

Achieving Equality in UK Universities: A Personal Perspective

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Talk outline

- Diversity / inclusivity – UK perspective
- Athena Swan accreditation process

My background

- PhD UC Berkeley, 2002
- Lecturer in University College Dublin 2002-2004
- Appointed as a lecturer at Imperial College London, 2004, promoted to full professor 2017

My background

- One child – born March 2015
- Teaching fellow appointed to replace me in Jan 2015
- No teaching in Spring semester 2015
- Returned to work Sept 2015 – granted an Elsie Widdowson fellowship to relieve me from teaching / supervision of MSc and MEng students until Sept 2016.

My background

- September 2015 – my husband took one month parental leave
- October 2015 – September 2019 – my son was in on-campus childcare + I had the option to rent a parking place on-campus

General background - Imperial

All women are entitled to up to 52 weeks maternity leave regardless of length of service and must take a minimum of 2 weeks maternity leave.

If you have less than 41 weeks' service by the expected week of birth, you are entitled to a Maternity Allowance which is paid directly by the Government.

If you have 41 weeks' service or more by the expected week of birth, you are entitled to College Maternity Pay, which is 18 weeks at full pay, followed by 21 weeks at the Statutory Maternity Pay (SMP) followed by a maximum of 13 weeks unpaid leave.

<https://www.imperial.ac.uk/parents-network/before-baby/maternity-leave-entitlement/>

General background - Imperial

Shared Parental Leave (SPL) provides eligible parents with the opportunity to choose to share between them the care of their child during the first year following the child's birth.

Parents have the option of converting their maternity leave and pay into Shared Parental Leave and Pay and sharing the remaining period of leave and pay between them.

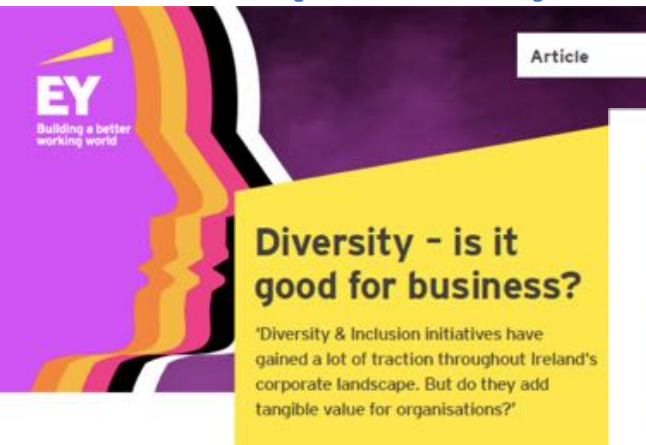
Equality, Diversity and Dept. Culture

- Committee set up within the Dept. Civil Engineering in Spring of 2018
- Reflects committees within Faculty of Engineering and Imperial College
- I chair this committee

What do Equality, Diversity and Inclusivity mean?

- Significant amount of information openly available.

Equality, Diversity and Inclusivity



Diversity - is it good for business?

'Diversity & Inclusion initiatives have gained a lot of traction throughout Ireland's corporate landscape. But do they add tangible value for organisations?'

By Olivia McEvoy

Although accountants might not be able to bring themselves to agree, it can seem like there are countless quotations pertaining to and definitions of 'diversity'. Malcolm Forbes describes it as 'the art of thinking independently together' while others draw on an old Muslim saying that 'a lot of different flowers make a bouquet'. Despite the overwhelming number of definitions, common ground is reached in the certainty that strength lies in differences.

What is diversity and inclusion?

The EY definition of Diversity and Inclusion is: Diversity is about differences, seen and unseen. Inclusion is about creating an environment in which people are valued, feel valued and are able to achieve and contribute their full potential. Creating an inclusive environment improves the way we interact with our people, our clients and our communities. Inclusion is also about leveraging our differences to deliver better business results.

In both this definition and much of the recent commentary on Diversity & Inclusion, the focus is very much on 'inclusion'. Indeed, some suggest we have achieved diversity and now need to concentrate our efforts on 'inclusion'. There is no doubt that 'diversity' is now an aspiration for most businesses in Ireland as well as globally, but many of those same businesses still struggle to attract a diverse workforce in terms of gender, sexuality, ability, age and education as well as personality type and thinking style. We tend to view Diversity & Inclusion as a journey, and it is important to acknowledge that some businesses are in the starting blocks and some of us are further down the road. Very few have reached 'Destination DEI'. It is, however, true to suggest that diversity can be the easier element to achieve; the real test begins in earnest when you are trying to build an inclusive environment and leverage diversity to improve business performance. It is equally true to say that if you are successful in building an inclusive environment, you are much more likely to attract and retain a diverse workforce.



Women in the Workplace

2018

McKinsey&Company

LEAN IN

Deloitte.



Waiter, is that inclusion in my soup?
A new recipe to improve business performance



Research report
Sydney launch: May 2013

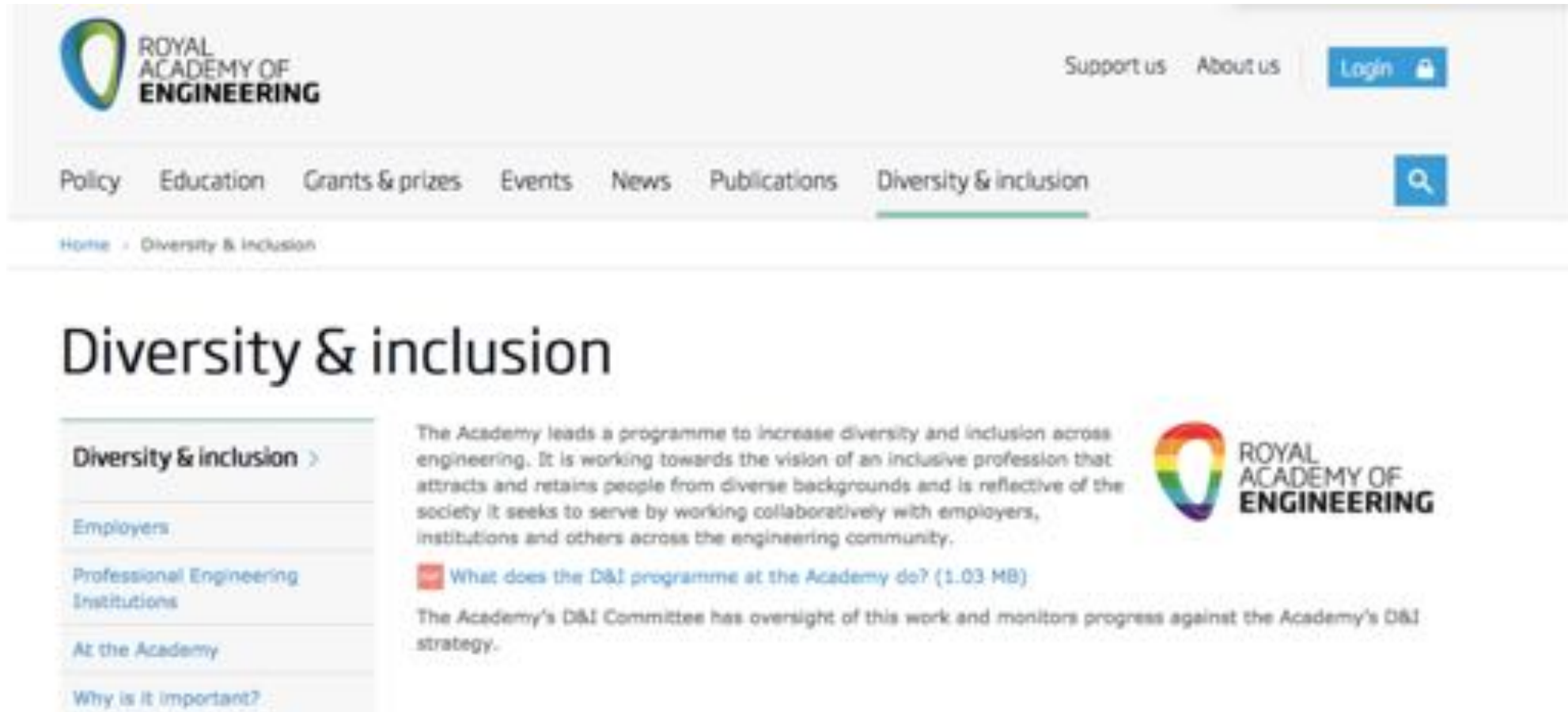


BRING
SITY.
icity in the
pipeline.

Dr Lai Gordon, Prof Geraldine Healy,
Ben Sanghera, Chidozie Umeah.

CMI
Chartered
Management
Institute

Equality, Diversity and Inclusivity



The screenshot shows the Royal Academy of Engineering website. The header includes the logo, navigation links (Support us, About us, Login), and a menu with links to Policy, Education, Grants & prizes, Events, News, Publications, and Diversity & inclusion (which is underlined). A search icon is also present. Below the header, a breadcrumb trail reads 'Home > Diversity & inclusion'. The main heading is 'Diversity & inclusion'. On the left, a sidebar lists 'Diversity & inclusion >', 'Employers', 'Professional Engineering Institutions', 'At the Academy', and 'Why is it important?'. The main content area features a paragraph about the Academy's D&I programme, a video player titled 'What does the D&I programme at the Academy do? (1.03 MB)', and a brief description of the D&I Committee's role. The Royal Academy of Engineering logo is also displayed on the right side of the main content area.

ROYAL ACADEMY OF ENGINEERING

Support us About us Login

Policy Education Grants & prizes Events News Publications Diversity & inclusion


Home > Diversity & inclusion

Diversity & inclusion

Diversity & inclusion >

- Employers
- Professional Engineering Institutions
- At the Academy
- Why is it important?

The Academy leads a programme to increase diversity and inclusion across engineering. It is working towards the vision of an inclusive profession that attracts and retains people from diverse backgrounds and is reflective of the society it seeks to serve by working collaboratively with employers, institutions and others across the engineering community.

