# Athena Swan renewal application form for departments

# Applicant information

Name of institution	University of Nottingham
Name of department	School of Computer Science
Date of current application	31 May 2022
Level of previous award	Bronze
Date of previous award	2016
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Section	Words used
An overview of the department and its approach to gender equality	1676 (recommended 2500)
An evaluation of the department's progress and issues	3789 (recommended 3000)
Future action plan*	
Appendix 1: Culture survey data*	
Appendix 2: Data tables*	
Appendix 3: Glossary*	
Overall word count	5465

<sup>\*</sup>These sections and appendices should not contain any commentary contributing to the overall word limit

Overall word limit: 5500 words

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

# 1. Letter of endorsement from the head of the department



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> Jon Garibaldi Professor of Computer Science Head of School

#### To Whom It May Concern

As Head of the School of Computer Science, I am delighted to endorse our Athena Swan Bronze renewal application.

Having been awarded an Athena Swan Bronze Award in both 2013 and 2016 the School has continued to build upon its strong foundations. Athena Swan principles remain firmly embedded in School activities and environment, with staff continuing to have a strong and deep awareness of these principles, with these being conveyed to our students through teaching and other activities. Athena Swan remains a core agenda item of the School's Equality, Diversity and Inclusion Committee which continues to take guidance from and helps inform the Faculty and University EDI agenda (as outlined in Section 3).

Some particular achievements worth mentioning include: the proportion of female applicants for Research & Teaching and Research posts reaching 27%; the proportion of female undergraduate students achieving a first-class degree increased (73.3% in 2021 compared with 56.3% in 2020); the appointment of a new female Professor, Praminda Caleb-Solly, who is listed in the "50 women in robotics you need to know about"; and the recognition of one of our female Research Fellows, Joy Egede in winning the 2021 Women of the Future Awards (Science).

While there are positive achievements, there are also areas for improvement that the School is aware of: although encouraged by 65% of respondents agreeing/strongly agreeing the School is effective at raising EDI awareness, this could be increased; and the continued, although marginal, decline in the proportion of female postgraduate taught students, standing at 26% in 2020/2021.

Building on the position of the School at the time of our last application, the cultural survey confirms that the School remains conducive to promoting the Athena Swan charter, combining an open and friendly environment for students and staff with flexible working practices to support those with caring responsibilities, for example. The past two years, with the Covid-19 pandemic and the associated restrictions and changes to working practices, have made a positive contribution in some aspects of progressing flexible working through, for example, an increase in the use and understanding of technology to facilitate online working and teaching.

Furthermore, the School has led on a number of activities which promote the Athena Swan and wider EDI agenda: hosting a Neurodiversity conference in June 2022; the support of a student-led project through the Ada Lovelace Society, exploring a safe space for supporting and celebrating

female computer scientists; and piloting a Faculty-based scheme to support individuals' return to work following the end of their contract during parental leave. In addition, a Director of Staff Development has been appointed to assist all staff with their career development, including support in the promotion process.

Finally, I emphasise the School's continued strongest possible commitment to upholding and promoting EDI in all its wider aspects, including equality of opportunity regardless of gender, ethnicity, disability, or sexual orientation. I hope our submission meets with your approval.

I confirm that the information presented in this application represents and honest, accurate and true representation of the School.

Yours faithfully

Professor Jon Garibaldi

**Head of School of Computer Science** 

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# 2. Description of the department and its context

The School of Computer Science (SoCS) was founded 35 years ago and is firmly established as an international centre for computer science research. Our world-leading research tackles difficult, real-world problems that often have a high impact on industry, commerce, and the public. This innovative research also informs the content of the taught curriculum. All teaching and research in SoCS is centred on 'computing in the world' in which fundamental advances in computer science are connected to knowledge and methods from other disciplines to enable deep collaborations with, and benefit to, research users in diverse sectors. The school fosters an environment of inclusivity through leadership, education, and celebration of diversity, adjoined to key national events including Ada Lovelace day, celebrating women in STEM, celebration of pioneers in computer science from the LGBTQ+ community and the delivery of on campus events (e.g. film nights) during Black History month.

SoCS is led by the Head of School, supported by a leadership team, comprising of the Director of Teaching and Learning, the Director of Research (responsible for Research and Knowledge Exchange) and the Head of Operations (responsible for School's administrative and technical support teams). The basic organisational structure is shown in Figure 1.

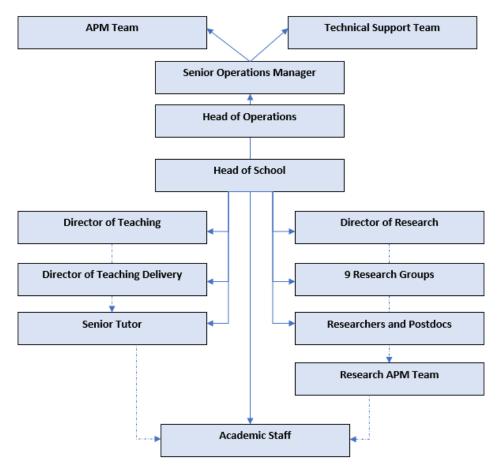


Figure 1: School of Computer Science Organisation Chart – with major lines of responsibility and communication

The main job families in SoCS are: APM; R&T, and TS. There are a total of 24 staff in the TS and APM job families. Additionally, there are 96 R&T staff, comprising academic and academic-related colleagues, of whom 35 are PDRAs on fixed-term research contracts. Student numbers in full-time

education comprise 973 UG, 388 PGT. Table 1 shows the staff and students statistics across SoCS in 2021/2022. Figure 15 shows current staff structure and gender of each role in various job families. Figures 2 shows the current ratio across all levels of study. Figure 3 shows the ratio for UG students across 5 years (2016-2021) student ratio. These figures show the steady but slow growth to around 13.7/86.3 F/M % among UG programmes. This is highlighted as an area of development over next 5 years as this is below the RG benchmark of 22.7% (2017/2018).

A more detailed analysis of the staff gender balance over the past 5 years is shown in Appendix 2. Staff by gender, job grade, job family, PT/FT job status and contract type are analysed. Generally, the average of 28/72 F/M % distribution (R&T/R/T staff) is broadly compatible with the national and specifically Russell Group gender gap in computer science.

Cohort	Total Number	Female	Male	Percentages F/M %
Academics (R&T)	50	10	40	20/80
Professional + Support (APM and TS)	24	15	9	63/37
Research-only staff	35	12	23	34/66
Teaching-only staff	11	5	6	45/55
Postgraduate Research Students	84	32	52	38/62
Postgraduate Taught Students	388	92	296	24/76
Undergraduate Students	973	160	813	16/84

Table 1 : The total number (headcount), proportion of academic staff, professional, support staff, and students by gender -21/22 data

Figure 3 shows the steady but slow growth of around 14/86 F/M % among UG programmes at SoCS (Progress due to Action Points A1.2, A1.3).

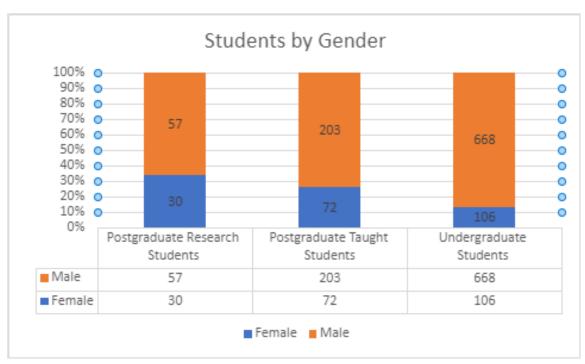


Figure 22: School of Computer Science's Students by Gender (2020/2021)

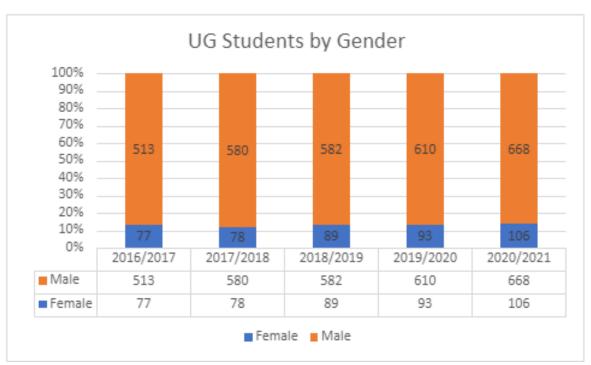


Figure 33: School of Computer Science's Students by Gender (2016-2021)

#### **Research at SoCS**

Computer Science at Nottingham continues to pursue and maximise the impact of its highly successful strategy of grounding its research in real-world challenges and settings. Our strength in advancing core computer science combines with flexible structures that allow a timely response to new challenges and an ability to connect knowledge and methods both across computer science and between the computational and other disciplines. This enables deep collaborations with diverse

research users. Our research naturally remains strongly user-focused, interdisciplinary, and impactful.

SoCS now recognises nine research groups:

- Computational Optimisation and Learning (COL)
- Computer Vision Laboratory (CVL)
- Cyber-Physical Health and Assistive Robotics (CHART)
- Cyber Security (CybSec)
- Functional Programming (FP)
- Intelligent Modelling and Analysis (IMA)
- Lab for Uncertainty in Data and Decision Making (LUCID)
- Mixed Reality Laboratory (MRL)
- Horizon Digital Economy Research Institute (Horizon)

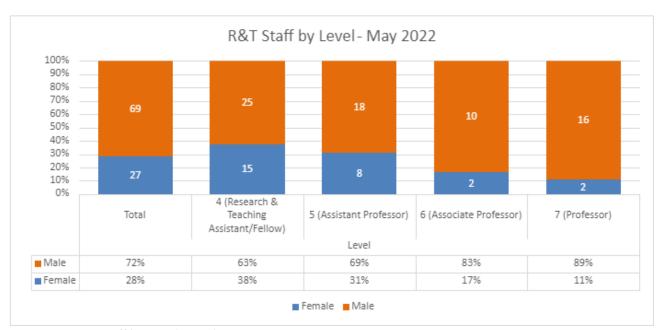


Figure 44: R&T Staff by Gender and Position

All academic staff are members of at least one research group. Whilst research groups have a distinct identity (e.g., through their web presence), staff maintain School-wide presence through teaching, administration and citizenship activities. Research within the groups is framed by school-wide principles and processes that include AS, research support infrastructure including support for generating funding and the common ethics procedures. SoCS research structure is designed to allow those working in distinct areas of computer science the autonomy needed to pursue their research while enabling intra- and inter-disciplinary collaboration. It is difficult to provide a breakdown of group members by gender as the membership is fluid, with some members of academic staff being a member of multiple research groups and others changing affiliation over time. This fluidity is welcomed and encouraged in SoCS as it promotes collaboration and collegiality.



Figure 55 : Dr Joy Egede (PDRA in SoCS) winning the 2021 Women of the Future Awards (Science).

Figure 66: Cobot Maker Space - Human-Robot Interaction.

## 3. Athena Swan self-assessment process

The Athena Swan (AS) self-assessment team (SAT) at SoCS is deeply embedded in the wider decision-making structures of the University, outlined in Figure 7. The SoCS AS SAT communicates directly with the Faculty of Science (FoS) EDI Committee and the University's AS and REC committee. The FoS EDI Committee (renamed to 'FoS PCC' from January 2022) is chaired by the Faculty Pro-Vice-Chancellor and has EDI, SAT, REC, BAME and Women's Network representatives from all Schools within the Faculty, along with HR representatives, and reports through its Chair to the University Executive Board (UEB). The role of the committee is to develop and support EDI activities, liaising with the University.

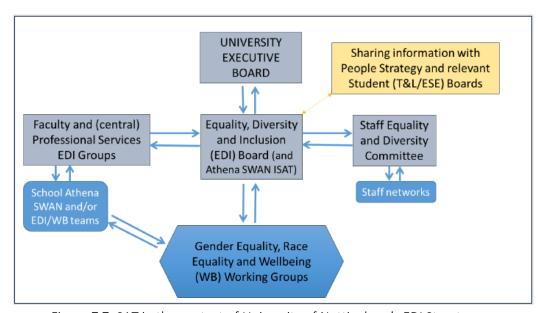


Figure 7 7: SAT in the context of University of Nottingham's EDI Structure

SoCS' AS SAT works within the University and faculty management structure to achieve its objectives. These objectives can be summarised as to:

- Discuss, initiate, and implement SoCS gender equality practices and procedures in line with AS principles.
- Identify and address specific gender equality issues that have potential impact for SoCS practice, through surveys and focus groups.
- Monitor and report key data (e.g., staff, student, recruitment, meeting times) for SoCS, measure progress against action plan targets;
- Develop methods for embedding equality culture within SoCS, e.g., effective, targeted mentoring, and transparency in the workload model;
- Work with FoS EDIC and University's institutional AS management group to establish actions for institutional EDI KPIs which are reflected to SoCS;
- Keep the FoS EDIC informed of progress and alert them when action is required.

	Nome / Dale	Diagramhy
	Name / Role  Dr Armaghan Moemeni Assistant Professor  Director of EDIC and SAT Chair Institutional Self- Assessment Team member (I-SAT)	Biography  Joined the UoN after 16 years of lectureship at De Montfort University, in January 2020. Currently director of SoCS' EDIC and leads the AS submission team. Mother of two young sons (aged 5 and 11). Enjoys spending time with family, music and reading a good book in her spare time.
	Professor Jonathan Garibaldi Professor of Computer Science HoS (2016 to date, 2nd term ends 2024)	Worked at UoN since 2002.Father of three adult children, all currently going through university, and caring responsibility for ageing parents. In spare time, enjoys cycling around the local area.
Claire Palmer HoO		Member of Faculty Leadership Group. Involved in School operational and HR practices, including recruitment. Joined UoN in 1993. Joined CS in 2021.  Mental Health First Aider. APM and TS lead
	Professor Graham Hutton Professor of Computer Science  Director of Staff Development  Co-leader of the Functional Programming Lab.	Joined SoCS in 1995. His wife is a librarian, two sons who are now at university. In spare time enjoys cooking and restoring his house.



Dr Helena Webb

Transitional Assistant Professor, Horizon Research Institute, School of Computer Science

SAT's Qualitative Data Lead Joined the UoN in summer 2021 and works on bringing social and ethical perspectives into our understanding of contemporary computing. Passionate about widening participation in education and effective career support for university staff. I enjoy reading, creative writing, cycling and walking.



Mathew Searle

Senior Operations Manager Lives Nottingham with his wife, who also works at the University, and our 8-year-old daughter. Outside of work, enjoys football, cooking and gardening.



Dr Pepita Barnard

Research Fellow, Horizon Research Institute, Computer Science. Experience around Career
Development and Work-Life Balance:
Timeline: Mental Health Nurse > NHS
project manager > career break with
my two pre-school-aged children >
Returned to manage NHS clinical
systems project > PhD > Research
Fellow. Cooking and gardening. Juggle
rather than balance.



Dr Milena Radenkovic

Asst. Professor in Advanced Networks and Cyber Security Previous Chair of Athena Swan Committee since 2014. Her research is on advanced computer networks, and she is a member of the Cyber Security research group. Parent of 1; Outside work interests include skiing and tennis.

Roxanne Lockett  Senior Administrator	Joined UoN in 2019 and joined SoCS in 2021. Outside of work enjoys reading and attending live music.
Ian Bainbridge Operations Manager	Joined UoN in 2005 and moved to SoCS in 2021. Having three children, two with additional needs, it is important to maintain a positive work/life balance, something the University and colleagues have always been supportive of.

Table 2: The SAT, members' roles, and their relevant experiences.

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

Following this submission, SoCS' EDIC will meet and review its ToR. As part of this ToR, we will streamline the 5 thematic areas identified as high EDI priorities at UoN's EDI SDP to make themed subgroups. These thematic areas are Gender, LGBTQ+, Disability, Wellbeing, and Intersectionality.

The committee in the form of smaller subgroups will continually monitor and implement the action plans. SAT members responsible for each action will report progress at each EDIC subgroup and as before work on the shared action tracker from EDI SharePoint. EDI meetings' minutes, and data from actions (as appropriate), will continue to be publicised on the SoCS' EDI SharePoint and all staff will be updated on the progress of ongoing initiatives via periodic email newsletter. The EDIC director will collate the subgroups' reports and will present at the full EDIC meeting termly.

Moreover, together with the DoEDI, SAT chair, HoO, and the HoS, we will continue to ensure that the EDI committee has diverse members representing SoCS, by inviting staff and students to join, as appropriate (and with consideration of role and workload). One added action is to recruit at least one PGR and one PGT to the SAT (A4.3). We will invite new members to join our committee, to enhance our diverse and inclusive presentation.

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

# 1. Evaluating progress against the previous action plan

In 2017, SoCS was awarded a Bronze AS, renewing its previous award from 2013. Here we summarise the feedback from the assessment panel, and its role in enhancing our current submission.

#### **Summary of Assessment Panel Feedback**

The Panel's overview stated that:

"The application identifies the key issues facing the department and includes some analysis. The action plan is comprehensive and well structured, and generally specific, measurable, achievable, relevant and time-bound (SMART). The panel recommended making more detailed use of staff survey results and focus group feedback to inform the analysis."

Accordingly, in the past few years, staff and student surveys and focus groups have been conducted, across the SoCS, targeting our AS actions. Here, we have highlighted school's staff and students' feedback which also guided us in establishing the future action plans and means of impact measurement across the next 5 years (see Appendix 1 for full detail on surveys' analysis).

