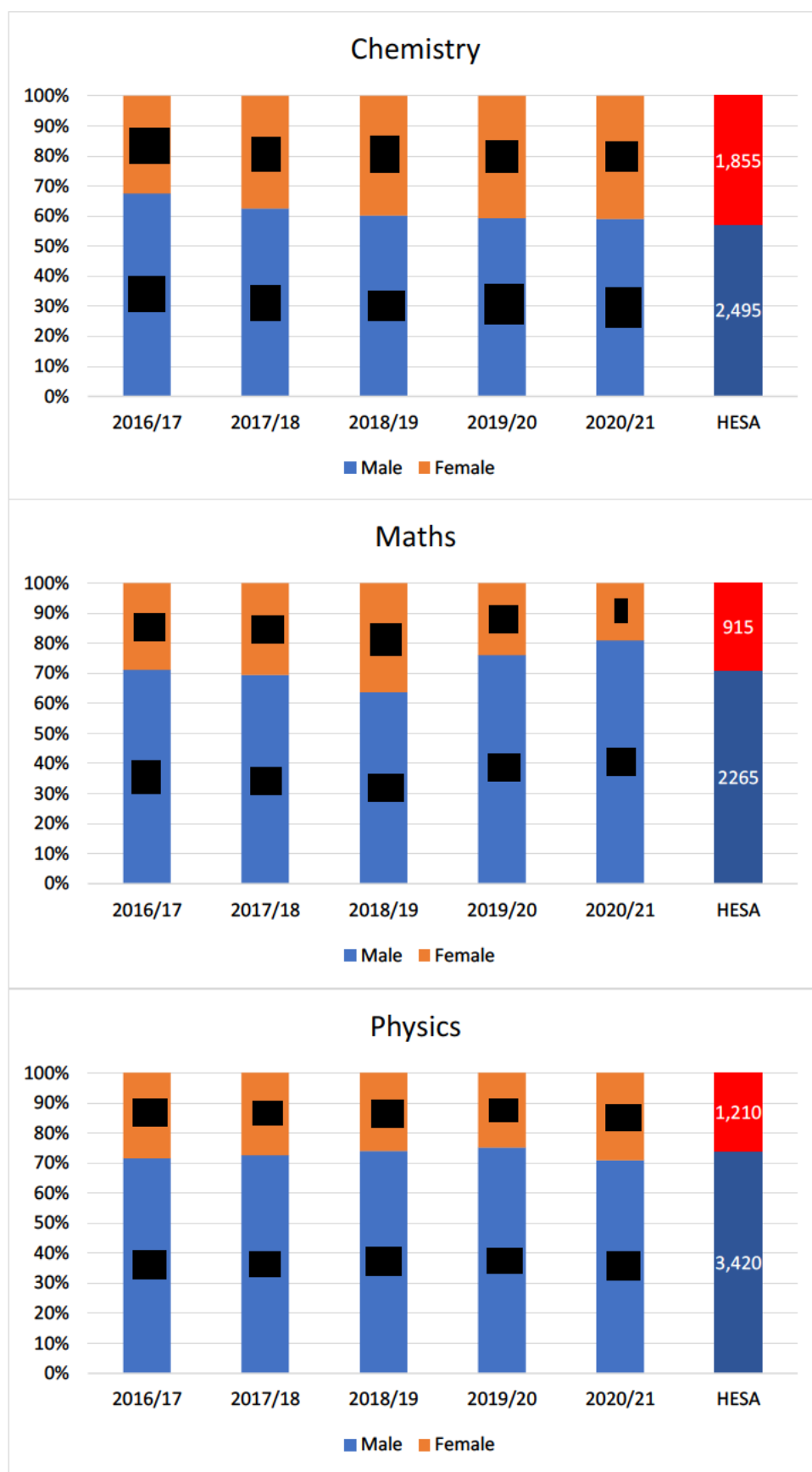


Figure 3.4: Numbers of PGR students in the three departments 2016-2021 and HESA benchmarks.

International:

██████████ has been advising ██████████ Chemistry department (██████████) on our approach to EDI, particularly concerning issues around pregnancy and maternity for female chemistry researchers. ██████████ also intends to adopt the survey model co-developed by ██████████ for UKRSA (Action B6).

[REDACTED] has advised the [REDACTED] on the approach to EDI within an international network. This has led to EDI initiatives being included in network events ([Action B7](#)).

In summary, having considered our progress over the past 5 years and new challenges uncovered from survey results, our key priorities for the next 5 years will be recruitment and progression of female academics, improved family leave, increase in numbers of female PGT students and tackling bullying and harassment.

3.2 Future Action plan

Please provide (in table format) an action plan covering the four-year award period.




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