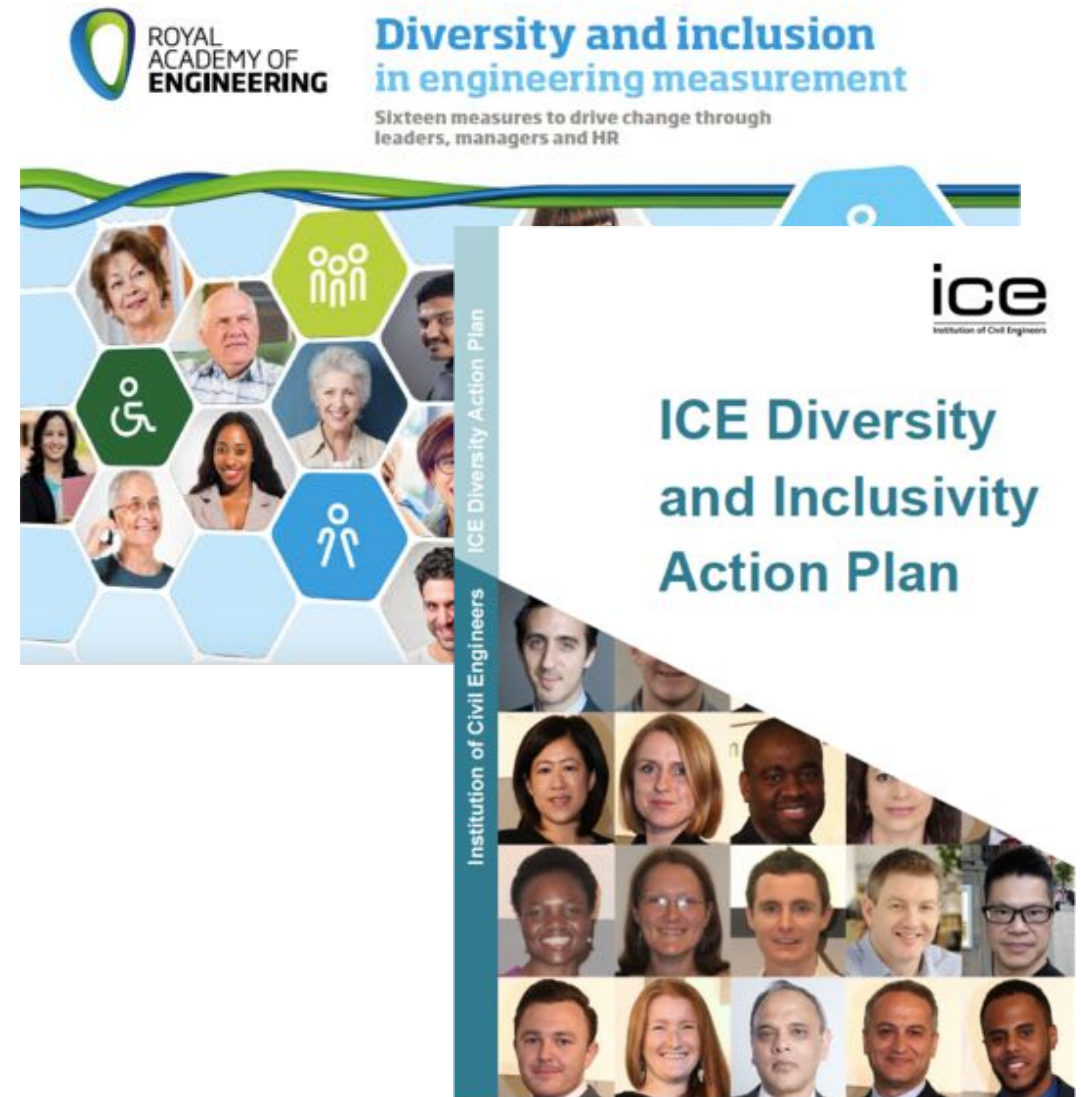
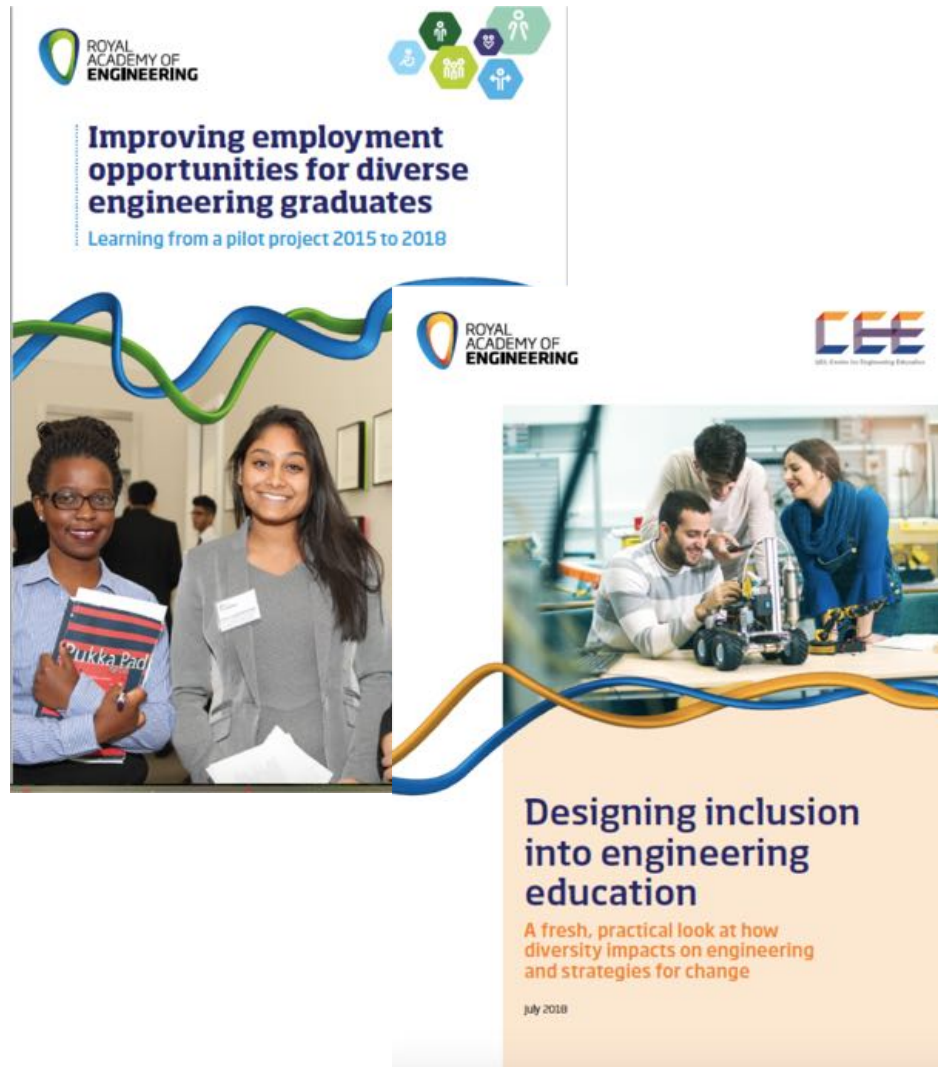
 What does the D&I programme at the Academy do? (1.03 MB)

The Academy's D&I Committee has oversight of this work and monitors progress against the Academy's D&I strategy.

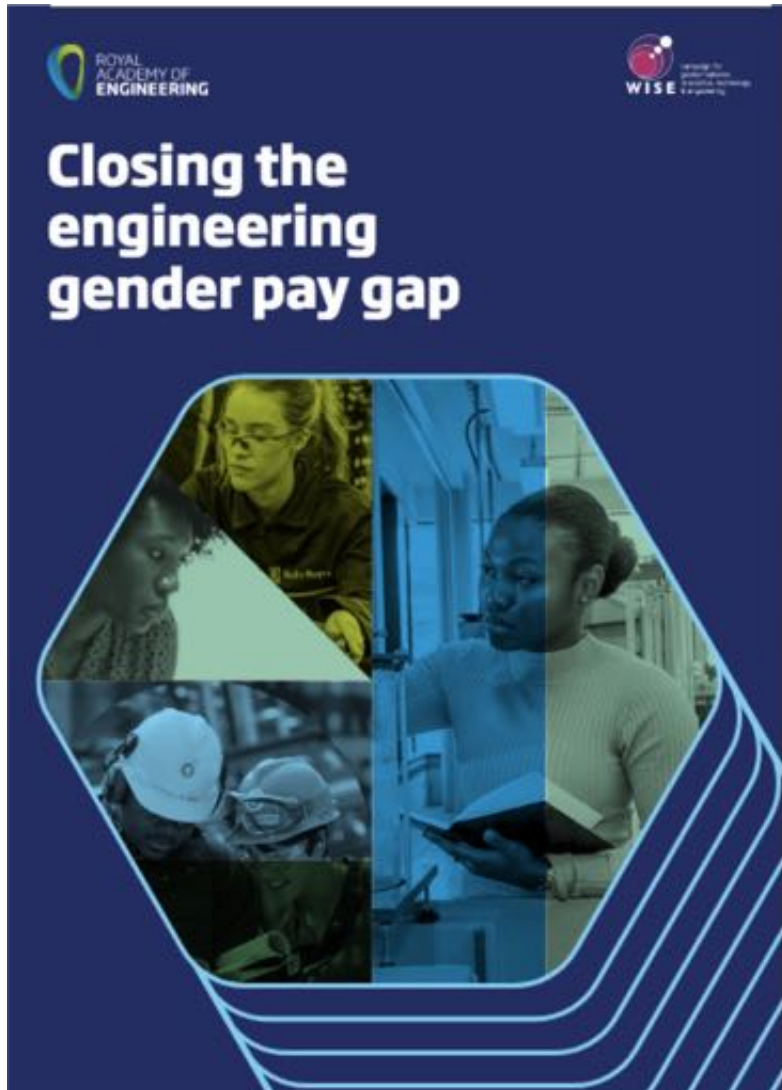
ROYAL ACADEMY OF ENGINEERING

<https://www.raeng.org.uk/diversity-in-engineering>

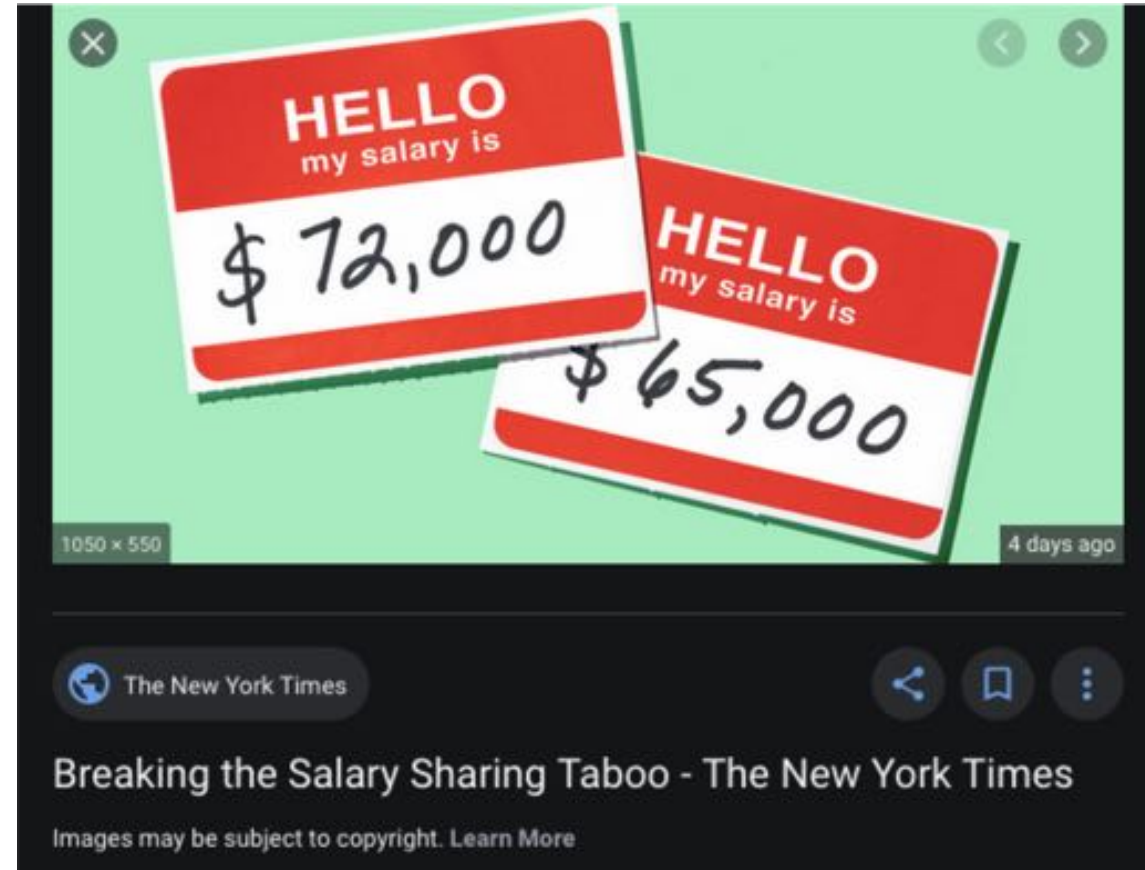
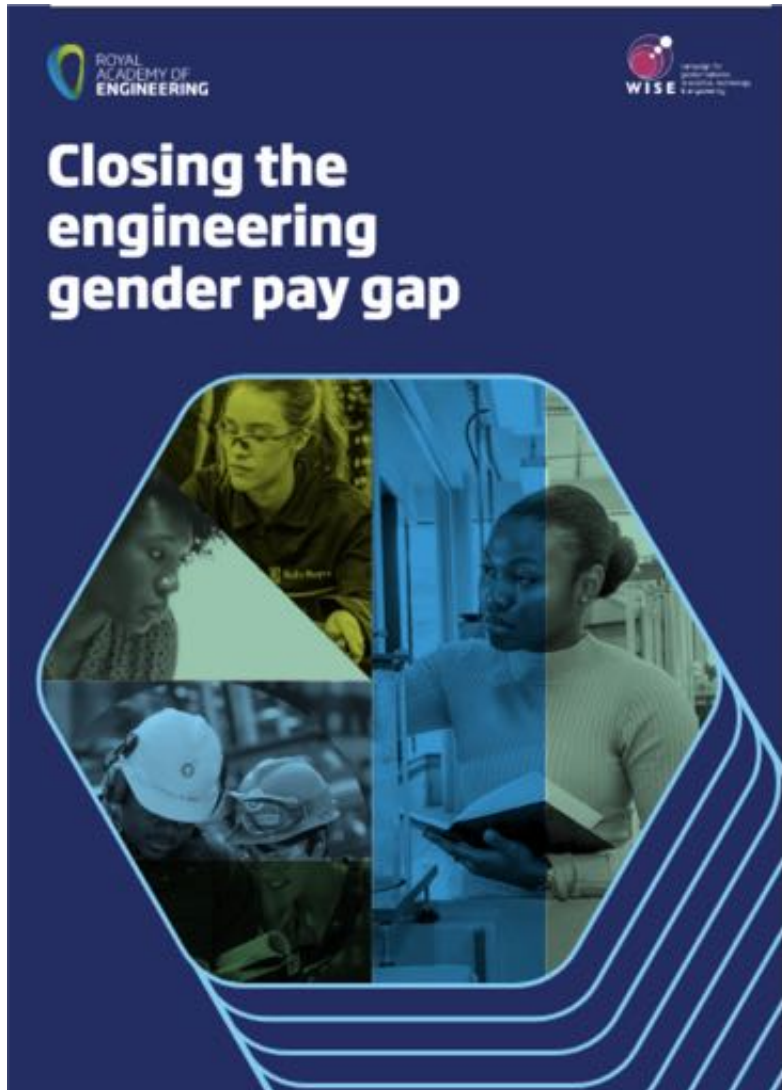
Equality, Diversity and Inclusivity