# Table 3 presents the fully RAG rated action plan from 2017-2022.

Actio	Description of action	Action planned from April 2017	Start Date and Timing	Success Measure
	Action Plan Annual Review	Plan reviewed after analysis of data and feedback	Every 12 months	Meets commitments
L. Gen	der balance and representatio	n in UG student population		1
1.1	Investigate data by gender on final degree achieved.	Module data analysis to include gender statistics.	November 2016 onwards and review on an annual basis.	Increase % of good degrees (1st and 2.1) for females towards that achieved by males in 2019/20. This will require an increase from an average of 60% (in period 2011-2015) to 75% by 2020 (or to whatever figure is then achieved by males).  Implement further action and specific interventions if trends indicate issues of concern.
	Analyse module data for gender information and trends to detect emerging patterns and give early warning to concerns.			Comments: Average of % good degree for female 90.3%, compared to male 78% (2021)
1.2	UG student application and intake Continue to monitor data by application, offer, conversion, gender and entry to understand why we are recruiting fewer female students.	Analyse data on offer acceptance by gender and look at destination information by course and institution.  Determine reasons for recent decline in female recruitment and identify measures to address this.	November 2016 onwards on an annual basis.	Increase % female intake to reach 20% by 2019/20, which will require an increase (from 12% in 2015/16) of 2% each year.  Implement survey of applicants to investigate or consider additional specific interventions on an annual basis, if target growth rate is not being met.  Comment: % female intake increased to reach 18% (2020/21)

1.3	Female UG student population proportion  Plan and organise recruitment and outreach activities to specifically target and attract females.	Review Open Day activities and images used to ensure no unconscious bias.  Explore additional YouTube and Computerphile videos of female students and staff (researchers and academic).	November 2016 onwards on an annual basis.	Increase % of female intake to 20% by 2019/20 from 12% (see 1.2) Positive messages from improved publicity and outreach to be identified and utilised in UG recruitment materials (web/brochure/presentations) [impact assessed in 1.2]  Comment: % female UG students increased to 16% by (2021/2022)
1.4	Female staff and student involvement in UG recruitment  Increase numbers of females involved in Open Days.	This has been implemented for 2017/18 recruitment cycle.  Need to ensure back- up rota is in place for staff and students.	November 2016 onwards on an annual basis.	Achieve a minimum of 25% female involvement of total staff and students increasing to a target of 33% by 2019/20.  Comment: % female students involvement in Open Days increased to 36% in 2021/22
1.5	Prospective UG student attendance at recruitment events Collect data and assess gender split more systematically.	This has already been discussed with the Open Day and recruitment administrative teams.	November 2016 onwards on an annual basis.	Aim for target of 25% of female attendance of total open day attendees by 2019/20.  Comment: % female students' involvement in Open Days increased to 36% in 2021/22
1.6	Equality, Diversity and Inclusion awareness UG population Provide improved support for new and current students and collect data to allow for analysis.	Student societies have already been asked to record and provide gender and diversity analysis for events such as HackNotts. All new female UG students are offered a female 'Guru' as peer support. Women in CS network open to all females in School	November 2016 onwards	Increase EDI awareness in UG student population measured by a student survey annually.  Improved attendance of female at society and network events.  Comment: Improvement among staff as shown in EDI staff survey results (2020)
2. Gen	der Balance and representati	on in PG Student Population		
2.1	PGT application and intake data Continue to assess to ensure we attract female students.	Ensure data are collected annually and reported to TC.	November 2016 reviewed annually.	Continue to recruit females above the Russell Group benchmark. Maintain % female intake at minimum of 10% above RG (CS PGT enrolment HESA data).

	Monitor the PGT application and intake			The proportion of female PGT students across the School is 26% (2020/21)
2.2	PGR application and intake data Continue to assess to ensure we attract female students.	Ensure data are collected annually and reported to RSG.  Monitor the PGR application and intake	November 2016 reviewed annually.	Continue to recruit females above the Russell Group benchmark. Maintain % female intake at minimum of 10% above RG (CS PGR enrolment HESA data).  Comments: The proportion of PGR students across the School is 35% (2020/21) – 7 <sup>th</sup> top among Russell Group Universities (Figure 53)
2.3	PGR completion times Continue to evaluate to ensure there is no issues with respect to gender bias.	PGRSA will continue to review completion rates and report to RSG.	November 2016 and reviewed on an annual basis.	PGR Completion rates for more than 6-year submission to be less than 20%, with female submission of theses being no lower than that of male.  Comments:  Current submission rate within 4.5 years is 53% among female PGR and 70% among male PGR (2022)  Overall submission within 5 years is 57% regardless of gender (2021/2022 statistics).
2.4	UG to PG Student Progression and Pipeline Evaluate and review for enhanced Nottingham retention.	SOG to consider exploring a review of Nottingham pipeline to determine what proportion of UG students go onto study elsewhere, including diversity analysis.	April 2017 start date. Report to be completed 2017/18 academic year.	Removal of any real or perceived barriers to progression, particularly for females. Review to establish measures and benchmark against competitor institutions.  Comments: UG to PGT student progression has not been a focus for School recently, due to over-recruitment of PGT students directly

3.1	Recruitment processes for staff Ensure this is fair for all vacancies. Encourage female applications and appropriate success rate.	Explore mentoring opportunities that maybe available through learned societies.  Explore the possibility of a faculty-wide mentoring scheme for female early careers researchers.  Initiate a mentoring workshop.	November 2016 and as vacancies arise.	Achieve an average of 20% of the overall proportion for female applicants for academic posts by 2019/20.  100% of interview panel members have panel or chair training (including EDI) by 2018/19.  Comments:  - Overall proportion of female applicants is approximately 27% of all the applicants (2021/2022)  The overall success rate of female applicants is 9% compared to 8% for males (2022)  -100% of the interview panel are trained for EDI
3.2	Research Careers Pipeline  Support female PhD and postdoctoral research staff considering academic careers. Identify and work to remove perceived barriers to progression.	Obstacles for career progression need to be determined and better understood (survey of PhD and PDRA's).	April 2017 and onwards.	Increase the average of female applicant for level 4 and 5 research posts to 20% by 2019/20.  Comment: Average of 38% female applicants to research posts (2021)
3.3	Academic and Research Fellowships  Promote and support fellowship applications by removing barriers to encourage female applicants.  Ensure processes for application are supportive.	The School will actively promote fellowship opportunities, including those such as the Ann McLaren scheme which targets female early career academics.  The School will explore mentoring for applications with the assistance of the Faculty and assign a female mentor where possible.	November 2016 and onwards as fellowship opportunities arise.	Ensure submission of fellowship applications by female academics each year exceeds the female: male staff ratio, i.e. that there is over-representation of female fellowship applications.  Comment: Due to the pandemic, the research fellowships were affected in general across the school – regardless of gender – Action on Research Champion Role for future

3.4	Female role models Champion and publicise female role models within Computer Science.	The School will explore opportunities to have female speakers for other events and collaborate with other Schools and Faculties to help publicise and champion high profile female role models.  Ensure there is an annual review and update of marketing and publicity material to include	Annually from the start of the academic year.	Host at least one event each year at which a female role model is a keynote speaker.  Comments: -Hosting of the events in the School has been affected by pandemic -Female role models were publicised through new initiatives e.g. WICS-C and Ada Lovelace Society across the school
3.5	Promotion opportunities and female gender balance Support staff to strengthen promotions applications.	role models.  Encourage female staff to attend/initiate mentoring meetings and join programmes such as Aurora and the University leadership development programme Develop initial polices on how to track and evaluate progress	November 2016 and onwards.	Maintain representation of female staff of level 6 and 7 at greater than 25% of total staff.  Comment: In 2017, there were 6 females at L6 & L7 out of 19 total females - 31.6%. This number has now dropped to 18% (4 out of 22). Action in place for future development such a dedicated Staff Development Director role at school to support internal applicants
3.6	Female representation on committees and in the decision-making process.	Ensure existing levels of representation are retained.  We will seek further opportunities to involve additional female academics with School committees and to be observers on Faculty committees.	Annually from the start of the academic year.	All School committees to have active female involvement in decision-making, in line with or above female:male staff ratio. [Note that this needs care to ensure that females are not unfairly overburdened with administrative work.]  Comment: Under development with the support from Staff Development Director
4. Scho	Equality, Diversity and Inclusion is embedded and promoted within the School, including unconscious bias.	Regular reminders and ensure this is part of induction for new staff. School will host an Equality and Diversity event that will be	November 2016 and onwards.	All staff and PhD students have EDI knowledge including unconscious bias and know how this applies to their areas of activity. This will need to be measured by EDI event attendance and follow-up activities (survey and feedback).

		open to all staff and PhD students.		Comment: Improvement among staff as shown in EDI surveys/focus groups (2020-2021) - see Appendix 1
4.2	Athena SWAN engagement and updated with information within School community.	The Athena SWAN Action Plan and implementation of this and progress made will be reviewed.  The submission and outcome of the award will be published and promoted to the school community.	November 2016 and onwards with regular reviews by SAT/EDC of progress of action plan. FEDIC annual review.	School community (staff and students) is engaged with Athena Swan.  This will be evaluated by new participants and volunteers in SAT and related activities such as WICS and outreach and future survey and focus group responses.  Comment: -Improvement among staff as shown in EDI surveys/focus groups (2020-2021)- Appendix 1 -New actions in place for future SAT engagement (see section 3)
4.3	Wellbeing and a healthy life balance is supported and promoted to the whole School community. Information is available to staff and students on existing School policies and processes. Encouragement of School community in wellbeing initiatives and monitor feedback on wellbeing.	These policies will be reviewed and updated on the School Workspace and in the Staff Handbook and promoted at staff meetings and briefings. Following implementation of the new system annual leave uptake will be assessed. Sickness absence reporting will be actively managed, working closely with HR and Occupational Health. The School will consider and encourage other wellbeing activities and ask for community suggestions.	November 2016 and onwards with regular reviews by SOG.	Increased sense of wellbeing as measured by staff surveys and feedback from focus groups.  Comment: Improvement among staff as shown in EDI surveys/focus groups (2020-2021)- Appendix 1
4.4	Induction process for new staff is improved and developed and procedures are in place to ensure that	Review of induction procedures and related documentation update.	Review from April 2017 and then annually	Positive feedback from new staff on induction arrangements. This will be gathered as part of induction follow-up, PDPR quarterly review and regular meetings with line managers.

	School organisation and support is understood.			Comment: Improvement among staff as shown in EDI surveys/focus groups (2020-2021)- Appendix 1
4.5	Social interaction is improved within School Community.	Encourage staff to use facilities and attend School social activities regularly. Assess uptake and record attendance. Ask for community suggestions to increase social interaction and activities.  Consider establishing a social activities group.	November 2016 and onwards with regular review.	increased participation in social activities and events measured by attendance.  School common room is well utilised and School has a vibrant sense of community. This will be measured by future staff surveys and feedback.  Comment: Improvement among staff as shown in EDI surveys/focus groups (2020-2021)- Appendix 1
4.6	PGR welcome and induction Co-ordinate induction activities and extend best practice to all postgraduate research students.	Review current arrangements for all PhD programmes and instigate an improved induction and welcome programme.	April 2017 for implementation from 2017/18 academic year	Increase induction participation and uptake by PGR students. Assessed by actual attendance and feedback (surveys and similar).  Comment: Improvement among staff as shown in EDI surveys/focus groups (2020-2021)- Appendix 1
4.7	Workload Ensure that the workload model is fit for purpose and fair to all staff, including those who are part-time	Review academic staff workload and gather feedback from reviewers and staff. Ensure PDPR reviewers are consistent in workload discussions for part-time and staff taking sabbaticals. Assist University and Faculty in workload plan review and improvement process.	April 2017 and onwards with regular review.	Improved staff satisfaction with workload for 2016/17 academic year reported in PDPR meetings in 2017.  Comment: Improvement among staff as shown in EDI surveys/focus groups (2020-2021)- Appendix 1

Table 3: The fully RAG-rated Action-Plan of 2017-2022

RAG: **RED** (no progress) **AMBER** (partial progress), **GREEN** (good progress)

## 1.1 Evaluation of School's Progress on Action Plans

The SAT has been integrated into the wider EDIC since the award of our Bronze AS in 2017, with the DoEDI taking over as SAT Chair in 2021. The EDIC meets at least four times per year. The EDIC has continually consulted with staff and students at SoCS via regular staff/student surveys and focus groups, as detailed in 1.2 and Appendix 1.

All EDIC minutes, together with other EDI-related material such as anonymous staff survey data are stored in a secure SharePoint (EDI SharePoint) at SoCS, accessible to all EDIC/SAT members. In addition, the development of this current application was supported by the O365 shared drive, to enable a collaborative writing effort. HoS, HoO and senior members of the Operation Group also reviewed and updated the application and related actions. In addition to SoCS' feedback, this application was reviewed at the Faculty and University level before final submission.

The quantitative staff and staff/student data analysed in this application were collected from the University Strategy Planning and Performance data unit and benchmarked against HESA data. Anonymous staff and UG/PGT/PGR student surveys conducted within SoCS provide additional quantitative and qualitative data regarding EDI at the School, health and wellbeing, desire for specific EDI initiatives, and new ideas for exploration. Appendix 2 presents the school statistics and data analysis (there is some inconsistency in reported years, due to detailed differences between the various data sources).

The strong University leadership in prioritising EDI and implementing AS action-plans supported us in setting our SMART actions. UoN appointed a PVC for EDI and developed a University EDI SDP from which institutional actions are derived. At SoCS, we now have an EDI KPI action-plan in addition to our AS actions approved by HoS and HoO (Section-3 for full action-plan & KPIs).

In addition to setting gender equality as our AS priority, EDIC also considers institutional thematic EDI priorities i.e., Gender, LGBTQ+, Disability, Wellbeing, and Intersectionality in order to improve the inclusive and diverse community at SoCS. The Sphere Challenge scheme as one of the key elements of the University's EDI SDP across the institution, plays an important role in our EDI priorities. UoN holds an annual Sphere conference to showcase the best EDI practices across the institution, and SoCS has been proactive in presenting EDI projects addressing the various areas of priority. For example, in June-2022, we are holding a conference on Neurodiversity awareness at SoCS, organised by EDIC/SAT staff. This one-day event is led by members of SoCS who identify as Neurodiverse to help demystify and destigmatise conditions such as ASD and ADHD. The primary aim is to use the event to showcase how simple, thoughtful choices can make daily life at university easier, happier, and more fulfilling for everyone, no matter how their mental processes are categorised. We also have invited several speakers including female computer scientists to discuss how they feel being a woman computer scientist with neurodiversity. Short feedback surveys will record engagement and satisfaction from both Neurodivergent and Neurotypical visitors. This will drive the iteration and refinement of the educational content and style of the event for future similar occasions. (More details can be found from UoN's Diversity Festival, Sphere Conference)

#### **Progress due to following Action Points:**

## Action Group 4: School community, culture, organisation, and support

**A4.1** Equality, Diversity and Inclusion is embedded and promoted within the School, including unconscious bias.

A4.2 Athena SWAN engagement and updated with information within School community.

**A4.3** Wellbeing and a healthy life balance

#### 1.2 Surveys and Focus Groups

In the following sections, SoCS recent cultural EDI surveys are presented, with full detail in Appendix 1.

# SoCS' EDI/AS Staff Survey (Appendix 1- Section A)

In November 2020, 63 members of SoCS staff completed an anonymous EDI/AS survey. Participants answered 25 questions relating to: gender; time in the school; position; caring responsibilities; ethnicity; satisfaction with current post; relationship with line manager; support from line manager; encouragement from line manager; training; flexibility; school openness; mentoring; EDI awareness; workload and induction process. The survey analysis is available in Appendix 1.

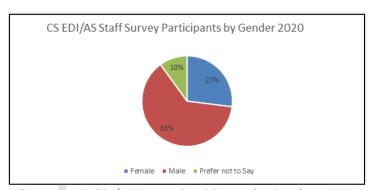


Figure 8: CS EDI/AS Survey Participants by Gender - 2020

There were 63 responses to the survey (40 male, 17 female, 6 prefer not to say). Of these 34 respondents were academic members of staff (27 male, 4 female 3 prefer not to say), 7 APM (2 male, 5 female), 8 PGR students (3 male, 3 female, 2 prefer not to say), 12 members of Research staff (7 male, 5 female), 1 other (male) and 1 prefer not to say (prefer not to say).

Of the 63 respondents 21 reported that they have caring responsibilities – and of those 16 were male, 4 female and 1 prefer not to say. Of the 63 respondents, 45 described their ethnicity as White (31 male, 11 female, 3 prefer not to say), 1 as Mixed race (female), 1 as Black (female), 6 as Asian (3 male, 3 female), 3 as Other (1 female, 2 male) and 7 prefer not to say (4 male, 3 prefer not to say).

The survey covered a large range of topics through a mix of closed and open questions. A full summary and narrative is provided in Appendix 1 but some particular results of interest include.

