

# Equality, Diversity and Inclusion Report 2021: A Review of Gender Representation at the National Environmental Isotope Facility (NEIF)

## Scope

The National Environmental Isotope Facility (NEIF) is an integrated platform of state-of-the-art isotope bio- and geo-chemistry analytical capabilities and specialisms, delivered by five laboratories based at the British Geological Survey (BGS), the Scottish Universities Environmental Research Centre (SUERC), the University of Bristol (UoB), the University of Oxford (UoO) and the UK Centre for Ecology and Hydrology (UKCEH). NEIF is part of the Natural Environment Research Council's (NERC) portfolio of science facilities, and as such falls within the UK Research Institutes (UKRI) framework, with a primary role to underpin (NERC) remit science and support the UK research community needs, while being responsive to evolving developments and future demand.

The UKRI Equality, Diversity and Inclusion (EDI) policy states that “everyone has a right to be treated with dignity and respect and to be provided with opportunities to flourish and succeed in a supportive environment”<sup>1</sup>. UKRI is an equal opportunities employer, operating in compliance with the Equality Act 2010 and its Public Sector Equality Duty provisions and as such is committed to eliminating discrimination, advancing equality of opportunity and fostering good relations between people who share protected characteristics and those who do not. To achieve this, UKRI are committed to identifying and removing barriers to employment and progression and building a culture that values openness, fairness and transparency. As such, NEIF has a responsibility to not discriminate against the protected characteristics of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race (which includes colour, nationality and ethnic or national origins), religion or belief, sex or sexual orientation or any other relevant factor (See Appendix A of UKRI EDI Policy for further information).

To address one key aspect of the EDI policy, this report aims to review current gender representation within the management structure of NEIF and users of the facilities. Through this assessment, NEIF can directly influence EDI within its organisation, as well as contribute indirectly to wider UKRI and national targets to improve gender representation in science fields and research institutes. Currently, there is no formal equal opportunities data collection and so data inaccuracies are likely. Following data compilation, a list of recommended actions is provided to improve EDI data collection, which can be used to aid future gender representation and inclusivity assessments.

## Data Description and Approach

There are several components of the NEIF structure in which gender equality can be assessed including external NEIF users (research community), employees at NEIF facilities, and NEIF management teams (Figure 1).

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<sup>1</sup> [UKRI-081020-EqualityDiversityAndInclusionPolicyV1.0.pdf](#)

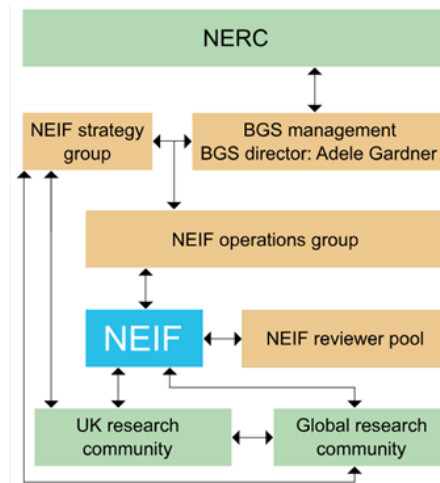


Figure 1 Diagram to represent the NEIF organisational structure, where the research community represents NEIF users.

NEIF users include principal investigators (PIs) and co-investigators (Co-Is). Some of the NEIF applications directly relate to postgraduate research (PGR) projects, and the demographic of these students are also considered in this report. NEIF employees are spread across several institutes (BGS, SUERC, UoB, UoO and UKCEH), and are responsible for preparation and/or analysis of samples covered by successful NEIF grants. Finally, NEIF management can be separated into three key teams: (i) the Strategy Group (who provide over-arching advice), (ii) the three Peer Review Panels (who review applications to the facility) and (iii) the Operations Group (who are responsible for day-to-day management of NEIF-associated projects and research within each institute) (Figure 1).