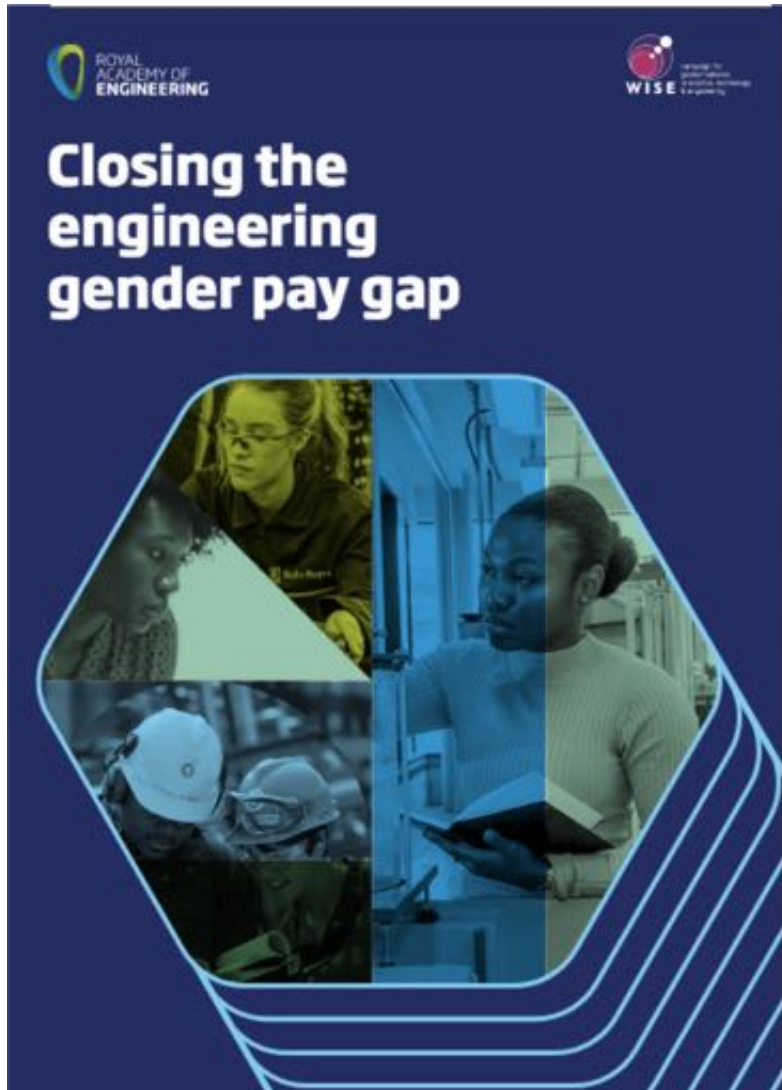
2020 Royal Academy of Engineering Report



2020 Royal Academy of Engineering Report

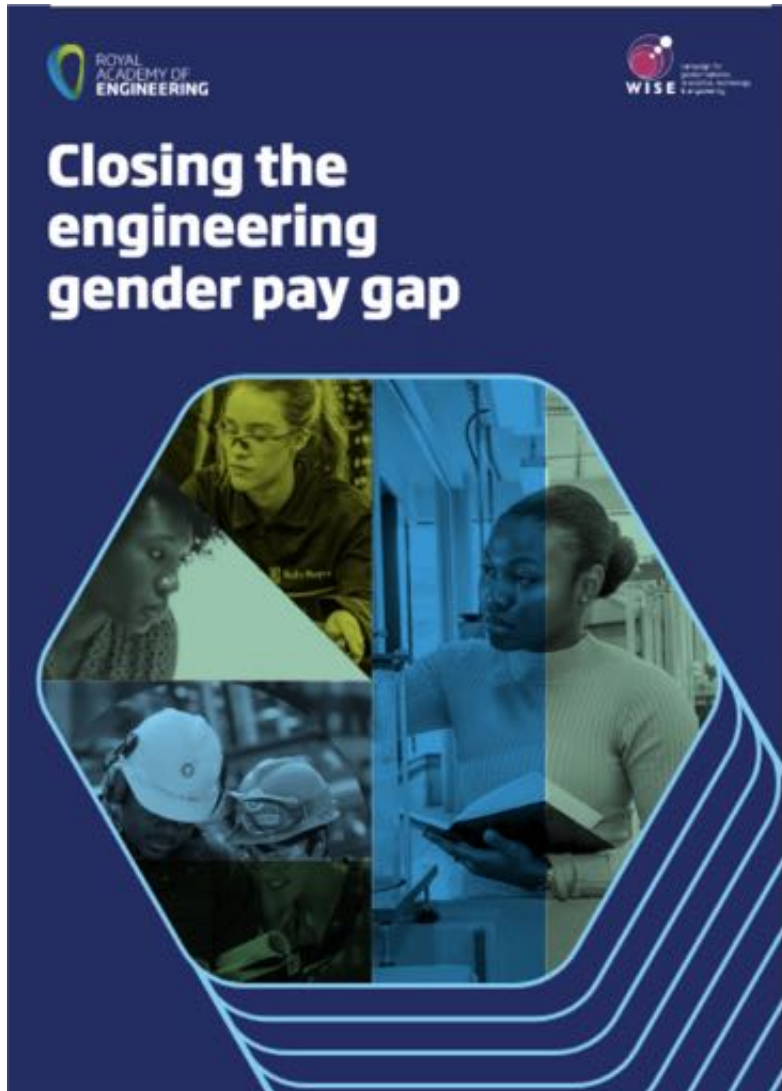


2020 Royal Academy of Engineering Report



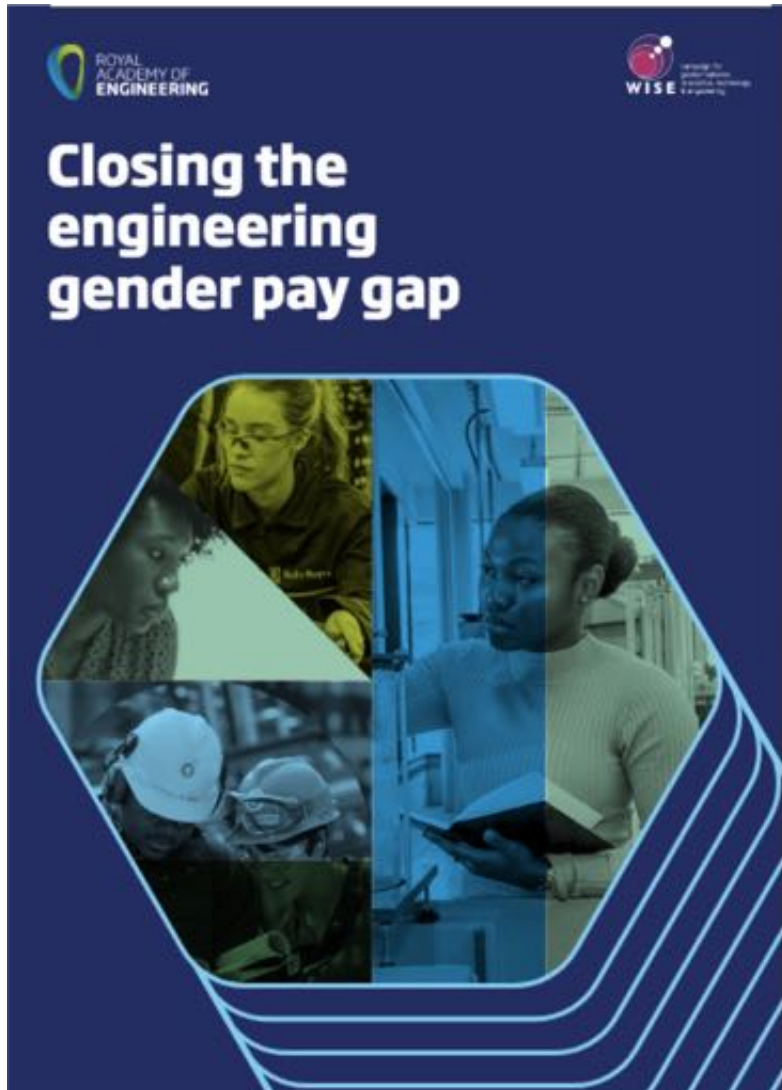
Employers with 250 or more employees must publish and report specific figures about their gender pay gap

2020 Royal Academy of Engineering Report

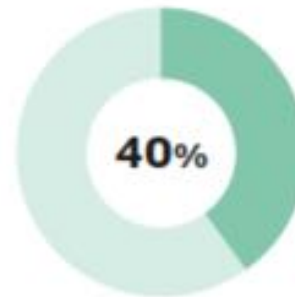


The gap between the median hourly pay of men and women at Imperial is 7.6 per cent.

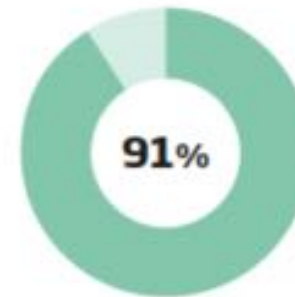
2020 Royal Academy of Engineering Report



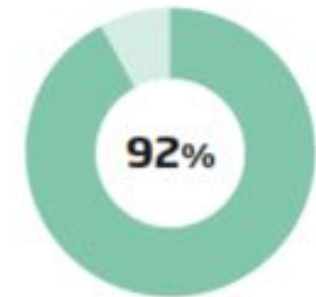
03. The gender pay gap for engineers is largely due to **under representation of women in more senior and higher paid roles.**