At least half of the respondents agreed or agreed completely with the following statements:

- I am satisfied with my current position (40 total: 26 male, 12 female, 2 prefer not to say)
- The School is effective in raising awareness of gender and equality issues (41 total: 26 male, 10 female, 5 prefer not to say)

- My workload and number of work hours expected of me are reasonable (34 total: 19 male, 12 female, 3 prefer not to say)
- A career at the University of Nottingham is an attractive prospect (39 total: 27 male, 11 female, 1 prefer not to say)

In their responses to open questions, participants provided explanations for their answers. They also took up opportunities to suggest improvements they would like to see in the School or wider University. These typically centred on:(i) suggestions for better management of the University; (ii) suggestions for administrative changes; (iii) suggestions for a better physical environment; (iv) suggestions for a better culture. The overall survey responses have helped to prompt reflection on the School's EDI commitments and the suggestions for improvements have directly contributed to our action plans (see **Section 3**).

# **PDRA Focus Group**

After analysing the full staff survey, specific issues raised by the PDRA job family in their written responses were identified and used for discussion at a focus group (FG) meeting (May 2021). These issues were:

- support for work-life balance (A4.3)
- proactively supporting women and marginalised groups (General AS objective)
- mentoring approach (A.3.2; A3.3; A3.4; A3.5; A3.6)
- researchers' career direction and progression (A3 and A4)

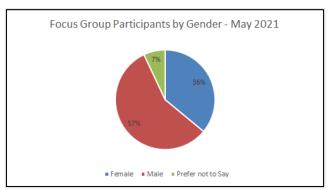


Figure 9: Focus Group Participants by Gender - May 2021

The FG participants provided the panel with feedback on 'supporting and advancing women's careers', i.e., 'commentary on the criteria for promotion, including how university policy and practice considers the impact of career breaks on promotions are of interest'.

Some of the exact feedback is listed here:

- Career progression, no scale progression due to undertaking PhD alongside employment
- Cannot progress until PhD is completed.
- Possible career stories highlighting career progression from different backgrounds'
- As a woman, maternity leave should not be considered as a barrier to prevent progression.

Following this FG, the findings were shared with HoS, HoO and the EDIC. The findings and further reflections were then reported to all staff by the HoS in a general staff meeting. Partly as a result of these activities, an academic has now been appointed as Research Champion to specifically be responsible for the wellbeing of PDRAs, including providing assistance and advice on career progression.

In 2021, UoN's SDP adjusted the promotion procedure, with the aim of supporting staff with special circumstances. The new scheme includes more scrutiny on EDI aspects, aiming to eliminate all forms of discrimination as well as considering COVID-19 disruption. This adjustment explicitly considers reasons for any discontinuity in service and achievement. For example, discontinuity owing to maternity, adoption, parental or carers leave, information relating to disability including incapacity that lasts more than six months, periods of absence due to ill health or injury, absences of more than six consecutive months (i.e. career breaks), special leave of absence (i.e. secondment to other organisations), impact of LGBTQ+ status on travel to countries with non-inclusive legal regimes and any other personal circumstances including those which may restrict opportunities for travel for work.

The above adjustment was considered and implemented at the SoCS (from 2020/2021) following institutional recommendation. The new HR adjustment was promoted among all the employed staff at SoCS to support career progression and promotion. All staff from all levels now complete a separate section identifying any of the above EDI factors that may have affected their career progression, prior to their promotion application.

This will continue as a good practice in coming years at SoCS with the goal to increase career progression amongst female and other staff with protected characteristics. School also dedicated a member of staff as DSD to advise and support academics from the R&T job family on their career development pathway, prior to the official submission of their promotion application centrally.

#### **Progress due to following Action Points:**

**A3.1** Recruitment processes for staff

Ensure this is fair for all vacancies. Encourage female applications and appropriate success rate.

- A3.2 Research Careers Pipeline
- **A3.5** Promotion opportunities and female gender balance Support staff to strengthen promotions applications.
- **A3.6** Female representation on committees
- **A4.1** Equality, Diversity and Inclusion is embedded and promoted within the School, including unconscious bias.
- **A4.3** Wellbeing and a healthy life balance

# Students EDI Survey (Appendix 1)

We also performed an anonymous survey among SoCS students (UG, PGT, and PGR) (January 2021). The figure below summarises key responses.

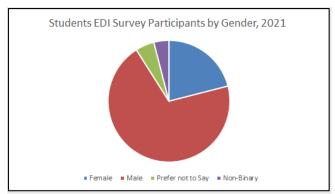


Figure 10: Students EDI Survey Participants by Gender, 2021

#### Of the 57 students:

- 39 (68%) (29 male, 8 female, 1 non-binary, 1 prefer not to say) agreed that the induction they received as a new starter was good, supported by positive open question responses
- >50% agreed that SoCS is open and friendly 35 total: 28 male, 4 female, 1 non-binary, 2 prefer not to say); they can study flexibly (37 total: 27 male,7 female, 2 non-binary, 1 prefer not to say) and have a good relationship with their supervisor/tutor (36 total: 25 male, 7 female, 2 non-binary, 2 prefer not to say). However, qualitative responses varied between both positive and negative.
- <50% agreed their workload is reasonable (22 total: 15 male, 4 female, 2 non-binary, 1 prefer not to say) and that SoCS is effective in raising awareness of gender and equality issues (16 total: 12 male, 3 female, 1 prefer not to say). Open question responses provided feedback on improving study/life balance and study conditions, much of the feedback focused on the return to face-to-face teaching, and the need for SoCS to be more responsive to student feedback.</p>
- 26 (46%) (22 male, 3 female, 1 prefer not to say) indicated an interest in working in the private sector
- 3 (2 male, one female) indicated they would undertake further study
- 6 (11%) (1 male, 3 female, 2 non-binary) indicated they would remain in academia.
- 15 (26%) (8 male, 5 female, 2 prefer not to say) agreed that a career in academia is an attractive prospect
- 26 (46%) (22 male, 3 female, 1 prefer not to say) agreed that their gender had no bearing success in academia. 17 (30%) (8 male, 6 female, 2 non-binary, 1 prefer not to say) disagreed, 13 (9 male, 3 female, 1 prefer not to say (were unsure and 1 (male) did not answer).
- 17 (30%) (10 male, 7 female) agreed that undertaking their course had made a career in academia more attractive.

When asked for ideas on how SoCS could encourage more women to take up a career in academic science, 30 (53%) students provided written answers. These were often detailed and showed evidence of deep thinking about the issues involved. Suggestions put forward focussed on: (i) changes in personnel to be more inclusive with diverse role models; (ii) specific activities to

celebrate and encourage diversity; and (iii) outreach and community participation. The written answers are analysed and detailed in Appendix 1, Section B.

#### **Progress due to following Action Points:**

- A1.3 Female UG student population proportion
- A1.6 Equality, Diversity and Inclusion awareness UG population
- A4.1 Equality, Diversity and Inclusion is embedded and promoted within the School, including unconscious bias.
- A4.2 Athena SWAN engagement and updated with information within School community.
- A4.5 Wellbeing and a healthy life balance

# Reflection on the Surveys

The above-mentioned engagements have provided a clear picture of general EDI and gender equality issues across SoCS, and ideas on how we can support staff and students with a more equal and diverse environment.

The table below summarises the key action points to promote inclusivity and gender balance suggested in the anonymous staff and student survey responses. They are also highlighted in more context in each survey analysis section (Appendix 1). School Management responded to key actions driven from these surveys (Table 4). These key Action Points were carefully considered in development of school's next 5 years AS action plans and measurements criteria (Section 3).

Table 4: Summary of Staff/Student Surveys' Reflection

Description of Key Action Points	Action Details	Reflections from School
Changes to physical environment	<ul> <li>Posters celebrating inspirational and diverse role models put in prominent places around SoCS</li> <li>Prayer rooms (including women only prayer room)</li> <li>Gender neutral toilets</li> <li>Provision of sanitary products</li> <li>More attention to accessibility around the building – e.g., fewer (narrow) doors to navigate</li> </ul>	<ul> <li>School environment is continually reviewed to make improvements for all users.</li> <li>Further consideration to improve EDI in the physical environment, in preparing a case for expansion of SoCS facilities.</li> <li>Prayer rooms available on Campus.</li> </ul>
Attracting more diverse students	<ul> <li>Outreach activities in local schools – in particular activities to challenge stereotypes around CS. Emphasis on early intervention to enable selection of appropriate GCSEs and A Levels</li> <li>Scholarships for students from disadvantaged backgrounds</li> <li>Mandatory EDI training for staff</li> </ul>	A1.3 (2017-2022) Female UG student population proportion A1.6 (2017-2022) Equality, Diversity and Inclusion awareness UG population

Inspiring surrent	- Posters celebrating inspirational	
Inspiring current students	<ul> <li>Posters celebrating inspirational and diverse role models in prominent places around SoCS</li> <li>Visible celebration of successful and diverse members of the School</li> <li>Mentoring UG students to encourage and support them to PG</li> <li>Scholarships for students from disadvantaged backgrounds</li> <li>Mandatory EDI training for staff</li> <li>Increased staff diversity – in particular teaching staff</li> <li>Inclusive language and avoidance of offensive terms</li> <li>Active student career encouragement.</li> <li>Seminars and activities that are none time-consuming to attend</li> <li>Inclusion of social, ethical and critical perspectives in the curriculum; support for people who would like to organise diversity-focused activities</li> <li>Participation in Pride and Black History Month; collaborative activities across Schools – esp. STEM ones</li> <li>Successes highlighted via SoCS website and social media     <ul> <li>Appointment of an ESE Senior Administrator who will assist stu engagement projects.</li> <li>Appointment of an ESE Senior Administrator who will assist stu engagement projects.</li> <li>All students from UG, PGT, PGF CDT had EDI training session at induction – with the theme of 'Stronger Together'</li> <li>Neurodiversity training for first UG and the PGT students as part their personal training embedde first-year taught module</li> <li>EDIC continually shares call for participations for EDI events to a students and staff – examples: International Women Day event</li> <li>Black History Month and Disabili Month</li> </ul> </li> <li>A3.4 (2017-2022)         <ul> <li>Female role models</li> <li>A3.3 (2017-2022)</li> <li>Academic and Research Fellows</li> <li>Adademic and a healthy life balo</li> </ul> </li> </ul>	year of d in a
Supporting careers	<ul> <li>More mentoring (formal and informal)</li> <li>Better structured inductions</li> <li>Central repository for key information.</li> <li>Better structured and targeted ongoing training</li> <li>Transparency in promotion processes</li> <li>Better/nearer provision of childcare facilities</li> <li>More diverse staff in visible/senior positions</li> <li>Ongoing work with senior management for enhancing promotion promotion promotion and agreement boards</li> <li>Representation of CS wome management boards</li> <li>Recruitment processes for a Research Careers Pipeline</li> <li>Academic and Research Fellowships</li> </ul>	tter en at
Attracting more diverse staff	<ul> <li>Transparent hiring processes</li> <li>Mandatory EDI training for staff</li> <li>More diverse staff in visible/senior positions</li> <li>Encouragement of diverse research interests within the</li> <li>Currently recruiting to so academic posts; role profile adverts have been review be gender neutral and included and included according to so academic posts; role profile adverts have been review be gender neutral and included according to so academic posts; role profile adverts have been review be gender neutral and included according to so academic posts; role profile adverts have been review be gender neutral and included according to so academic posts; role profile adverts have been review be gender neutral and included according to so academic posts; role profile adverts have been review be gender neutral and included according to so academic posts; role profile adverts have been review be gender neutral and included according to so academic posts; role profile according to so a</li></ul>	es and red to

	School, for instance	- Recruitment processes for staff
Changing the academic ethos	<ul> <li>interdisciplinary work</li> <li>More understanding of the challenges faced by staff with caring commitments</li> <li>Less emphasis on competition and more emphasis on collaboration</li> <li>More careful attention to inclusivity and the need for positive change in the School</li> </ul>	- Increased focus on collaborative working and citizenship in UoN processes, such as ADC, NRS, promotion, L7 banding, etc.; these are contributing to changing the ethos to be more collaborative
Support for work-life balance	<ul> <li>Meaningful steps for a proper work-life balance, organisational changes, and encouragement to join unions</li> <li>Increased school embedding (and resourcing) of teaching &amp; admin support</li> <li>Staff workload balance</li> <li>Issues around university's Project Transform and its impact on academics' workload</li> </ul>	<ul> <li>School funded weekly Pilates session and DoO has been instrumental in establishing a Jubilee campus-based mindfulness pilot open to all staff.</li> <li>SoCS has a dedicated student welfare officer (new post) who provides confidential support to both students and staff.</li> <li>Wellbeing support for staff during COVID (HoS and DoO weekly online meetings)</li> <li>EDIC-led conference on Neurodiversity Awareness – Students and staff to be invited to participate on poster session demonstrations</li> <li>A4.3 (2017-2022)</li> <li>Wellbeing and a healthy life balance</li> </ul>
Proactively supporting women and marginalised groups	-Highlighting inspiring women in the university to people not necessarily planning to pursue a career in science (younger generations) - more spaces for interdisciplinary research; women-/equality-/social justice-focused researchCS women to go to women focuses research events - easier access to childcare	Ongoing work in the school and EDIC  A3.4 (2017-2022) Female role models  A4.3 (2017-2022) Wellbeing and a healthy life balance  A4.3 (2017-2022) Workload
Mentoring approach	-a systematic mentoring -peer support, seeking out mentors and informal mentor arrangements, the opportunity to focus on areas of interest	With the support of HoS and DSD, work under progress

Danas and and	6	On and in a consult contains	
Researchers' career	- Career progression, no scale	-Ongoing work with senior	
direction and	progression due to undertaking PhD	management for enhancing the	
progression.	alongside employment	promotion process	
	- Possible career stories highlighting career progression from different	-New Research Champion role at SoCS	
	backgrounds	A3.2 (2017-2022)	
	-As a woman, maternity leave should	Research Careers Pipeline	
	not be considered as a barrier to	A3.5 (2017-2022)	
	prevent progression.'	Promotion opportunities and female	
		gender balance	

## 2. Key priorities for future action

A major UoN initiative, Project Transform, has been disruptive over several years across the University. SoCS has worked hard to mitigate the impact, but success measures based on survey responses used to monitor actions, e.g., Workload [Action Point\_2017\_4.7 AMBER] have consequently been harder to achieve. Higher female representation on school committees [Action Point\_2017-3.6 AMBER] has been impacted by several female colleagues leaving (for reasons outside the school's influence, e.g., leaving to work in industry, or returning to their home country). Also, gender balance and representation among UG student population e.g., UG application intake and Female UG student population proportion [Action Points\_2017 1.2, 1.3 AMBER] have been hard to achieve. See the fully RAG rated action plan from 2017-2022 are in table 3.

In this section, we have summarised the key priorities (KP) for future actions while reviewing past actions and their progression. Actions are prioritised and colour coded in new action plan (2022-2027) and followed by school's supplementary EDI-KPI action-plans (2021-2026) is in Section-3.

**KP 1: Gender Equality in the School of Computer Science** 

KP2: Female UG student population proportion – Increase the gender balance among UG

KP3: Enhance and promote the WICS presence across the school – Link to outreach activities

KP4: Promotion opportunities among female staff - Support staff to strengthen promotions applications

KP5: School Community, Culture, Organisation and Support - EDI Awareness

**KP6: Staff Workload and Proportion of Female Staff at School Committees** 

Table 5: Key Priorities for Future Actions

#### **KP 1: Gender Equality in the School of Computer Science**

The KP to enhance the gender equality at the SoCS is to improve external perception of the School, to increase the proportion of women taking up positions in the School.

We have worked hard to improve all of our recruitment procedures. However, we still need to correct the gender imbalance, especially for undergraduates (UG) (16% female intake and 18% female applications). R&T-academic staff (28%), although the population of female staff is higher among all job families across the school (35%). In 2017, there were 6 females at L6&7 out of 19 total females - 31.6%. This number has now dropped to 18% . Improving the academic staff gender balance is one of key high priorities at SoCS in the next 5 years.

On the other hand, school's UG-degree-awarding gap recently reached 90%-female and they have exceeded their male peers by 12% in achieving 1<sup>st</sup> and 2<sup>nd</sup> class degrees (see Figure 11). While the postgraduates (PGT) (26% female students) across the school, the female PGR ratio of 38% places us 7<sup>th</sup> from the top among RG (see Figure 53). We continually measure the number of female applicants at open days, number of offer holders and we have worked towards improving them.

Action Group 1: Gender balance and Representation in UG Student Population RAG-rating-2017: [ActionPoints 1.2, 1.3 AMBER] [ActionPoints 1.1, 1.4 GREEN]

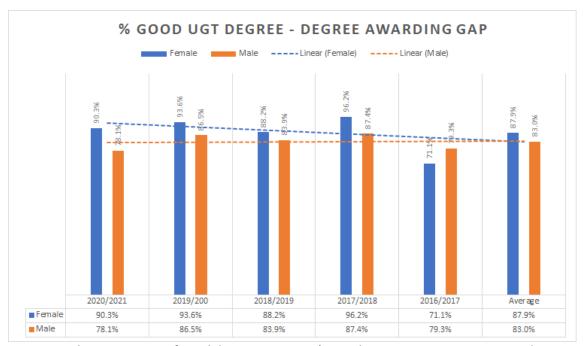


Figure 11: The percentage of good degrees among F/M students at SoCS – Degree-Awarding GAP

A<sub>1.2</sub> UG student application and intake AMBER

A<sub>1.3</sub> Female UG student population proportion AMBER

# KP2: Female UG student population proportion – Increase the gender balance among UG

The overall number of females both applying and becoming students has increased incrementally in the past few years (Table 6 and 7). The general SoCS student data shows a small increase in the number of female UG students and programme-specific clustering analysis shows more improvements (see Table 8). The proportion of female applications was 18% in 2021/2022. Whilst the proportion and numbers of applications and acceptances from females have both increased, this has been offset by a substantial increase in overall student numbers, making the rate of increase slightly lower than our target of 22% (applications). Our challenge is to find mechanisms to manage our student intake numbers without impacting the rise in female applications.