The data were split into the three key research themes corresponding to different Peer Review panels: Panel A – Radiocarbon; Panel B – Life Sciences, and; Panel C – Geology and Environment. For each panel, data concerning the gender of NEIF users, employees and management, was compiled for 2019 and 2020 based on information from panel chairs, as well as personal user profile publicly available on the internet. Although NEIF recognises that gender is an important component of EDI, given that no equal opportunities data have previously been collected, all NEIF users/employees/management are assumed to identify as either male or female. Although this is a significant limitation of the dataset, this report aims to provide a general overview of gender representation, and provide recommendations for collecting these data in the future.

## Results

### NEIF Research Projects – Principal Investigators (PI), Co-Investigators (Co-I) and Postgraduate Research Students (PGR).

Overall, in 2019 and 2020 the majority of PI applicants were male (average of 70.6% and 68.6%, respectively). These results, when disaggregated by NEIF Panel (Figure 2), show a greater number of applications were made by men in Panels A and B, and relatively fewer in Panel C.

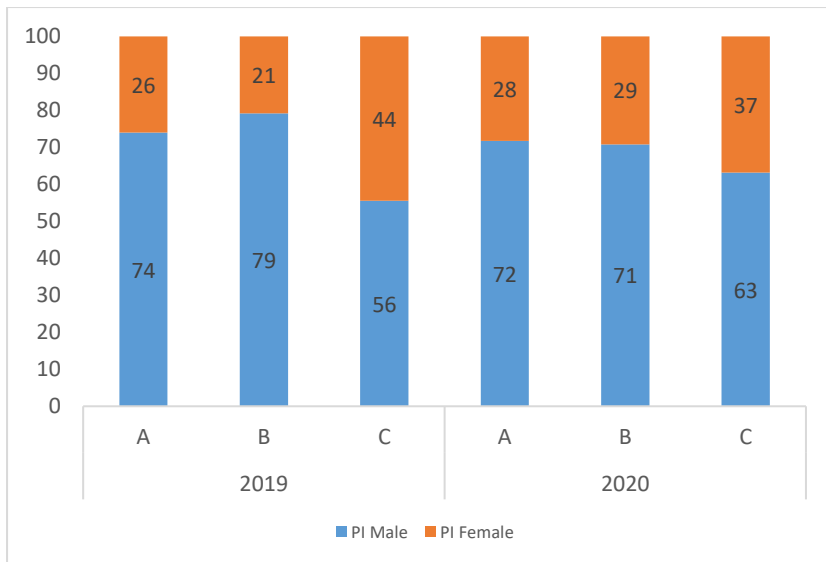


Figure 2 Percentage of PI applicants in 2019 and 2020, classified by gender and research theme (panel).

A similar trend is observed with regards to named Co-Investigators in both years, with an average of 71% male applicants in 2019, and 70% in 2020 (Figure 3). Again, across both years the highest proportion of female PIs and Co-Is was in Panel C (2019: 56% female PI / 66% female co-I and 2020: 63% female PI and 65% female co-I).

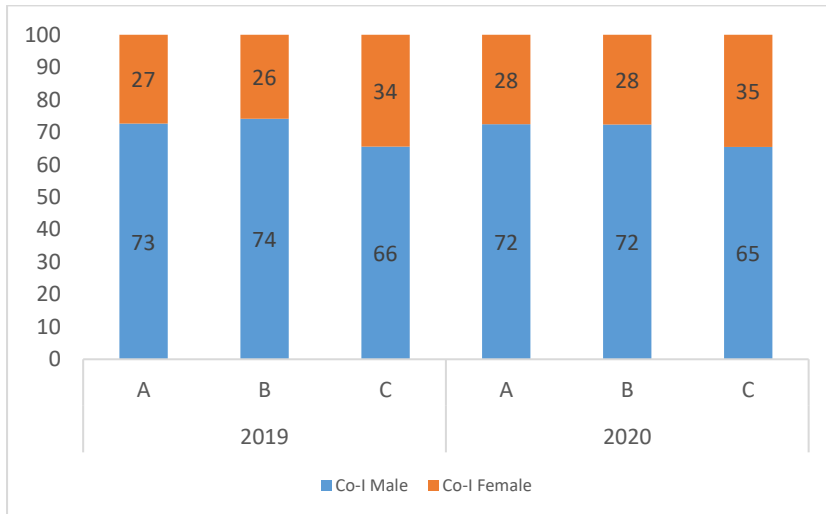


Figure 3 Percentage of Co-I applicants in 2019 and 2020, classified by gender and research theme (panel).

