

Engineering an Inclusive Industry: How Equality, Diversity and Inclusion Efforts Can Transform the Engineering Sector.

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Abstract

This report sets out to examine diversity and inclusion the engineering industry in the UK. With women comprising only 16.5%, and people from ethnic minority backgrounds comprising only 11.4% of the engineering workforce in the UK (Royal Academy of Engineering, 2024), this research explores how promoting equality, diversity and inclusion (EDI) is beneficial for the industry, both for the individual employee experience, and for the sector in cultivating a wider, more innovative talent pool.

This report comprises a literature review of academic and industry research into the role of EDI initiatives; in attracting and retaining talent, fostering innovation and inclusive design and in competing for public and private public sector, investment and clients. A variety of different EDI inclusivity initiatives are examined in this context.

To provide specific insights into how EDI initiatives are currently being implemented in the UK engineering industry, the report includes the case studies of Mott MacDonald, ARUP, AtkinsRéalis and Rolls-Royce and their respective EDI strategies.

Overall, this report found that EDI has become highly relevant in the engineering industry, with 81% of engineers valuing diversity as an important factor in career decisions (Royal Academy of Engineering, 2024). EDI not only attracts new talent, but diversity can foster higher levels of innovation and inclusion in engineering design, with diverse teams being awarded 121% more patent citations than less diverse teams (Royal Academy of Engineering, 2024). In particular, inclusivity initiatives such as mutual mentorship programmes and staff community programmes have been shown to not only create a welcoming environment, but are effective talent development opportunities, particularly for under-represented groups (AARP, 2018), (Rodriguez, 2021).

This report also presents the findings from a small-scale pilot survey on the influence of EDI on Imperial College Engineering Students' career decisions. While the survey is too small to be statistically significant, the results mirror and support findings in the wider literature, finding EDI to be an increasingly relevant factor in career decisions in the engineering sector. For example, the results highlighted EDI being an important part of the students' personal values, with an average importance of 3.62 out of 5, with 5 being very important.

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Introduction

Equality, diversity and inclusion, commonly referred to as EDI, encompasses a range of legal frameworks and company and industry initiatives aimed at forming systems that prevent and mitigate prejudice and discrimination in the workplace, education and society.

The Equality Act, introduced in the UK in 2010, consolidated 50 years of separate equality and non-discrimination legislation, including Acts of Parliament, Statutory Instruments and European directives, into one formal piece of legislation (Kirton & Greene, 2016). The Act prohibits discrimination based on the following protected characteristics: age, disability, gender reassignment, marriage and civil partnership, race, religion or belief, sex, sexual orientation and pregnancy (Great Britain. *Equality Act 2010*). The act prohibits discrimination, direct and indirect, based on any of these protected characteristics. This legislation outlines the legal requirements for how discrimination and inequalities should be prevented and addressed to create equality and equality of opportunity, e.g. in the context of providing necessary accommodations for disability.

Equality, diversity and inclusion are three overlapping, but distinct concepts. It is important that initiatives brought into the workplace address all aspects of EDI. Another related concept is equity. A key difference between equality and equity, is the distinction between the “same” and “fair” treatment. Where equality demands all employees be treated the same, without discrimination and with equal opportunities, equity requires systematic barriers be recognised and rectified. Diversity and inclusion are also distinct concepts. Diversity can be quantitatively measured using various metrics, for example the percentage representation of different genders, ethnicities and ages in a given company. On the other hand, inclusion is a qualitative measure of “the extent to which people feel valued for who they are” (Royal Academy of Engineering, 2024).

One key EDI initiative mandated by the Equality Act is the requirement for gender pay gap reports to be published by all employers in the UK with more than 250 employees (Great Britain. *Equality Act 2010*). A more recently introduced EDI initiative in UK legislation is the Equality Action plan, passed in April 2026. This legislation suggests that companies with 250+ employees create a voluntary action plan alongside their gender pay gap report. This plan should detail the policies in place and steps being taken to address the gender pay gap in their company. This plan will become a legal requirement in spring 2027 (Great Britain. *Employment Rights Act 2025*).

In addition to abiding by these laws, many industries now seek to introduce further EDI initiatives. There are many social and economic reasons for why EDI initiatives might be implemented.