This issue should be interpreted in the wider UK context. It is a national priority to get more young people taking STEM subjects at A level in order to address a serious skills gap that threatens UK competitiveness. Record numbers of female students took Computer Science A-level this year, with an increase of 23% on 2019, new figures show. Female students were seven times more likely to choose Computer Science in 2020 than they were in 2015; a 301% increase according to analysis of A-level results data by BCS, The Chartered Institute for IT. Overall entries for A-level Computer Science also rose in 2021, up by 12%, while a record number of students were also placed on Computer Science degree courses through UCAS. Over 34% of women achieved 'high' (A-A\*) Computer Science passes in 2020, compared with 26% of men. However, the number of female students taking Computer Science as a GCSE fell (from over 80,000 to 78,459 - YOY in 2020).

Female UG Applications at School of Computer Science					
2020 Entry	2021 Entry	2022Entry			
14%	14%	18%			

Table 6: Proportion of female UG Applications 2020 to 2022

Female Current UG Students at School of Computer Science					
2020 Entry 2021 Entry 2022 Entry					
13%	14%	16%			

Table 7: Proportion of female UG Students 2020 to 2022

Programme	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
UG - CS	13:87	12:88	13:87	13:87	14:86
G4GB&G407	12:88	12:88	14:86	17:89	13:87
G400	13:87	12:88	15:85	13:87	12:88
AG401 &G4G1&G4G 7	20:80	14:86	12:88	13:87	18:82
G4GA	50:50	33:67	1:91		
G406	13:88	11:89	28:72		

G400: BSc Computer Science

AG401: BSc Computer Science with Artificial Intelligence

G4G1: Computer Science with Artificial Intelligence

G4G7: Computer Science with Artificial Intelligence

G4GB: Computer Science with Artificial Intelligence with Year in Industry

G407: Computer Science with Year in Industry

G4GA: Computer Science with Artificial Intelligence including International Year

G406: Computer Science including International Year

Table 8: Programme Specific Data - Student Numbers arranged by F:M%

# KP3: Enhance and promote the WICS presence across the school – Link to outreach activities

A<sub>1.4</sub> Female staff and student involvement in UG recruitment GREEN Increase numbers of females involved in Open Days.

SoCS has increased the number of female student ambassadors, who regularly attend open days and recruitment events. In total, we now have 14 ambassadors, of which 5 are female (36%), achieving the target of 33% by 2019.

# **Reflection on Publicity and Outreach Activities at SoCS**

SoCS is an active part of the academic community in Nottingham and works with local schools and other institutions to engage communities, which may not traditionally have identified with computer science. Examples include:

- Nottingham's first girls-only CoderDoJo, organised in conjunction with Thomson Reuters and attended by 40 girls aged 7 to 17 (2017, repeated in 2019).
- A CodeFirst: Girls course for 30 female Nottingham students in other disciplines including law, chemistry, and economics, teaching them how to code, with female researchers and PhD students delivering the course content.
- Ada Lovelace Day events in 2018 and 2019 engaging some 100 female year 12 and 13 students from local schools including Nottingham Girls' High School and NUAST. These students attended talks by women occupying high profile computing roles in industry and academia including academic and research staff at UoN.
- An annual Sutton Trust Summer School, hosting 25 students jointly with Engineering and Mathematical Sciences. Places on Sutton Trust Summer Schools are prioritised for students who are high academic achievers and from underprivileged backgrounds.
- Partnership on the £500K Institute of Coding-funded programme, TechUp Women, which
  upskilled 100 women from BAME and underrepresented communities in the digital sector
  through online training and a residential course at UoN.
- Exhibitions at the Nottingham Festival of Science and Curiosity in 2018 and 2019.
- Organisation of Inspire Women in Technology Nottingham in 2018.
- Delivery, with B3 Media, of TalentLab, which trained 40+ young BAME artists in digital technologies and provided indirect support to a further 500 through spinout projects [REF3 ICS: Innovating Cultural Products].
- Pint of Science events run by students of Computer Science <u>A head start on Health</u>
  (Background on Pint of Science festival can be found <u>here</u>)
- ALS UG student-led project
- WICS-C at SoCS

### **Progress due to following Action Points:**

- **A1.5** Prospective UG student attendance at recruitment events
- A1.6 Equality, Diversity and Inclusion awareness UG population
- A3.6 Female representation on committees
- **A4.1** Equality, Diversity and Inclusion is embedded and promoted within the School
- A4.2 Athena SWAN engagement and updated with information within School community.

Some of the highlighted reflection in response to our actions for enhancing the gender equality across SoCS are:

# **Ada Lovelace Society**

The ALS is a student-led community established in December 2021, with the aim of creating a safe space and an environment where we uplift, support, and celebrate our female student cohort at SoCS. This group of students were supported by SoCS EDIC part of our strategic plans for enhancing gender-balance and awarding gap among female students in the department. Students have created this community with the plan to organise and hold an on-campus event for Ada Lovelace Day (in October), which will be an opportunity to showcase and celebrate the achievements of our female students along with the achievements of Ada Lovelace herself. This is also an opportunity to host female guest speakers, whether industry or alumni, to talk about their experience as a woman in the field, and to help inspire and uplift our female students. They also have plans to collaborate with other societies like the Women in STEM society who can help get industry partners involved with the event, either as sponsors or as guest speakers. As well as having regular social events and

an online chat platform, students will organise sub-groups within the society to take part in SoCS annual programming competitions and hackathons, to increase the number of female students that engage with these events. This will help build a learning community while encouraging other schools to join us too.

#### **Women in Computer Science Committee**

Since 2017, SoCS and the EDIC worked together with support from the FoS marketing team to celebrate the achievements of women in computer science – especially our female staff, students, and alumni. At school, have established a team of staff with the objective of enhancing the presentation of women in computer science and inspire future students. The WICSC meets monthly and plans for activities to achieve this, such as:

- A dedicated webpage about inspirational women in computer science at the UoN
- Videos and written profiles of female staff and alumni, which have been shared with future students by email
- Public lectures
- Social media posts
- Online panel discussions

The WICS-C has published a newly designed web page on SoCS featuring successful female alumni and academics (see Figure 13).

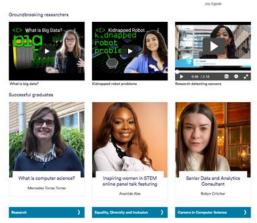


Figure 12: Women in Computer Science Website

**KP4:** Promotion opportunities among female staff - Support staff to strengthen promotions applications

A<sub>3.5</sub>: Promotion opportunities and female gender balance - AMBER Support staff to strengthen promotions applications

In SoCS, DSD, ADC reviewers and Heads of Research Groups have responsibility for encouraging and facilitating staff development and promotion applications. The DSD has been particularly involved in preparing colleagues for submitting promotion cases. This support can be accessed through self-referral or referral at appraisal. Self-referrals are actively encouraged for those seeking promotion

and targeted, and one-to-one conversations are held with individuals who might be less likely to apply for promotion. This has included individual conversations with all female academic colleagues about the career ambitions and potential promotion cases. Since 2016, the DSD has successfully supported 24 cases for promotion (5 female, 21%) and is currently supporting 11 colleagues (5F/6M) with a view to submitting promotion cases in the future. The recently created position of Researcher Champion is responsible for providing similar career and promotion support to all PDRAs. DSD will continue to proactively work with female colleagues to develop cases for promotions and with a view to bring the promotion gender balance in the School in line with the overall academic staff gender split. This will continue as an ongoing action. For more detail on staff statistics, please see Appendix 2.

### **Progress due to following Action Points:**

A3.1 Recruitment processes for staff

Ensure this is fair for all vacancies. Encourage female applications and appropriate success rate.

A3.2 Research Careers Pipeline

**A3.5** Promotion opportunities and female gender balance Support staff to strengthen promotions applications.

**A3.6** Female representation on committees

**A4.1** Equality, Diversity and Inclusion is embedded and promoted within the School, including unconscious bias.

# **KP5: School Community, Culture, Organisation and Support – EDI Awareness**

A<sub>4.2</sub>: Athena Swan Engagement AMBER

**A<sub>4.4</sub>: Induction Process AMBER** 

A<sub>4.5</sub>: Social interaction is improved within School Community AMBER

A<sub>4.1</sub>: Equality, Diversity and Inclusion is embedded and promoted within the School GREEN

A<sub>4,3</sub>: Wellbeing and a healthy life balance GREEN

Referring to Table 4 and the feedback from staff and students, SoCS has established a community for implementation of EDI practice across the school. Ongoing work, supported by the University EDI strategy, includes:

- Establishment of WICS sub-committee
- EDI training and awareness sessions across the school both for staff and students
- Neurodiversity awareness events among SoCS staff and students
- Return to work Pilot Extra support for staff return to work from maternity/parental leave
- Active involvement in University funded projects to support EDI e.g., Sphere Challenge projects
- School's EDI KPI action plan alongside AS Action Plan

### **Progress due to following Action Points:**

- **A4.1** Equality, Diversity and Inclusion is embedded and promoted within the School, including unconscious bias.
- A4.3 Wellbeing and a healthy life balance
- **A4.7** Workload Ensure that the workload model is fit for purpose and fair to all staff, including those who are part-time

# **KP6: Staff Workload and Proportion of Female Staff at School Committees**

## **Progress due to following Action Points:**

- **A3.6** Female representation on committees
- **A4.1** Equality, Diversity and Inclusion is embedded and promoted within the School, including unconscious bias.
- **A4.3** Wellbeing and a healthy life balance
- **A4.7** Workload Ensure that the workload model is fit for purpose and fair to all staff, including those who are part-time

SoCS will seek to increase female representation on SoCS committees and in senior roles. This will be balanced to ensure that, in light of the current gender distribution of staff, female colleagues are not disproportionally overburdened with administrative duties:

- Through SoCS Workload Planning model, providing an overview of roles/responsibilities
- Reallocation of roles/responsibilities to ensure manageable workloads
- Exploring co-leadership of roles

# **Section 3: Future Action Plan**

## Action Plan 2022 - 2027

#### Action Plan 2022-2027 School of Computer Science, The University of Nottingham Abbreviation Key: CS - Computer Science, HoS - Head of School, DoT- Director of Teaching, DoR - Director of Research, HoO - Head of Operations, PGRSA - Postgraduate Research Student Advisor, SAT- Self Assessment Team, EDIC - Equality, Diversity & Inclusion Committee, SOG -School Operations Group ,TC - Teaching Committee, RSG - Research Strategy Group; WIN - Women in Nottingham; FEDIC - Faculty Equality, Diversity and Inclusion Committee Woman in Computer Science Committee (WICS-C) Action Priorities: Purple (HIGH) - Peach (Medium) - Gray (LOW) Description of action Action taken and outcome as of May 2022 Action planned from September 2022 Responsibility Start Date and **Timing** Success Measure 1. Gender balance and representation in UG student population **UG Degree Awarding** Process of degree awarding gap Module data analysis to include gender Chair of EDIC. September 2022 Increase % of good degrees (1st and data collection identified and Exams Officer onwards and 2.1) for females and BAME students Gap statistics. and support team. Chair of agreed. Reporting and Currently strong and no issues review on an towards that achieved by males and responsibilities confirmed. identified but we need to ensure this annual basis. white students in 2026. TC and continues. A1.1 Investigate data by Student Report to be Formal report to examinations In line with KPI14 (SoCS EDI KPI), gender and ethnicity Services completed board. increasing the % of good degree (1st September 2026 (e.g., BAME) on final support. and 2.1) greater than 20:80 BAME: degree achieved. academic year. The average of degree White among UG students attainment gap (gender-only) reported in 2016-2021, is 88%. Analyse module This will require to monitor and data for Currently our Female UG maintain the average of 88% (in period gender/ethnicity students are exceeding the male 2016-2021) and stay strong and stable and information and students with % of good degrees with UG degree awarding gap among trends to detect by 5%. female/male students. emerging patterns and give early warning to concerns.

A1.2	Continue to monitor data by application, offer, conversion, gender and entry to understand why we are recruiting fewer female students.	These data are collected for UG applications and acquired for suitably qualified UCAS applicants nationally.  University online open day and UCAS registration system will allow data to be collected for all attendees to gather gender / diversity information to correlate and inform on UG entry.	Analyse data on offer acceptance by gender and look at destination information by course and institution.  Determine reasons for recent decline in female recruitment and identify measures to address this.  Implement survey of applicants to investigate or consider additional specific interventions on an annual basis, if target growth rate is not being met.  Implement further action and specific interventions if trends indicate issues of concern  Enhance the presence of 'women in computer science' at open days and school's outreach activities	Admissions Officer with assistance from University Recruitment and Admissions team. Chair of TC.	onwards on an annual basis.  Report to be completed January 2027.	Increase % female intake to reach 30% by 2027, which will require an increase (from 18% in 2021/2022) of 2% each year.  Thematic and qualitative exit surveys targeting applicants to be analysed and narratives required to report to SoCS senior management team annually to identify additional measures to address.
A1.3	Plan and organise recruitment and outreach activities to specifically target and attract females.	Assess appeal of publicity and marketing material to female students and effectiveness of targeted scholarships.  Woman in Computer Science Committee (WICS-C) is already established. Further opportunities for promotion of outreach considered.  Working with Faculty communication and content office/marketing to improve the presentation of women in CS – setting up a new webpage woman in computer science – interviews with alumni, female role models in CS, good practice from school of computer science, International Women Day	Review Open Day activities and images used to ensure no unconscious bias.  Explore additional Computerphile videos of female students and staff (researchers and academic).  Posters celebrating inspirational and diverse role models put in prominent places around the School  Positive messages from improved publicity and outreach to be identified and utilised in UG recruitment materials(web/brochure/presentations) [impact assessed in A1.2]  Monitor the female application numbers and work with the marketing and recruitment to improve the acceptance rates	Marketing and Outreach team. Admissions Officer and Marketing support team. Assistance from Student Services and External Relations. Women in Computer Science Committee	September 2022 onwards on an annual basis. Report to be completed January 2027.	Increase % of female population from 16% to 30% by 2026/27 - 3% each year.  Student surveys to be analysed and narratives required to report to SoCS senior management team by 2026 to identify additional measures to address.

Г		Female staff and CS	Continue to recruit female UG		Open Day team	September 2022	Achieve a minimum of 50% of total
	A1.4	Female staff and CS students' involvement in UG recruitment Increase numbers of females involved in Open Days.	Continue to recruit female UG student ambassadors. Include female presentations and increase opportunities for open day engagement with female staff for prospective students.  More presentations from female academics at School's outreach events  April 2022: 5 female students (out of 14 in total) 36% student ambassadors attend the UG recruitment events and open days  October 2021: A group of first year students (21/22 entry) are working on establishing Ada Lovelace Forum where all UG female	Increased the number of female student ambassadors Increase female academics presence at Open Days	Open Day team led by Marketing and Outreach, with support from School Office and Student Services staff.  WICS-C	September 2022 onwards on an annual basis.  Report to be completed September 2026 academic year.	Achieve a minimum of 50% of total female student and staff involvement in UG recruitment by 2026/2027.
	A1.5	Prospective Female UG applicants' attendance at recruitment events	students can join and learn about opportunities for female in CS – Chair of EDI supports the group/forum - presentations at open day April 2022: 5 female students (out of 14 in total) 36% student ambassadors attend the UG recruitment events and open days  Review data and provide recommendations to the School as required if analyses indicate any issues or positive trends that can be built upon.	Open Day and recruitment administrative teams to monitor and report on annual basis.  Thematic exit survey to capture	Open Day team and Admissions Officer with assistance from University Recruitment and	onwards on an annual basis. Report to be completed September	Aim for target of 80% of prospective UG female applicants' attendance of total open day attendees by 2026/27.  Thematic exit surveys targeting applicants to be analysed and narratives
				prospective UG applicants'- Collect data and assess gender split more systematically	Admissions team. WICS-C	2026.	required to report to SoCS Recruitment and Admissions team annually to identify additional measures to address.