Given that NEIF places some priority on accepting grant applications which are associated with Post Graduate Research (PGR) projects, grants which are not related to a PGR project are assessed separately. Corresponding with the application data, there are higher success rates for male PI applicants who are not associated with PGR projects (64% average success for males) than for female PIs who are not associated with PGR projects (51% average success for females) (Figure 4). It should be noted, that 0% success rates in panel B in 2020 is a result of no applications being made by female PIs for grants that were not associated with a PGR project, and this does skew the average. When

panel B is excluded (given that no applications were made by females), the average success for female applicants which are not associated with a PGR project is higher, at 76%.

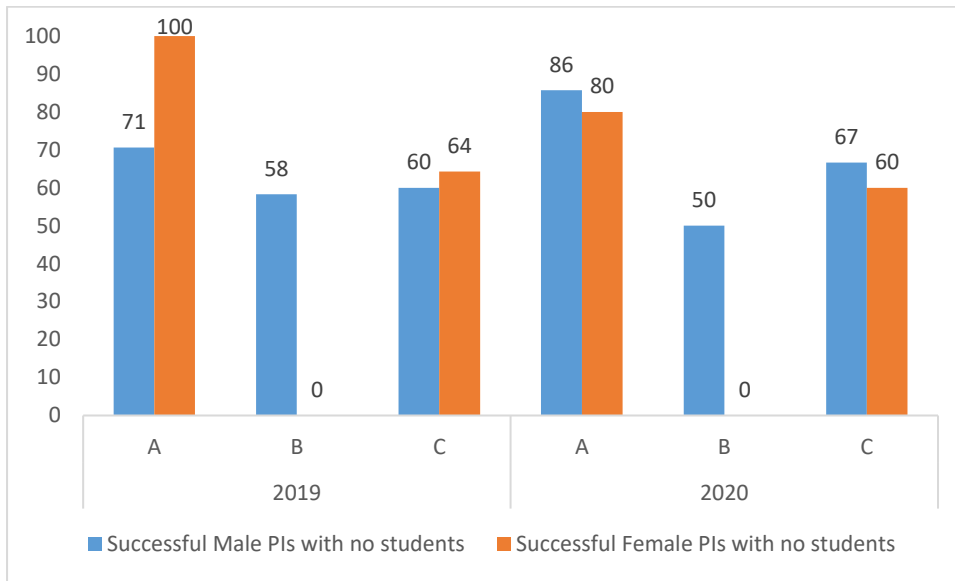


Figure 4 Percentage of successful applications based on the total number of applicants per gender. 0% success only occurs when no applications were made within that gender/panel.

Although there appears to be a bias towards NEIF applications from male PI and Co-Is, this trend is not replicated in the PGR population associated with NEIF applications (Figure 5). The average percentage of male students associated with NEIF projects was slightly higher at 51% and 54% in 2019 and 2020, respectively.