The current state of the engineering industry in the UK lacks significant diversity and equality. Women comprise only 16.5% of the engineering workforce, compared to 47.7% of UK general workforce, with men representing 92% of the upper pay quartile in engineering (Royal Academy of Engineering, 2024). People from ethnic minority groups make up only 11.4% of engineers in the UK, compared to 28.2% of the national working age population (Royal Academy of Engineering, 2024). Compared to the national gender pay gap of 12.8% in the UK (Office for National Statistics, 2025), the gender pay gap within some engineering professions is significantly different. While the gender pay gap among civil engineers is similar (12.5%), in electrical engineering men are paid 16.2% more on average on an hourly basis compared to women (Office for National Statistics, 2025). Mechanical and aerospace engineering, however, both have negative gender pay gaps, of 2.5% and 11.2%, respectively (Office for National Statistics, 2025). We also see a distinct lack of inclusion in the general workforce, with more than half of all participants in a global study by EY feeling uncomfortable expressing parts of their identity at work, as they feared it “holding them back” (EY, 2023). This is a major challenge that must also be directly addressed within the engineering industry specifically.

The industry is facing a major problem with shortage of skilled workers, with almost half of engineering companies in the UK “struggling to find talent” (Royal Academy of Engineering, 2024), particularly when filling senior positions. EDI offers an incredible opportunity to widen the talent pool of candidates in engineering.

Talent attraction and retention

Employers with defined policies and strategies surrounding EDI goals, beyond government requirements, have a competitive advantage in attracting and retaining talent. Diversity and inclusion have become increasingly important for jobseekers, with 81% of engineers valuing diversity as an important factor in employment decisions (Royal Academy of Engineering, 2024). Diversity offers the engineering industry an opportunity for firms to expand the range of talent they attract.

This effect is especially relevant among women and young people. In a 2017 published by PwC, 79% of women in engineering and construction had researched their most recent employer’s leadership team’s diversity when deciding whether to accept the position (PwC, 2017). Efforts and strategies aimed at diversifying leadership therefore demonstrate commitment to addressing employee needs and concerns.

Diversity is also beneficial for talent retention, particularly among young employees. Gen Z and millennial employees are 42% more likely to stay at a diverse company for more than five years compared with employers considered un-diverse (Royal Academy of Engineering, 2024). Efforts in EDI provide economic opportunities by attracting a wider talent pool.

Highlighting flexible working, diverse leadership and inclusivity measures are effective ways at making a company's offer competitive and unique. Continuing these efforts beyond recruitment is also essential in retaining this talent and creating a truly diverse workforce at all levels of seniority. This is highlighted in a 2022 study published by McKinsey & Company, where a lack of workplace flexibility and lack of health and wellbeing supports were the top reason that 26% of participants quit their jobs (McKinsey & Company, 2022a). 14% of participants in the same study ranked "noninclusive and unwelcoming community" in the workplace as the top reason they quit their jobs (McKinsey & Company, 2022a). By understanding the increasing importance of EDI to job candidates and employees in the engineering sector, the return on investment for employers becomes increasingly clear. EDI should not only be seen as a requirement to satisfy government policy, but also a means for employers to set themselves apart from competitors in the engineering industry.

Beyond the benefits for talent attraction and retention, an inclusive culture in the workplace created by EDI can contribute to increased motivation and productivity among employees. A survey of UK engineers found more than half of survey participants (53%) reported increased motivation when they felt included in the workplace. Furthermore, 45% of respondents reported a correlation between feeling included and improvement in their performance at work (Royal Academy of Engineering, 2024). Efforts in EDI can therefore have a domino positive effect on workplace atmosphere, employee experience and employee, therefore company, performance.

Innovation and inclusive design

In addition to EDI's impact on talent attraction and retention, diversity and inclusion measures contribute to creating an inclusive workplace while also stimulating higher levels of innovation and inclusive design.

A reason for this is the link between cognitive and identity diversity. Identity diversity refers to differences in gender, ethnicity, sexuality, age and other protected characteristics. Cognitive diversity, however, refers to a variety of knowledge and experience (Page, 2019). These individual cognitive portfolios are based on personal experiences, including culture, upbringing and lived experience. Teams with diverse

ethnicities, genders, physical abilities, etc. therefore draw upon a richer diversity of perspective (Page, 2019). One can assert that a team's diversity contributes to more creative and innovative design. We see this in a US survey which showed diverse and inclusive teams to have 121% more patent citations than more homogenous teams (Royal Academy of Engineering, 2024). This demonstrates a correlation between diversity and innovation in engineering.

