

Athena Swan Silver application form for departments

Applicant information

Name of institution	Cardiff University
Name of department	Mathematics
Date of current application	31 st January 2024
Level of previous award	Bronze
Date of previous award	2018
Contact name	Dr Jonathan Thompson
Contact email	Thompsonjm1@cardiff.ac.uk
Contact telephone	██████████

Section	Words used
An overview of the department and its approach to gender equality	2447
An evaluation of the department's progress and success	1882
An assessment of the department's gender equality context	3654
Future action plan*	
Appendix 1: Culture survey data*	
Appendix 2: Data tables*	
Appendix 3: Glossary*	
Overall word count	7983

*These sections and appendices should not contain any commentary contributing to the overall word limit

Overall word limit: 8000 words

Table of Contents

Applicant information	1
Section 1: An overview of the department and its approach to gender equality Error! Bookmark not defined.	
1. Letter of endorsement from the head of the department	Error! Bookmark not defined.
2. Description of the department.....	5
3. Governance and recognition of equality, diversity and inclusion work	7
4. Development, evaluation and effectiveness of policies	9
5. Athena Swan self-assessment process.....	10
Section 2: An evaluation of the department’s progress and success.....	14
1. Evaluating progress against the previous action plan	14
2. Evaluating success against department’s key priorities	35
Section 3: An assessment of the department’s gender equality context.....	37
1. Culture, inclusion and belonging.....	37
2. Key priorities for future action	40
Section 4: Future action plan	47
1. Action plan	47
Appendix 1: Culture survey data.....	62
Appendix 2: Data tables	87
Appendix 3: Glossary	130

Section 1: An overview of the Department and its approach to gender equality

1. Letter of endorsement from the Head of the School



School of Mathematics

Ysgol Mathemateg

Dr Jonathan Thompson
Email thompsonjm1@cardiff.ac.uk
www.cardiff.ac.uk

Dr Jonathan Thompson
Email thompsonjm1@caerdydd.ac.uk
www.caerdydd.ac.uk

18 January 2024

Dear Athena SWAN members,

I am thrilled to submit this application for an Athena SWAN Silver Award, building on our previous achievement of a Bronze Award. This application reaffirms our unwavering commitment to strengthening our culture and practices concerning gender equality and achieving an equitable working environment. We are committed to actively engaging with the Athena SWAN Charter. I was delighted to be a member of our self-assessment team because I passionately believe in the importance of creating an inclusive environment so that all staff and students can achieve their full potential. I can confirm that the information presented in this application (including qualitative and quantitative data) is an honest, accurate and true representation of the School of Mathematics.

Since becoming Head of School, providing a supportive and fair environment has been a key priority. Notably, I have appointed a Director of EDI who sits on our School Board, our main decision-making body, and ensures that EDI is embedded within all School policy, procedures and practices. Specialised EDI seminars take place on a regular basis within the School and are well attended, evidencing the passionate commitment of staff to becoming more informed about EDI matters. It has been pleasing to see colleagues integrating EDI-aware practices into their daily academic lives. EDI representatives participate in many of the School committees including the Education and Student Experience Committee and the Research Committee. In the last three years we are proud to have promoted the first three female Professors in the School, marking a significant milestone. Furthermore, three of the seven Senior Directors in the School are female.

We have introduced a compulsory EDI module as an integral part of our University induction, to educate students on the importance of a fair, diverse and inclusive environment. Our commitment to these values is further emphasised via targeted communication campaigns and by encouraging student attendance at EDI events and seminars. The impact has been positive, as evidenced by positive feedback from female students who report a strong sense of acceptance and support. We are equipping our students with positive values to act as champions for EDI in their future careers. Cardiff University's establishment of an EDI and anti-racism hub further demonstrates our collective commitment to fostering an inclusive and equitable environment for all members of our community.

Key priorities for the coming period include the recruitment and career development of female staff, addressing the gender imbalance of the student population and further recognising and rewarding work related to EDI.

As Head of School, I strongly support our future actions specified in the Action Plan and believe they will contribute to further positive changes within the School. I will be personally responsible for their implementation and progress against the action plan will be a standing item at EDI Committee and School Board meetings.

Yours sincerely,



Dr Jonathan Thompson
Head of the School of Mathematics



2. Description of the Department

The School of Mathematics at Cardiff University is one of the seven schools within the College of Physical Sciences and Engineering (Figure 1) and is the largest university mathematics department in Wales. The School has six Research Groups, covering pure and applied mathematics, statistics, operational research and financial mathematics.

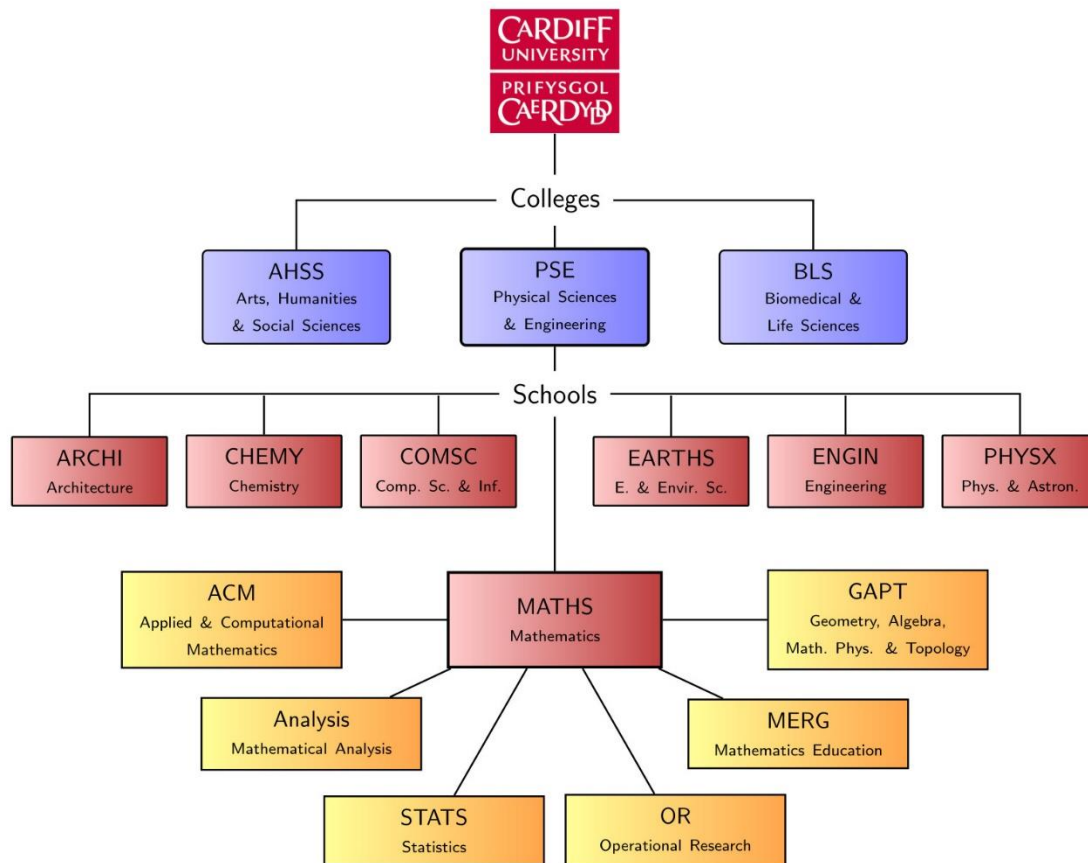


Figure 1 The School of Mathematics sits within the College of Physical Sciences and Engineering and is divided into six Research Groups.

In 2021 the School moved into Abacws (Figure 2), a new purpose-built inclusive-by-design facility (see Section 2.2) and is now co-located with the School of Computer Science and Informatics (COMSC). Students and staff were involved in the design process of the new build and in response to student feedback, 310 student study spaces were incorporated as shown in Figure 3.

This joint venture led to a new postgraduate programme in Data Science and Analytics taught jointly with COMSC, and to an increase in the taught student numbers on Mathematics programmes. The School also has a long-standing partnership with the School of Music delivering a joint BA programme. The School's teaching reflects its breadth of research, with undergraduate courses in mathematics, financial mathematics, operational research and statistics. The University's Mathematics Support Service is provided by the School, directed by an academic and principally delivered by PhD students.

The School provides formal teaching and mathematics support through the medium of Welsh with the support of the Coleg Cymraeg Cenedlaethol, a Welsh Government funded organisation which has funded two lectureships and an academic tutor. Another lectureship is funded by the Cardiff and Vale University Health Board to undertake joint working. This collaboration between MATHS and local Health Boards has been a very successful feature of the School's activity for many years. The University has a strategic partnership with the Office for National Statistics (ONS) and the School has benefited through the funding of an academic post in Statistics/Data Science. The School has long-standing links with Industry who offer placement opportunities for our UG students, dissertation topics for our MSc students and funded PhD studentships. The School delivers a diverse STEM engagement and outreach programme for schools with an emphasis on under-represented groups (see Figure 4).



Figure 2 New Abacws Building, home of the School since 2021.

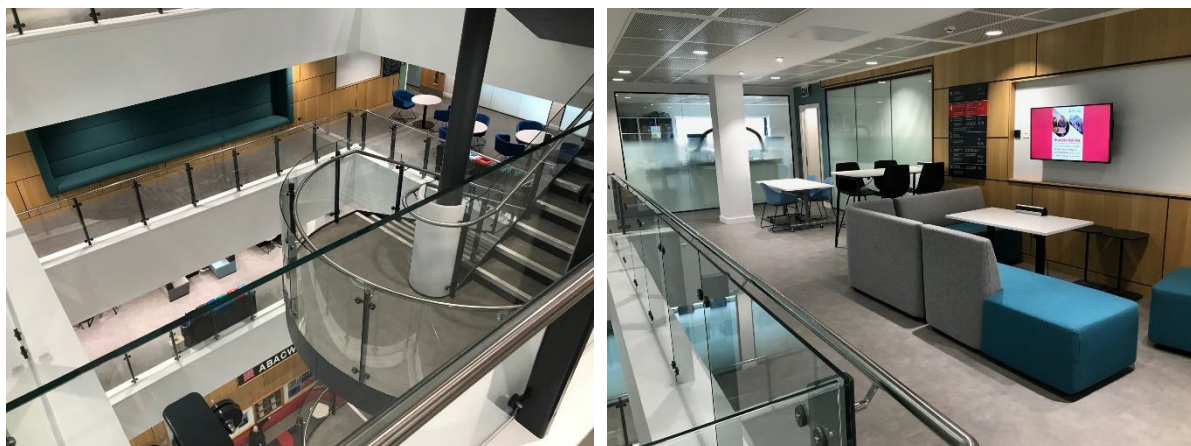


Figure 3 Internal views of Abacws Building, highlighting informal student spaces.

Since our Bronze award, the School has grown from 45 (44FTE) to 66 (65FTE) academic staff. In this period, five staff have achieved Senior Fellowship of the HEA, with one of these based on EDI in mathematics pedagogy. The number of externally funded research staff has grown from 6 in 2017/18 to 11 in 2022/23. The number of professional services (PS) staff has remained stable and is currently 12.7FTE. PS staff are based in the School and are integral to the delivery of all activities and therefore, they have been included in the self-assessment process. The School is a medium-sized department by comparison to all UK mathematics departments (29th of 68) and one of the smallest in the Russell Group (23rd of 24) [HESA].



Figure 4 Maths Adventures Day. Hands-on workshops for children and families to promote the role of Mathematics in Science and Technology and inspire the next generation.

