#### Minerva Award Submission

# Gender equality initiatives and policies to develop the careers of female faculty, including retention and promotion

June 2022

#### **WE-CARE**

## (Women Empowerment - CAreers and REcognition)

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This submission can be considered as a runner up (if it does not win the award) and be included as an exemplar of best practice in future Informatics Europe publications.

#### **Abstract**

In 2020, Brunel Computer Science was awarded Athena SWAN Bronze Award a second time in recognition of the support for gender equality in the department. The WE-CARE programme has its roots in this Athena SWAN action plan and aims to empower women to achieve the careers and the recognition they deserve. WE-CARE has established three strategic aims supporting the recruitment, development, and progression of women and embedded the resulting initiatives into the operation of our department. As a result, our team of 48 full-time academics comprises 33% of women, achieving one of the highest representation rates in the UK<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> https://www.codingame.com/work/press/en-press-release/just-15-of-academic-staff-in-computer-science-faculties-of-the-uks-top-25-universities-are-women/

#### **WE-CARE Programme**

The lack of women in Computer Science is a well-known problem and affects every stage of the pipeline from undergraduate to post-graduate and academic representation in the faculties across the globe. In 2020, Computer Science was awarded Athena SWAN Bronze Award a second time in recognition of the strength of the support for gender equality in the department<sup>2</sup>. The WE-CARE programme started as a response to the following issues recognised by the department:

- 1. Advertised academic posts receive far fewer numbers of women applicants than men.
- 2. Women may seek leadership opportunities less or take on higher administrative loads, leaving less time for career-enhancing research.
- 3. Women apply for promotion less and do not progress in equal proportions as men to professor grades and feel less supported in their career progression.

To address these challenges, we have focused on three strategic aims – "Improve Recruitment," "Improve Work Experience," and "Support Career Development."

#### Strategic Aim 1 – Improve Recruitment

We ensure that job adverts use gender-neutral language using suitable tools (such as gender-decoder)<sup>3</sup>. Roles are advertised on the University website, jobs.ac.uk and on the WISE network. We also advertise posts with women-only career networks like ACM-W Europe and encourage our early-career staff of PDRAs (Post-Doctoral Research Associates) to apply for roles. The selection panel chair (head of the department or their nominee) ensures selection panels have a balanced gender profile representative of the Department. Selection panels consider the diversity of the shortlists compared to the applicant pool. Since August 2018, the panels aimed to shortlist women in proportion to applications received but with an aspiration wherever feasible to shortlist 50/50. The department recruitment panels have approached this by being more flexible on research/teaching expertise without compromising on the criteria stated in the job description.

#### Strategic Aim 2 – Improve Work Experience

We have identified workload transparency, job sharing, and flexible working as the major contributors to improving the work experience for women.

**Workload Transparency:** An online survey is circulated allowing everybody to give feedback on their workload allocation preferences that cover all teaching and named management responsibilities, including mentoring and work on improving diversity, equality, and inclusion. The Department has a long track record of providing transparency in workload allocation by openly sharing the teaching and administration duties of all staff in a spreadsheet. The Department also led the way by conducting a comparative analysis of workload by gender and grade, based initially on a rubric designed by the 2016 Self-Assessment Team (SAT) members. The University has since invested in the Workload Allocation Management (WAM) System, which allows for a more fine-grained evaluation. Computer Science was the first Brunel department to fully adopt WAM in 2018/19.

**Role Sharing:** To encourage more people, especially women, to engage in departmental leadership, the Department introduced a role share option.

**Flexible working**: The staff of all grades may make an agreement with their line manager around flexible working and work from home. However, any change to contracted hours must still be approved through a formal Human Resources (HR) process.

<sup>&</sup>lt;sup>2</sup> https://www.brunel.ac.uk/news-and-events/news/articles/Computer-Science-gender-equality-certified

<sup>&</sup>lt;sup>3</sup> This tool was inspired by Kay et al, Evidence That Gendered Wording in Job Advertisements Exists and Sustains Gender Inequality, Journal of Personality and Social Psychology, 2011, Vol 101(1).

#### Strategic Aim 3 – Support Career Development

We have introduced several initiatives for all academic staff to support career development at every stage. We have also provided, based on the identified needs in our Athena SWAN action plan, specific support for women. Our goal is to create an environment where our women academics feel believed in, encouraged, nurtured, and championed to achieve their full potential.