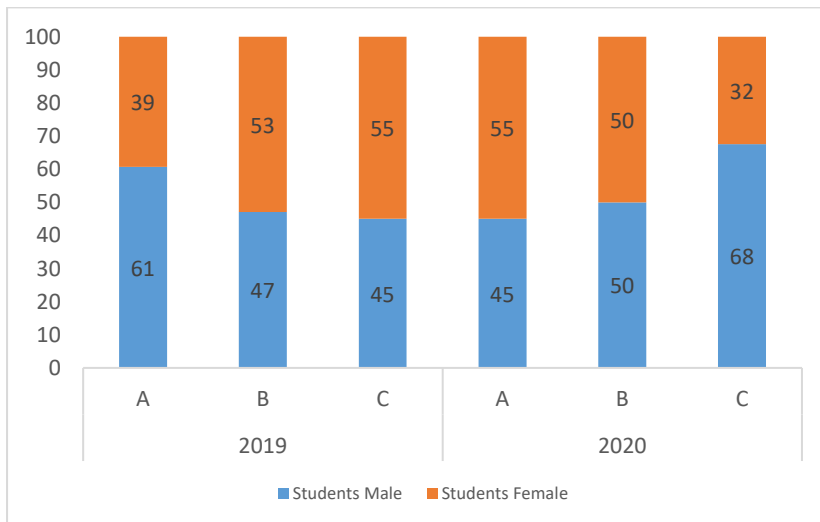


Figure 5 Percentage of PGR students associated with NEIF projects, classified by gender and research theme (panel).

For all panels, and regardless of the assumed gender of the student, the PI associated with the project was more likely to be male than female, with an average of 68% of male students and 65% of female students having a male PI (Figure 6-Figure 7).

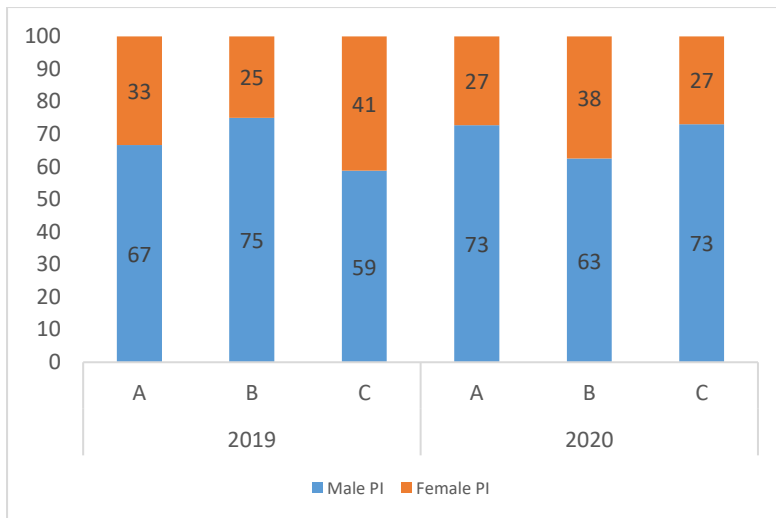


Figure 6 Percentage of male students with a male/female PI.

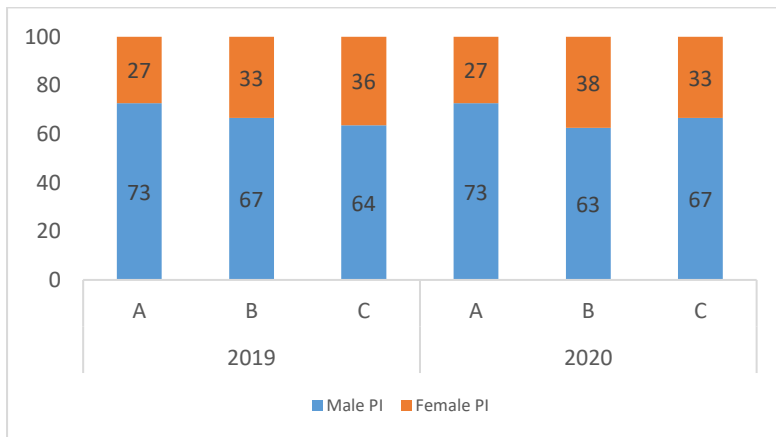


Figure 7 Percentage of female students with a male/female PI.