3. Governance and recognition of equality, diversity and inclusion work

School Governance Structure

The School's senior management group is School Board, chaired by the Head of School (HoS). There are ten members: HoS, Deputy HoS (DHoS), School Manager (SM) and seven Directors with responsibility for School-wide themes, including the Director of EDI (DoEDI) (a new post created in 2022) - see Table 1. All academic roles have job descriptions and fixed terms of office. Expressions of Interest are sought for academic roles with specific encouragement to early and mid-career staff. Each Director chairs the relevant School committee within their area (Figure 5) to maintain a feedback loop to senior management. To increase resilience and share workload, Deputy Directors have been appointed in many areas, but not in EDI. School Board has overall responsibility for all School-level activities and the presence of the DoEDI on the Board ensures that EDI is embedded in the decision-making process, at the same level as other Directorships. EDI is a standing agenda item for School Board.

ACTION 5.2.2, Section 4: Appoint a Deputy Director of EDI with an associated workload tariff to more fairly distribute this work and enhance recognition and reward.

Role	Gender	Grade
Head of School	Male	Reader
Deputy Head of School	Male	Professor
Director of Admissions & Recruitment	Male	Senior Lecturer
Director of EDI	Female	Lecturer
Director of Impact & Engagement	Female	Reader
Director of International	Male	Professor
Director of Learning & Teaching	Male	Senior Lecturer
Director of PGR	Male	Professor
Director of Research	Female	Professor
School Manager	Female	

Table 1 Composition of School Board as of January 2024.

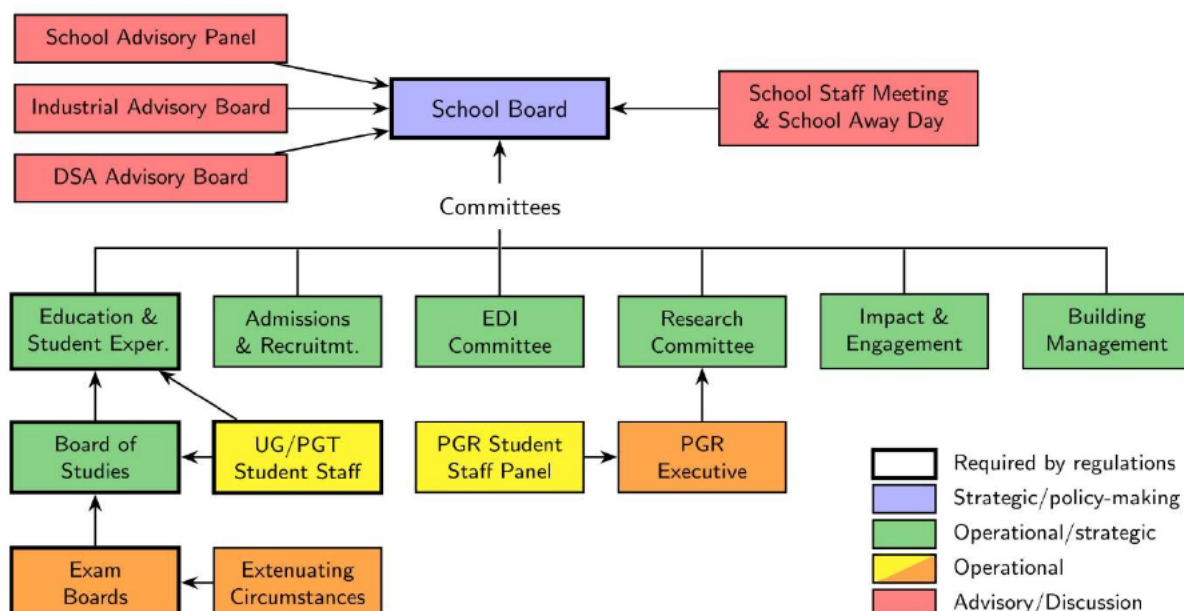


Figure 5 Committee Structure within the School.

EDI Committee

The DoEDI (chair), HoS, SM and Senior Personal Tutor are standing members of the EDI Committee. The wider membership is refreshed annually and includes representatives from all staff and student groups within the School. Representatives are selected by the DoEDI following expressions of interest, to ensure a diverse membership.

The EDI committee works on and beyond the protected characteristics identified in the Equality Act 2010. It acts to promote and foster EDI-aware practices to benefit all staff and students. Guests are invited by the chair to advise and support the Committee on specific areas (e.g. anti-racism policies). The Committee meets every 6-8 weeks and items raised by members are discussed and actions taken

when/if necessary; tasks around these are assigned and completed by members between meetings and fed back to the respective Committees including School Board.

Members of the School EDI Committee serve on the College EDI Network and University EDI Committee which enables the School to share best practice and draw on the expertise of others. Two members are also part of the Student EDI Induction Task and Finish Group.

Distribution, recognition and reward of EDI work

The University uses a workload allocation model (WAM) for academic and research staff to inform the distribution of tasks annually, and to ensure a reasonably equitable distribution. The School was an early adopter of this model, which includes allocations for all administrative roles (e.g. DoEDI and SAT membership). School Board confirms the allocations for all areas of the WAM, following feedback from staff via the School's UCU representative, to ensure they reflect time spent on activities. Allocations are given to nominated tutors for LGBTQIA+, ethnic minority and female students; and for citizenship and civic mission since work towards EDI is a valued contribution towards this. To ensure transparency, the WAM is publicly available within the School.

The School Promotion Panel is chaired by the HoS. The membership changes annually and includes 4 senior academic staff and a member of senior staff from the wider University. Since 2021/22 the panel has been 40% female. Work towards EDI is explicitly recognised in the promotion criteria. The School encourages women and other traditionally under-represented groups to achieve their full potential by making timely applications for promotion and this has resulted in the successful progression of women into higher grades (Appendix 2 Tables 2.6 and 2.7).

ACTION 5.2.1, Section 4: Develop clear and specific instructions for line managers to assist them in advancing the careers of minority staff members.
--

The School has an Outstanding Contribution Award scheme panel chaired by the HoS and SM which reviews submissions from line managers to nominate staff who have contributed above expectations. Staff may be awarded a lump sum payment for a one-off contribution, or a permanent salary increase for a sustained contribution. Female staff have been consistently successful (Appendix 2 Table 2.8). Non-professional staff on all career pathways can be nominated for this award and recently this has been used to reward significant efforts to promote EDI in the School. EDI work is also publicly celebrated at the University, with staff and students from the School achieving success at the Students' Union Enriching Student Life Awards and being nominated as Champions for EDI.

4. Development, evaluation and effectiveness of policies

Most institutional policies come to School Board and other Committees via the relevant Director or SM and are swiftly communicated to all staff. School Board will adapt policies where there is scope, plan their local implementation, gather evidence on their impact and provide feedback to the central University. For example, the School Board solicited feedback and evidence from staff on the impact of the new University Travel Management and Expenses policy, which was relayed to University Director of Finance and led to the University taking steps to remedy some of the deficiencies with the original policy.

The impact of University policies on an individual can be raised during the appraisal process, or at any time through their line manager or HoS, and escalated to HR if it cannot be resolved locally. Formal and informal staff meetings, such as our regular informal coffee mornings, also provide an opportunity to raise issues.

The School has scope to develop local level policies arising from issues raised by School Committees. For example, the Admissions and Recruitment Committee drafted a policy to provide a travel contribution to applicants who would otherwise not have the funds to attend a School Offer Holder Day. This was approved by the School Board and will be implemented, funded, and evaluated over the next academic year.

Student feedback is sought via all school fora and student-staff panels on institutional and local level policies and is reported to School Board via the Education and Student Experience Committee (ESEC).

5. Athena Swan self-assessment process

To support this application, a Self-Assessment Team (SAT) was refreshed in January 2023 co-chaired by an academic and PS member of staff. Expressions of interest for membership were invited from all staff and PGR students with the co-chairs and HoS ensuring the SAT was diverse and inclusive (Table 2).

	School Role	SAT Role	Other EDI roles / Profile
	Teaching Associate and PhD Candidate	Academic Staff and Postgraduate Student Representative	A dual role: Teaching Associate and PGR student, both positions on a part-time basis. Cardiff Undergraduate student 2015-2019.
	Taught Programmes Administrator	Professional Services Representative	Disabilities Officer, Dignity at Work contact. Collates, presents and analyses admission and recruitment data.
	Lecturer	Academic Staff Representative	UKRI Future Leaders Fellow leading a research team of three. Returned to research after a caring-related career break with a Daphne Jackson Fellowship.
	School Manager	Co-chair	Member of School EDI Committee. Joined Cardiff University in January 2023 as Maths Professional Services lead.

	PhD Candidate	Postgraduate Student Representative	School of Mathematics PGR representative and Cardiff SIAM-IMA Chapter Vice President. Committed to improving PGR experience and equality in education.
	Finance Officer	Professional Services Representative	Finance Officer for the School of Mathematics. Responsible for the day-to-day financial operations management of the School to ensure efficiency, cost effectiveness and financial processes compliance.
	HR Officer & Personal Assistant to the Head of School	School Human Resources representative	Collates, presents and analyses HR data required for the Athena Swan application. Provides administrative support to the SAT Co-Leads and for the SAT meetings. Secretary of the School EDI Committee.
	Professor of Applied Mathematics	Co-chair	Head of School (2013-2021); Chair of College EDI Network (2018-2021); Member of Task and Finish Group for Student EDI Induction Module.
	Postgraduate Research Officer	School Postgraduate Research Admin Representative	Collates and shares PGR related data. Provides Administrative support to PhD students. Collaborates with academic staff and students in the administration of viva examinations.
	Lecturer, Director of EDI	Director of EDI	Chair of EDI committee (2021-2022); co-initiator of TEASER (TEA-ching-Supervision-Edi-foRum); organizer of the Special EDI-tion Colloquium, board member of the Association of Women in Mathematical Physics, lead organizer of the workshop series "Women in Mathematical Physics", MATHS representative for Diversity in STEM (DiSTEM) group.

	Senior Lecturer; Deputy Director of PGR studies	Academic Staff Representative, Data analysis support	Leading on EDI matters for PGR students; Co-initiator of TEASER; m2 mentor (at Goettingen, targeted at UG female students).
	Head of the School of Mathematics	Head of School, Member of School EDI Committee	Reader in Operational Research; Line manager and Dignity and Wellbeing Officer.
	PhD Candidate	Postgraduate Research Student Representative	PhD student and Graduate tutor.

Table 2: Composition of the SAT.

The SAT met monthly initially, with SAT sub-groups working on specific tasks between meetings. The frequency of meetings increased to fortnightly following the summer recess. The SAT was tasked with analysing data from the staff and PGR culture surveys and student and staff data, identifying the important issues to be addressed in the action plan and reviewing all aspects of the application. Tasks were allocated based on area of expertise or by area of interest.

The SAT collated data from corporate systems which are used for all staff and student reporting to ensure consistency across years. Some data is collected by the School, such as the gender breakdown of seminar speakers, and this data has been collected by PS staff.

Staff and PGR student surveys were used to inform the SAT on the current culture of the School. The staff survey was completed by 24 men, 15 women and 4 who preferred not to say, an approximate response rate of 55% for men and 70% for women. The PGR survey was completed by 12 women and 11 men, corresponding to an approximate response rate of 30% for men and 50% for women.

Additionally, staff meetings, PGR student drop-ins and student-staff panels were used to consult with the school community to inform the development of our action plan. Student representatives on the student-staff panels obtained opinions from across the wider student population. The academic co-chair of the SAT was Acting DoEDI from December 2022 to November 2023 covering a period of staff maternity leave, making it straightforward for the EDI committee to feed into the SAT's work.