Diversity at all stages of the design process, including in the design team, research and test participants, is hugely important when creating an inclusive product or service. Neglecting to consider diverse consumer needs has proven to be highly dangerous, for example in car crash testing. The use of male dummies in car crash testing contributes to women being 47% more likely to be seriously injured in a car crash compared to men (Criado-Perez, 2019). By including a diversity of voices in the design process, the team can draw on personal experiences to make more inclusive design decisions (Royal Academy of Engineering, 2024). In addition to mitigating risks, inclusive design reduces the likelihood of adaptations needed after release, which can cost 10,000 times a similar change during the design conception (Waller et al., 2015).

Inclusive design can also be financially beneficial for companies because it can broaden their market reach. For example, by using "Third Age" suits when testing the Ford Focus, the engineers were able to better understand and adapt the car's design to the needs of the elderly. This inclusive design has made it popular among elderly drivers, increasing Ford's market reach (Burt, 2016). This approach of inclusive design has been shown to have the potential to increase the customer base four-fold compared to the original target group (Royal Academy of Engineering, 2024).

The correlation between diversity and innovative, inclusive design is therefore significant and can provide benefits for both consumers and companies.

Competitive edge for investment and public sector contracts

EDI practices and standards are becoming increasingly important for engineering firms to access business opportunities, develop loyal customer bases and encourage external investment and funding.

We see a competitive advantage in having high EDI standards and practices when seeking public contracts. Beyond legal requirements, government tenders now frequently include an EDI section outlining preferences and expectations (Royal Academy of Engineering, 2024). By not only adhering to EDI regulations, but also prioritising diversity and inclusion, engineering companies are in a better position to compete for public sector contracts. An example of a large public sector engineering

body prioritising EDI is National Highways. National Highways is a major employer in the public sector engineering industry, with more than 800 organisations across its supply chain as of 2024 (National Highways, 2025). Increasingly, National Highways is focussing on the equality and diversity standards of their suppliers. We see this in their diversity objectives, with a target of collecting diversity data from 70% of key suppliers and having 60% of key suppliers demonstrate EDI improvements, either through external accreditation or using an EDI growth matrix (National Highways, n.d.). These objectives highlight how strong EDI policies and a diverse workforce can give suppliers and engineering firms in the public sector a competitive edge, as they offer an opportunity for national bodies, such as National Highways, to reach EDI targets.

In addition to offering business opportunities, EDI is a way for engineering firms to attract and build a loyal consumer base. Company diversity and inclusion is becoming increasingly important to consumers when making purchasing decisions in general, and one can assume this is no different among potential clients to engineering firms. In the UK, more than half of all consumers claim the perceived diversity and inclusivity of a brand influence their purchasing decisions (Kantar, 2023). This is particularly relevant among the younger demographic, where two thirds of people aged between 18 and 25 assess the marketing's inclusivity when considering a purchase (Royal Academy of Engineering, 2024). These statistics demonstrate the significant role EDI plays in attracting or deterring a consumer base, as well as building brand loyalty. A similar pattern is emerging within the engineering industry specifically, where in 2023 68% of client bids requested EDI information from a firm when deciding whether to work with them, according to Civic Engineers, marking a significant increase from 42% the previous year (Royal Academy of Engineering, 2024). Furthermore, ARUP reported having worked with clients who regularly requested performance reviews specifically focussed on EDI (Royal Academy of Engineering, 2024). A reputation and culture of strong equality, diversity and inclusion in engineering firms is therefore increasingly becoming recognised as a company's strength.

EDI is not only beneficial when competing for public contracts and building a strong reputation and relationship with consumers, it also offers significant advantages for companies seeking investment opportunities. Investment opportunities frequently have EDI policy prerequisites and require EDI information to be provided as part of investment assessments. In a McKinsey & Company survey of 185 private equity firms, 55% collected gender diversity data and 40% collected ethnic diversity data of senior management from companies in which they invest (McKinsey & Company, 2022b). This signals a clear interest in diversity among investors. Another example of investment opportunities being tied to EDI policy is the Investor Partnership Programme run by Innovate UK, the national innovation agency in the UK. To apply for the programme, which offers SMEs access to funding and business advice (Innovate UK, n.d.),

applicants must meet certain EDI requirements (Royal Academy of Engineering, 2024). Engineering firms, particularly SMEs, are therefore at a disadvantage if they cannot provide data or evidence of EDI commitments and policy.