### NEIF Facilities Staff

The number of male and female staff employed by NEIF facilities is almost equal, with an average of 54% males (average of 54 people) and 46% females (average of 46 people) across both years (Figure 8). Looking at each panel, while there was a slightly higher percentage of male employees in panels A and B, an equal percentage of males and female (6 people) are employed in panel B, with the only notable change to gender representation across the years resulting from the reduction of 1 female staff member from panel C in 2020, compared to 2019, although she was not replaced by a new member of staff of either gender (Figure 9). Due to data limitations, it has not been possible to consider the contract type (e.g. full time or part time), hence all employees, regardless of contract, contribute equally to the gender representation statistics presented here.

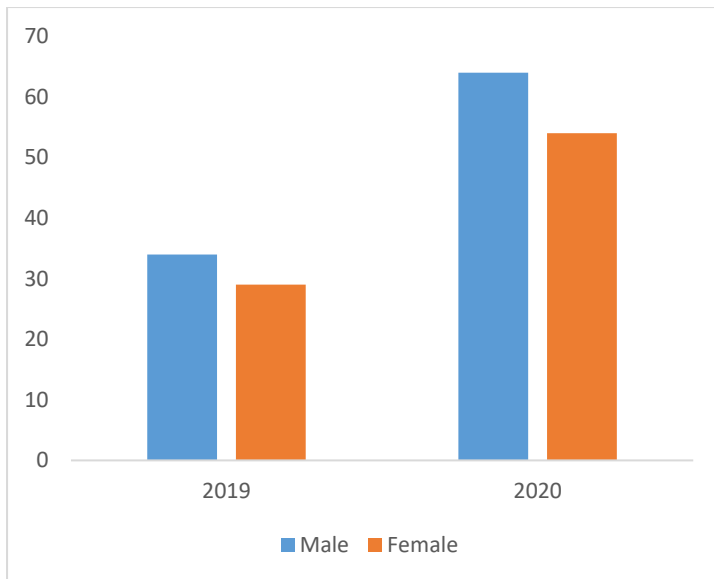


Figure 8 Total number of males and females employed by NEIF in 2019 and 2020.

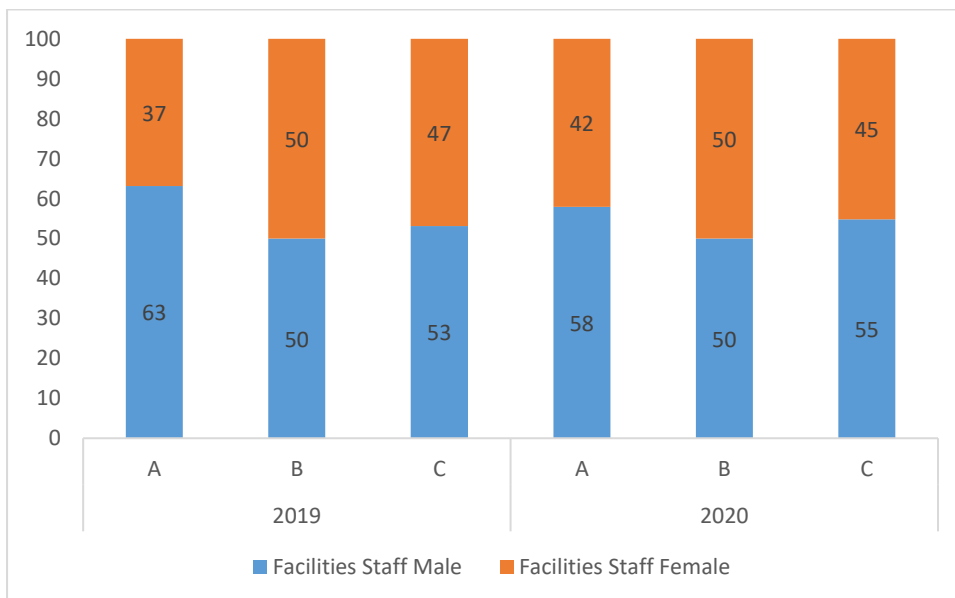


Figure 9 Percentage of males and females employed by NEIF within the associated institutes, categorised by research theme (panel).