Future plans for self-assessment

Ownership of the action plan will pass from the current SAT to the EDI Committee after application. The EDI Committee will set a strategic plan to ensure sustainable progress against the action plan over the 5-year award period. It will carry out regular evaluations of progress which will be reported to School Board and the outcomes will be shared at School staff meetings to seek further feedback. Action points will be updated by the EDI Committee in response to changes to policies outside of the School's control and targets will be adjusted accordingly.

Membership of the EDI Committee will undergo annual renewal through expressions of interest. The DoEDI's term will also end during the award period and the HoS will encourage expressions of interest from suitable candidates among staff.

In addition to the University Staff Survey, the School plans to hold staff and PGR student culture surveys biannually to gauge how progress is being perceived by these groups.

ACTION 5.1.1, Section 4: to run a School staff culture survey in alternate years to the wider University staff survey.

Section 2: An evaluation of the department's progress and success

1. Evaluating progress against the previous action plan

Previous Action Plan

Action No.	Issue and area for action identified	Action currently taken/ previous Action Plan	Planned Actions	Responsibility and Accountability	Timescale	Success Measures	Benchmark	Barriers	Changes
Section 3- Self-Assessment									
1A	SAT does not include sufficient staff or student representation	SAT includes staff balance of gender, career stages and career pathways, caring responsibilities and one UG student rep.	Refresh SAT staff membership and ensure balance of gender, ethnicity, career stage, career path	Head of School	June 2018	A better feedback loop via the SAT members to all staff and students	Membership of SAT at next application to reflect this balance		
1B			Refresh SAT student membership and ensure equal representation by gender and from all levels of study	Head of School	June 2018				
1C			Rename SAT to be EDI	Head of School	June 2018	Wider terms of reference Involvement of more staff in identifying the issues, proposing solutions and implementing changes	Action Plan update in 2019 to have more staff listed as Responsible and Accountable		
1D			Set committee term of 2 years and every member		Oct 2018				

			is to be part of a specific action group						
2A	Communication of the action plan and the work of the SAT has been predominantly verbal and staff-focused	Communication currently via School meetings and the School shared drive	Develop a School communications plan for EDI with the College Communications team	School Manager	Dec 2018	(Applies to all actions) Conduct School EDI survey in 2019 and 2021 to assess communication strategy	At least 75% of staff know where to find EDI information and who the contacts are		
2B			Use School-specific intranet to hold information relevant for staff (this is not available for students)	School Manager	2019				
2C			Extend and enhance the information on School internet pages for wider visibility	School Manager/ Director of Learning and Teaching					
2D			Hold a focus group of students to develop the student elements of the communications plan	School Manager/ Editor					
2E									

			Use the School Newsletter to promote actions						
3A	A limited number of staff members have access to GW4 and other networks	Members of SAT currently attend GW4 meetings and other events and have benefitted from wider engagement	Maintain this engagement and School funding for participation. Extend the funding to senior PS and research staff for EDI events	Head of School	From 2018/19	Information from external EDI events to be discussed at SAT meetings and best practice developed elsewhere in the sector to be implemented within the School	At least two examples of best practice developed in the sector to be implemented in the School by 2021		
4A	Lack of visibility of the time commitment of EDI work in the School	2014 Action 19 to implement workload model and communicate it to staff. The model is published, aggregated and anonymised	Extend the information published to include a list of administrative roles, including EDI to give greater visibility to the work Agree additional workload allocations to lead on specific initiatives	Head of School	From 2018/19	Information given at all staff meetings and available on intranet/ shared drive	Time commitment of EDI work in the School is not currently transparent		
4B				School Board	2018/19				
Section 4- Student Data									

5A	Maintain and increase the number of female undergraduate students	Data presented to School Board annually. Follows 2014 Actions 1&3 to increase the numbers of female students, particularly on the M-level programmes	Continue to monitor student data	Education and Students Manager	Ongoing		UK average or 45%, whichever is higher	Lack of autonomy in decision-making. The monitoring of student data has continued but there are few local levers to change the student cohort. All admissions processes are now located centrally, with little School-level input until offer-holder visit days which are administered locally	
5B			Director of Admissions	2019/20					
5C			Admissions team	From 2018/19					
5D			All programmes to have a gender balance above the sector average	Education and Students Manager	Nov 2018/19				

			<p>Monitor Masters level holistically- MMath, MMORS, MSc to see total numbers at Masters level and for this proportion to be at least equal to the BSc programmes</p>					
			<p>Perform data analysis on progression from Years 1 and 2 annually and to also extend to use other data on protected characteristics</p>			<p>Action plan developed during 2018/19 based on findings. Progression by students with any protected characteristics should be the same as the progression for all other students</p>	<p>Data not currently collected</p>	

6A	More female students to undertake MMath and MMORS programmes	Follows 2014 Action 3 to increase the numbers of female students on M-level programmes	To promote MMath/ MMORS as default programmes at entry	Director of Admissions	From 2018/19	Central admissions team given guidance and all School information to emphasise the 4-year programmes	50% of Yr 1 cohort on these programmes by 2020	Constraints on staff time. The overall number of students undertaking these programmes is low. Many students have been attracted to excellent job opportunities. COVID may have had an impact but there is no HESA data available yet to support this
6B			Gender balanced programme of speakers at Open Days	Director of Admissions	Oct 2018	One of the three speakers to be female		
6C			Review communication with applicants between offer of a place and enrolment and highlight areas such as accommodation, the academic content of the course and the industrial placement opportunities available	Admissions team	Jun 2018	Better data about which students will enrol. Increased conversion of PGT students	No current data gathered	

7A	Increase the number of female PhD students	Follows 2014 Action 4 to increase the number of female PhD students	Secure more funding for PhD studentships from a wider range of sources	Head of School/Director of Postgraduate Students	May 2018 From May 2018 2018/19 Oct 2018	Increase joint PhD applications with other disciplines- 3 per year by 2020/21	0 in 2017/18 0 in 2017/18 2 in 2017/18	Lack of budgetary control. Action 7A was changed as PhD studentships are not an allowed cost for most EPSRC grants. The College fund for PhD studentships has also been discontinued. Central financial control meant that we were unable to resource summer projects.	A School fund was established for 2022/23 to fund up to 6 PhD studentships. Arrange for a stand for PhD students at the MATHS Careers Fair to promote PhD opportunities
----	--	---	--	--	--	---	--	---	--

7B				School Manager				
			Continue to support the new 'Women in Maths' initiative by PhD students to encourage more undergraduates to progress to doctoral research			Monitor attendance and get 20 regular attendees in 2018/19 and 25 in 2019/20	Attendance not currently monitored	
					Include studentships on standard grant applications- 2 per year by 2020/21			
					Apply for College match-funding on First or large grant applications- 3 per year by 2020/21			

7C			Repeat Work@1 session and extend to include PGT information	Knowledge Exchange Officer		Monitor attendance 50 attendees	Increase attendees to 50 students		
7D			Support summer projects across every research group	Head of School		5 funded projects per year and all research groups to supervise at least one project by 2019/20	Summer projects not currently offered in every research group		
8A	Increase the number of female PhD applicants	Follows 2014 Action 4 to increase the number of female PhD students.	Have gender balanced PGR and PGT admissions teams	Head of School	Oct 2018	1 female member of staff to become a core member of the admissions team and 2 to	Currently 0.		
8B			Extend interview process for	Director of PGR	From Oct 2018		Currently 0 overseas		

8C			students with an alternative source of funding (self-funded, overseas government funding) Director of PGR to review all rejected applications and identify advice that can be given to future applicants or supervisors	Director of PGR	From Oct 2018	contribute to interviewing At least 20 applicants with an alternative funding source to be interviewed from 2018/19	government funded applicants are interviewed Currently only basic information is provided to applicants		
Section 4- Staff Data									
Action No.	Issue and area for action identified	Action currently taken/ previous Action Plan	Planned Actions	Responsibility and Accountability	Timescale	Success Measures	Benchmark		
9A 9B	Provide support for female PGR students to continue in academia (in Cardiff and elsewhere)	Follows 2014 Action 7- to support female graduate academic careers	Organise annual event delivered by female ECR staff to encourage more PGR to undertake research careers	Director of Research Director of Research	From Oct 2018 From Oct 2018	Annual event organised and attended by at least 50% of PGR in Yr 3 and 4	Event not currently given	The impact of COVID to deliver this event and change of priorities during this period	Female staff to speak about their research careers in 'Women in Maths' sessions to PGR and UG students

9C			<p>Monitor career destinations of doctoral graduates</p> <p>Monitor gender balance of PGR who teach in the School</p>	Director of Learning and Teaching	From Oct 2018	Ensure that priority is given to achieving gender balance of PGR who teach core modules in the School	Gender balance not currently monitored		
10A	Embed continuous improvement ethos to induction and school information	2014 Action 13 to develop School induction process	<p>Refine the School Staff Handbook by inviting feedback from recently appointed staff</p> <p>Include information on all leave schemes in the Staff Handbook and inform new staff as part of School induction</p> <p>Increase awareness of University networks and WISE as part of School induction</p>	Head of School/Convenor or of Newcomers Forum	Oct 2018	Improved response to the question on induction in Staff Survey	School Staff Handbook and induction Checklist exists	Unable to monitor question on induction in Staff Survey since this question has been removed	
10B				Head of School/School HR Officer	Oct 2018		Staff Handbook and induction checklist updated. All line managers to undertake new College training programme for line managers by 2019.		
10C				School HR Officer	Oct 2018	Information to be added to induction checklist			

11A	Support career development of academic staff	Follows 2014 Action 9 & 10 to increase awareness of promotion and mentoring. Staff are invited to submit their CVs for review but current review date is too close to the University deadline to respond to detailed feedback	Monitor CV discussion and widen the review group to include senior female Recently promoted staff to hold advice session	Head of School	2019	All staff except professors and probationers to submit CV prior to PDR to be reviewed by senior staff	Staff have time to respond to detailed feedback on their CVs to improve promotion preparation	Staff feedback was that it was more useful to receive feedback on an application and a discussion of the criteria rather than a CV	Line managers to receive and comment on draft promotion applications
11B									
12A	Lack of feedback mechanisms	No formal action currently taken	Develop system to get feedback on induction and College networks.	HR Business Partner	2019/20		No feedback currently received except for 12E		
12B			Staff survey question about the effectiveness of having a mentor	Head of School			School staff survey to have 75% respondents finding these forums useful	There is no longer a question in the staff survey about mentorship	
12C			Ask for feedback on Grants Club	Director of Research					
12D			Introduce listening lunches for groups of staff to feedback their views	Head of School				Lack of budgetary control. Financial constraints meant that these could not be continued	Listening lunches to be replaced by frequent informal staff coffee mornings
12E			Survey staff on usefulness of PDR				Response to staff survey question		

			to see how the School can tailor the process				on usefulness of PDR increased to 70%		
13A	Promote mentoring for career development	Follows 2014 Action 9 to promote academic mentoring schemes	Promote new mentoring scheme	Head of School	2019	Mentor and mentee opportunities promoted to all staff with at least 3 accessing this scheme as a mentee and another 3 offering to be a mentor by 2019	New scheme	Central HR unable to provide information on uptake of University mentoring schemes	All new staff to be assigned a mentor by the School on appointment
13B			Engage with new Professional Services Mentoring Scheme due to launch in 2018/19	School Manager					
14A	Support research staff career progression	No actions currently undertaken	Provide opportunities for research staff to undertake teaching	Head of School/Director of Learning and Teaching/Director of Research	2019	Every member of research staff to construct a career strategy plan with their senior mentor	No current benchmarking available as current support is ad hoc		
14B			Support research staff who wish to apply for a Fellowship of the Higher Education Academy						
14C			Seek approval for research staff to participate in the University's						