Survey Findings: Influence of EDI on Imperial Students' Career Decisions

This survey further explores how EDI influences talent attraction, by investigating the opinions of Imperial College engineering students and the role equality, diversity and inclusion play in their career decisions and priorities. The survey comprises of 29 students, both undergraduate and postgraduate. The results are shown below.

Results

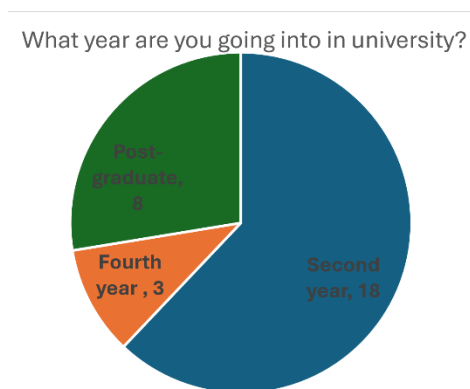


Fig 1.

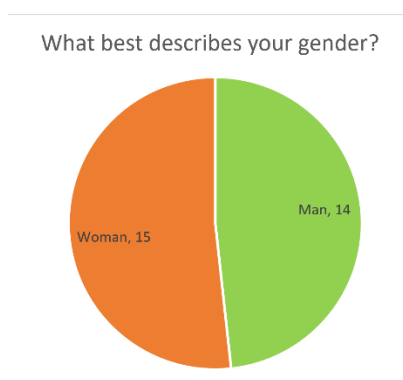


Fig 2.

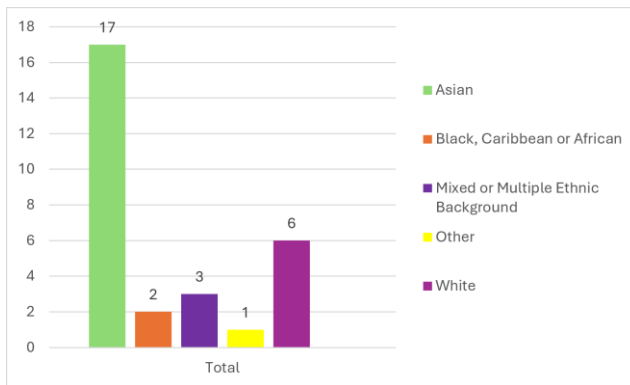


Fig 3.

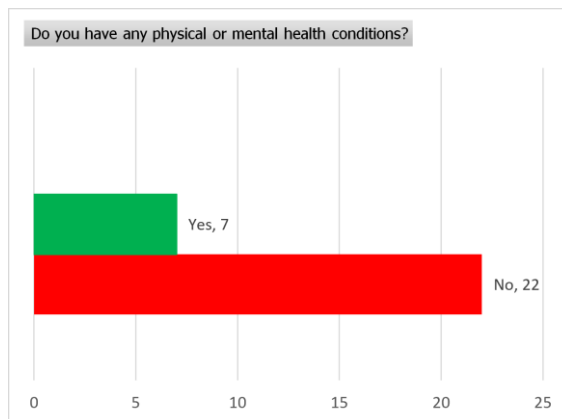


Fig 4.