40% of pay variance for engineers in the sample is accounted for by career level

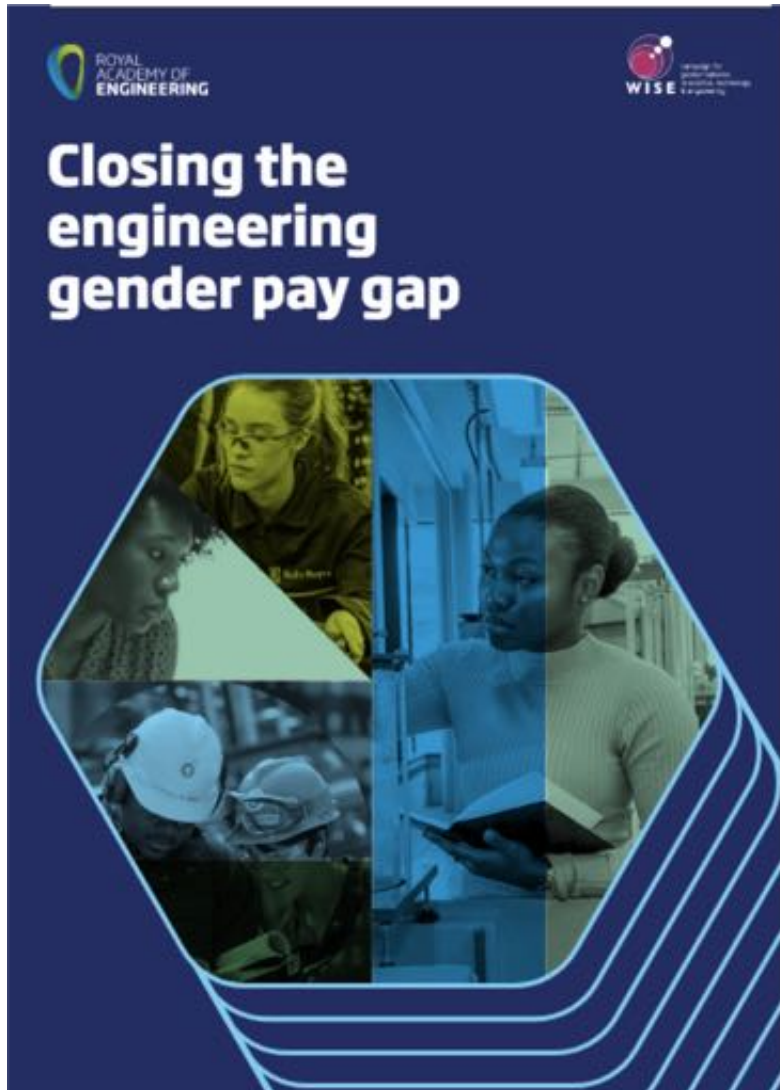


91% of those engineers in the top career grade were men

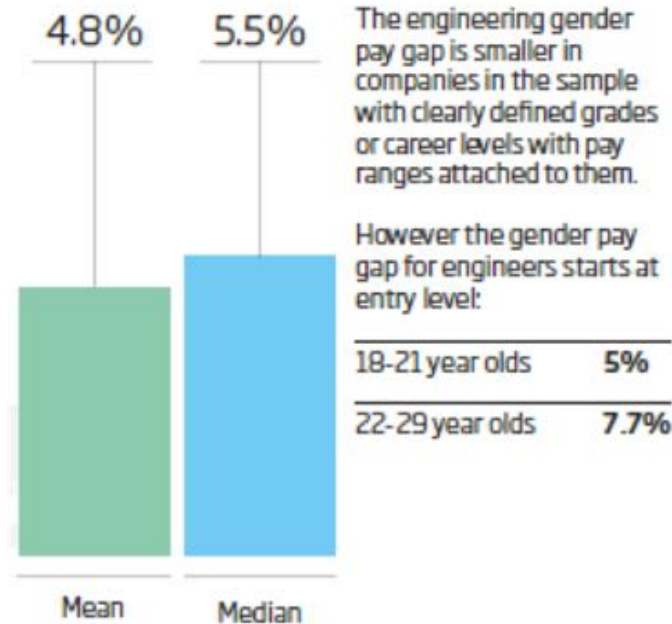


92% of those in the upper pay quartile were men

2020 Royal Academy of Engineering Report



05. Transparency of pay structures and grades has a **big impact on the gender pay gap.**



04. Engineers are more likely to receive a bonus **than the average employee.**

14%

more male engineers receive a bonus than women

The mean bonus gap between male and female engineers in the sample is significantly smaller compared to the rest of the UK economy.



2020 Royal Academy of Engineering Report

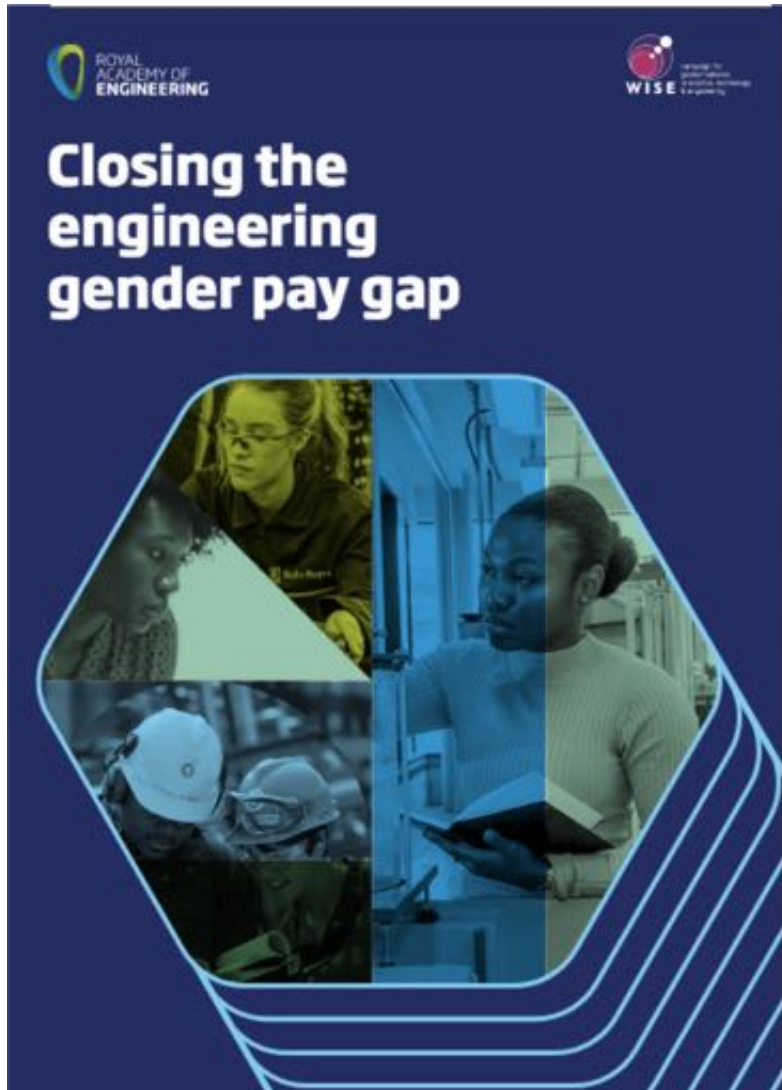









Table 1: Women as a percentage of the total numbers working in different engineering occupations compared with mean average hourly pay and mean average gender pay gaps for these occupations.
Annual Survey for Hours and Earnings (ASHE); ONS 2019.

Engineering Occupation	Woman as % of workforce	Mean average hourly pay (£)	Mean average gender pay gap (%)
Electrical engineers	 1.4%	£24.44	13.2%
Mechanical engineers	 2.4%	£22.96	-2.6%
Electronics engineers	 3.0%	£22.96	Data not available, but male mean of £22.86 implies a negative gender pay gap
Civil engineers	 10.3%	£21.08	-5.3%
Design and development engineers	 11.5%	£21.68	-5.8%
Production and process engineers	 13.0%	£20.78	5%
Engineering professionals not elsewhere classified (the largest group)	 21.2%	£21.23	8.1%

2020 Royal Academy of Engineering Report

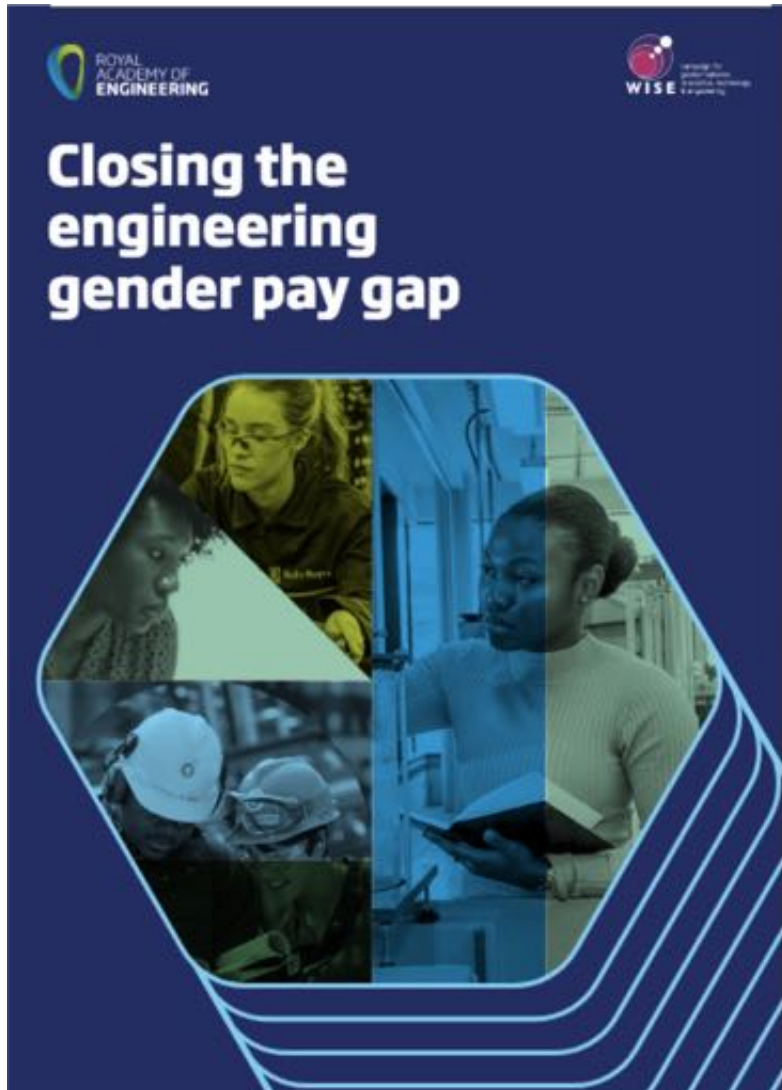
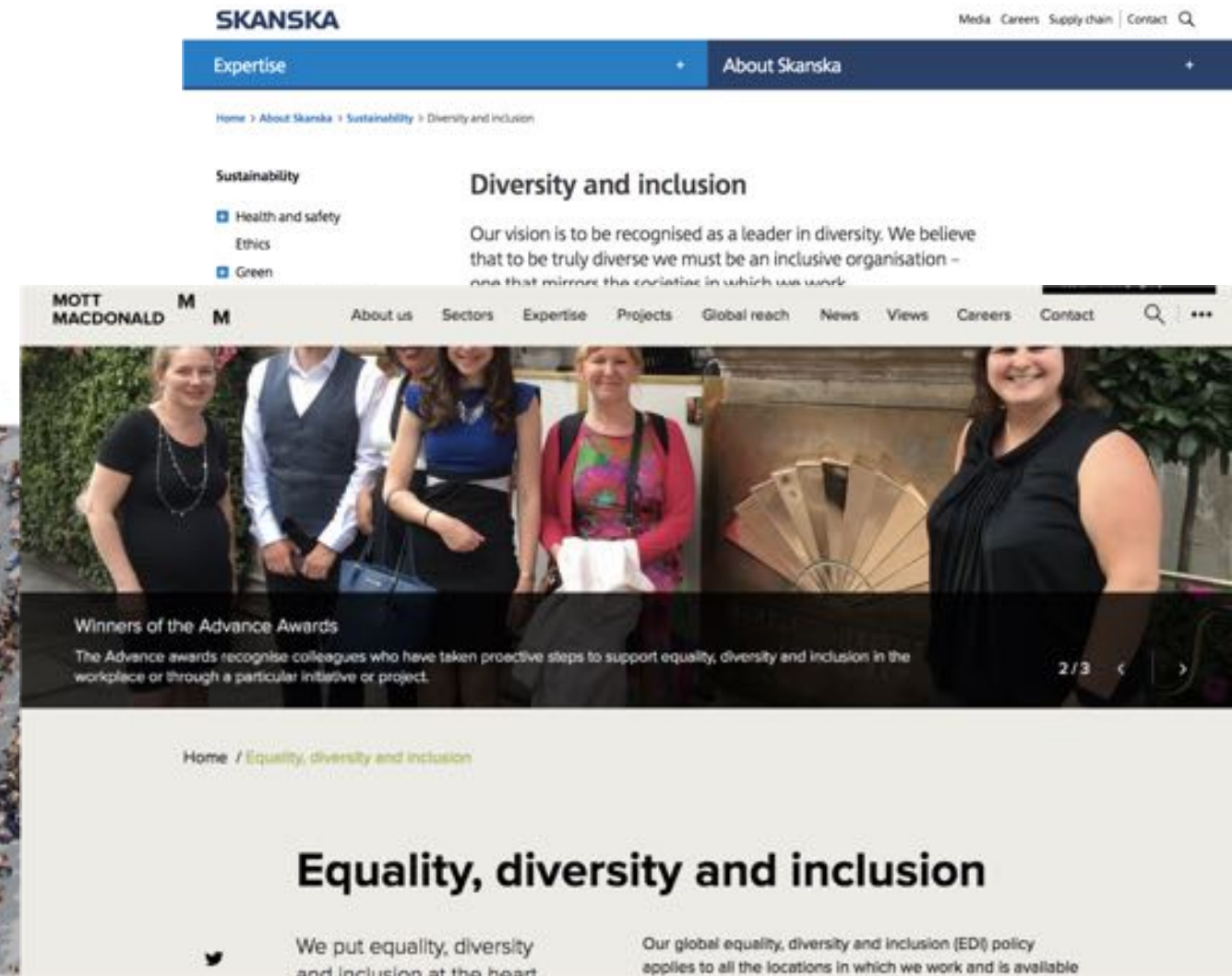
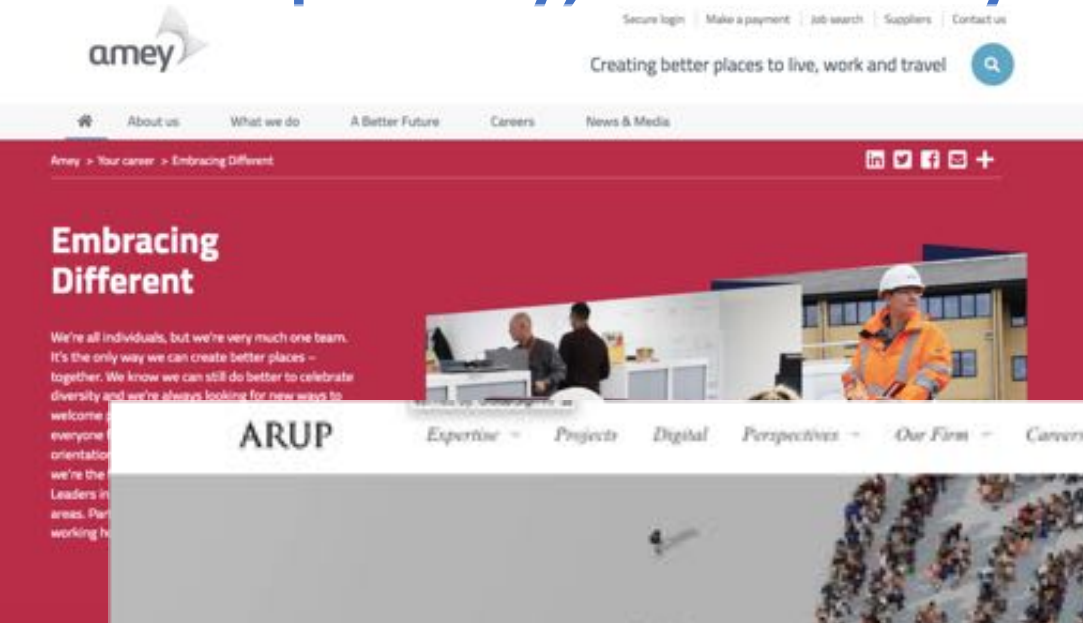