<b>A2.1</b>	PGT application and intake data Continue to assess to ensure we attract female students.  Increase PGT Scholarship among female and disadvantaged applicants  Monitor the PGT application and intake	The number of female PGT intake is declined to 28% in 2021 (due to over-recruiting PGT at school, there was no focus on female PGT recruitment)	Ensure data are collected annually and reported to TC. Monitor the PGT application and intake.  Providing more opportunity to wider participation and applicants with protected characteristics	Admissions Tutor and MSc Co-ordinator with assistance from University Recruitment and Admissions team. Chair of TC.	September 2022 reviewed annually.  Report to be completed September 2024	Get back to recruiting females above the Russell Group benchmark. Maintain % female intake at minimum of 10% above RG (CS PGT enrolment HESA data). [reference to Figures 40-45 and maintain the % from 2016-2018]  Increase the PGT Scholarships by 20% among applicants with protected characteristics or disadvantaged socioeconomic status, considering EDI matrix criteria systematically
A2.2	PGR completion times Continue to evaluate to ensure there is no issues with respect to gender bias.	Establishment of PGRSA has assisted with early identification of problems with PhD study for PGR students. Completion rate data analysed and reviewed to identify emerging patterns and any concerns.  COVID affected the PGR completion times.	PGRSA will continue to review completion rates and report to RSG.  Director of PGR to monitor reasons for suspensions and highlight any discrepancies and report to SAT – thematic areas identified as high EDI priorities to consider (Gender, LGBTQ+, Disability, Wellbeing and Intersectionality) (Targeted PGR surveys to capture all above)	PGRSA and DoR as Chair of RSC.	September 2022 and reviewed on an annual basis.  Report to be completed September 2027 academic year.	Overall PGR completion rate within 5 years to be no less than 70% - with female submission of these being no lower that of male by 2026/2027 academic year.  Analyse qualitative surveys to capture reasons for unsuccessful or late completion among PGR with protected characteristics
A2.3	UG to PGT/R Progression and Pipeline Evaluate and review for enhanced Nottingham retention.	Despite offering summer internships and generous scholarships, we are aware that few Nottingham UG CS students' progress to PGT and PGR study at Nottingham.  Some of the reasons are known for this – 4-year MSci degrees and good employability prospects, but the School	SOG to consider exploring a review of Nottingham pipeline to determine what proportion of UG students go onto study elsewhere, including diversity analysis.  To review and undertake annual talks on progression to PhD and school's annual PhD Scholarships/Bursaries to prospective UG and PGT students  Increase the PhD Scholarships to International applicants	Led by DoT and DoR as Chairs of TC and RSG and EDIC  With support from marketing and relevant University Services (careers service and market intelligence).	start date.	Increase the % UG to PGR progression to 20% by 2026/27.

A2.4	PGR welcome and induction  Co-ordinate induction activities and extend best practice to all postgraduate research students.	A comprehensive welcome programme is in place for doctoral training students as part of our Horizon Doctoral Training Centre.  We aim to extend and develop this as best practice to encompass all PhD students within the School.  International PGT welcome event – September 2021  September 2021: A 2-week induction both in person and virtual for all PGT and PGR students with an extra EDI awareness session	Improving participation for disadvantaged students  Identification and removal of any real or perceived barriers to progression, particularly for females – EDI matrix to be added to Scholarship selection criteria  Review to establish measures and benchmark against competitor institutions.  Implement thematic EDI measures in scholarship application process  Review current arrangements for all PhD programmes and instigate an improved induction and welcome programme.  Review and plan for International PGT welcome events to enable international students to get going at UoN and UK  Annual EDI awareness at PGR induction	PGRSA and Director of Research with CDT Training Manager via RSG.	September 2022 and annually reviewed	Increase induction participation and uptake by PGR students. Assessed by actual attendance and feedback (surveys and similar).
3. Staff g	gender balance, repres	entation and career development	and progression			
A3.1	Encourage female applications and appropriate success rate.	Review the interview panel to include more females from all job families in decision-making.  Broaden the pool of applicant to R&T jobs by widening job adverts, checking these for the biased language, and involving more staff in the job specification writing process.  Offer all positions on a parttime basis, where possible.	Check interview panel members have undergone Unconscious Bias and EDI training and put programme of training into place for new panel members.	Head of School and Director of Operations RSC for Research staff. Chair of EDIC	September 2022 and as vacancies arise; and reviewed on an annual basis - Report to be completed by 2026	Achieve an average of 30% of the overall proportion for female applicants for academic posts by 2026/27.  Monitor actions from School of Computer Science's EDI KPI regularly. Impact from KPI1: "All business units are required to review gender balance data by occupational group AND level (where N=10) and to set specific

		Include the interview date on all adverts to allow forward planning around potential family commitments for all applicants and offer Skype/Teams interviews if preferable. Learning from current recruited female academics — why they applied to work at UoN — CompSci — Staff Surveys  Female panel representation on all academic and most research interview panels. Advice taken from HR on wording to ensure free from unconscious gender bias and demonstrate the school's positive attitude to working arrangements.  All recruitment panel members (100%) undergone panel training which includes unconscious bias before they can sit on a panel. This has been a University requirement since late 2020  October 2021: Faculty EDIC provides school with new HR recruitment Toolkits in response to this action				targets where gender imbalance greater than 30:70 (women: men)"
A3.2	Research Careers Pipeline  Support female PhD and postdoctoral research staff considering academic careers. Identify and work to remove perceived barriers to progression.	Obstacles for career progression need to be determined and better understood (survey of PhD and PDRA's).  Woman in CS network expanded to include post-doctoral researchers.  Support is already available via the School's Grant Academy.  Sept 18: Initiate a mentoring programme on how to become an academic and find out who is participating in a mentoring scheme for females. Ensure to rescue the data for female	Explore mentoring opportunities that maybe available through learned societies.  Explore the possibility of a faculty-wide mentoring scheme for female early careers researchers.  Initiate a mentoring workshop.	Director of Staff Development and Director of Research as Chair of RSG and WICS- C	September 2022 and onwards. Report to be completed 2026/27 academic year.	Increase the average of female applicant for level 4 and 5 research posts to 40% by 2026/25.  To develop a 'Career Pipeline' as part of research staff professional Development (by 2025/26)  New 'Research Champion' role at School to support this action point

A3.3	Academic and Research Fellowships  Promote and support fellowship applications by removing barriers to encourage female applicants.  Ensure processes for application are supportive.	applicant for level 4 and 5 research posts.  May 2021: A focus group session with school's research staff - career pipeline was one of the items discussed and reviewed  CS staff have been very successful in obtaining fellowships, which are an excellent way to establish an independent academic career.  Support is already available via the School's Grant Academy, which is a supportive review panel of senior academics, who provide advice on applications for funding, including fellowship grants.  Sept 17: Proposal presented to RSG and reviewed by it. To be presented to school following amendments.	The School will actively promote fellowship opportunities, including those such as the Ann McLaren scheme which targets female early career academics.  The School will explore mentoring for applications with the assistance of the Faculty and assign a female mentor where possible.  Director of Research to present proposal to research committee regarding fellowships  (Pandemic affected the number of fellowships in the past 2 years)	Director of Research as Chair of RSG and School Grant Academy. Director of Staff Development and Director of Research.	September 2022 and onwards as fellowship opportunities arise.  Report to be completed by 2025.	Ensure submission of fellowship applications by female academics each year exceeds the female:male staff ratio, i.e. that there is over-representation of female fellowship applications.
A3.4	Computer Science.	The School hosts and/or participates in the annual Lovelace Colloquium.  We organised the #techmums workshops in July 2016 which is described in sections 5.6 and 7.  Case studies and other activities to promote female role models	The School will explore opportunities to have female speakers for other events and collaborate with other Schools and Faculties to help publicise and champion high profile female role models.  Ensure there is an annual review and update of marketing and publicity material to include role models.  Creating an inclusive and supportive environment  Working towards a more effective mentoring and networking process	Marketing and Outreach team with input from External Relations, Faculty Marketing and EDIC as well as Faculty EDIC	September 2022. Annually reported from the start of the academic year.  Report to be completed by	Host at least one event each year at which a female role model is a keynote speaker.  Link with CS EDI KPI – KPI1

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are on School website and social	cross-institutional networks to	2025/20226 academic year.	
media and Computerphile	support female academics/students	deddefffic year.	
YouTube channel.	Invite role-model female executives		
	guest speakers from academia and		
New WICS-C and the website	industry		
launched (March 2022)	Alumni guest speakers – at women		
ladifored (March 2022)	in STEM events		
	Annual International Women Day		
Cont 47: CAT London and	celebration, annual Lovelace		
Sept 17: SAT Leader and Director of Student Experience	Colloquium.		
collaboration on central poster	Case studies and other activities to publicise female role models on School		
display to highlight male and female role models	website, social media and Computerphile		
lemate role models	YouTube channel		
October 2021:			
Working with Faculty			
communication and content office – marketing - to			
improve the presentation of			
women in CS – setting up a			
new webpage about women in computer science –			
interviews with alumni,			
female role models in CS, good practice from school of			
computer science, Ada			
Lovelace activities,			
International Women Day			

A3.5	Develop specific mentoring procedures for female staff aiming for promotion which may involve staff from outside the School  October 2021:  Work with Director of Staff Development to improve a systematic mentoring support to enhance promotion opportunities for female staff Ensure existing levels of representation are	Encourage female staff to attend/initiate mentoring meetings and join programmes such as Aurora and the University leadership development programme  - Develop initial polices on how to track and evaluate progress  - Staff development and active mentoring support to encourage application for promotion — at school of computer science we have a defined role of 'Director of Staff Development' who provides personal support to staff to prepare for their promotion application  - Targeted workshops based on job families — e.g., L6 and L7 - both at R&T and T&L - to address underrepresentation of applications at these levels  - Promotion action plans for staff to be discussed at ADC. Identify timelines and actions for staff with line managers. Line	HoS and Director of Staff Development	September 2022 and onwards.  Report to be completed by 2026/2027 academic year.	Increase the representation of female staff of level 6 and 7 at greater than 25% of total staff  New dedicated role of Staff Development Director' to support and strengthen promotion applications among female staff
	retained. We will seek further opportunities to involve additional female academics with School committees and to be observers on Faculty committees.	managers to be proactive in encouraging			

		Female representation on	Female academics participate in all School	Encourage female staff to attend/initiate	HoS, DoO and School Operations	Annually from the start of the	Monitor the CS EDI KEPs – KPI8
		committees and in	committees and the numbers	mentoring meetings and join programmes	Group.	academic year	Increase the representation of female
		the decision-making process.	have improved over the past few years.	such as Aurora and the University	Reviewed by SOG 2022.	2022.	academics on school committees and in decision-making progress to 20% by
		p. 00000.	ien years.	leadership development programme.	and SAT annually.	Report to be	2027
						completed September 2025	
			October 2021:	Develop initial polices on how to track and		academic year.	
			School committees now have a	evaluate progress.			
			reasonable gender mix (based on	Look into staff workload and their			
			levels of female staff in CS)	attendance and contribution to			
			without overload of same staff.	committees			
A3	3.6		Promotions Group adjusted in				
			· ·				
			2016/17 to have female	All School committees to have active			
			representation	female involvement in decision-making, in			
			New data report coming in	line with or above female: male staff ratio			
			Staff Tableau dataset in 2019 which will report on	- Provide opportunities for junior female			
			gender/ethnicity balance for	academics to job-share or deputise for			
			committees	leadership of school committees			
				[Note that this needs care to ensure that females are not unfairly over-burdened with administrative work.]			

4. Scho	4. School community, culture, organisation and support								
A4.1	and Inclusion is embedded and promoted and implemented within the School	Unconscious bias briefing took place at School staff meeting in March 2016 Information has been provided on persistent gender bias in science to staff.  EDI representation at Institutional REC (Race Equality Charter) Committee (School's chair of EDI is a member of UoN Institutional REC	Regular reminders and ensure this is part of induction for new staff.  School will host an Equality and Diversity event that will be open to all staff and PhD students.  Improve the inclusive and equitable environment at	of EDIC	September 2022 and onwards. Report to be completed by 2026/2027 academic year.	-School's EDI Surveys (R&T and APM) to be analysed and reported (every 2 years)  -Recruit 2 Data Leads at EDIC: Qualitative and Quantitative Data Leads for analysing surveys regularly by January 2023  -The establishment of thematic EDI sub-groups at EDIC and leadership role for each theme by			

		/  and Athena Swan ISAT)	school			January 2023
	for analysis.	Development of Terms of Reference and Membership for School's EDI Committee in order to implement EDI actions across school — Championships in the areas such as Race, LGBTQ+, Disability and Gender-Balance December 2020: Introduction of 2 new Inclusivity Representative as the first point of address for staff and students  with EDI/Inclusivity concerns September 2021 School's EDI KPI action plan approved October 2021: EDIC Terms of reference and membership to be updated and documented June 2022: Sphere Challenge Conference by CS EDIC — Neurodiversity Awareness2020-2021: Women in Computer Science Project started — website and interview with students and staff ( WICS-C) — The committee now meets monthly to review and plan for related AS actions plans as well as school's EDI KPI	Monitor School and University's EDI KPI Action Plans (2021-2026)			-At least one Sphere Challenge project to be funded annually considering the high EDI priorities i.e. Gender, LGBTQ+, Disability, Wellbeing and Intersectionality  -EDI progress within the School will be assessed via the FoS EDI Maturity Matrix as well as School's EDI KPI
A4.:	Equality, Diversity and Inclusion awareness among UG and PGT population	Student societies HackSoc and Comp Soc are supported financially by the School and are reminded of EDI awareness and importance.  Student societies have been asked to record and provide gender and diversity analysis for events such as HackNotts.  Improve visibility of female and other diverse staff at UG events (cake drops/pizza/Chinese New Year celebrations, PGT/UG induction events).  Feedback on 'Guru' peer support in place with females.  WICS-C expanded through additional workshops and meetings. Sept 17: First focus group done and reported. Follow-up focus group	At school, at least one student-led project to be proposed and funded for implementation of EDI priorities following University EDI strategies  Improved attendance of female at society and network events.	Chair of EDIC, First Year Co- ordinators and SAT and EDIC	September 2022 onwards  Report to be completed September 2026 academic year.	-Increase EDI awareness in UG/PGT student population measured by a student survey annually.  - Link to of Computer Science and University's EDI KPI Action Plans (2021-2026)  - EDI progress within the School will be assessed via the FoS EDI Maturity Matrix as well as School's EDI KPI

		Sept 18: first year student focus group being done again Aimed and female students only.  All new female UG students are offered a female 'Guru' as peer support.  Women in CS network open to all females in School – 2018  Aug 18: Unconscious bias training was delivered in February 2018 and will now be delivered routinely as part of school away day  Mechanism has been established to recruit 2 trainee and 2 full EDI committee members every year from the student body.  Dec 2020: CS Staff EDI/AS survey January 2021: All CS students EDI survey  May 2021: Follow-up focus group with employed researchers at school  September 2021: Increasing EDI awareness among students and staff e.g., EDI awareness with the theme of 'stronger together' across the school for UG, PGT,PGR and CDT students (September 2021), Active Bystanders training at school away day (August/September 2021)  October 2021 - Neurodiversity Awareness First Year UG, PGT across school of computer science the session followed up by Q&A from students and school's chair of EDI  December 2021: Ada Lovelace Society – student led project which was supported by Faculty of Science to create a safe and supporting space for CS UG students  June 2022: Conference organised at SoCS for Neurodiversity Awareness				
A4.3	Athena SWAN engagement and updated with information within School community.	Regular updates are already provided at staff and committee meetings (with student representative members) and on School web pages.  SAT reports and updates are published via the workspace and Athena-SWAN-CS mailing list.	The Athena SWAN Action Plan and implementation of this and progress made will be reviewed.  Regular updates provided at staff and committee meetings	Chair of SAT/EDC, Faculty EDIC	September 2022 and onwards with regular reviews by SAT/EDIC of progress of action plan. FEDIC annual review.	School community (staff and students) is engaged with Athena Swan. This will be evaluated by new participants and volunteers in SAT and related activities such as WICS-C and outreach and future survey and focus group responses.  Recruitment of PGR and PGT representatives at new SAT (2022-2027)

		School uses the Athena logo on email, recruitment and publicity information.  The submission and outcome of the award will be published and promoted to the School community.  March 2021: School's EDI Director took over the SAT lead  Dec 2020: Staff EDI/AS Survey  January 2021: Student EDI Survey  May 2021: Researchers Focus Group Meeting  October 2021: New Data Lead joined the SAT	(with student representative members) and on School web pages and school social media  HoS. DoEDIC to present the action plans (2022-2027) at the school meeting – September 2022  The SAT membership and engagement to be reviewed by School's Director of EDI and HoS		Report to be completed by January 2027.	Review of Terms of Reference and Membership for School's EDI/SAT Committee to create thematic sub-groups i.e., Gender, LGBTQ+, Disability, Wellbeing and Intersectionality – by January 2023
A4.4	Wellbeing and a healthy life balance  is supported and promoted to the whole School community.  Information is available to staff and students on existing School policies and processes. Encouragement of School community in well-being initiatives and	-	Sickness absence reporting will be actively managed, working closely with HR and Occupational Health.  The School will consider and encourage other wellbeing activities and ask for community suggestions.  School supports the Neurodiversity sub-group of EDIC for awareness and facilitate staff and students with Neurodiversity  Working with Neurodiversity and Wellbeing sub-group of	Director of Operations and Head of School via School Operations Group.	September 2022 and onwards with regular reviews by SOG.	Improved sickness management and information on absence, including transparency and support to staff.  Zero level of unexplained absence for staff and lower levels overall.  Increased sense of wellbeing as measured by staff surveys and feedback from focus groups.  University will need to provide advice to School on establishment and benchmarking of this wellbeing related data.  Annual wellbeing and healthy work-life balance workshops/events

	monitor feedback on wellbeing.	pilot open to all staff. The School now has a dedicated student welfare officer (new post) who provides confidential support to both students and staff.  Faculty H&W group formed. CS has fed into this on initiatives current and suggested. 6 MHFA's trained by Feb 19.  2020/2021 Wellbeing support for staff during COVID (HoS and Director of Operation)  May 2021 New Neurodiversity Lead at EDIC to support staff and students  March 2022: HR introduced a 'Return to work Pilot' which is going to be approved and implemented at the school of computer science too.  June 2022: EDIC-led conference on Neurodiversity Awareness — Students and staff to be invited to participate on poster session demonstrations	EDIC, HR Business Partner, and Faculty and University initiatives on wellbeing.  Wellbeing and healthy lifework balance workshops annually			
A4.5	is improved and developed and procedures are in place to ensure that School organisation and support is understood.	remains an important aspect there needs to be a more common and interactive approach for all staff joining the School.  Aug 18: Induction handbook reviewed annually and made available to new starters.	Review of induction procedures and related documentation update Improve induction for new staff Include EDI awareness/training at staff induction – monitor the induction checklist annually for new joiners	Director of Staff Development and Head of Operations via School Operations Group.	Review from September 2022 and then annually. To be completed by January 2023	Increase the positive feedback from new staff on induction arrangements to 80% by 2027. This will be gathered as part of induction follow-up, PDPR quarterly review and regular meetings with line managers (annually).  Include EDI Awareness training as part of Induction package Improvements will be measured via Staff surveys/feedback.