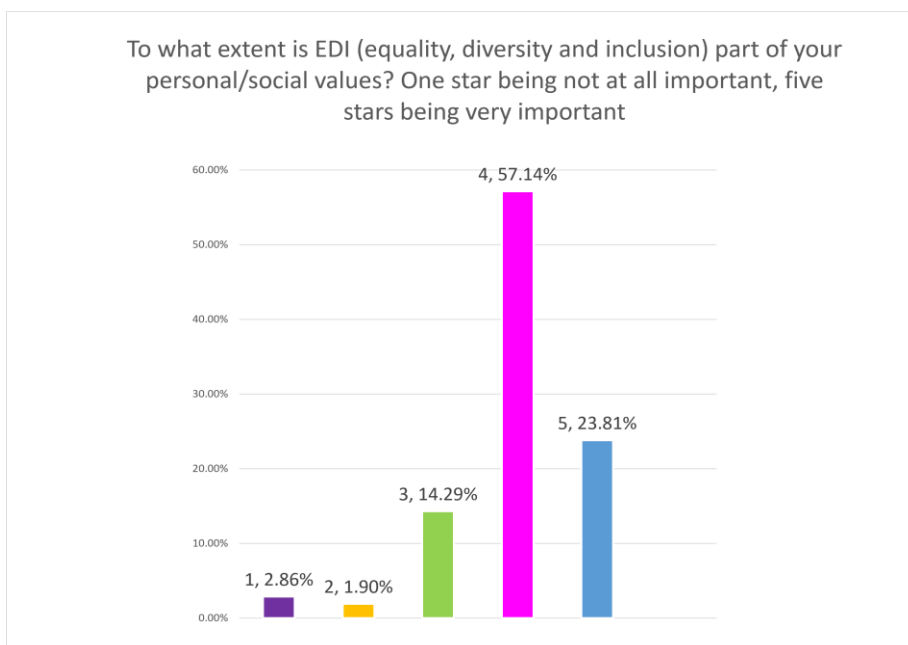


Fig 5.

How likely are you to research a company's EDI policy and pay gap data when applying to a position?

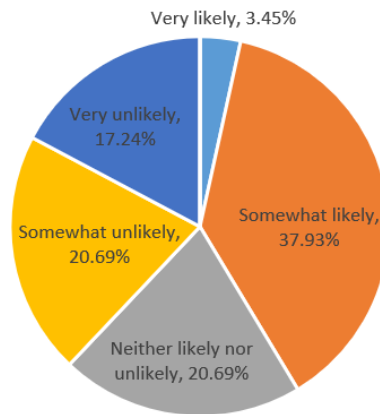


Fig 6.

How important is it to you that your employer/ future employer shares your personal/ social values?

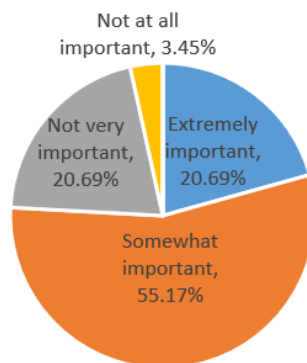


Fig 7.

Would a company's lack of diversity prevent you from applying to a position?

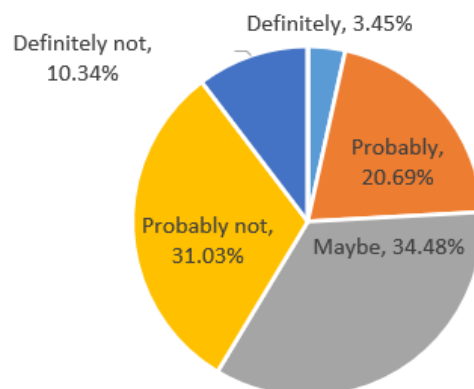


Fig 8.

Would a company's lack of diversity prevent you from accepting a position?

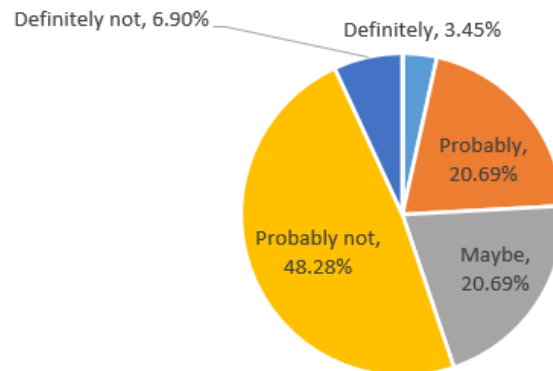


Fig 9.

What impact would a significant gender pay gap have on your likelihood to apply to/ accept a position with a potential employer?

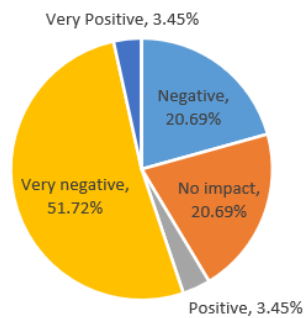


Fig 10.

What impact would a significant ethnicity pay gap have on your likelihood to apply to/ accept a position with a potential employer?

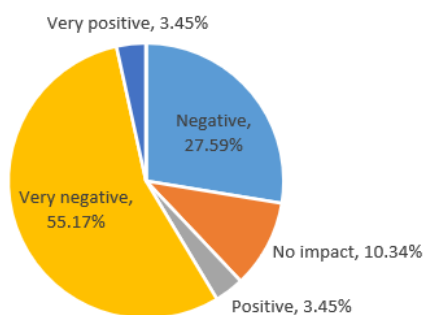


Fig 11.