14D			Academic Practice Programme			independent research fellowships			
			Introduce a career development scheme for research staff with support given by a senior academic distinct from the PI						
15A	Support PGR for career progression		Develop a discipline-specific training programme of talks, skills and careers sessions with input from students	Director of PGR	2020	Training programme to be developed and success measured by means of an annual survey with an overall measure of	Dedicated training programme for PGR does not exist	PGR feedback highlighted that more targeted support would be effective	Mentoring and specific support about routes to fellowships or research roles to be provided to PGR students
15B									
15C									

			Provide mandatory training for PGRs who teach Supporting PhD students to achieve Associate Fellow status of HEA			helpfulness of 70%			
16A	Supervision of PGR students	Training is encouraged but not mandatory and not monitored	Make supervision training compulsory	PGR Director of PGR	2020	All new supervisors to have completed this training by end of 2018/19 and all existing staff by 2019/20	No records currently kept	Lack of autonomy in decision-making. The University's Academic Practice Programme for early career staff which included a compulsory module on PGR supervision training for T&R staff was replaced in 2021 by a new fellowship scheme accredited by the HEA. The module on PGR supervision	Compulsory for supervisory team for PhD students supervised by early career staff to include an experienced second supervisor

								training is not included in the new scheme. Although staff in the School are encouraged to complete this module, no central records are kept about who has taken it	
17A 17B	Returning from long periods of leave	Follows 2014 Action 21 to develop and implement a policy for research leave	Continue research leave scheme Make staff aware on a regular basis about working patterns through regular HR email from HoS and mentioned in email about PDR	Head of School PDR Reviewers	Ongoing	Maintain 100% return rate from maternity and 80% of eligible staff to use scheme	100% return		
Section 5- Culture									
18A	Visibility of female role models	2014 Action 15 to ensure gender balance of seminar speakers	Seek University approval to name a prominent room in the School after Dr Rosa Morris, the first female head of a mathematics	Head of School	2019	Increased visibility of the role and achievements of female academics in the School	Named room and material that can be read by visitors or students outside the room	Lack of autonomy in decision-making. University level decision not to name any rooms after people	Promote visibility of female staff and PhD students by other means: updating our brochures and web presence

18B		All of the brochures and website are reviewed regularly	department in the UK and create suitable literature to be displayed outside the room	Head of School/Director of PGR/School Manager	2019			Building steering group discourages all poster displays.	and celebrating their contributions e.g. via Twitter on the International Women in Maths Day (see Figure 6)
			Promote the visibility of female staff and PhD students in the School through posters and School recruitment literature and webpages				Posters to be in both staff and student areas		Alternative virtual displays throughout Abacws to provide greater coverage
18C		50-50 gender balance at School Colloquium but variance across research groups	To review how seminar speakers are identified. Use Analysis group session for other groups as best practice and to get overview	Director of Research/Seminar organisers			All Research Groups to have 20% female speakers over the period		
19A	Embed EDI across School activities		An equality impact review to be done on all working group topics within the School. This will be facilitated	School Manager	From 2018/19	All areas of activity that form the focus of working group to undertake an equality impact	Equality impact reviews currently only undertaken for new taught programmes		

			by a SAT member and follow the principles of the full equality impact assessment with a shorter proforma. To promote a deeper understanding of equality and diversity			review by end of 2019			
20A	Reduce teaching load on two research groups who deliver the MScs	There have been 3 additional posts in this area, but also a significant rise in the number of students	A case will be made to the College for additional investment in OR/ Statistics/ Financial Mathematics	Head of School	From 2018	Two additional posts made in these research groups by 2019/20 to reduce number of MSc projects supervised to 4 per staff member	Number of MSc projects supervised currently 7+ per staff member	Lack of budgetary control. Although additional posts in OR, Statistics and Financial Mathematics were approved, student numbers have continued to grow	Share MSc project assessments across all research groups. Seek dissertation topics and data by industrial partners so that less of the active supervision is done within the School. Employ external supervisors to mitigate workload on academic staff

21A	Increase School engagement with widening access partners		Work with the Further Maths Support Network in supporting teachers and preparing school pupils for degree-level mathematics	Director of Engagement/ Knowledge Exchange Officer	From 2018/19	Increase in UCAS applications for STEM at partner Schools	School data on UCAS applications		
-----	--	--	---	--	--------------	---	----------------------------------	--	--



Figure 6 Image from Twitter Campaign for International Women in Maths Day 2023 – see Action 18

Methodology of implementation

The action plan was the responsibility of the EDI Committee. As the Chair of the EDI Committee joined School Board in February 2022 this provided a feedback loop for monitoring and reporting progress against the Action Plan.

Actions were allocated to the staff indicated in the plan, and a member of the Committee was tasked with updating the Committee on progress or any blockers which were identified. In the case of a barrier outside of our control, alternative actions were discussed and the most appropriate action to achieve the desired outcome was implemented.

The efficacy of actions was assessed quantitatively (where data was identified as the measure) including the University staff survey. For non-quantitative actions evaluation was through feedback from student and staff groups, and staff and student representatives on the EDI Committee.

COVID impact on actions

During the pandemic the University required Schools to prioritise teaching. All staff had to learn how to pivot to delivery of online teaching which required additional support and training. The School employed flexible working arrangements to support staff with caring responsibilities and those home schooling their children. Additionally, the University increased the number of dependency days (normally used for emergencies) and the flexibility to use them.

The School planned for a staff survey to be conducted in 2020 (Action 2A), but School Board felt it was insensitive to ask about measures such as careers events or mentoring when so many staff were facing additional pressures. A culture survey was conducted in October 2022 but was repeated in June 2023 to ensure the new action plan was based on timely information. A postgraduate culture survey was conducted simultaneously.

During March 2020, the School moved to using both Zoom and Teams. For all EDI matters there was an all-staff Team where all documents are kept, largely replacing our previous content on the Intranet and Learning Central. The chat function enabled conversation and issues to be raised. There were College and University initiatives started which supported our local actions, such as Wellbeing Days and email-free Fridays. The practice of having no meetings on Fridays has been kept. Weekly bulletins

from the University occupational health service with webinars, online resources and several targeted staff support groups enhanced local actions (Action 4A, 10A, 10B, 12A).

The actions which relied on events or meetings have largely been continued with a change in the mode of delivery. Very little activity ceased completely, but there were events for which attendance was not monitored during 2020. The mode of delivery for Women in Maths events careers talks (Action 7B, 7C) is now mixed with some online and some face-to-face. All formal talks (including all seminar series') were recorded during the pandemic and made available to those who could not attend when they were scheduled.

Barrier – Lack of Budgetary Control

There were several actions dependent on financial support [Action 7A, 7D, 12D, 20A] that we were unable to implement. School budgets have become more tightly managed to meet the University's financial targets with little scope to fund new initiatives without additional resource from the College. Although we were initially able to resource additional PhD studentships (changed Action 7A) increasing external pressures will prevent us from continuing to do so.

The financial climate and the lack of budgetary control at local level means that we had to be more conservative in terms of actions that require a financial contribution and to seek external funding to support EDI initiatives where appropriate. In the current application, no actions with significant associated expenditure have been proposed.

Barrier – Lack of Autonomy in Decision-Making

Several actions were impacted by a lack of local autonomy [Action 5A, 5B, 5C, 16A, 18A] where decisions were taken at College or University level. This includes the centralisation of some processes such as admissions previously held within the School.

The learning here is to be mindful of the potential impact of changes in University strategy on the ability to implement actions.

Barrier – Constraints on Staff Time

Since the last award the final Business Case for the new Abacws building was approved by the University. The new design, build and transition required significant staff resource by senior leadership in the School many of whom had been tasked with delivering the action plan. For example, the SM was seconded to be the Project Manager. The build and transition coincided with the COVID pandemic which further contributed to the increased workload of senior staff.

Responsibility for implementing our new action plan will be more widely distributed beyond senior leadership.

Some of the other actions required female members of staff taking on new responsibilities e.g. speaking at Open Days (Action 6B). However, it was not possible to implement these actions without over-burdening female members of staff, who are disproportionately early career, with administrative roles, especially since many women have taken on major roles within the School, e.g. Director positions.

The learning here is to develop innovative actions that, when supported by allies, can diversify this load and not overburden female staff.

Evaluation of Success

Equality impact assessments are now undertaken as a matter of routine across the range of School activities including new taught programmes and the design of Abacws. (Action 19A) (see Section 2.2 below).

Time commitment of EDI work in the School is now transparent. The new DoEDI role has a workload allocation in line with other administrative roles in the School and the document that contains this information is available to all staff. The time commitment for SAT membership has a separate workload allocation. (Actions 4A, 4B).

The proportion of female PhD applicants has increased during the period from 26% to 34% (Appendix 2 Table 1.18). Over 40% of those accepting an offer during the period 2018/19 to 2020/21 were female (Action 7). There is now a female Deputy Director of PGR Studies (Action 8A). The interview process for PGR admissions has been extended to include applicants with alternative sources of funding and feedback provided to applicants and potential supervisors (Actions 8B, 8C).

All new staff in the School meet with key members of School Board within their first few weeks in post as part of their induction and there is a checklist of topics to be discussed during these meetings. The School handbook has been updated by the School's HR Officer following staff feedback (Actions 10A, 10B, 10C).

Flexible working patterns are promoted to staff on a regular basis through emails from the School's HR Officer. Details of University support dependent on the type of leave are made available. Returners are informed of the additional School support that is available to them such as protected study time and flexible teaching arrangements. All flexible working requests have been approved. (Action 17B).

2. Evaluating success against department's key priorities

Key priority - Increase the number of female staff and support all staff in career progression [Actions 9-17]

There has been annual improvement in the percentage of female academic staff (Appendix 2 Table 2.2). Although the percentage of female staff is still below the UK average for Mathematics departments there is a clear and sustained improvement. This is due to continuing all our previous actions to ensure we support female applicants, shortlisting based on quality not quantity of outputs, having a gender-balanced interview panel and communicating the schemes available to support staff, such as our returners scheme. This is evidenced in Table 2.5.

The School now has three female professors and one female reader, with female senior lecturers and readers being more swiftly promoted than their male colleagues, as evidenced by the data in Appendix 2 Tables 2.6 and 2.7. Some concern remains about promotion from lecturer to senior lecturer, as discussed in Section 3.2. The School strives to ensure there is no significant bias of workload in terms of any protected characteristics.

The success in achieving this key priority is attributed to the actions taken in the School since 2014 where all staff are supported to apply for promotion through the mentor schemes, encouragement and support from senior staff, and wide dissemination of the promotion criteria [Actions 9-17]. The main lesson from this success is that the actions must address each aspect of the barriers faced by women and other under-represented groups.

Key priority - Embedding EDI into all School Activities [Action 19]

EDI has been embedded into all School activities since 2014 with a significant cultural shift towards ensuring that all staff and students can participate in activities equally. EDI considerations have moved beyond gender and now include other protected characteristics with the aim of being inclusive to all. For example, an EIA was used to greatly improve the design of Abacws from the point of view of provision for staff and students with disabilities and/or diverse gender identities. Doors can be operated via low-level pads, each floor has two bathrooms suitable for those disabilities, and both gender-inclusive and gender-selective bathrooms are available to all.

All staff that participate in any form of selection or appointment process e.g. admissions of UG and PGT students, selection of PhD students, academic and professional services appointment panels, are required to have undertaken and passed the University's EDI and unconscious bias training.