A4.6	Social interaction is improved within School Community.	The School has annual events open to all staff such as end of term social, quiz and Christmas activities. Staff participate in student community activities (see 1.6).  2020/2022 COVID restricted social interaction	Encourage staff to use facilities and attend School social activities regularly. Assess uptake and record attendance. Ask for community suggestions to increase social interaction and activities. Consider establishing a social activities group.  Regular school meetings (weekly) provided a form of social interaction as well as allowing the dissemination of SoCS and UoN information during the pandemic  New actions for increasing the social interaction in the building – social staff common rooms/coffee rooms etc.	Director of Staff Development and Marketing and Outreach Team	September 2022 and onwards with regular review.	Increased participation in social activities and events measured by attendance.  Improvements will be measured via Staff surveys/feedback.
A4.7	Ensure that the workload model is fit for purpose and fair to all staff, including those who are part-time.	The School operates the University workload planning tool.  Individual staff workloads and School context are available and used as part of discussions with reviewees within PDPR review process.  Staff are able to feedback to reviewers and School Operations Group on workload.	Review academic staff workload and gather feedback from reviewers and staff.  Ensure PDPR reviewers are consistent in workload discussions for part-time and staff taking sabbaticals.  Assist University and Faculty in workload plan review and improvement process.  EDIC representative to attend School's WLP review meetings	Head of School and Director of Operations and PDPR reviewers via School Operations Group & EDIC	September 2022 and onwards with annual review.	Report improved staff satisfaction with workload – regular surveys to capture this.

# **EDI KPI – School of Computer Science 2021-2026**

UoN has established a set of institutional targets to monitor and implement EDI across the University for 5 years (2021-2026). Each Faculty (including FoS) created a set of local KPI alongside Faculty's EDI Action-Plan. In Autumn 2021 SoCS created this local KPI in line with other departments. See table below our proposed EDI targets, some of which are also reflected in School's Athena Swan's future Action-Plan (2022-2027)

EDI KPI : School of Compute	r Science 2021-2026		
Local Expectation	Faculty Target Set / Reason for not setting target	SoCS Targets and Actions	Current Position / Target at SoCS
KPI1: All business units are required to review gender balance data by occupational group AND level (where N=10) and to set specific targets where gender imbalance greater than 30:70 (women:men)	The FoS gender balance is 40.2:59.8 (F:M) (2019), specific school variance exists within FoS.  A commitment to monitoring and progressive focus on gender balance is made to drive ratios to a more balanced position over the next 5 years.	SoCS gender split in 2020: All job families: 33:76(F:M) R&T-only the split is 20:80(F:M)  Relevant EDI Action Plan items are listed below. These will be supported by regular collection and reporting of relevant data to the senior management of the school. Some of the actions relate more to the long-term pipeline of women computer science  SoCS' Action Plan is largely based on the previous AS plan (2017), with relevant actions expanded (2022 renewal application) where appropriate to encompass additional cross-sectional characteristics.  KPI1_A1: Staff gender balance and representation career development and progression	Target: 30:70 (R&T)

- The R&T job family is significantly overrepresented by male staff, and generally, females are overrepresented in the lower end of the grade spectrum for all job families. This will be monitored locally as input to the overall portfolio view.
- SoCS will review this measure annually.
- A review of the SoCS' academic recruitment tools will be undertaken as part of a wider HR review of recruitment microsites.
- Removing the cut-paste approach in writing job applications
- Improving the recruitment process to encourage the equal criteria for all from job applications to the interview and selection. We will work with all SoCS staff as well as school's senior management to understand barriers to recruitment and progression.

# KPI1\_A2: Recruitment processes for staff

- Review the interview panel to include more female from all job families in decision makings
- Female panel representation on all academic and most research interview panels. Advice taken from HR on wording to ensure free from unconscious gender bias and demonstrate the school's positive attitude to working arrangements.

Problem: Low numbers of women applying for advertised R&T positions at levels 5 and above Actions:

- Broaden the pool of applicant to R&T jobs by widening job adverts, checking these for the biased language, and involving more staff in the job specification writing process.
- Offer all positions on a part-time basis, where possible.

- Include the interview date on all adverts to allow forward planning around potential family commitments for all applicants and offer Skype/Teams interviews if preferable.
- Finding solutions to encourage female to apply for these jobs!
- Learning from current recruited female academics why they applied to work at the SoCS

### KPI1 A3: Female role models

- Creating an inclusive and supportive environment
- Working towards a more effective mentoring and networking process
- cross-institutional networks to support female academics/students
- Invite role-model female executives guest speakers from academia and industry
- Alumni guest speakers at women in STEM events
- Annual International Women Day celebration, annual Lovelace Colloquium.
- Case studies and other activities to publicise female role models on School website, social media and *Computerphile* YouTube channel.

**KPI1\_A4:** Female representation on committees and in the decision-making process

Female academics participate in all School committees and the numbers have improved over the past few years.

• The DTL (2019), HoO(current) and Senior Tutor (current), Chair of EDIC (current), Director of Horizon (current),

		Director of PGR/ chair of PGR-LCF(current), are all female and our 2 female Professors are heads of research groups  KPI1_A5: AS engagement  Regular updates provided at staff and committee meetings	
		(with student representative members) and on School web pages and school social media Review of Terms of Reference - ToR and Membership for School's EDIC membership to champion each member responsible for the actions of departmental and institutional AS	
KPI4: All business units are required to review race balance data by occupational group AND level (where N=10) and to set specific targets	FoS BAME representation stands at 19.8% (2019).  FoS has agreed an aspirational target to	The current overall BME representation in SoCS stands at 17.4% BME, 7.8% unknown and 75.2% white. In addition, the BAME Recruitment success in SoCS has been 4% - Reported data from Tableau on the staff profile by filtering the BAME in SoCS for current staff	Current position:  17.4:7.8:75.2 (BME:Unknown:White)  Target: 20:80
(minimum of 1% increase per year) where race imbalance is greater that 20:80 (BAME:White)	increase by 1ppt p/a over 5 yrs. to 25% BAME.  This is a 25% increase in representation over a 5-year	The cross-sectional BAME/Gender representation in the school of computer science stands at 13.2% BAME Female, 77.8% White Female and 7.9% Unknown Female. 19.5% BAME Male, 7.8% Male Unknown and 69% Male White.	Target . 20.60
	period. Chemistry, Maths, Physics and Psychology are all unfavourable to a base target of 80:20 ethnicity mix, and targets should be considered in these areas.	Faculty of Science current rate: 17.1/82.2 (BME/White)  School will monitor the BME:White rate across all job families closely to reach the Faculty's target of 20:80 . The following EDI Action Plan items may help to move closer towards this target.  KPI4_A1: School community, culture, organisation and support – EDI awareness	
		Increasing EDI awareness among students and staff e.g., EDI awareness with the theme of 'stronger together' across the	

		school for UG,PGT,PGR and CDT students (September 2021), Active Bystanders training at school away day (2021)  Improving the inclusive and equitable environment at school  EDI representation at Institutional REC (Race Equality Charter) Committee (School's chair of EDI is a member of UoN Institutional REC and AS ISAT)  Development of ToR and Membership for School's EDIC in order to implement EDI actions across school — Championships in the areas such as Race, LGBTQ+, Disability and Gender-Balance  KPI4_A2: BAME role models Looking into role models in the school — follow-up same actions for KPI1	
KPI8: Set local specific targets towards ensuring that applicant numbers for level 6 and 7 roles reflect applicant pool of level below. (Recruitment: gender only)	Women constitute 33% of applicants for level 5, and 13% for level 6. This compares with a representation in the level below the applied for level of 36.9% and 30.7%.  As such the application rate at L5 is consistent but the level 6 application rate is underrepresented by women relative to the grade below.	Looking at Workforce Profile Trend in computer science, the 2020's representation of F:M across levels 5,6,7 (R&T) job families is as below:  L5: 22:78 (F:M) > 6:21 (numbers) L6: 20:80 (F:M) > 3:12 (numbers) L7: 13:87 (F:M) > 2:13 (numbers) This shows the reduction in female presentation at L6 and L7 across the school.  On the other hand, the average of female applicants across all job families in Computer Science is 28.69%. While the average of female applicants for R&T5 roles is 15.57% and for R&T6 roles is 14.35%. These numbers are below the average representation of females in R&T roles in SoCS.	
	The level 7 data does not allow for accurate trend analysis.	An average of 10.13% of female applicants are successful, at all job families, compared with 7.2% of male applicants.	

	<ul> <li>Promotion action plans for staff to be discussed at ADC.         Identify timelines and actions for staff with line managers.         Line managers to be proactive in encouraging promotion applications</li> <li>Follow the same actions as described in KPI1 to address underrepresented rate of female applications for promotion at L5 and L6 by institutional and cross-institutional rolemodels and mentors</li> </ul>	
2019 academic applicant pool data (%)  Promotion data is for R&T, T&L and Research only routes. Therefore, workforce data comparison is for these job families only.	Gender Since 2015, an average of 50% of female promotion applications have been successful while 87.22% of male promotion applications have been successful. During the same period, 21.05% of promotion applications were submitted by female colleagues with 78.95% from males. This is higher than the gender balance in the R&T job family but requires further data to remove R&T4 colleagues from the total gender balance data, R&T4 are less likely to apply for promotion and may be influencing the data.	Increase the representation of female staff of level 6 and 7 at greater than 25% of total staff
P T d je	Promotion data is for R&T,  &L and Research only outes. Therefore, workforce lata comparison is for these	applications  Follow the same actions as described in KPI1 to address underrepresented rate of female applications for promotion at L5 and L6 by institutional and cross-institutional role-models and mentors  Gender Since 2015, an average of 50% of female promotion applications have been successful while 87.22% of male promotion applications have been successful. During the same period, 21.05% of promotion applications were submitted by female colleagues with 78.95% from males. This is higher than the gender balance in the R&T job family but requires further data to remove R&T4 colleagues from the total gender balance data, R&T4 are less likely to apply for promotion and may be influencing the data.

- Level 6 promotions applicants: 31% female 69% male
- 80% of females who applied were successful compared to 90% of males
- females make up 29% of successful promotions.

Workforce profile level 5: 36% female and 64% male.

The application rate for promotion to Level 6 is consistent with the pool of staff in level 5 (31% to 36%).

### Ethnicity:

- Level 6 promotions: 94% white and 6% of applicants were BAME.
- No successful promotions of those who applied.
- Workforce profile level
   5: 16% BAME, 7%
   Unknown, 77% White

# **Disability:**

 No disabled applicants for promotions in 2020. 50% of promotion applications from BAME colleagues were successful (both female and male). 100% of applications from white female applicants were successful, as were 90 of applications from white male applicants.

Total promotion applications by ethnicity are broken down as follows:

BAME – Male – 8.7% BAME – Female – 4.35% Unknown – Male – 4.35% White – Male – 69.57% White – Female – 13.04%

Further data about the ethnicity breakdown of all staff is required to do a comparison.

#### Actions:

Same actions as KPI8\_A

• Workforce profile level 5: 2% declared disabled, 95% no disability, 3% **PNTS** Note – The data on colleagues who identify as with a disability doesn't provide sufficient detail to identify trend. This should be an ongoing watch monitor for all promotion activity within the faculty. For disability, ethnicity and gender, the faculty will aim to ensure that applicants for promotions to levels 6 and level 7 roles are reflective of the workforce profiles in levels 5 and 6 in each School.

# Appendix 1: Culture survey data

We acknowledge that this appendix is substantial. Important and relevant finding from the cultural surveys have been included in the main sections of this application. The decision to include the full analysis, particularly of the rich qualitative data obtained, is to assist SoCS Management in the future development of EDI awareness and advancement.

## Appendix 2: Data Tables (2017-2022)

## Staff Data

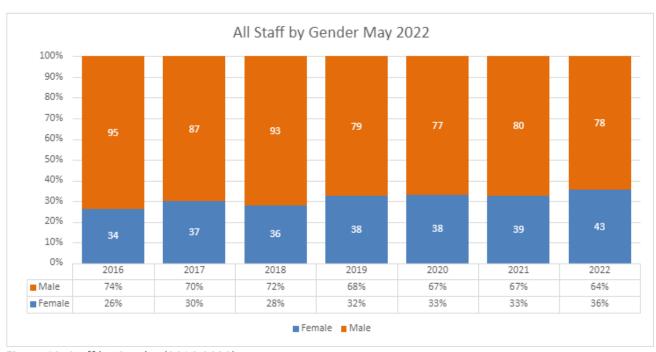


Figure 13: Staff by Gender (2016-2022)

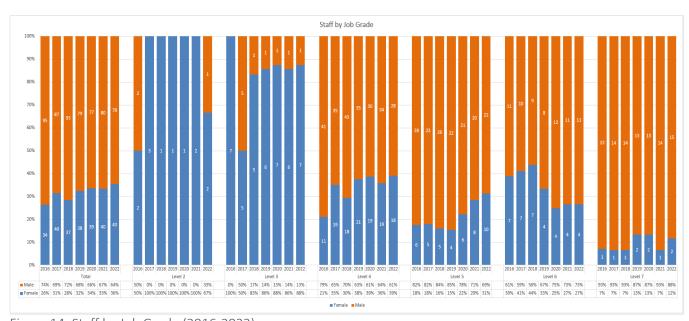


Figure 14: Staff by Job Grade (2016-2022)

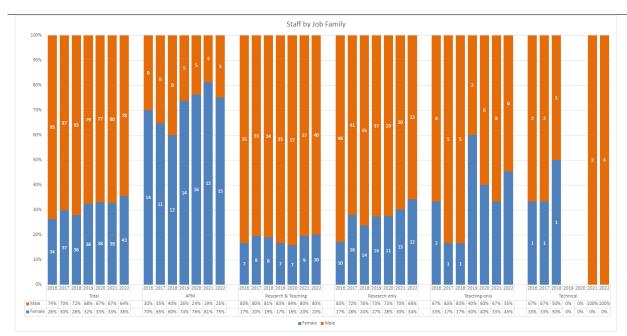


Figure 15: Staff by Job Family (2016-2022)

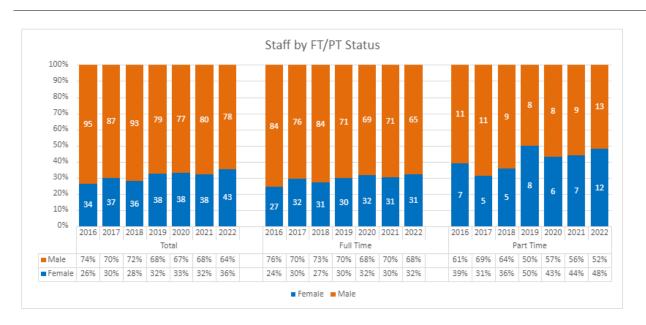


Figure 16: Staff by Full-time/Part-time Status (2016-2022)

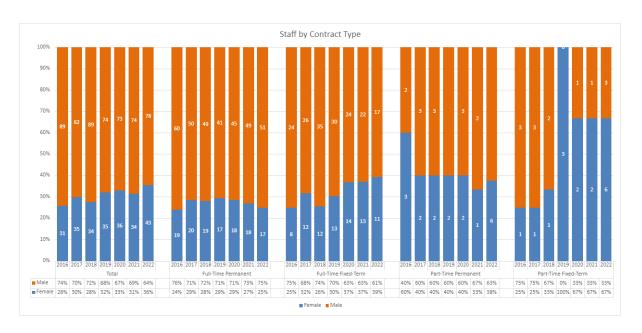


Figure 17: Staff by Contract Type (2016-2022)

## Staff Recruitment/Application Success Rate for Promotion

		Applications			Shortlisted			Offered			Accepted		
		Female	Male	Unknown /Prefer not to say	Female	Male	Unknown /Prefer not to say	Female	Male	Unknown /Prefer not to say	Female	Male	Unknown /Prefer not to say
Level 4 Associate / Fellow	2016	53	143	9	18	33	2	4	11	1	4	11	1
	2017	62	111		18	21		10	6		9	6	
	2018	104	267	11	33	75	2	8	26	1	5	21	1
	2019	33	81	5	11	31	1	6	8	0	5	7	0
	2020	21	88	1	4	14	1	1	6	0	1	5	0
	2021	69	113	4	12	31	0	6	10	0	6	8	0
Level 5 Assistant Professor /Senior Fellow	2016	20	129	5	4	20	0	1	7	0	1	7	0
	2017	18	76	2	6	11	1	1	2	0	1	2	0
	2018	4	20	1	2	5	1	1	2	0	1	2	0
	2019	7	16		1	4		0	1		0	1	
	2020	25	98	3	5	17	0	3	5	0	3	3	0
	2021	29	134	5	5	14	1	3	3	0	3	2	0
Level 6 Associate Professor	2016												
	2017												
	2018	7	15	2	2	4	0	0	0	0	0	0	0
	2019	14	76		1	15		0	6		0	4	
	2020	6	83	4	2	10	0	1	6	0	1	6	0
	2021	1	18	1	0	1	0	0	0	0	0	0	0

Table 9: Academic Staff Recruitment (2016-2021)

	Applications			Shortlisted		Offered				Accepted			
		Female	Male	Unknown /Prefer not to say		Male	Unknown /Prefer not to say	Female	Male	Unknown /Prefer not to say		Male	Unknown /Prefer not to say
	2016	20	8		7	1		1	1		1	1	ı
APM/TS Staff	2017	9	10		4	1		2	0		2	C	)
	2018	41	19	1	17	5	0	3	1	0	3	1	0
	2019	15	2		6	1		2	1		2	1	ı
	2020	29	56	1	13	9	0	2		0	2	1	0
	2021	47	14	1	13	3	0	6	0	0	6	C	0

Table 10: APM and TS Staff Recruitment (2016-2021)

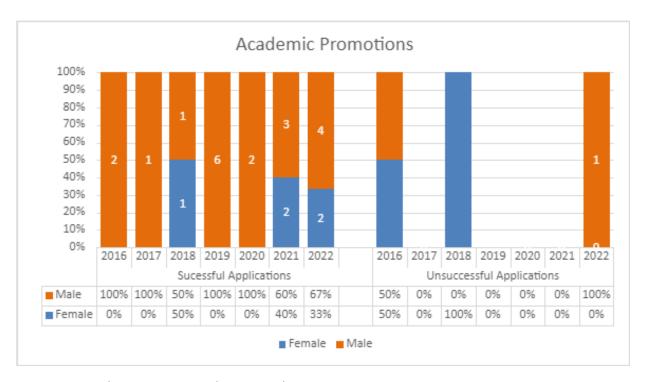


Figure 18: Academic Promotions (2016-2022)

In addition to Academic Promotions, in the same period one female member of APM staff has been regraded, in 2021, with no unsuccessful applications.