What impact would available support for carers, including maternity and paternity leave, have on your likelihood to apply to/accept a position with a potential employer?

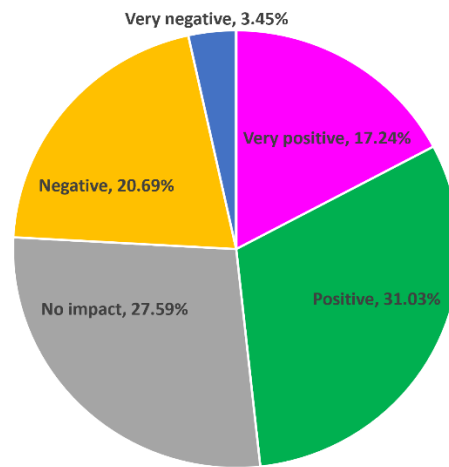


Fig 12.

If a potential employer offered disability support and accomodations, would you be more likely to apply to/ accept a position?

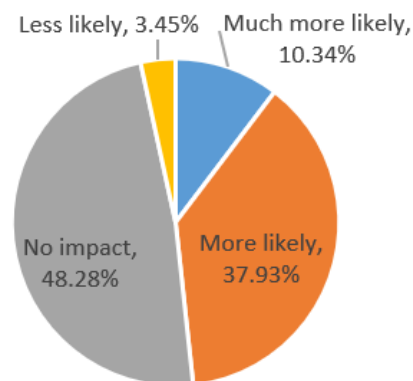


Fig 13.

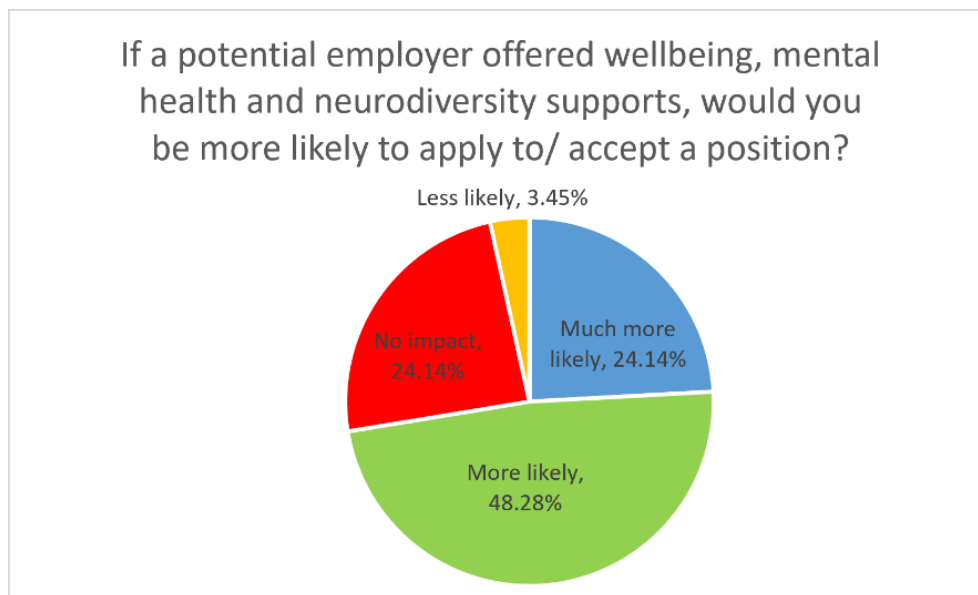


Fig 14.

Analysis of Results

While the sample size of this survey is small, with only 29 respondents, the results do mirror patterns found within the wider literature on equality, diversity and inclusion. In particular, we see the importance of EDI for young people, here students, with the respondents valuing the importance of EDI to their personal/ social values at 3.62 on average on a scale from 1 to 5. EDI is valued even more highly among women in the survey, who on average value EDI's importance at 4.73 on the same scale. These results demonstrate how relevant EDI is to engineers at Imperial.