The following are initiatives that have served to embed EDI into the fabric of the School.

In May 2021 a new Special EDI-tion Colloquium series with a focus on EDI matters in the mathematics community was launched. This biannual series of talks is given by professional mathematicians and is open to the whole School community – students and staff. The aim of this Colloquium series is to spark discussions on EDI in Mathematics with the idea of working towards a more equal, diverse and inclusive School. Seminar titles include "The problem with role models"; "On becoming better mentors and advocates in Mathematics"; "Creating Connections—Social Justice and Ethics in Mathematics"; "Black Heroes of Mathematics"; "LGBTQ+ Inclusion in Mathematics – A personal viewpoint".

Since March 2022 the School has had a regular (two or three times each term) forum "TEASER" ("TEAching-Supervision-Edi-foRum"), where all members of staff are invited to informal exchanges on teaching and supervisory practices, where reflection on inclusivity and fairness and how they are suitable for a diverse range of students within a diverse range of circumstances are particularly encouraged. To kickstart the discussion at each session, a member of staff is invited to share their own practice, which subsequently triggers reflections and discussions which are expected to be constructive. In this way, the forum contributes both to staff development and to strengthen the cohesion in the department.

At the start of the academic year 2022/23, all first year students were required to complete an online module on EDI developed by the College. In 2023/24 this requirement was expanded, and EDI briefing sessions were delivered by the DoEDI to all UG year groups and PGT students in the School as part of enrolment week prior to students completing the online EDI module. The emphasis in this module is for students to understand their responsibility in creating an environment in the University in which all students feel safe and can flourish in their studies.

Section 3: An assessment of the department's gender equality context

1. Culture, inclusion and belonging

Work for EDI by Staff and Leadership

The period since our Bronze award has been marked by a significant change in attitude from staff at every level towards monitoring equality, celebrating diversity, and working on inclusivity. We have appointed our first three female Professors. This will pave the way to the appointment of our first female Head of Research Group.

There is a broad belief that senior management provides valuable leadership on EDI. A large proportion of PGR students (91.3%) agree that the HoS/DoEDI openly promotes improved representation in STEM (Appendix 1 Table 5.3), with the same proportion agreeing that the department leadership actively supports gender equality (Table 5.4). Among staff, it is female academics who are the most positive group in their assessment of the School leadership's approach to EDI with 7 out of 8 academic women agreeing that School leadership actively supports EDI, with 3 of these strongly agreeing.

Members of the School show strong leadership both nationally and internationally. Female staff have been involved in the organization of events such as, the Retreats for Women in Applied Mathematics at ICMS Edinburgh, and the workshop series "Women in Mathematical Physics". Members of the School have been involved in a wide range of external activities such as, the consultation on the development of the INI EDI Action Plan 2023-2028, serving as a board member of the Association of Women in Mathematical Physics, giving talks advocating for minorities in mathematics and contributing to the "Notable Women in Mathematics" project, an outreach activity by the Association for Women in Mathematics. A female PGR student represented the Council of Mathematical Sciences and the London Mathematical Society at the Voice of the Future 2023 event, advocating at the House of Commons for gender equality in mathematics.

There are concerns that work done beyond senior management is not always adequately recognised. Among PGR students, 21.7% of all respondents were unaware that there was an EDI Committee (Appendix 1 Table 5.5) and over 25% of staff answered, 'Don't know' to "Equality, Diversity and Inclusion work is recognised when workload is allocated" (Table 2.4) and "Equality, Diversity and Inclusion work is recognised in applications for promotion/progression" (Table 2.5). EDI work comes in both formal and informal forms, which makes it difficult to provide full recognition of this work.

The School leadership robustly oversees policies and training designed to ensure an inclusive culture and actively monitors uptake. For example, monitoring participation in the University's EDI and unconscious bias training has ensured a 100% completion rate of staff who have been in post for more than six months.

Due to the small size of the School, there is no pressing need to systematise our response to negative behaviours. Leadership reacts with clarity and urgency to all reports of incidents. 79% of staff indicate a knowledge of how to report bullying and/or harassment (Appendix 1 Table 2.13), suggesting further action is needed to ensure that leadership are always in a position to respond.

This approach keeps channels of communication open. For example, when the staff culture survey results indicated that a number of staff had either witnessed or experienced bullying and/or harassment in the past 12 months, the HoS initiated a discussion at a School meeting and information was distributed to staff on how to report such instances and where to seek support, including details of the School Dignity and Wellbeing representatives to address a knowledge gap within the School

about this service. These actions resulted in the members of staff who reported these problems via the culture survey approaching the HoS to discuss them directly.

Action 2.1.3, Section 4: Regularly inform staff about the process for reporting bullying and/or harassment and ensure information is available to staff on the School repository.

Student Population

The student population in the School during 2022/23 comprised 604 undergraduates (63% male, 37% female – sector average 37% female), 508 PGT (70% male, 30% female – sector average 41% female) and 62 PGR (61% male, 39% female – sector average 30% female). The sector averages used throughout are HESA 2021/22. Wherever possible we are using four years of data to see the full picture since our previous application. In terms of the composition of our student cohort 12% of our students declare a disability and 46% identify as having a minority ethnic background. The student cohort comprises 37% international students, of which 61% are on PGT programmes, making up 71% of the PGT cohort. There is a significant correlation between students with an overseas fee status and identifying as having an ethnic minority background. Very few current students come from a low socioeconomic status (SES) background or have a non-traditional route to Higher Education.

Approximately 10% of our UG students require reasonable adjustments put in place for their studies on the recommendation of the University's Student Disability Service. All lectures have been recorded for all students since 2020. Adjustments such as the advance provision of lecture materials and the use of microphones by lecturers, are required by many students and ESEC has agreed that these should be the standard expectation on all our taught modules.

Female students can request a female personal tutor and since our Bronze award we have appointed dedicated tutors for LGBTQIA+ and ethnic minority students following feedback from students. There is student representation on the School EDI Committee (at UG, PGT and PGR levels) and Board of Studies.

Inclusion and Intersectionality

Staff with caring responsibilities

Actions from our Bronze award are now firmly established within our School culture and improve the working lives of those with caring responsibilities. Many examples of good practice such as the timetable request procedure for staff (Appendix 2 Table 2.9), the granting of teaching relief to new starters or those returning from long-term leave, and the scheduling of meetings between the hours of 10am and 4pm, which has also benefitted PS staff with caring responsibilities, are now entirely routine. Several of the papers submitted to REF2021 were written by researchers assisted through periods of personal difficulty, and whose successful return is evidenced by subsequent promotion.

These concrete actions are appreciated by staff: 88% agreed with the statement 'My School enables flexible working', with only 3% in disagreement (Appendix 1 Table 2.7). No member of staff disagreed with the statement 'My School provides staff with support around all types of caring leave' (Table 2.10). PGR students also express satisfaction with the School's support for flexible working.

However, the impact of these positive actions appears to lack depth. Staff with caring responsibilities were much less likely to agree that "people really care about me in my school" (9/17 with caring responsibilities agree, 20/26 without). Women were less likely to agree with the statement than men, particularly among academic staff (20/24 men agree, 9/15 women, 4/8 women on academic

staff). Considering the positive view of steps taken by the School, it can be hypothesised that this inclusion gap relates more to informal aspects of our working culture.

Action 2.1.1, Section 4: Consult with staff to co-create new practices that will enhance feelings of inclusion and belonging for those with caring responsibilities and put these into place

Action 2.1.2, Section 4: Ensure no School level meetings are scheduled during local authority's half term breaks.

Intersectionality and diverse gender identities

Low staff numbers mean it is not possible to use our sources of quantitative data to analyse intersectionality or the experience of those with non-binary gender identities. However, the new aspects of our culture described in Section 2 both reflect and contribute to a changing attitude to inclusion and intersectionality among our staff. Our high-profile and well attended Special EDI-tion Colloquium and TEASER (TEAching-Supervision-Edi-foRum) bring discussions on inclusion and intersectionality into the collective conversation of the department.

Staff and students contributed to the design specification of Abacws, creating a physical space that is inclusive of all gender identities (Section 2.2). The School has taken action to address period poverty which is entirely gender neutral.

The School continually strives to ensure an inclusive culture. The School does not have a dress code, has encouraged staff to use gender inclusive language and to include their pronouns over Zoom. We plan to request this where platforms permit (see Action 2.1.4, Section 4).

Research culture

The headline objective of our Research Strategy is the achievement of inclusive excellence driven by full leadership buy-in from HoS and DoR. The gender balance of each research seminar series and the School Colloquium are monitored and have become more gender balanced (Appendix 2 Table 3.1). The School will continue the diversification of its seminar programmes, both in terms of gender diversity and other metrics, and to provide opportunities for senior female academics from Cardiff and elsewhere to share their professional experiences in 'Women in Maths and Computer Science' sessions.

Action 4.1.5, Section 4: To increase the number of speakers from presently under-represented groups, such as ethnic minority, early career staff and those working across disciplinary boundaries.

The PGR community has a strong role in our research culture and views it positively. Almost all respondents to our culture survey answer that they have never or very rarely felt isolated, or experienced discrimination and unfair treatment because of their gender identity. Encouragingly, over 80% feel positively towards how their supervisor supports their career development (Appendix 1 Table 4.6), further evidenced by PRES outcomes where this is ranked even higher (Appendix 2 Tables 3.2 and 3.3).

Furthermore, PGR students contribute significantly to our School culture. For example, the current President of the SIAM-IMA Student Chapter was awarded a Certificate of Recognition for their outstanding contributions to the School's research environment and culture and has been very active

in EDI work at the School, contributing to the organisation of the Special EDI-tion Colloquium and Women in Maths and Computer Science. Other PGR students have recently been nominated for awards for EDI work (see Section 1.3).

However, only 43.5% feel their contributions to their research groups are always valued, a sentiment observed across genders (Appendix 1 Table 4.5). It is particularly noteworthy that 33% of the female responses addressed that their contributions are only sometimes or rarely valued. School action will be taken to increase PGR and PDRA visibility and celebrate their successes (Action 2.1.7, 2.1.8).

2. Key priorities for future action

Key Issue 1: Gender and ethnic minority diversity of staff, especially at higher grades

The School continues to have a less diverse academic staff with respect to gender than the wider sector, falling slightly behind the HESA benchmarking data (21% female staff in School in 2021/22 against 24% sectoral benchmark - Appendix 2 Table 2.1). Our female staff continue to be, on average, more junior than male staff. As noted in Section 2, there have been great advances made on this issue, with the appointment of female professors being a big step forward. However, it clearly remains necessary to continue to pay specific attention to the career development of our female academic staff. While data on other protected characteristics, such as ethnic diversity, is not held at School level, there is a sectoral issue with the adequate representation of ethnic minorities at higher levels, with 12% of professors identifying as other than white compared to 18% in the broader population of England and Wales¹.

PRIORITY AREA 1: Recruitment and career development for female staff

Action is required at every point of academic career development. The rate at which female candidates apply for, are shortlisted and are hired for academic posts has been in the range of 16% to 24% over the period 2018-2022 (Appendix 2 Table 2.5). This is broadly in line with maintaining our current proportion of female staff, rather than a posture of growth. Female staff are less likely to express strong agreement that their career development is supported by the School's existing management structures (Appendix 1 Tables 3.1 and 3.4). Over the data period, 25% of Lecturers were women but only 14% of those promoted to Senior Lecturer (SL) were women (Appendix 2 Table 2.6). However, at higher grades women were more likely to be promoted. It should be noted that the School does not have decision-making power in the promotions process.