Table 3: Percentage of male and female engineers in the companies in the sample by pay quartiles. Verditer Consulting, 2019.



Equality, Diversity and Inclusivity



What do Equality, Diversity and Inclusivity mean?

- Diversity is a measure of demographics; it considers similarities and difference in terms of age, gender, ethnicity, religion, sexual orientation, disability, educational background. Measures of diversity are typically numbers or proportions.
- Inclusivity relates to people's perception and experience of the culture in which they work or study.
- Equality is about recognising that everyone should have the opportunity to full their potential.

The case for improving cultures and practices.

- Ethical – it is the right thing to do.

Business case for improvements

- Companies in the top-quartile for gender diversity on executive teams are 21% more likely to outperform on profitability than other companies.
- Companies in the top-quartile for ethnic/cultural diversity on executive teams are 33% more likely to have industry-leading profitability.
- Companies in the bottom quartile for both gender and ethnic/cultural diversity were 29% less likely to achieve above-average profitability than were all other companies in their data set.

https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Organization/Our%20Insights/Delivering%20through%20diversity/Delivering-through-diversity_full-report.ashx

https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Organization/Our%20Insights/Delivering%20through%20diversity/Delivering-through-diversity_full-report.ashx

Business case for improvements

- 2013 study by Deloitte revealed that employees who think their organisation supports diversity and who feel included perform better (83% uplift);
- Team collaboration is also improved (42% uplift).

<https://www2.deloitte.com/content/dam/Deloitte/au/Documents/human-capital/deloitte-au-hc-diversity-inclusion-soup-0513.pdf>

Business case for improvements – Royal Academy of Engineering

- 80% of engineers report that feeling included in their organization increases motivation
- 68% of engineers report it increases performance
- 52% of engineers indicate it leads to an increased commitment to their organisation.
- Included engineers are more likely to understand business priorities and are more confident about speaking up (e.g. about improvements or mistakes, including health and safety violations).



**Creating cultures
where all engineers thrive**

A unique study of inclusion across
UK engineering

Creating an inclusive culture- Seven measures of inclusivity

1. Can people be open about themselves and their life outside work?
2. Do people feel they are treated with respect?
3. Are relationships friendly, collaborative, free of offensive banter, bullying or harassment?
4. Are staff supported in their career development and do they feel the promotion process to be fair?
5. Are staff able to work flexibly while advancing their careers?
6. Do engineers believe their managers are committed to diversity and inclusion
7. Is there a diverse range of people in the organization?



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Creating an inclusive culture- Measuring inclusivity

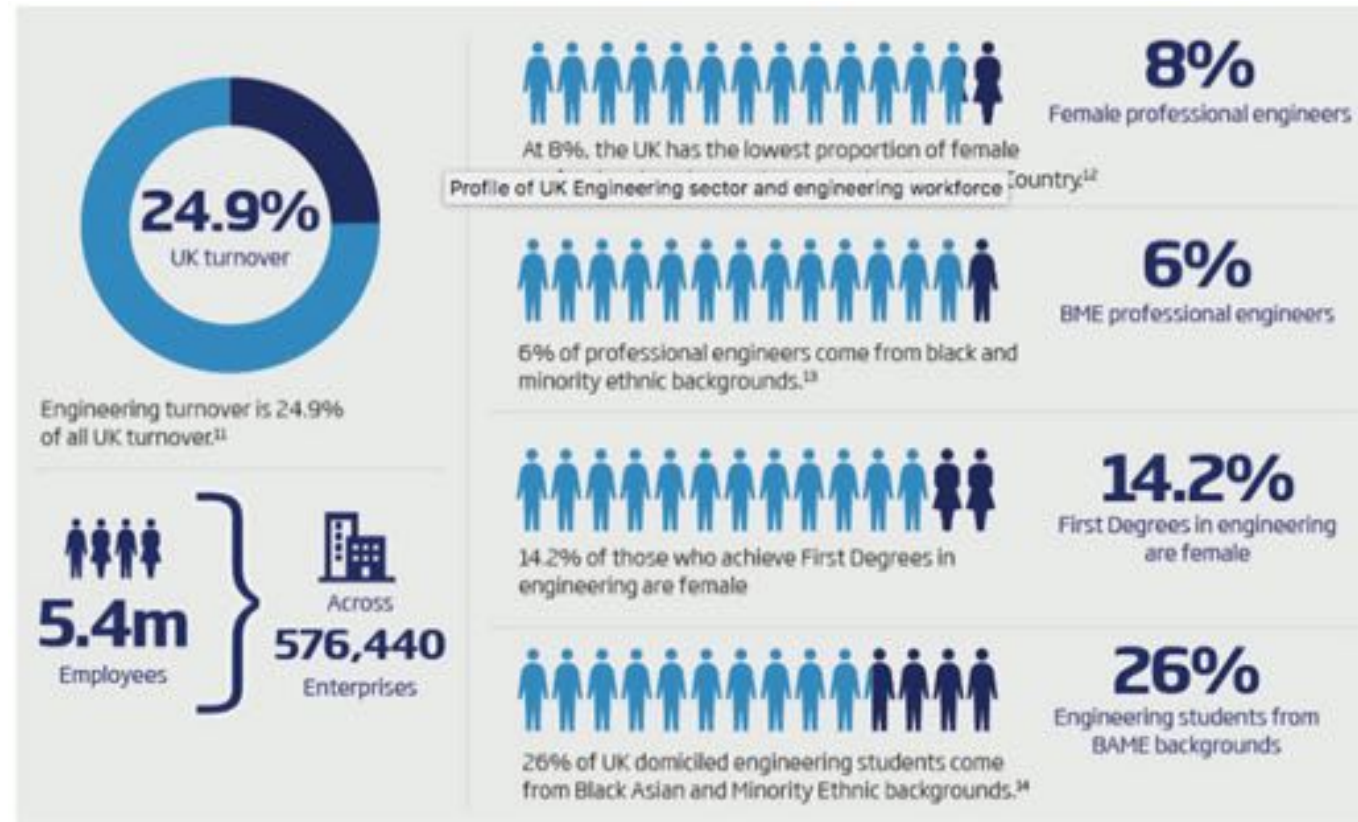
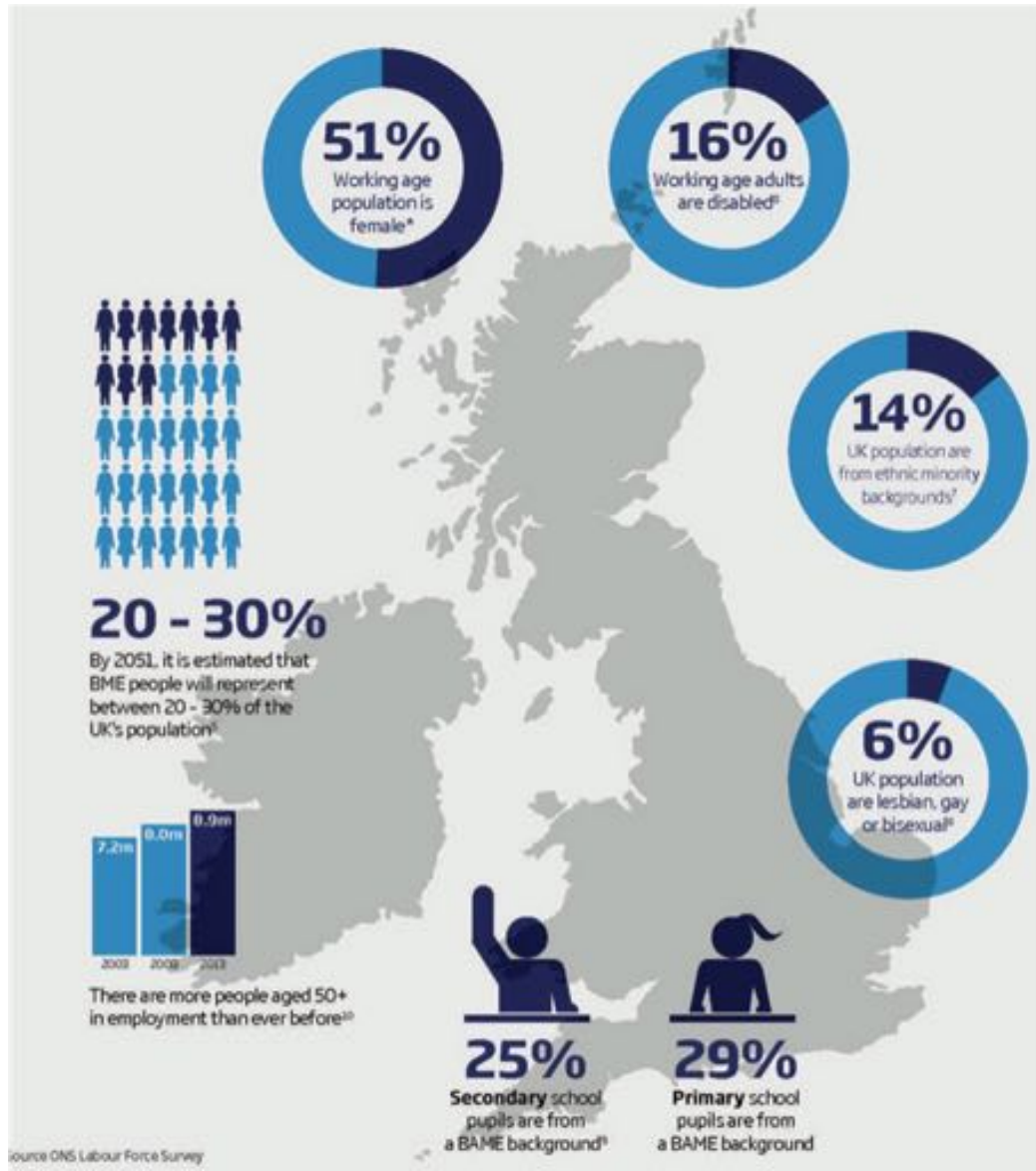
- Different groups have different experiences of diversity.
- The work by the Royal Academy of Engineering has shown that:
 - White male engineers feel that the culture of engineering is more inclusive than female engineers
 - Female engineers in turn feel that it is more inclusive than engineers from BAME backgrounds.