### NEIF Management – peer review committee, operations group and strategy group

In both 2019 and 2020, more males than female sat on the peer review committees for panels A (average of 30 men and 19 women) and B (average of 16 men and 12 women) (Figure 10). There was an increase (23%/11 women) in the number of females sitting on panel C from 2019 to 2020, where females formed the majority in 2020 (19 men and 22 women). Overall, the average percentage of males and females across all panels was 51% and 49%, respectively.

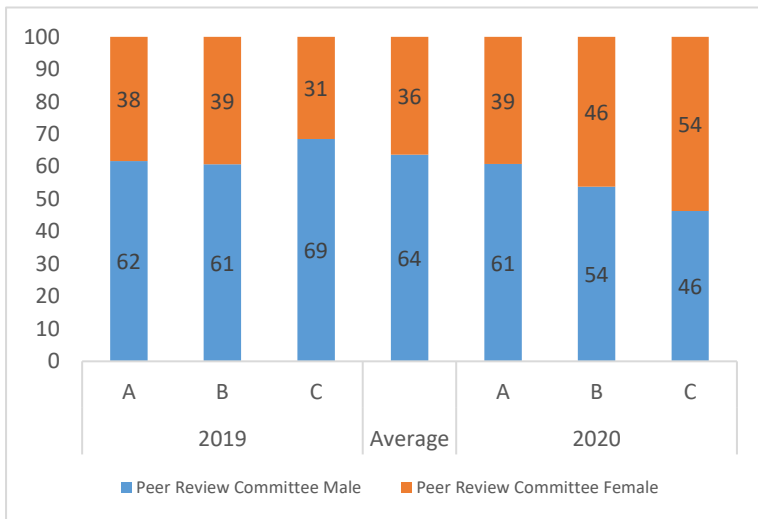


Figure 10 Percentage of males/females who sit on the NEIF peer review committees for each panel.

The operations group has an equal representation of males and females (8 staff of each gender) in both 2019 and 2020 (Figure 11). Similarly, the split of genders on the strategy group is fairly equal, although there is a slightly higher proportion of males (57% average/2 additional men than women in each year) (Figure 12).

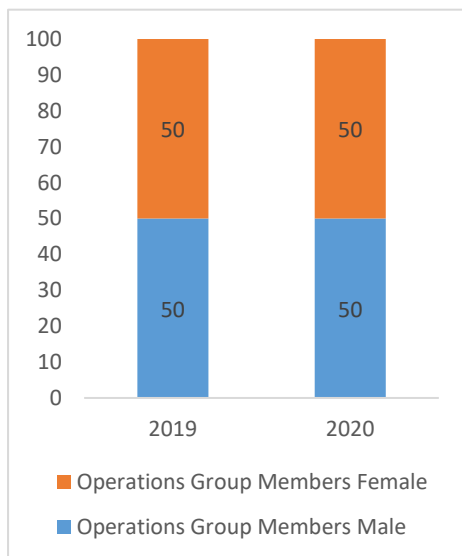


Figure 11 Percentage of males/females in the NEIF operations group, as of November 2020

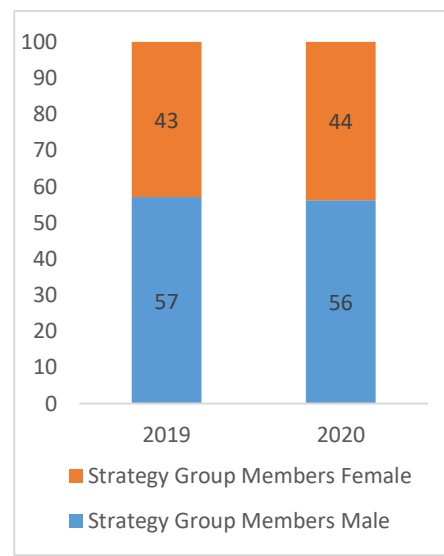


Figure 12 Percentage of males/females in the NEIF strategy group, as of November 2020. This data does not include members who are only associated with NERC and not one of the NEIF institutes.