Career progression for PS staff within the School is very limited. To further their career, PS staff must often take opportunities offered external to the School. The exception is where a role is internally regraded to reflect a permanent increase in responsibility and complexity of tasks to meet a business need change. PS line managers provide support to PS staff throughout the regrading process.

PS line managers are encouraged to discuss career development with their staff during PDRs and identify potential barriers to career development - e.g. lacking skills set and potential training opportunities to address skills gap. For example, PS staff members have participated in the ILM Leadership training programme and the Springboard Women's Development programme. School PS staff are encouraged to participate in networking opportunities, particularly those external to the University.

While PS staff express greater satisfaction with managerial support for their career development (88% of staff agree that "My Line Manager supports my career development") from staff culture survey,

¹ HESA SB264 <https://www.hesa.ac.uk/news/17-01-2023/sb264-higher-education-staff-statistics>

some PS staff do not always perceive the feedback from PDR as being helpful (67% strongly agree/agree that “I receive useful feedback on my career development through performance review”).

[1.1.1]	Add a desirable criterion to the person specification for every open-ended position reading “Commitment to support the School in promoting values of equity, equality, diversity and inclusion”
[1.1.2]	Draft an “active recruitment” policy specifying how panels should target advertising to encourage a diverse candidate pool, paying attention to characteristics including and beyond gender
[1.1.3]	Set “support for staff returning from extended leave” as a School strategic priority for both School and University Research Leave
[1.1.4]	Introduce an EDI briefing for every School appointment panel prior to the commencement of the selection process
[1.1.5]	Amend culture survey to allow collection of richer intersectional data such as ethnicity and other protected characteristics
[1.1.6]	Consult with academic staff to identify best practice in PDRs and share outcomes with line managers
[1.1.7]	Line managers to discuss with staff what their “promotion timeline” is at each PDR, equipped with information on relevant EDI factors and typical time to promotion at each grade
Planned action for 1.1.7	School promotion panel to provide feedback on draft applications with reference to the promotion criteria for staff considering promotion at a mid-year meeting
[1.1.8]	Consult with PS staff to identify best practice in PDRs and share outcomes with line managers
[1.1.9]	Establish PS staff buddy system to support upskilling and improve career progression

Key Issue 2: Creating a more inclusive environment, so that everyone feels valued for their contributions

PRIORITY AREA 1: Improvement of School working culture and environment

Although 79% of all staff strongly agree/agree with the statement “I feel my contributions are valued in my school” (Appendix 1 Table 1.5) and 78% of PGR students (90% male, 66% female) agree with the statement “I feel my contributions are valued within my research group” (Table 4.5), there is still progress to be made in this area.

Specific to PS staff is the need to address the feeling of being under-valued by academic colleagues, as commented in the culture survey “don’t feel that we as administrative individuals or as an administrative team are so highly valued by academic staff across the board within the school”. This sentiment was also raised at the PS staff away day held in 2023, as part of the focused discussions on

communications, and was considered to stem from a lack of understanding of PS roles and responsibilities by the wider School.

Actions to support this priority area will address concerns raised in the free text comments in the culture surveys and follow-up discussions around School culture and environment.

[2.1.1]	Consult with staff to co-create new practices that will enhance feelings of inclusion and belonging for those with caring responsibilities and put these into place
[2.1.2]	Ensure no School level meetings are scheduled during local authority's half term breaks
[2.1.3]	To establish a code of conduct for both staff and students and undertake a refresh of the School's policy on email communications
[2.1.4]	Promote the practice of including pronouns on defined set of platforms
[2.1.5]	To ensure that there is a gender and diversity balance among the School's Dignity and Wellbeing contacts and to promote the service more widely
[2.1.6]	To produce a document summarising the contribution of each PS member of staff
[2.1.7]	To include a PGR/PDRA news section in the School Newsletter to celebrate successes and achievements
[2.1.8]	To ensure all PGR students give seminar annually to support their career development, followed by an opportunity for informal feedback
[2.1.9]	Ensure meetings in excess of 50 minutes include a break

Key Issue 3: Gender imbalance in student population

The School has experienced a decline in the proportion of female UG students in the period 2017/18 to 2020/21 which is out of line with the wider sector (Appendix 2 Table 1.1). While the proportion of female students has increased steadily since the low of about 34% in 2020/21, Cardiff was still below the sector average in 2021/22, when sector figures were last available. As evidenced by Table 1.3, female students are also far less likely to continue to complete an Integrated Masters (MMath or MMORS degrees).

The proportion of female students at MSc level is decreasing (Appendix 2 Table 1.4). Whereas approximately 40% of our MSc students were female between 2017 and 2020, the proportion fell to below 30% in 2022/23. Table 1.6 shows the figures across different degree schemes. The dominant degree scheme, Data Science and Analytics is a joint programme with COMSC and low female enrolments reflects the numbers on other COMSC degrees.

The proportion of female PGR students has been above the national average since 2018/19 and was about 40% in 2022/23 (Appendix 2 Table 1.11). Table 1.18 shows that the percentage of female PGR applicants was about 35% for the same year, indicating that a higher proportion of female students converted from applicant to student than male students.

PRIORITY AREA 1: Increase the proportion of female students on our programmes

Despite a gradual upward trend in the proportion of female students we admit onto our UG degrees, the School is still below the sector average. Actions will address ways in which this gap can be closed. At PGT level, the proportion of female students is declining, and actions are to address this downward trend and to encourage more females into postgraduate studies. To at least maintain the proportion of female PGR students at a level above the sector average, actions will encourage female and underrepresented groups to pursue a PhD (Actions 3.1.2, 3.1.4).

[3.1.1]	Increase the number of female staff and students present at Open Days
Planned action for 3.1.1	Produce a video showcasing the contribution of female and ethnic minority staff for showing at Open Days
Planned action for 3.1.1	Expand the School Admissions team to include a female academic
Planned action for 3.1.1	Review and update open day materials and publicity, website, prospectuses and induction programme to ensure that images are reflective of our values and feature staff and students from under-represented groups
[3.1.2]	PGR adverts to be checked using gender decoder and LMS "PhD Your Way" initiative to make adverts inclusive
[3.1.3]	Ensure appropriate workload is allocated to admissions activities
[3.1.4]	Ensure gender and EDI balance in nominations for participation of UG students at LMS Summer Schools

PRIORITY AREA 2: Improve the outcomes and progression rates of students

The degree outcomes for UG students by gender is shown in Appendix 2 Table 1.15. In 2022/23, male students performed a little better than female students which is different to previous years when female students performed considerably stronger than males. Our overall proportion of students attaining a 1st or 2:1 degree has fallen, and HESA data shows that we are around 10% below the sector average.

As shown in Appendix 2 Tables 1.16 and 1.17, overall progression rates are low and have been identified by the University as a key priority for the School, and our actions address this.

There is an attainment gap for ethnic minority students as shown in Appendix 2 Table 1.14. The data shows that over the last five years this gap has been over 10%. The priority to produce better students' outcomes will help all students and additional interventions will be introduced to reduce this attainment gap.

Students flourish within an inclusive environment, where they feel belong and are supported. To inform the School about the student experience and sense of belonging, one of our actions will be to initiate a UG culture survey.

[3.2.1]	Increase support for students to enable them to progress through their degree programme
[Planned action for 3.2.1]	Ensure that assessments are appropriate, and diversify assessments
[Planned action for 3.2.1]	To create an EDI awareness checklist for lecturers to ensure a universal design to their teaching
[Planned action for 3.2.1]	Strengthen maths support to provide extra activities to engage with year 1 and 2 students
[Planned action for 3.2.1]	Use analytics to identify struggling students at an early stage and provide additional support
[3.2.2]	To appoint a Race Equality Champion within the School
[3.2.3]	Design the UG Culture Survey to obtain richer intersectional data including characteristics beyond the Equality Act, e.g., first-generation university student status
[3.2.4]	Regular Culture Survey held every 2 years for UG students to inform EDI Committee of the student experience
[3.2.5]	Meeting with DLT for high performing female BSc students to explicitly encourage them to transfer to an integrated mathematics degree
[Planned action for 3.2.5]	Annual event organised by Women in Maths group highlighting benefits and opportunities of integrated maths degrees

Key Issue 4: Addressing the leaky pipeline at the early stages for female PGRs and PDRAs

The School is aware of the pronounced leaky pipeline for female academics and those who are underrepresented to transition from early stages into high-profile careers that involve significant leadership and impact generation, be it educational, at the forefront of research or otherwise. Whilst some progress has been made, the issue is still acutely visible within our own School if we compare representation of females among PGRs, PDRAs and permanent academic positions (T&R/T&S). From 2017/18 to 2019/20 there was a steady increase in the percentage of female PGRs from below 25% to around 40% each year since then (Appendix 2 Table 1.11), around 9-12% above sector average). This contrasts with a significantly lower proportion of female academics in T&R and T&S roles within the School. While there has been a significant increase from 13% to 22% from 2017/18 to 2022/23, we are yet to see an improvement in the transition along the pipeline. Although there have been only 1 or 2 female PDRAs in the School each year, the overall number of PDRAs has been relatively small.

While it is recognised that the reasons for the leaky pipeline are multifaceted across the entire academic sector and even beyond², the need for more career support is also visible in our most recent PRES results (Appendix 2 Tables 3.2-3.4). In 2023 83% of our PGR cohort agreed that they had developed contacts or professional networks during their programme (60% in 2021) and only 78% agreed that they had increasingly managed their own professional development during their programme (53% in 2021). The percentage of PGR students aware of opportunities to become

² <https://sciencepolicyreview.org/2023/08/mitspr-191618004014/> and <https://tpcjournal.nbcc.org/career-development-of-women-in-academia-traversing-the-leaky-pipeline/>

involved in the wider research community, beyond their department, has remained approximately unchanged.

PRIORITY AREA 1: Increase opportunities, accessibility and inclusivity for PGRs and PDRAs

Action is required to increase support for PGRs and PDRA to advance on their chosen career path. Opportunities to gain careers advice from the experience of senior academics and senior industrialists will be built into our support structures. The School will continue to support weekly informal PGR tea and coffee meetings, building community and enabling mutual support. The School also supports the PGR led Women in Maths group that holds regular events such as talks and films to showcase and celebrate the achievements of female mathematicians. All PGR students are encouraged to develop their teaching skills and are supported to achieve Associate Fellowship of the HEA.

[4.1.1]	Introduce monthly career session with a focus on EDI. To be organised by PGR & PDRA reps with support from the School
[Planned action for 4.1.1]	Add a question on careers support for PGRs to the PGR culture survey
[Planned action for 4.1.1]	Better signposting to careers service and skills training
[Planned action for 4.1.1]	Equip supervisors with the skills and knowledge to support their students with careers development
[4.1.2]	To embed the careers event with Mathematics PhD alumni into annual schedule for School Industry Day
[4.1.3]	To introduce a careers research day to complement the School Industry Day with a focus on career development for a career in research, including presentations from current staff and a view on career trajectories with a special view towards EDI
[4.1.4]	To mandate the online training on “supervising doctoral studies” among all colleagues and ensuring uptake and to organise complementary discussions within the School
[4.1.5]	To increase the number of speakers from presently under-represented groups, such as ethnic minority, early career staff and those working across disciplinary boundaries

Key Issue 5: EDI: Communication and engagement, recognition and reward

Despite significant progress being made to embed EDI in School activities (Section 2) there is a number of staff and PGR students who are unaware of the progress that has been made in terms of achieving gender balance in leadership positions (Appendix 1 Table 2.2) and the support provided for staff around all types of caring leave (Table 2.10) where over 25% of respondents answered ‘don’t know’ in the staff culture survey. Furthermore, there is a lack of awareness of the recognition of EDI work within the WAM and in the promotion criteria. More than 25% of respondents in the staff culture survey answered ‘don’t know’ to the statements: “The rate people progress in my school is not affected by their gender” (Table 2.3); “Equality, Diversity and Inclusion work is recognised when workload is allocated” (Table 2.4); “Equality, Diversity and Inclusion work is recognised in applications

for promotion/progression (Table 2.5). There is a clear need to improve the channels of communication so that information reaches all parts of the School community.