**Creating cultures
where all engineers thrive**

A unique study of inclusion across
UK engineering

UK situation



<https://www.raeng.org.uk/diversity-in-engineering/business-benefits-key-facts/key-facts>

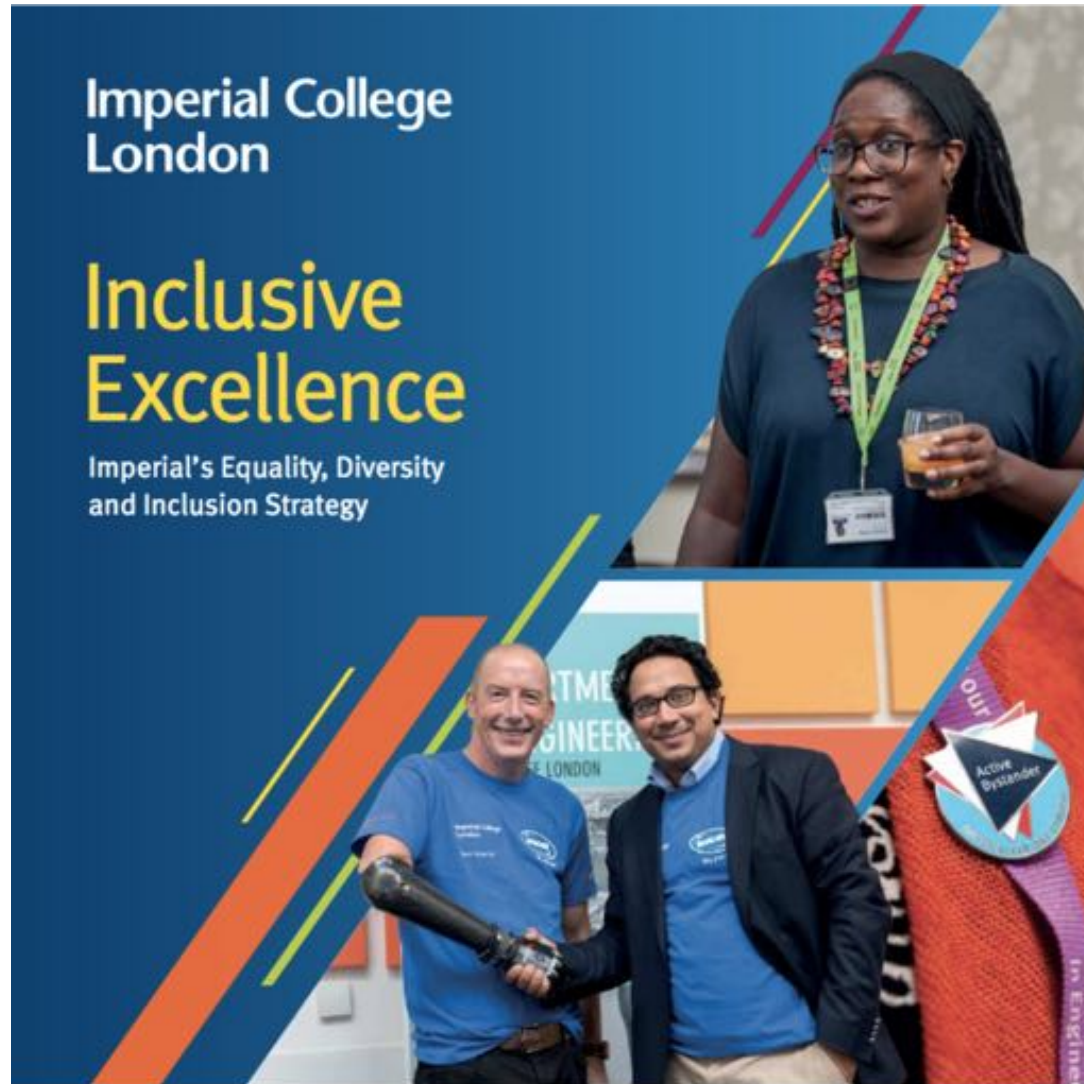
UK HEA Accreditation

Imperial College is now actively engaging with

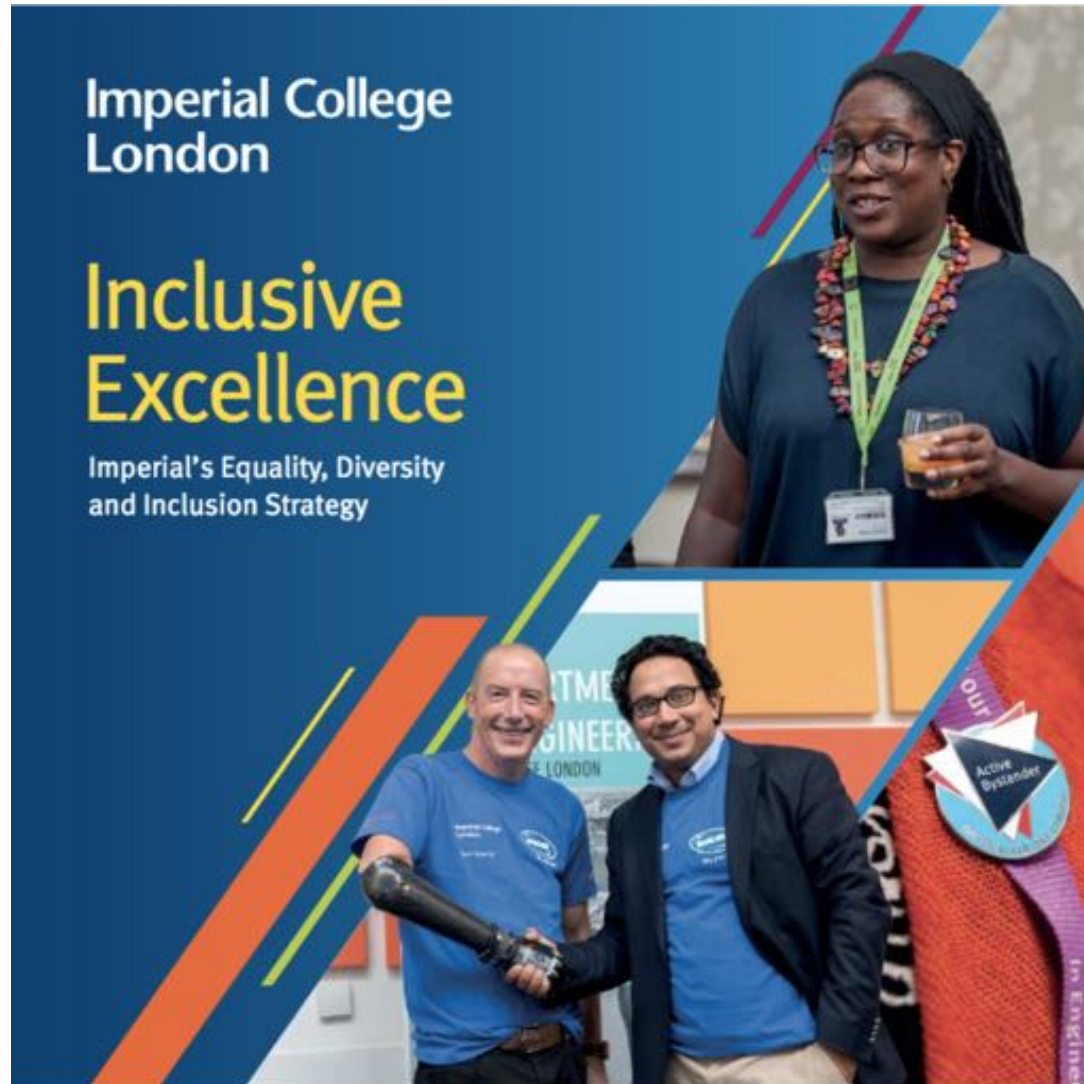
- the Athena SWAN awards
- the Race Equality Charter
- the Stonewall Workplace Equality Index

Imperial College is a Disability Confident Employer.

Imperial college strategy



Imperial college strategy



Athena Swan Charter – Advance HE

Established in 2005 to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research.

Charter was expanded in 2015 to recognise work undertaken in arts, humanities, social sciences, business and law (AHSSBL), and in professional and support roles, and for trans staff and students.

Charter now recognises work undertaken to address gender equality more broadly, and not just barriers to progression that affect women.

Athena Swan Charter – Bronze Awards



Bronze institution awards recognise that the institution has a solid foundation for eliminating gender bias and developing an inclusive culture that values all staff.

This includes:

- an assessment of gender equality in the institution, including quantitative (staff data) and qualitative (policies, practices, systems and arrangements) evidence and identifying both challenges and opportunities
- a four-year plan that builds on this assessment, information on activities that are already in place and what has been learned from these
- the development of an organisational structure, including a self-assessment team, to carry proposed actions forward

Athena Swan Charter – Silver Awards



- Silver institution awards recognise a significant record of activity and achievement by the institution in promoting gender equality and in addressing challenges across different disciplines.

Applications should focus on

- what has improved since the Bronze institutional award application
- how the institution has built on the achievements of award-winning departments
- what the institution is doing to help individual departments to apply for Athena SWAN award

Athena Swan Charter – Gold Award



- A Gold department award recognises significant and sustained progression and achievement by the department in promoting gender equality and to address challenges particular to the discipline.
- A well-established record of activity and achievement in working towards gender equality should be complemented by data demonstrating continued impact.
- Gold departments should be beacons of achievement in gender equality and should champion and promote good practice to the wider community.