### Data summary and national context

Overall, a larger proportion of NEIF applications included male PIs and/or male Co-Is. Although the application success rate for male and female PIs which are not associated with PGR projects appears

to be similar in Panels A and C, there is a distinct lack of applications by female PIs who are not associated with a PGR project in Panel B. The bias observed here towards male representation in the NEIF application pool corresponds broadly with wider UK trends in gender representation of academic staff within the biological, mathematical and physical sciences. In 2019/20, the Higher Education Statistics Agency (HESA)<sup>2</sup> reported that 32% of academic staff in these fields were female, with slightly higher representation of females in earth, marine and environmental science (38%) and biosciences (47%), but lower representation in chemistry (30%), physics (20%) and mathematics (24%).

There is a correspondingly larger proportion of students (of both genders) who are supervised by male PIs; while this is possibly a result of the larger total number of male PI applicants, this relationship may not be causal. However, the NEIF student population broadly shows an even representation between males and females, in line with data published by the HESA<sup>3</sup>, who report that in 2019/20, 48% of postgraduate research qualifications were obtained by females, while 52% were obtained by males, and 0.001% identified as “other”.

Data here suggests that NEIF has maintained a generally equal representation of genders across its employees and management structure. Although the peer review committees and strategy groups have a slightly higher ratio of males to females, the operations group has achieved an almost equal split of males and females in both 2019 and 2020, ensuring that day-to-day management of NEIF institutes is completed in a diverse and inclusive manner. This potentially results from training requirements set out by NEIF to undertake unconscious bias training, as well as UKRI emphasis on encouraging EDI through flexible working policies. Overall, the gender split observed in the NEIF staff and management structure is better than the national average for academic staff working in biological, mathematical and physical science careers (see above), and broadly similar to the nationwide averages of higher education governor characteristics from 2018/19 to 2019/20. Governors identifying as female during this interval averaged 46% across England, Scotland and Wales, while an average of 54% identified as male<sup>4</sup>. In this national survey, an average of 0.6% identified as “other”.

### Future recommendations for assessing EDI

Although this report has highlighted that NEIF is generally operating in an appropriate manner to promote EDI, there are still several improvements that can be made to better assess NEIF gender representation, as well as wider EDI goals. NEIF proposes to address this through the following methods:

- Send out a voluntary equal opportunities form upon receipt of NEIF grant applications, to collect better and more accurate information on gender representation of NEIF users.
  - This survey could also look to assess wider EDI components, including age, ethnicity and disability status.
  - This survey could also facilitate assessment of representation of different genders within each career stage/salary band, as well as contract type (full time, part time, short term contracts, etc.).
- Circulate a survey for NEIF users, staff and employees, to see how EDI at NEIF is perceived, allowing participants to make suggestions for improving EDI.
- Promote awareness and have open discussion with NEIF users and employees about gender and EDI.

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<sup>2</sup> <https://www.hesa.ac.uk/data-and-analysis/staff/areas>

<sup>3</sup> <https://www.hesa.ac.uk/news/27-01-2021/sb258-higher-education-student-statistics/qualifications>

<sup>4</sup> <https://www.hesa.ac.uk/data-and-analysis/staff/working-in-he>



- Active interaction with female students at NEIF-associated higher education institutes, to encourage increased grant applications from female PIs.
- Greater advertisement of current NEIF women in STEM through the NEIF website and social media platforms associated with NEIF and its research institutes.
- Support NEIF grant applications which involve a mixture of both male and female researchers.
- Encourage potential female Co-I and PIs to submit applications through academic networks (including research groups and conferences).

Responsible Person(s): NEIF Operations Group

Timeline: Following data collection over the next two years, suitable key performance indicators (KPIs) will be developed by the NEIF Operations Group, which will aim to both improve EDI assessment and promote an EDI-friendly culture. These KPIs will be updated and reviewed annually as part of an annual report which follows this outline.