PRIORITY AREA 1: Enhance the flow of information and communication about EDI initiatives

Action is required to improve the understanding of decision-making processes in the School, to make it more inclusive to staff and students, to create a clear pathway for feeding into decision-making and to enhance the flow of information particularly relating to EDI initiatives. Currently, progress against the Athena SWAN Action Plan is reported to School Board. For there to be broader School ownership of the action plan, action is required to provide staff and students with opportunities to provide feedback and suggest change.

[5.1.1]	Arrange a School staff culture survey in alternate years to the wider University staff survey to assess progress and to communicate this with staff
[5.1.2]	Launch a quarterly EDI newsletter to the whole School community showcasing recent and upcoming events, EDI contacts at the School, work of the EDI Committee
[5.1.3]	Provide focused opportunities for staff and students to engage with the Action Plan annually
[5.1.4]	Improve communication from HoS about EDI initiatives to support staff

PRIORITY AREA 2: Reward and recognition of EDI work

One of the barriers to the implementation of the previous action plan was identified to be staff time constraints (Section 2.1). We will ensure that the responsibility for implementing the new action plan is distributed beyond senior leadership in the School with appropriate recognition and reward for EDI work. We will appoint a Deputy DoEDI to provide greater resilience and to share the responsibility. We will continue to ensure that achievements are celebrated within the School and all efforts to make the School a more inclusive, diverse and welcoming community are recognised.

[5:2.1]	Give encouragement to minorities in mathematics when soliciting expressions of interest for senior leadership roles
[5:2.2]	Appoint a Deputy Director of EDI with an associated workload tariff to distribute this work more fairly and enhance recognition and reward
[5.2.3]	Recognise the contributions of staff and students in making the School more inclusive, diverse and welcoming
[5.2.4]	Celebrate the achievements of staff and students in awards for their EDI work

Section 4: Future Action Plan

Key Issue 1: Gender and ethnic minority diversity of staff, especially at higher grades						
Priority Area 1: Recruitment and career development for female staff						
Action No.	Rationale	Planned Actions	Responsibility and Accountability	Timescales	Success Criteria	Desired Outcome
1.1.1	Preference for female candidates in situations of equal merit at recruitment has never been applied.	<p>Add a desirable criterion to the person specification for every open-ended position reading “Commitment to support the School in promoting values of equity, equality, diversity and inclusion.”</p> <p>Directly assess this criterion at interview.</p>	<p>School HR</p> <p>School HR/HoS</p>	<p>July 2024</p> <p>From September 2024 and annually thereafter.</p>	<p>All job descriptions to include this criterion.</p> <p>Chair of appointment panel to confirm that a question primarily aimed at assessing this criterion was asked.</p>	25% of all shortlisted candidates for open-ended posts identifying as female.
1.1.2	Insufficient number of female applicants for advertised posts obstructs continued growth towards sectoral average for gender and ethnic minority diversity.	Draft an “active recruitment” policy specifying how panels should target advertising to encourage a diverse candidate pool paying attention to characteristics including and beyond gender.	School HR/DHoS	Nov 2024	Recruiter to confirm that targeted advertising has occurred for each advertised academic and research post.	35% of all shortlisted candidates for open-ended posts identifying as female or from an ethnic minority.

1.1.3	Difficulties after returning to academic work following extended leave (e.g. maternity leave) are well documented ³ , with difficulty in protecting time for research a key concern.	Set “support for staff returning from extended leave” as a School strategic priority for both School and University Research Leave.	DoR	2025	Policy amended.	All returners from leave to be eligible for application to School and University Research Leave Schemes.
1.1.4	Peer review processes are known to be vulnerable to unconscious bias.	Introduce an EDI briefing for every School appointment panel prior to the commencement of the selection process.	HoS/SM/School HR	July 2024	Head of appointment panel to confirm that all panellists have confirmed training.	EDI briefing developed. 100% completion by panel members.
1.1.5	Lack of intersectional data on staff experience.	Amend culture survey to allow collection of richer intersectional data such as ethnicity and other protected characteristics.	DoEDI/SM	June 2025	Culture survey amended and intersectional data collected.	Intersectional data analysis used to inform further actions.
1.1.6	Among academic staff, 15% of female staff strongly agree that they receive useful feedback on PDRs compared to 50% of male staff.	Consult with academic staff to identify best practice in PDRs and share outcomes with line managers.	DHoS	June 2025	Best practice summary produced and distributed to Line Managers.	50% of academic staff to strongly agree that they obtain useful feedback on their career development through PDR.
1.1.7	Female staff are more likely to be in junior roles than male staff.	Line managers to discuss with staff what their “promotion timeline” is at each PDR, equipped with information on	School HR/ Academic Line Managers	From Feb/Mar 2025, and thereafter annually as	Each staff member to have a planned date for next promotion.	To increase awareness of the promotion process and criteria.

³ Akram, S., & Pflaeger Young, Z. (2021). Early Career Researchers’ Experiences of Post-Maternity and Parental Leave Provision in UK Politics and International Studies Departments: A Heads of Department and Early Career Researcher Survey. *Political Studies Review*, 19(1), 58-74. <https://doi.org/10.1177/1478929920910363>

		relevant EDI factors and typical time to promotion at each grade. School promotion panel to provide feedback on draft applications with reference to the promotion criteria for staff considering promotion at a mid-year meeting.	HoS/SPP	part of the PDR cycle. September 2024	application, if desired. Meeting to take place each October to review potential applications solicited during previous PDR round.	Agreement on the staff survey question "School decisions about promotion/progression are made fairly" to be at least 65%.
1.1.8	Only 44% of PS staff agree they receive useful feedback at PDR (22% strongly agree).	Consult with PS staff to identify best practice in PDRs and share outcomes with line managers.	SM/ PS Line Managers.	June 2025	Best practice summary produced and distributed to Line Managers.	60% of PS staff to strongly agree that they obtain useful feedback on their career development through PDR.
1.1.9	Skills gaps identified at PDR delay career progression and created challenges for PS team when colleagues are on leave or move to another role external to the School.	Establish PS staff buddy system to support upskilling and improve career progression.	SM/ PS Line Managers.	June 2026	Allocate buddy to each PS staff member.	100% PS staff to participate in the buddy system.

Key Issue 2: Creating a more inclusive environment, so that everyone feels valued for their contributions

PRIORITY AREA 1: Improvement of School working culture and environment

Action No.	Rationale	Planned Actions	Responsibility and Accountability	Timescales	Success Criteria	Desired Outcome
2.1.1	53% of staff with caring responsibilities agree that "People really care about me in my school", compared to 77% of those without caring responsibilities.	Consult with staff to co-create new practices that will enhance feelings of inclusion and belonging for those with caring responsibilities and put these into place.	HoS/SM	Academic year 24-25.	New plan of support for staff with caring responsibilities.	70% of staff to respond positively to the question "People really care about me in my school"
2.1.2		Ensure no School level meetings are scheduled during local authority's half term breaks.	HoS/School HR/SM	From September 2024	No staff meetings during half term breaks.	80% of staff respond positively to the question "The timing of School meetings, seminars and events takes into consideration those with caring responsibilities."
2.1.3	Less than 50% of staff agree that management are active in tackling bullying and/or harassment.	To establish a code of conduct for both staff and students and undertake a refresh of the School's policy on email communications.	DoEDI	By September 2025	New code of conduct prepared and widely communicated.	70% of staff to respond positively to the question "School management is active in tackling bullying and harassment.
		Regularly inform staff about the process for reporting bullying and/or harassment and ensure	HoS	September 2024	Staff regularly improved about the reporting process.	

		information is available to staff on the School repository.				
2.1.4	Sharing pronouns can reassure trans and gender non-conforming people that they are welcome and included ⁴ .	Promote the practice of including pronouns on specific platforms among staff.	DoEDI	March 2025	Guidelines issued to staff encouraging inclusion of pronouns on specific platforms.	Increased use of pronouns by staff on Zoom, web pages etc.
2.1.5	65% of staff agree that “I know where to seek support for mental health and/or wellbeing at work.”	To ensure that there is a gender and diversity balance among the School’s Dignity and Wellbeing contacts and to promote the service more widely.	HoS/SM	December 2024	Introduce new Dignity and Wellbeing team with appropriate gender and diversity balance.	80% of staff to respond positively to the question “I know where to seek support for mental health and/or wellbeing at work.”
2.1.6	PS staff do not always feel highly valued by academic colleagues.	To produce a document summarising the contribution of each PS member of staff.	SM/PS Line Managers	August 2024	Document to be produced and issued to staff.	80% of PS staff to respond positively to the question “I feel my contributions are valued in my School.”
2.1.7	47% of PGR students agree with PRES question “I feel a sense of belonging at my institution.”	To include a PGR/PDRA news section in the School Newsletter to celebrate successes and achievements.	DPGR / Newsletter Editor	October 2024	New PGR/PDRA section to be included in newsletter.	70% of PGR students to definitely agree with PRES question “I feel a sense of belonging at my institution.”

⁴ <https://www.stonewall.org.uk/workplace-trans-inclusion-hub/beginner%E2%80%99s-guide-pronouns-and-using-pronouns-workplace>

2.1.8	Higher proportion of female PGR students than female staff indicates 'leaky pipeline'.	To ensure all PGR students give seminar annually to support their career development, followed by an opportunity for informal feedback.	DPGR / PhD Supervisors	Academic year 2024-25	New programme of PGR seminars introduced.	100% of PGR students to give annual seminar.
2.1.9	Evidence suggests long meetings increase stress ⁵ and that more breaks create a more inclusive environment for many, e.g. those experiencing menopause. ⁶	Ensure meetings in excess of 50 minutes include a break.	HoS / DHoS	Academic year 2024-25	Breaks included in all meetings exceeding 50 minutes in length.	75% of staff to respond positively to the question "My mental health and/or wellbeing are supported in my department."