Athena Swan Charter – Drivers for award

- Research environment in research excellence framework (REF)
- Some funders look for evidence of an award as prerequisite to funding
- May help with recruitment

Athena Swan – Success rate 2018



Athena Swan – Imperial College

Institution Silver Award 2016

Faculty of Engineering

Department of Aeronautics, **Bronze**, November 2014

Department of Bioengineering, **Silver**, November 2018

Department of Chemical Engineering, **Silver**, renewed November 2017

Department of Civil and Environmental Engineering, **Bronze**, April 2018

Department of Computing, **Bronze**, renewed April 2017

Department of Earth Science and Engineering, application planned for 2020

Department of Electrical and Electronic Engineering, **Bronze**, November 2017

Department of Materials, **Silver**, renewed April 2017

Department of Mechanical Engineering, **Bronze**, April 2019

Dyson School of Design Engineering, new department

Athena Swan – Application

Data and discourse on data

Civil Engineering 2017 Application:

<https://www.imperial.ac.uk/media/imperial-college/faculty-of-engineering/civil/public/ImperialCollegeCivilSubmission2017.pdf>

Athena Swan – 2017 application Civil Engineering

Student/Staff Type	Number of Women	Number of Men
Undergraduate – 2 courses	113 (33%)	227 (67%)
Postgraduate Taught – 14 courses	97 (36%)	176 (64%)
Postgraduate Research	54 (34%)	105 (66%)
Research Staff	14 (32%)	30 (68%)
Academic Staff	10 (19%)	42 (81%)
Learning & Teaching Staff	1 (33%)	2 (67%)
Professional Services	23 (58%)	17 (42%)
Technical Services	0	13 (100%)

Athena Swan – Student data

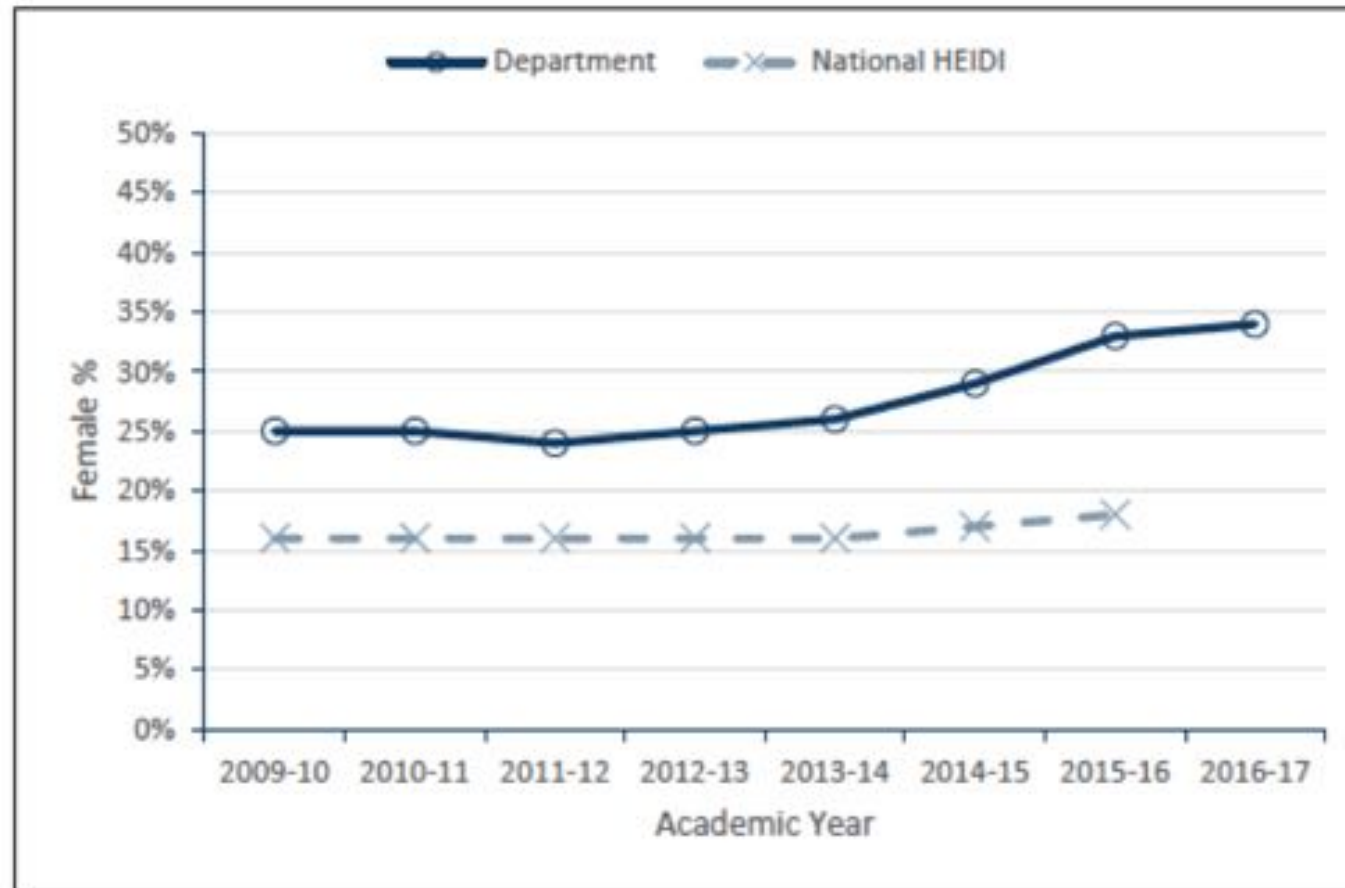
Applications – offers – acceptances

Degree attainment

Pipeline

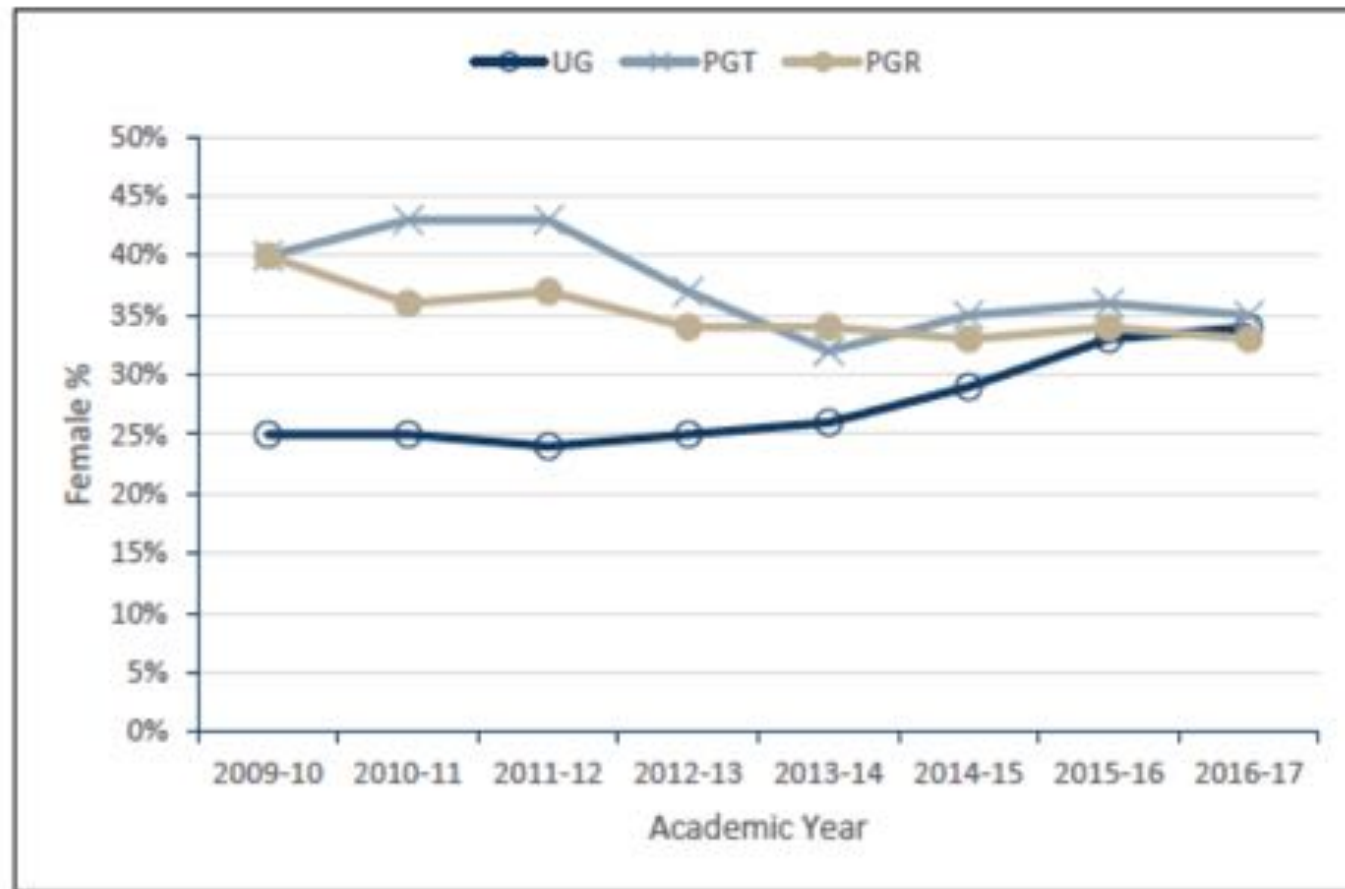
Athena Swan – 2017 application Civil Engineering

Figure 4.1.1 Comparison of numbers of female MEng and BEng students in the Department and Nationally. National data is for JACS Principal Subject (H2) Civil engineering.



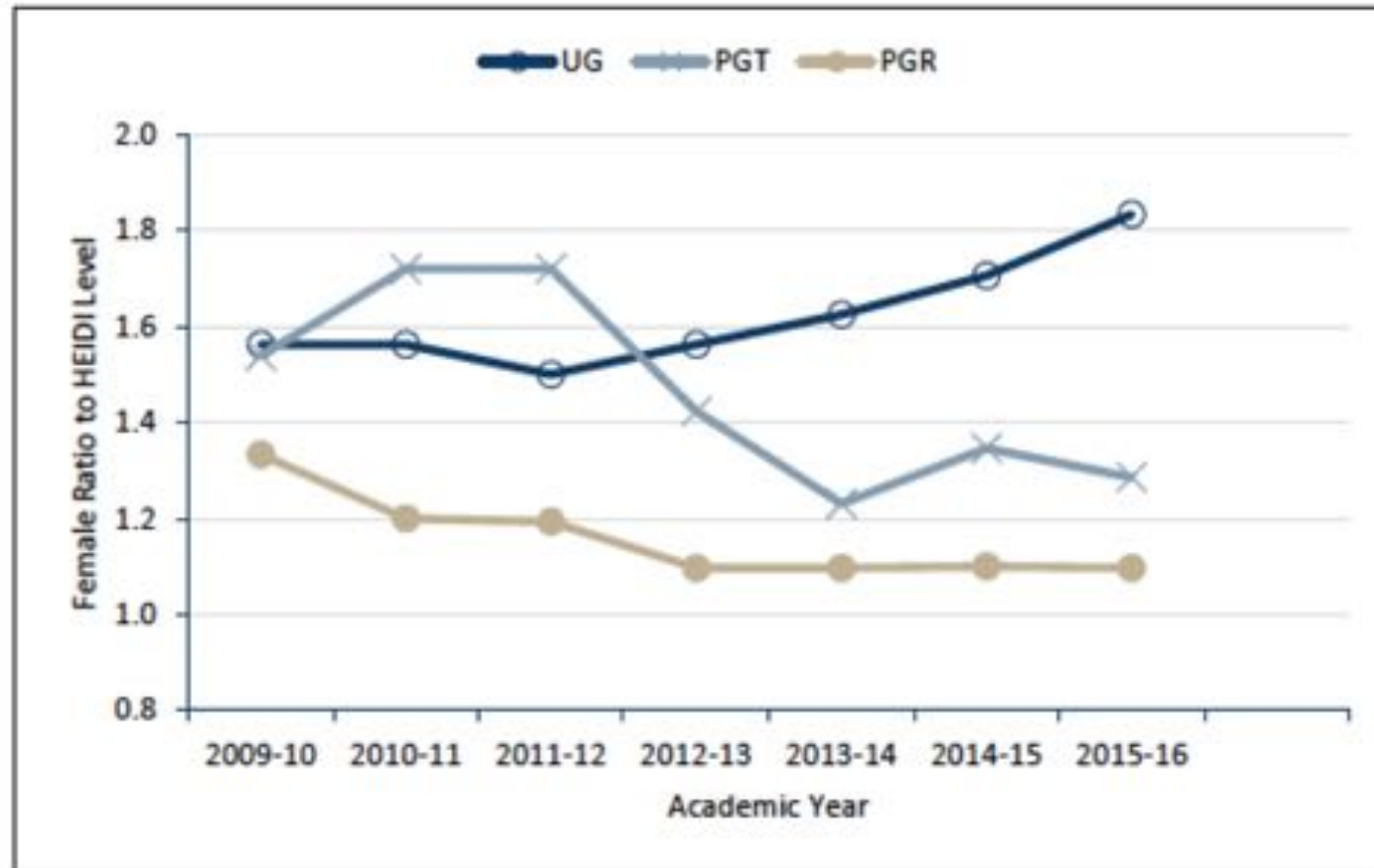
Athena Swan – 2017 application Civil Engineering