**Welcoming Environment:** We understand that staff must be provided with the necessary knowledge to be able to make a positive contribution to the department. To this end, in addition to university-central induction and training sessions, we created a Department Welcome Pack, in consultation with the management team and new staff members. Considering the new findings in gender differences in question-asking behaviour<sup>4</sup> we have hoped to give our new women colleagues an overview of all aspects of working in our department. We also organise a Welcome Lunch in the department so the new staff can meet everybody in an informal setting around a lunch buffet. We opted for a lunch event to be considerate of staff who are parents, and carers.

**Personal Development:** All staff have an annual professional development review (PDR), which is a light-touch process and serves as an opportunity to discuss goals, aspirations, and challenges and how these are aligned to the strategic goals of the university. The aim is to ensure that academics progress against their objectives while maintaining an appropriate work-life balance. Especially important for women is that the process is adaptable to career breaks. In addition, Athena SWAN Research Awards support academics and research staff who have had a period of maternity leave, statutory adoption leave, or significant additional paternity/adoption leave as they recommence their research. The University also funds women to participate in the <u>Aurora leadership programme</u>.

**Effective Mentoring**: We strive towards a knowledge-sharing environment in the department, encouraging collaboration, communication, and improved networking. To this end, we have initiated group mentoring on teaching and research. The teaching support sessions are led by a Director of Teaching (woman), and the Director of Research (man) leads research mentoring sessions.

**Promotion Support:** The Department has three progression pathways for academic staff: (i) research-only, (ii) research and teaching and (iii) educational academic. The University's promotion criteria focus on (i) Teaching and Learning; (ii) Research; or Educational Impact; (iii) Leadership, Management and Collegiality; (iv) External Impact and Markers of Esteem. During the pandemic, the promotion (and appraisal) criteria have also acknowledged how the candidate has risen to the challenge of helping get the University through this challenging situation.

To support staff, the University runs Academic Promotions workshops, including a women-only option. In addition, we run a yearly panel meeting for women in the department with the recently promoted women acting as panellists, explaining the application process, and answering questions ranging from general strategies to details about the application form. After the meeting, the panellists also make themselves available as reviewers. The events receive positive participant feedback acknowledging that the sessions are, in the words of one attendee, "super helpful."

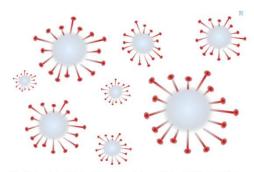
**Academic Pathways:** The Associate Lecturer (AL) role was introduced in 2017/18 into the "Educational Academic" pathway to provide opportunities for recent PhD students to develop a career in Higher Education. This role is suitable for candidates who would like to pursue an academic career but may have not had the opportunity to build teaching experience during their studies.

**Celebrate Achievements:** We ensure all achievements are communicated to the department via an e-mail to all staff and on the Computer Science News and Events webpage as news articles.

<sup>&</sup>lt;sup>4</sup> <u>https://stemmleadership.com/2017/10/20/women-in-stem-question-asking-behavior-at-scientific-conferences/</u>

## Dr Anastasia Anagnostou awarded Horizon 2020 funding for the STAMINA Project

Share trial



Dr Anastasia Anagnostou from the Department of Computer Science has been awarded Horizon 2020 funding for a 9.5 million Euproject entitled "Demonstration of Infelligent decision support for pandemic crisis prediction and management within and across European borders" (STABINA). The project consordium consists of 38 partners from 15 countries including nine First Responder organisations and eight National Planares in charge of pandemic crisis management.

Figure 1 https://www.brunel.ac.uk/computer-science/news-and-events/news/Horizon-2020-funding-received-by-researches-in-the-Comuter-Science-department

#### Dr Isabel Sassoon awarded Arts and Humanities UKRI COVID-19 Research Call funding

09 Apr 2021





Dr Isabel Sassoon, from the department of Computer Science has been awarded Arts and Humanities research funding.

Figure 2 https://www.brunel.ac.uk/computer-science/newsand-events/news/Dr-Isabel-Sassoon-awarded-Arts-and-Humanities-UKRI-COVID-19-Research-Call-funding

#### **Evidence of Impact**

**We improved recruitment.** Our recruitment efforts have been fruitful, especially in encouraging early-career staff affiliated with Brunel at one stage in their career to consider longer-term careers with the department. For example, one of our recent women lecturers started her academic journey as a PhD student in Affective Computing and re-joined after working at London Metropolitan University. Another worked as a PDRA and joined later as a lecturer.

**Before WE-CARE, 17% of academic permanent staff were women**. With the outlined approach, this number rose to 30% in 2020. **In 2022**, in an academic team of 48 full-time equivalents, **33% of our academic staff are women**. These numbers are equal to the highest representation level in the top 25 UK computer science faculties, and well above the sector average of 15%<sup>5</sup>.