# UG, PGT and PGR Students Data

## Number of undergraduate students by gender

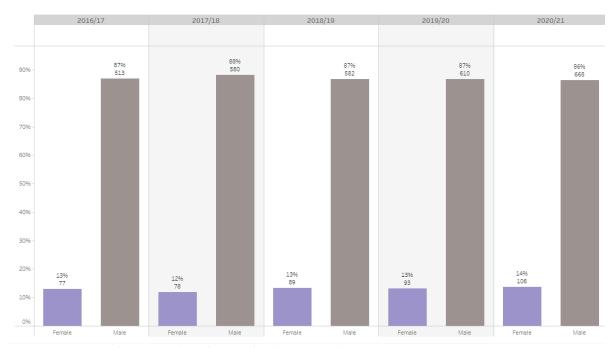


Figure 19: UG Students Numbers by Gender (2015-2021)

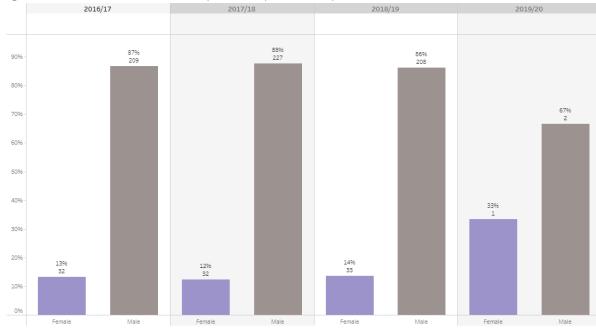


Figure 20: UG Students Numbers by Gender (2015-2021) – G400 Computer Science

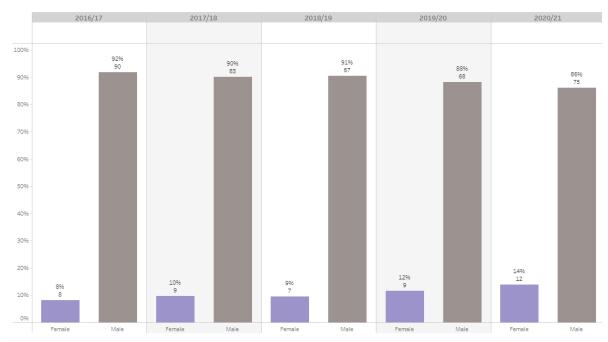


Figure 21: UG Students Numbers by Gender (2015-2021) – G404 Computer Science

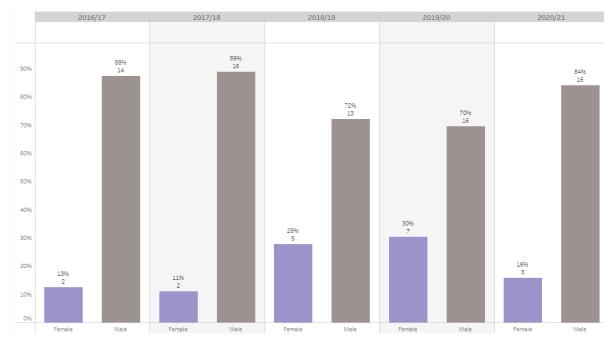


Figure 22: UG Students Numbers by Gender (2015-2021) – G406 Computer Science including International Year

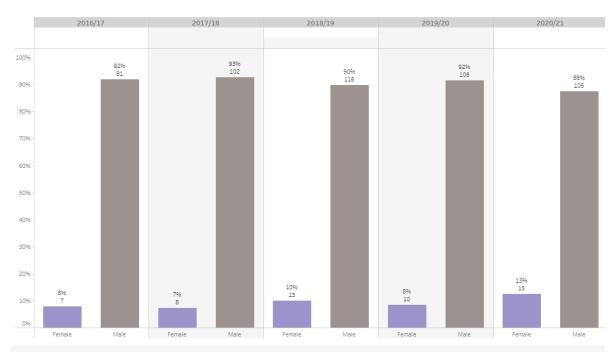


Figure 23: UG Students Numbers by Gender (2015-2021) - G407 Computer Sciences with Year in Industry

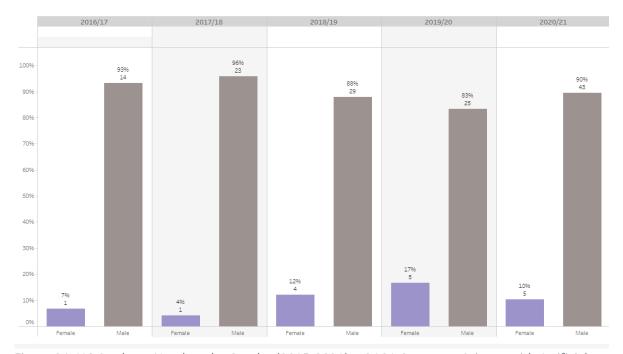


Figure 24: UG Students Numbers by Gender (2015-2021) - G4G1 Computer Science with Artificial Intelligence

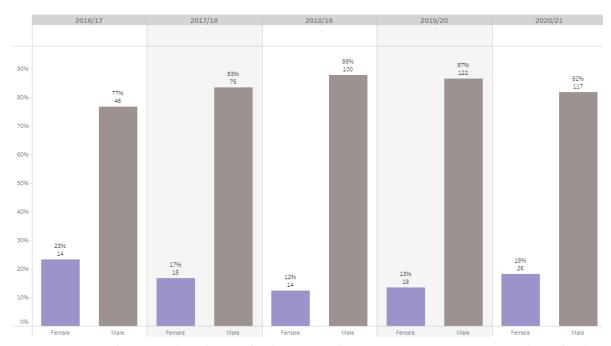


Figure 25: UG Students Numbers by Gender (2015-2021) - G4G7 Computer Sciences with Artificial Intelligence

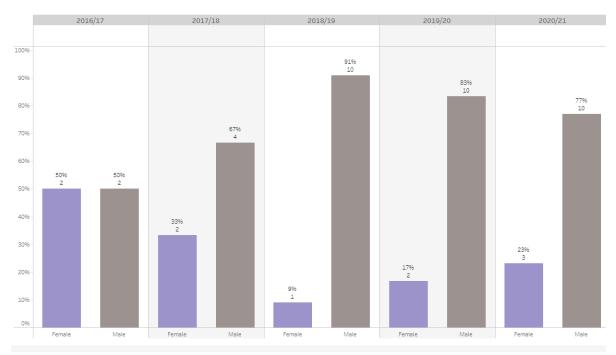


Figure 26: UG Students Numbers by Gender (2015-2021) - G4GAComputer Science with Artificial Intelligence including International Year

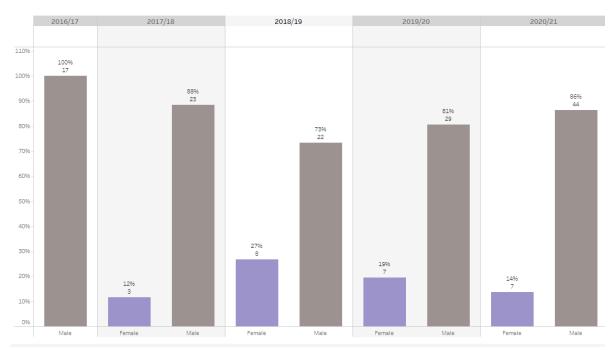


Figure 27: UG Students Numbers by Gender (2015-2021) - G4GBComputer Science with Artificial Intelligence with Year in Industry

## **UG** Applications Data

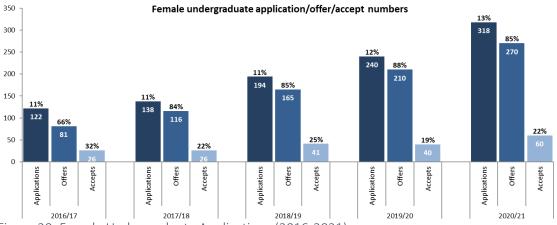


Figure 28: Female Undergraduate Applications (2016-2021)

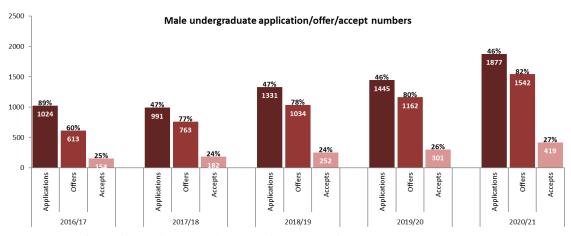


Figure 29: Male Undergraduate Applications (2016-2021)

### UG Female Population Comparision with Russell Group

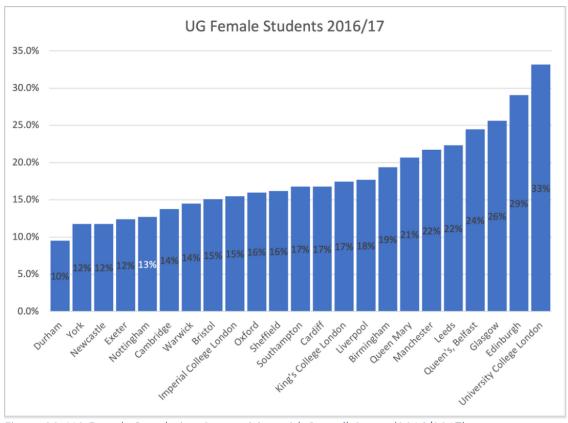


Figure 30: UG Female Population Comparision with Russell Group (2016/2017)

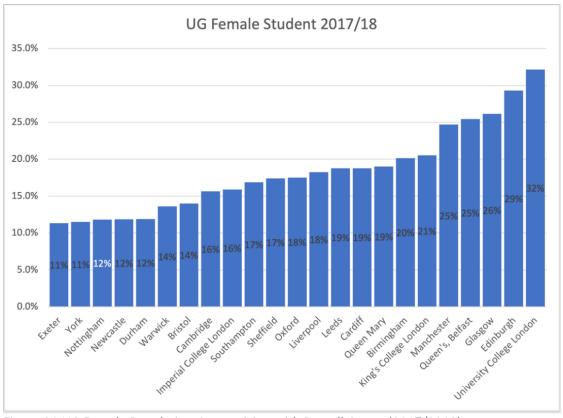


Figure 31 UG Female Population Comparision with Russell Group (2017/2018)

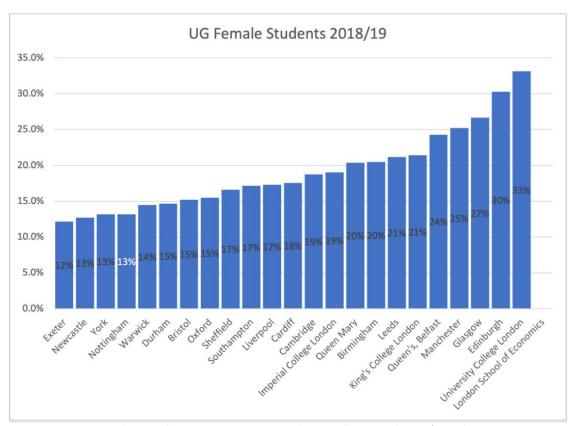


Figure 32 UG Female Population Comparision with Russell Group (2018/2019)

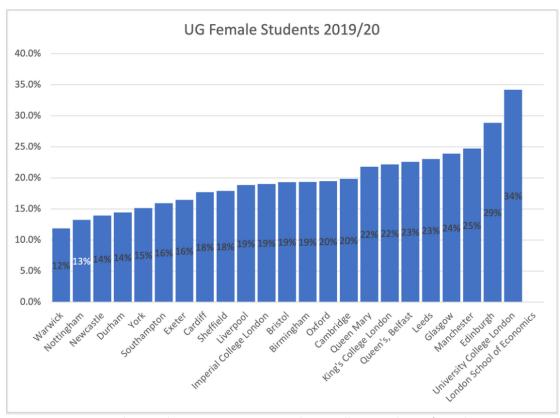


Figure 33: UG Female Population Comparision with Russell Group (2019/2020)

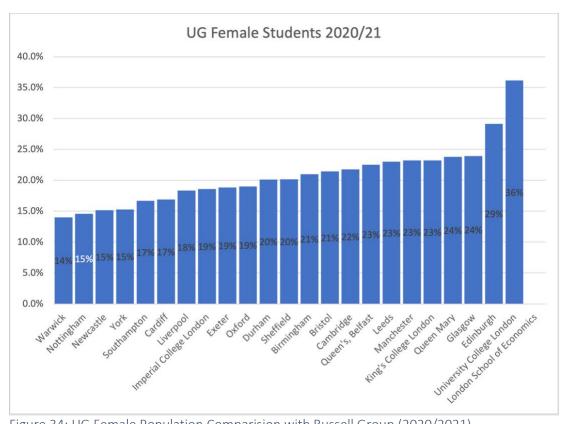


Figure 34: UG Female Population Comparision with Russell Group (2020/2021)

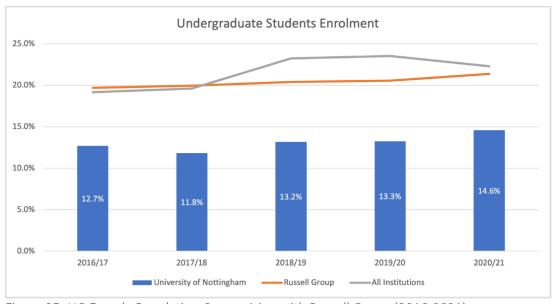


Figure 35: UG Female Population Comparision with Russell Group (2016-2021)

## Number of postgraduate taught students by gender

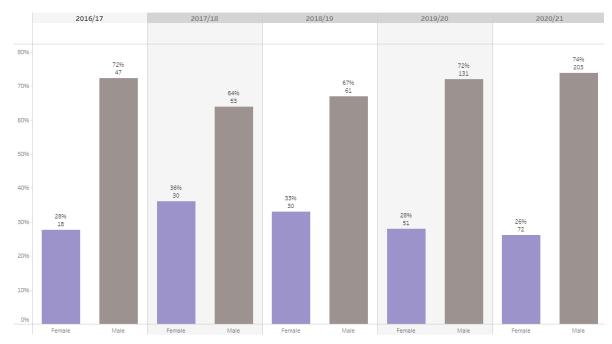


Figure 36: Full-Time PGT Students Numbers by Gender (2015-2021)

## **PGT Applications Data**

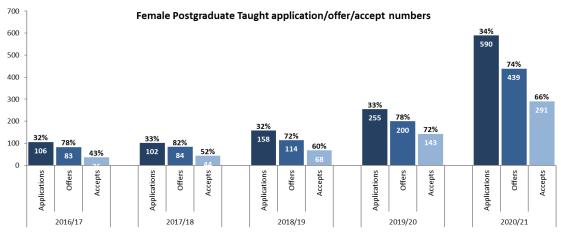


Figure 37: Female Postgraduate Taught Applications (2016-2021)