Figure 4.1.4 Comparison of female student percentages at Undergraduate, Postgraduate Taught and Postgraduate Research Level

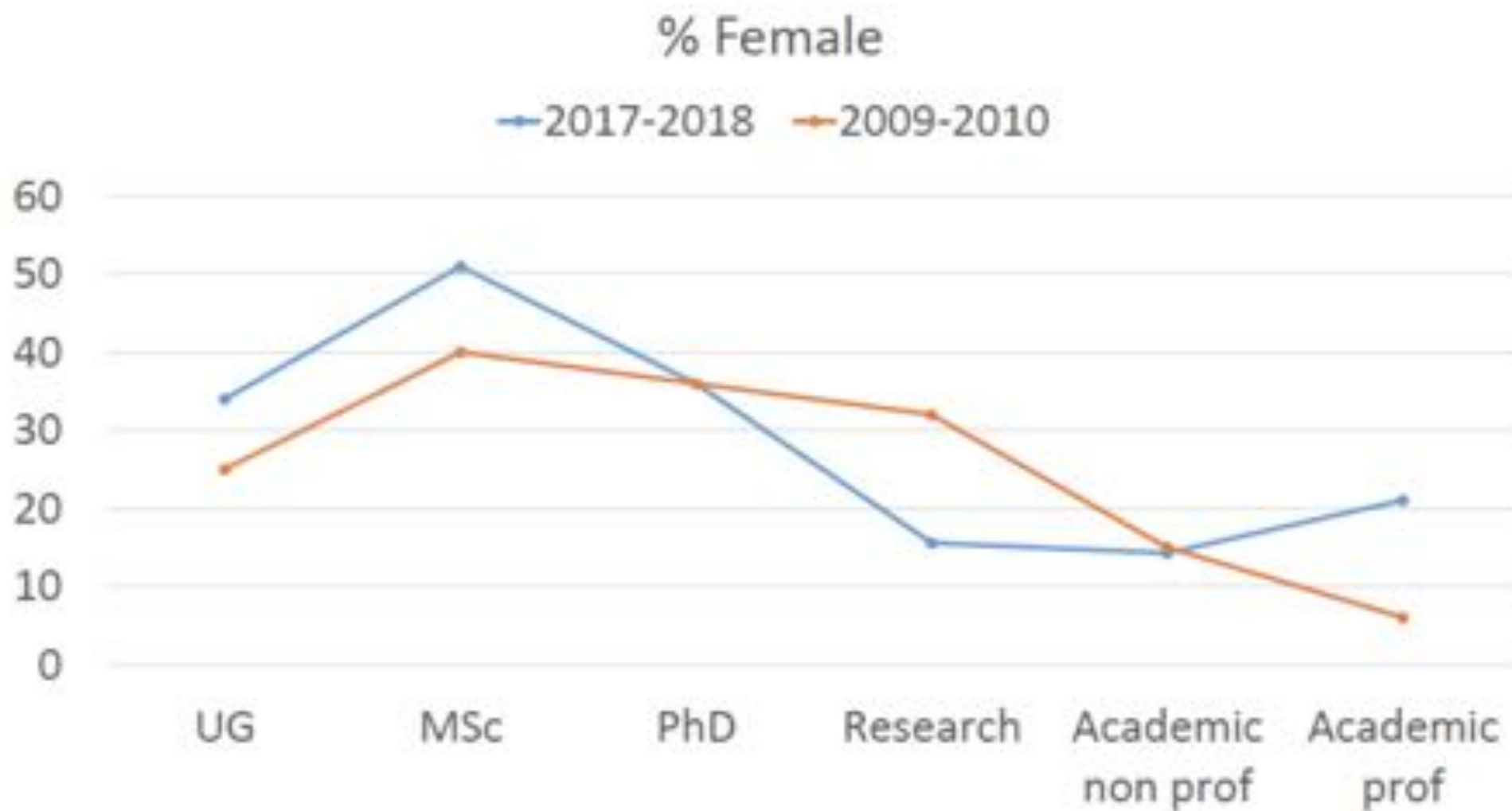


Athena Swan – 2017 application Civil Engineering

Figure 4.1.5 Comparison of ratios of female student percentages at Undergraduate, Postgraduate Taught and Postgraduate Research Levels to National HEIDI Data. National data is for JACS Principal Subject (H2) Civil engineering



Pipeline



Athena Swan – Staff data

- Recruitment
- Induction
- Career progression

Athena Swan – Staff data

- Some data available through college staff survey
- Need to run Departmental survey every 2 years

Athena Swan – Action plan

	OBJECTIVE	RATIONALE	KEY OUTPUTS & MILESTONES	TIMEFRAME (start/end date)		RESPONSIBILITY	SUCCESS MEASURE
1.	Undergraduate (MEng) Course						
1.1	Increase proportion of female UG applications	Data show proportion increasing from 25% to 34% over the last 5 years and no negative bias in recruitment process. Maintain this trend by introducing further initiatives	a) Engage more female UG year 3 & 4 and research students in outreach activities, including the Open Day	Oct 2018 and onwards	Review annually one month after the main activity	Outreach Coordinator & Director of Admissions	Maintain an increasing trend in the number of applications from female students
			b) Promote female role models in the wider context of diversity via i) the Departmental recruitment video ii) Departmental social media (twitter) iii) Department website, ensuring positive gender representation	Oct 2018 and onwards	Review annually at the start of autumn term	Director of Undergraduate Studies & Director of Admissions	Increase percentage of female Year 1 UG students to: 36% by 2019 38% by 2021
1.2	Support career development	Perception that UG applicants and students do not have a full appreciation of the breadth of the civil engineering profession, revealed through SAT discussions and feedback from	a) Introduce a section "Is Civil Engineering for me?" in the Departmental website, including biographies of, and interviews with, alumni following different career paths, giving emphasis on female role models	Oct 2018 and onwards	Review every two years in October	SAT Admin, Careers' Advisor, UG & PG Teams	Raised awareness of possible career paths, as monitored by the Dept. Careers' Advisor

Athena Swan – Action plan areas

1. Undergraduate MEng Course
2. Postgraduate MSc Course
3. Research postgraduate
4. Career support, appointments and promotion

Athena Swan – benefits

Fantastic incentive to assess and improve issues around culture and equality

Athena Swan – concerns

1. Volume of data and nature of data required – e.g. staff engagement on committees
2. Equating promotion of academic staff and progression of non-academic staff
3. Significant burden placed on female staff
4. Expectation to provide / comment on data involving small numbers – e.g. reasons why academic staff left

EDDC committee

1. Meets quarterly
2. Responsible for action plan implementation
3. Representation from staff and students
4. Engagement with key areas of the department

EDDC activities

1. Dissemination of key information
2. Training coordination
3. Focus groups to identify areas of concern
4. Departmental survey and analysis of college staff survey
5. Communication and culture within the Dept.

Dissemination of key information

Support for Staff who are
Parents and/or Carers
A Brief Guide



Department of Civil and Environmental
Engineering
Imperial College London
January 2020



Imperial College
London



Support for Staff
A Brief Guide
2019-2020



Department of Civil and Environmental
Engineering
Imperial College London

Imperial College
London



Active Bystander Toolkit Challenging Negative Behaviours

- Unconscious bias (All staff + UG students)
- Active bystander (All staff + UG students)
- *Key benefit of training is to enable / prompt conversations*

Training by external providers v. expensive

- Monitoring uptake of online ED+I training



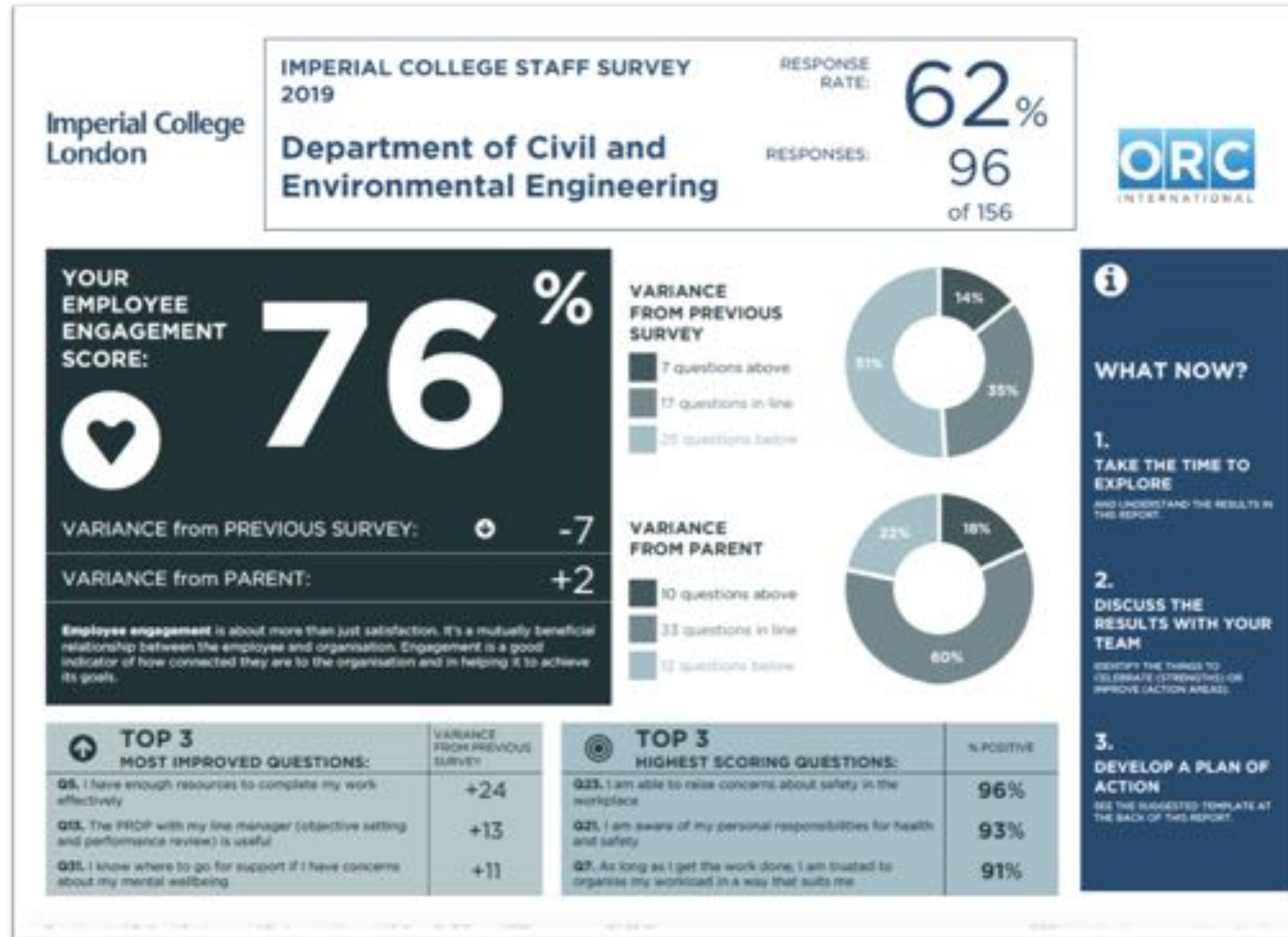
It's everyone's responsibility

Focus groups

- 2018: Technical and Professional staff
- 2019: Post-doctoral researchers
- 2020: Female PhD students + alumni – looking at transition from PhD to post-doc
- 2020 / 2021: Staff who identify as carers

Staff surveys

- 2019: College staff survey - analysis
- 2020: Departmental survey – develop, run, analyze



Communication and culture

- 2019: First Dept. away day
- 2018 - : Departmental level coffee mornings for staff
- 2019/2020: Networking lunches targeted at female staff / postgraduate research students

Observations

- Equality, diversity and inclusivity awareness has developed over the past decade
- The Athena Swan accreditation process is onerous but is a key driver for change in UK higher education institutions
- Key tasks are to monitor data, improve communication and develop awareness via training