We improved the work experience. Satisfaction with workload allocation transparency is high at 94% in Computer Science Department based on the 2019 Brunel Voice staff survey (up from 75% in 2017). As exemplified in Figure 3 below, we have looked into mean teaching, leadership and management and research and scholarship loads of women and men at all levels. We have aimed to support balanced workloads for staff at all levels, and all staff have similar allocations.

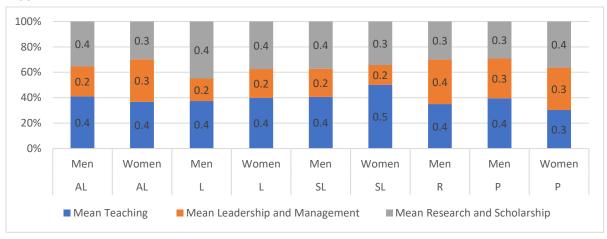


Figure 3 Workload Allocation Management (WAM) data 2018/19.

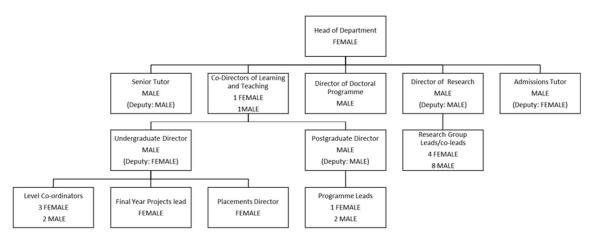


Figure 4 Department organization in 2022

Role sharing enabled higher participation of women in more management and leadership roles. For example, the role share option is currently taken up for the Director of Learning and Teaching

<sup>&</sup>lt;sup>5</sup> <u>https://www.codingame.com/work/press/en-press-release/just-15-of-academic-staff-in-computer-science-faculties-of-the-uks-top-25-universities-are-women/</u>

post (a man and a woman) and Undergraduate Year 1 co-ordinators (two women), Year 2 co-ordinators (a man and a woman). In addition, the current and previous Heads of Department have been women. As shown in Figure 4, 43% of women hold teaching and research-related leadership positions. Notably, 4/12 (33%) of women are recognised as research group co-leads.

We made noteworthy progress in communicating the ability to work flexibly, with **100% of staff** agreeing that flexible working is supported in the Brunel Voice staff survey in 2019.

We have made significant strides in women's career development. Enabling different academic pathways allowed us to recruit two women as Associate Lecturers, one of whom completed their PhD studies at Brunel Computer Science.

Our academics benefit from the available training programmes. A Senior Lecturer who participated in the Aurora Programme in 2021/22, fed back: "It was useful to meet other women from different universities, share experiences and challenges, and reflect on different leadership strategies."

The number of women applicants for promotion has increased (Figure 5). In 2018/2019, no women applied. But, starting from 2019/20, the number of women applicants approximately doubled each year. 2021/22 is the first year when we had more women applicants than men.

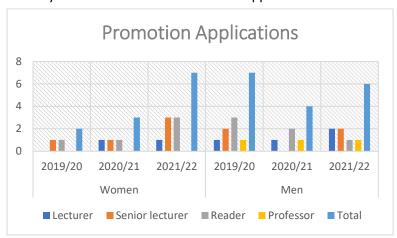


Figure 5 Promotion applications women vs men 2019-2022

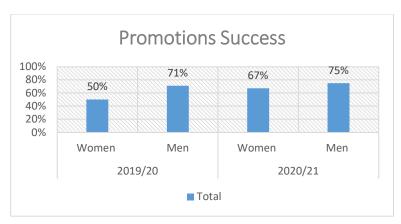


Figure 6 Promotions success women vs men 2019-2021. Only the total percentages are reported to ensure anonymity.

Women started enjoying more promotions success, each year the percentage of successful women increased, and the gap between men and women started closing (50% vs 71% in 2019/20 and 67% vs 75% in 2020/21 – 2022 results are not public yet). The feedback from the 2022 promotion rounds included: "There are many things to thank – the most important of which is for creating an environment where people feel supported and valued".

### **Conclusions**

We have made considerable progress through the WE-CARE programme. As a department, we follow a data-driven and reflective approach in our practice and aim to make lasting change with initiatives embedded in all aspects of our operation. We have made significant strides, but we know we still have a lot of work to do – the number of women academics in senior roles (Reader and Professor) needs to increase. Nevertheless, we are assured of the foundations we have developed a solid foundation for the future: we have a vibrant department invested in the long-term career development of its women academics.