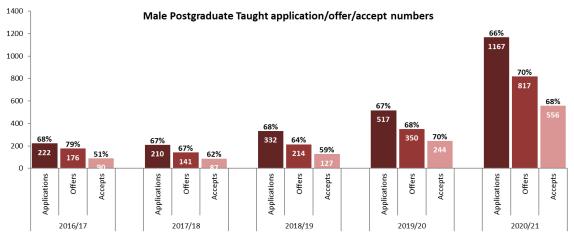


Figure 38: Male Postgraduate Taught Applications (2016-2021)

### PGT Female Population Comparision with Russell Group

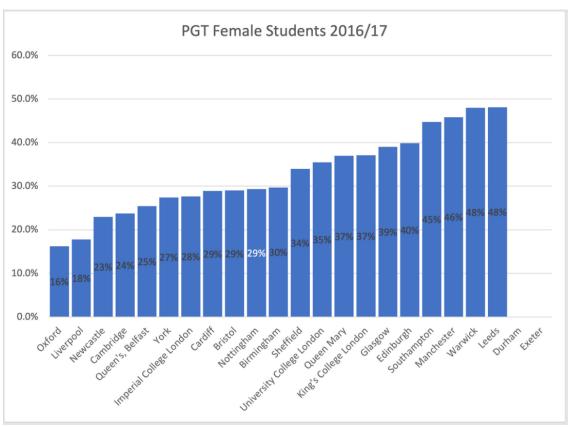


Figure 39: PGT Female Population Comparision with Russell Group (2016/2017)

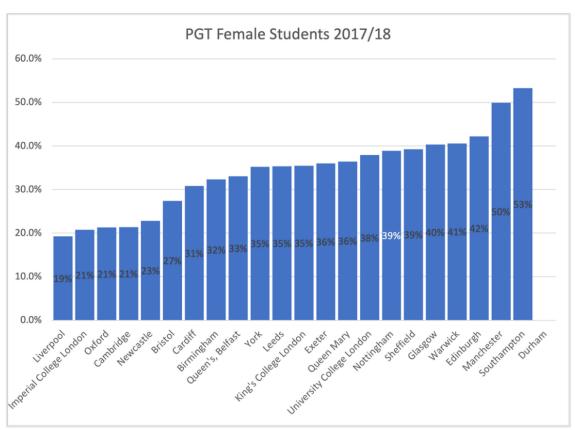


Figure 40: PGT Female Population Comparision with Russell Group (2017/2018)

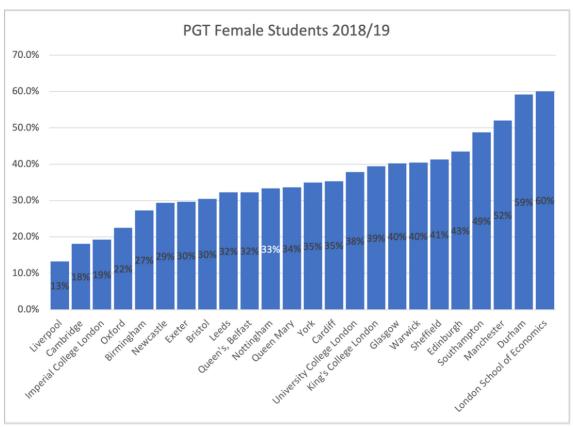


Figure 41: PGT Female Population Comparision with Russell Group (2018/2019)

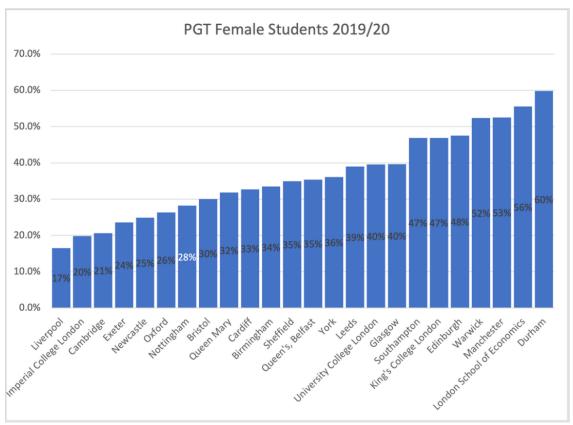


Figure 42: PGT Female Population Comparision with Russell Group (2019/2020)

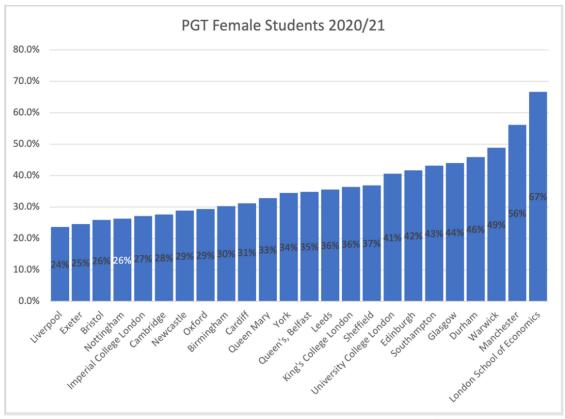


Figure 43: PGT Female Population Comparision with Russell Group (2022/2021)

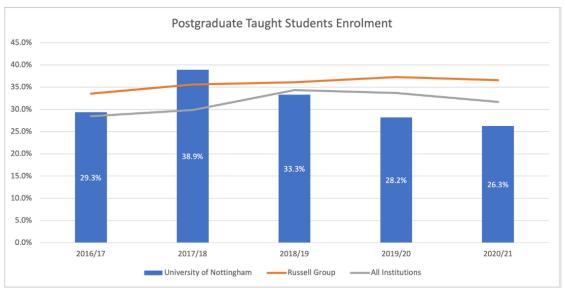


Figure 44: PGT Female Population Comparision with Russell Group (2016-2021)

## Number of postgraduate research students by gender

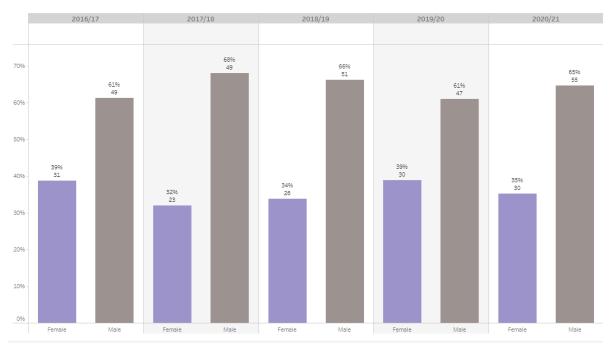


Figure 45: Full-Time PGR Students Numbers by Gender (2015-2021)

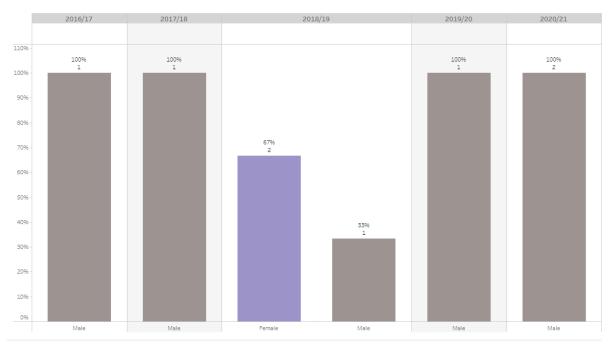


Figure 46: Part-Time PGT Students Numbers by Gender (2015-2021)

## **PGR Applications Data**

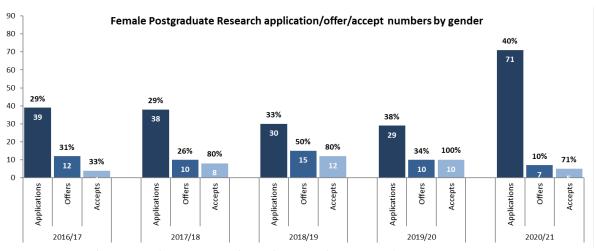


Figure 47: Female Postgraduate Research Applications (2016-2021)

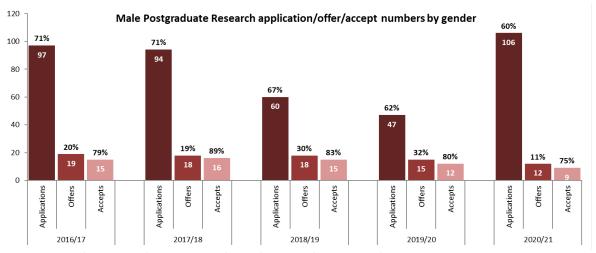


Figure 48: Male Postgraduate Research Applications (2016-2021)

#### PGR Female Population Comparision with Russell Group

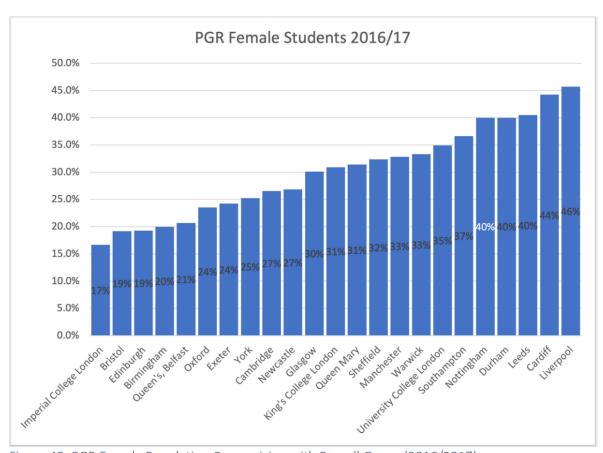


Figure 49: PGR Female Population Comparision with Russell Group (2016/2017)

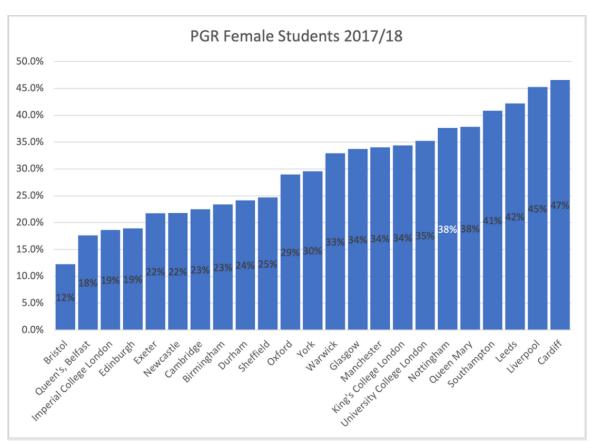


Figure 50: PGR Female Population Comparision with Russell Group (2017/2018)

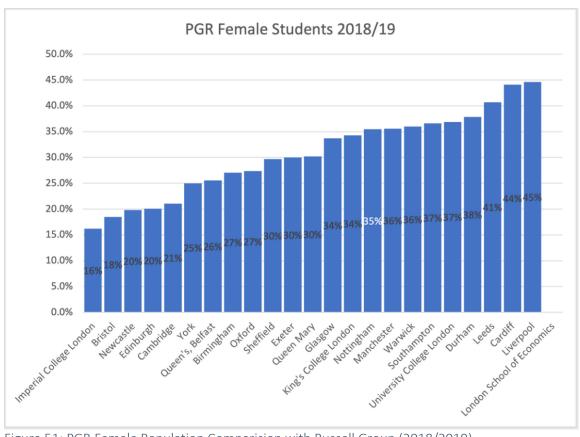


Figure 51: PGR Female Population Comparision with Russell Group (2018/2019)

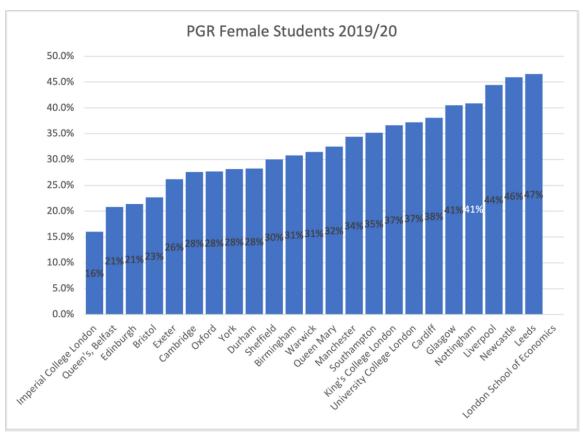


Figure 52: PGR Female Population Comparision with Russell Group (2019/2020)

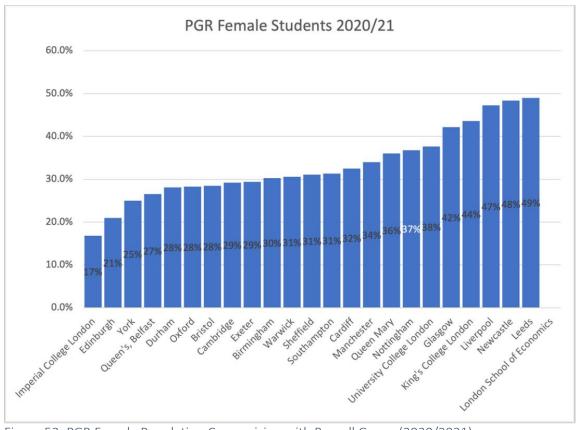


Figure 53: PGR Female Population Comparision with Russell Group (2020/2021)

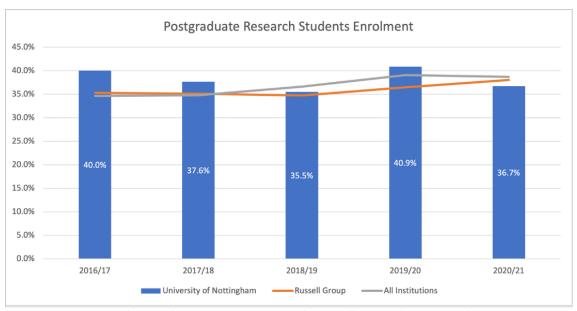


Figure 54: PGT Female Population Comparision with Russell Group (2016-2021)

## **PGR Completion Rates**

Female (FTE) PGR Competions (as % of cohort)								
Cohort	3 Years	3.5 Years	4 Years	4.5 Years	5 Years			
(start year)								
2013/2014	1.0 (11%)	1.0 (11%)	5.1 (55%)	5.1 (55%)	5.1 (55%)			
2014/2015		1.1 (13%)	4.8 (55%)	6.1 (69%)	3.6 (40%)			
2015/2016			3.0 (36%)	3.0 (36%)	2.0 (24%)			
2016/2017			0.3 (6%)	2.2 (38%)	1.2 (21%)			
2017/2018			1.0 (17%)	3.0 (50%)	n/a			

Table 11: Completion Rates of Female PGR Students

Male (FTE) PGR Competions (as % of cohort)									
Cohort	3 Years	3.5 Years	4 Years	4.5 Years	5 Years				
(start year)									
2013/2014		2.6 (14%)	11.3 (60%)	11.8 (63%)	10.8 (58%)				
2014/2015	2.0 (16%)	2.0 (16%)	6.5 (52%)	8.3 (66%)	8.3 (66%)				
2015/2016	1.7 (11%)	2.7 (17%)	9.2 (57%)	11.0 (69%)	10.2 (64%)				
2016/2017	1.0 (9%)	4.0 (34%)	5.5 (47%)	8.6 (74%)	8.6 (74%)				
2017/2018		1.0 (5%)	3.4 (18%)	9.1 (49%)	n/a				

Table 12 Completion Rates of Male PGR Students

## **Appendix 3: Glossary**

ADC - Appraisal and Development Conversation (annual appraisal reviews)

ADHD - Attention Deficit Hyperactivity Disorder

ALS - Ada Lovelace Society

APM - Administrative, Professional and Managerial staff

AS - Athena Swan

ASD - Autism Spectrum Disorder

BAME – Black, Asian, and Minority Ethnic

CDT – Centre for Doctoral Training

CHART - Cyber-Physical Health and Assistive Robotics

COL - Computational Optimisation and Learning

CVL - Computer Vision Laboratory

CybSec – Cyber Security

DoEDI – Director of Equality, Diversity and Inclusion

DoR - Director of Research

DSD – Director of Staff Development

DTL - Director of Teaching and Learning

EDIC - Equality, Diversity and Inclusion Committee

ESE – Education and Student Experience

FLG - Faculty Leadership Group

FoS – Faculty of Science

FP - Functional Programming

FT - Full-Time

HESA - Higher Education Statistics Agency

HoO - Head of Operations

HoS - Head of School

HR - Human Resources

IMA - Intelligent Modelling and Analysis

**KPI - Key Performance Indicators** 

LUCID – Lab for Uncertainty in Decision Making

MRL – Mixed Reality Laboratory

NUAST – Nottingham University Academy of Science and Technology

O365 - Microsoft Office 365

PCC – People and Culture Committee

PDRA - Post-doctoral Research Assistant/Associate

PGR - Post-Graduate Research

PGT – Postgraduate Taught Students

PT – Part-Time

PVC - Pro-Vice Chancellor

R&T – Research and Teaching staff

RAG - Red, Amber, Green ranking system

REC - Race Equality Charter

RG – Russell Group

SAT – Athena Swan Self-Assessment Team

SDP - Strategic Delivery Panel

SMART - Specific, Measurable, Attainable, Relevant, Time-Based

SoCS – School of Computer Science

SPC - Strategic Planning Committee

ToR – Terms of Reference

TS - Technical Services staff

UEB - University Executive Board

UG - Undergraduate Students

UoN – University of Nottingham

WICS-C - Women in Computer Science Committee