⁵ <https://www.microsoft.com/en-us/worklab/work-trend-index/brain-research>

⁶ <https://equalities.blog.gov.uk/2023/10/02/managing-the-menopause-in-the-workplace-top-tips/>

Key Issue 3: Gender imbalance in student population						
PRIORITY AREA 1: Increase the proportion of female students on our programmes						
Action No.	Rationale	Planned Actions	Responsibility and Accountability	Timescales	Success Criteria	Desired Outcome

3.1.1	Proportion of taught female students persistently below sector average.	<p>Increase the number of female staff and students present at Open Days.</p> <p>Produce a video showcasing the contribution of female and ethnic minority staff for showing at Open Days.</p> <p>Expand the School Admissions team to include a female academic.</p> <p>Review and update Open Day materials and publicity, website, prospectuses and induction programme to ensure that images are reflective of our values and feature staff and students from under-represented groups.</p>	<p>Director of Admissions.</p> <p>Director of Admissions/PSE College Communications & Marketing Officer.</p> <p>HoS</p> <p>Director of Admissions/DoEDI.</p>	<p>October 2024</p> <p>For academic year 24/25.</p> <p>For academic year 24/25.</p> <p>Annually from academic year 25/26</p>	<p>More female staff present at Open Days.</p> <p>More diverse student body.</p> <p>School Admissions team to include a female academic.</p> <p>Annual review and update of admissions publicity materials completed.</p>	<p>At least 40% of staff at Open Days to be female and at least 50% of student helpers on Open Days to be female.</p> <p>Video to be shown at Open Days.</p> <p>Create a diverse admissions team leading to a more diverse student body.</p> <p>Updated materials to lead to a more diverse student body.</p> <p>Overall measure: Percentage of UG and PGT female students to be at or above the sector average.</p>
-------	---	---	--	--	---	--

3.1.2	Actions taken to ensure staff advertising is gender neutral have not been extended to students.	PGR adverts to be checked using gender decoder and LMS “PhD Your Way” initiative to make adverts inclusive.	DPGR.	November 2024	100% of advertisements checked.	Maintain current high percentage of female PGR students at 40%.
3.1.3	Actions to diversify admissions are likely to put an additional burden on female staff	Ensure appropriate workload is allocated to admissions activities.	HoS	February 2025	Admissions team expanded.	Workload allocations published for all activities that support admissions.
3.1.4	Improve support for female students.	Ensure gender and EDI balance in nominations for participation of UG students at LMS Summer Schools.	Year 2 academic tutor and Year 3 academic tutor identify potential candidates. DLT/DoEDI to ensure balance.	August 2024	An increase in the number of nominations from female students and under-represented groups.	At least 60% of nominations to be female and/or underrepresented groups.

PRIORITY AREA 2: Improve the outcomes and progression rates of students						
3.2.1	UG progression rate of 73.4% is cause for concern	<p>Increase support for students to enable them to progress through their degree programme.</p> <p>Ensure that assessments are appropriate and diversify assessments.</p> <p>To create an EDI awareness checklist for lecturers to ensure a universal design to their teaching.</p> <p>Strengthen Maths Support to provide extra activities to engage with year 1 and 2 students.</p> <p>Use analytics to identify struggling students at an early stage and provide additional support.</p>	<p>DLT</p> <p>Assessment and Feedback Lead.</p> <p>DoEDI</p> <p>Head of Maths Support.</p> <p>DLT/Education and Students Manager.</p>	<p>Academic year 25/26</p> <p>During academic year 24/25</p> <p>For start of 24/25 academic year.</p> <p>Academic year 25/26</p> <p>Academic year 24/25</p>	Introduction of support sessions for year 2 students.	Progression rate to increase to at least 80%.
3.2.2	Ethnic minority attainment gap of over 10% in award of 1 st and 2.1 degrees.	To appoint a Race Equality Champion within the School.	HoS	Academic year 24/25	Race Equality Champion appointed.	Ethnic minority attainment gap reduced to under 5%.
3.2.3	Lack of intersectional data describing student experience.	Design the UG Culture Survey to obtain richer intersectional data including characteristics beyond the Equality Act, e.g., first-generation university student status.	DoEDI/SM	June 2025 and biannually thereafter.	Culture survey devised and launched.	Response rate of at least 50% to ensure there is sufficient meaningful intersectional data analysis to inform future actions.

3.2.4	The School does not feel fully informed about cultural aspects of the student experience.	Regular Culture Survey held every 2 years for UG students to inform EDI Committee of the student experience.	DoEDI/Student Voice Co-ordinator.	Commence academic year 25/26	UG culture survey to be conducted.	70% agree that they “feel like they belong in the School” and “people really care about them in my School.”
3.2.5	Proportion of female students pursuing an integrated masters degree is lower than in the wider UG population	Meeting with DLT for high performing female BSc students to explicitly encourage them to transfer to an integrated mathematics degree. Annual event organised by Women in Maths group highlighting benefits and opportunities of Integrated Maths degrees.	DLT Chair of Women in Maths and Computer Science group.	For academic year 2024/25 First event to be held by March 2025	More female MMath and MMORS students. Event held annually.	At least 33% of students on integrated mathematics degree programmes to be female.
Key Issue 4: Addressing the leaky pipeline at the early stages for female PGRs and PDRA						
PRIORITY AREA 1: Increasing opportunities, accessibility and inclusivity for PGRs and PDRA						
Action No.	Rationale	Planned Actions	Responsibility and Accountability	Timescales	Success Criteria	Desired Outcome
4.1.1	Request for improved careers support for PGRs / PDRA.	Introduce monthly career seminar series with a focus on EDI. To be organised by PGR & PDRA reps with support from School. Add a question on careers support for PGRs to the PGR culture survey. Better signposting to careers service and skills training via	DPGR SM DPGR	Academic year 24/25 June 2025 2024/25	Positive feedback on careers support in PGR survey and in PDRA for PDRA. Question included in surveys. More interaction between PGR students and careers service.	At least 80% PGR are positive about the careers support provided by the School. Improvement in career outcomes of PGRs / PDRA.

		regular emails, during induction and via Learning Central. Equip supervisors with the skills and knowledge to support their students with careers development.	DPGR	By academic year 2025/26	All supervisors to have received training on supporting careers development of PGR students.	
4.1.2	Positive feedback for careers events with Mathematics PhD Alumni at School Industry Day.	To embed the careers event with Mathematics PhD Alumni into annual schedule for School Industry Day.	DoIE	November 2024	Positive feedback on careers support in PGR survey and in PDRs for PDRAs.	At least 80% PGR are positive about the careers support provided by the School. Improvement in career outcomes of PGRs / PDRAs.
4.1.3	Higher percentage of female PGRs than female staff indicative of 'leaky pipeline'.	To introduce a careers research day to complement the School Industry Day with a focus on career development for a career in research, including presentations from current staff and a view on career trajectories with a special view towards EDI.	DPGR/DoR	Academic year 24/25	Positive feedback on careers support in PGR survey and in PDRs for PDRAs.	At least 80% PGR are positive about the careers support provided by the School. More PGR and PDRA remaining in academia.

4.1.4	Request for improved careers support for PGRs.	To mandate the online training on “supervising doctoral studies” among all colleagues and ensuring uptake and to organise complementary discussions within the School.	DPGR	From August 2025	All supervisors to have received training on supervising doctoral studies.	At least 80% of PGR students to be positive about the careers support provided by the School.
4.1.5	No data is collected on diversity of seminar speakers beyond gender diversity. Need for female PGR/PDRA to see more successful female academics.	To increase the number of speakers from presently under-represented groups, such as ethnic minority, early career staff and those working across disciplinary boundaries.	Seminar Organisers.	From academic year 2024/25	Data collected.	33% Speakers to be female and other minorities included in other 66%.
Key Issue 5: EDI: Communication and engagement, recognition and reward						
PRIORITY AREA 1: Enhance the flow of information and communication about EDI initiatives						
Action No.	Rationale	Planned Actions	Responsibility and Accountability		Success Criteria	Desired Outcome
5.1.1	Information on staff culture is needed to assess progress against the action plan.	Arrange a School staff culture survey in alternate years to the wider University staff survey to assess progress and to communicate this with staff.	HoS/SM	Biannually from June 2025	Biannual survey conducted.	Information to assess progress against the action plan and identify where further action is required.
5.1.2	Low level of knowledge of EDI matters among staff and students, e.g., 28% of staff respond ‘Don’t know’ to ‘Equality, Diversity and Inclusion work is recognised when workload is allocated’,	Launch a quarterly EDI newsletter to the whole School community showcasing recent and upcoming events, EDI contacts at the School and work of the EDI Committee.	DoEDI	October 2025	Quarterly EDI Newsletter launched.	Fewer than 10% of staff respond ‘Don’t know’ to staff culture survey questions: “The rate people progress in my school is not affected by their gender; “EDI work is recognised when

	22% of PGRs did not know the EDI Committee existed.	Improve communication from HoS about EDI initiatives to support staff.	HoS	October 2024	This information to be included in weekly HoS email to all staff.	workload is allocated”; “EDI work is recognised in applications for promotion/progression Fewer than 10% of PGR students respond ‘Don’t know’ to ‘Did you know there was an Equality, Diversity & Inclusion committee in the School of Mathematics’.
5.1.3	Previous action plan was dependent on a small number of staff.	Provide focused opportunities for staff and students to feed into an annual review of Action Plan.	HoS/DoEDI/SM	June 2025	Progress on the Action Plan discussed at Staff Away Day. Sections of the Action Plan discussed at the relevant School Committees.	Successful delivery of 2024 Action Plan by 2027 achieved by sharing the responsibility for implementation and monitoring implementation.
PRIORITY AREA 2: Reward and recognition of EDI work						
5.2.1	Lack of ethnic diversity and need to maintain gender balance in senior leadership.	Develop clear and specific instructions for line managers to assist them in advancing the careers of minority staff members.	HoS/DoEDI/School HR	February 2025	Instructions for line managers developed and used to inform discussions.	Senior leadership in the School to reflect staff diversity.
5.2.2	EDI initiatives rely excessively on DoEDI or volunteers, who are disproportionately female.	Appoint a Deputy Director of EDI with an associated workload tariff to distribute this work more fairly and enhance recognition and reward.	HoS	October 2025	Role descriptor developed and expressions of interest sought using the instructions	Deputy Director of EDI appointed.

					developed in Action 5.2.1.	
5.2.3	Only 56% of staff agree that 'Equality, Diversity and Inclusion work is recognised when workload is allocated'.	Recognise the contributions of staff and students in making the School more inclusive, diverse and welcoming.	HoS/DoEDI/SM	October 2024	Staff EDI contributions recognised through appropriate allocations in the WAM. Staff and student contributions to initiatives such as 'Women in Maths and Computer Science', DiSTEM, recognised through wider dissemination of their activities in the School.	Annual review of workload allocations for EDI work. Features in the School Newsletter, quarterly School EDI Newsletter.
5.2.4	Low positive response on questions assessing staff's opinion of recognition and reward of EDI work.	Celebrate the achievements of staff and students in awards for their EDI work.	HoS/DoEDI/SM	June 2025	News items shared in the quarterly EDI Newsletter and in weekly email from HoS to all staff.	Features in the School Newsletter, quarterly School EDI Newsletter.

Appendix 3: Glossary

COMSC	School of Computer Science and Informatics
CURSA	Cardiff University Research Staff Association
DHoS	Deputy Head of School
DiSTEM	Diversity in STEM
DI&E	Director of Impact and Engagement
DLT	Director of Learning and Teaching
DoEDI	Director of Equality, Diversity and Inclusion
DoR	Director of Research
DPGR	Director of PGR Studies
EDI	Equality, Diversity and Inclusion
EIA	Equality Impact Assessment
ESEC	Education and Student Experience Committee
GW4	GW4 Alliance: University of Bath, University of Bristol, Cardiff University, University of Exeter
HEA	Higher Education Academy
HoS	Head of School
ILM	Institute of Leadership and Management
LMS	London Mathematical Society
MATHS	School of Mathematics
MMATH	Masters in Mathematics
MMORS	Masters in Mathematics, Operational Research and Statistics
OR	Operational Research
PDR	Performance Development Review
PDRA	Postdoctoral Research Assistant/Associate
PGR	Postgraduate Research
PGT	Postgraduate Taught
PRES	Postgraduate Research Experience Survey
PS	Professional Services
PTO	Professional, Technical and Operational
SAT	Self-Assessment Team

SIAM-IMA	Society of Industrial and Applied Mathematics and Institute of Mathematics and its Applications
SL	Senior Lecturer
SM	School Manager
SPP	School Promotion Panel
T&R	Teaching & Research career pathway
T&S	Teaching & Scholarship career pathway
TEASER	TEAching-Supervision-Edi-foRum
UCU	University and College Union
UG	Undergraduate
WAM	Workload Allocation Model
WISE	Women in Science and Engineering