The importance of EDI also reflects in career decisions, with 41.38% of respondents being "somewhat likely" or "very likely" to investigate a potential employer's EDI and pay gap information when applying for a position. More than three-quarters (75.86%) of all respondents found it "somewhat important" or "extremely important" that their personal values align with their employer's. These statistics indicate the relevance of EDI in talent attraction in the engineering industry. By prioritising EDI standards within the workplace, employers demonstrate an understanding of candidates' needs and values.

Furthermore, by not having meaningful levels of diversity, employers might deter potential candidates from applying or accepting a position, demonstrated in this survey as 24.14% of respondents would "probably" or "definitely" be prevented from applying or accepting a position in a company with a lack of diversity. This puts employers at a significant risk of reducing their possible talent pool. Significant gender and ethnicity pay gaps were also deterrents for the majority of survey respondents, with a significant ethnicity pay gap having a "negative" or "very negative" impact on their likelihood to pursue a position within a company for 82.76% of respondents, and a significant pay

gap having the same impact for 72.41% of respondents. These statistics demonstrate a potentially huge loss of recruitment opportunities for employers who don't address pay gaps.

EDI initiatives, including support for carers, disability supports and mental health and wellbeing supports provided by employers, also had the potential to attract more applicants. This is evident with 86% of respondents with a physical or mental health condition being “more likely” or “much more likely” to apply to/ accept a position. Wellbeing initiatives were also widely attractive to the respondents, with 72.42% of all respondents being “more likely” or “much more likely” to consider a position these supports are offered. Overall, the results from this survey reaffirm the results from general literature, demonstrating that diversity and pay gap issues have the potential to reduce talent attraction. On the other hand, by prioritising EDI and addressing applicant needs sufficiently, employers have the opportunity to increase their talent pool.

Methodology

This research survey has a small number of respondents, with 29 students in the Imperial Engineering faculty participating. The survey was distributed via a link to a Microsoft Forms questionnaire for students to complete voluntarily at a time and location of their own choosing, without any time limit. All responses were kept anonymous. The survey comprised of questions relating to demographics of the participants and various questions relating to EDI and career decisions. Respondents were also given the opportunity to provide additional comments if they choose. The results of this survey were then converted to a Microsoft Excel spreadsheet and represented graphically using pie charts and column charts. While the number of participants in this survey is very small, the results corroborate wider research on the increasing relevance of EDI in career decisions and provide a specific insight into how EDI might play a role when these Imperial students enter the engineering industry.

Inclusivity Measures

Creating an inclusive work culture is vital to make people from under-represented groups welcome in a company and the industry in general. While diversity can create a team with more varied and different ideas, an inclusive work environment must exist to ensure employees feel comfortable sharing them (Edmans, Flammer & Glossner, 2026). Inclusion is therefore important in creating more open and creative teams.

Inclusive Job Advertisements

Cultivating an inclusive atmosphere at work begins with a hiring process that makes the role feel accessible and welcoming for all applicants regardless of ethnicity, age, gender, ability or background.

The first barrier to applicants considering a role can often be the job advertisement. Applicants can easily be alienated by language or jargon that is unfamiliar. According to a 2020 study, almost two thirds of applicants wouldn't apply to a job if the title was difficult to understand (Woods, Tharakan & Brown, 2021). The wording of advertisements has the power to reduce or increase the applicant pool, as seen when BT group adjusted job advertisements to use more gender-neutral language. This change led to 300% more women applying to engineering roles at the company (BT Group plc, 2022). Advertisements seeking candidates who will "give 110 percent" could seem to imply an expectation of dedication beyond working hours and of poor work-life balance (Woods, Tharakan & Brown, 2021). Similarly, the terms "digital native" and "energetic" in job descriptions can deter older applicants (Woods, Tharakan & Brown, 2021). By considering under-represented groups when publishing job descriptions, companies are able to remove these barriers for applicants. Furthermore, including salary ranges in job advertisements can attract more under-represented applicants, such as women and people of minority ethnic backgrounds. By providing additional transparency, applicants can be reassured that the company pays equitably and fairly (Woods, Tharakan & Brown, 2021). Additionally, a recent EU directive on pay transparency prohibits employers from requesting details of an applicant's current pay (Directorate-General for Communication, 2026). The practice of requesting pay history has the effect of potentially reinforcing pay gaps by matching previous salaries held by applicants. By avoiding questions surrounding pay history, employers can further emphasise commitment to equitable pay.

Inclusive Hiring Process

Once a candidate has applied to a role, the hiring process is an important time to highlight the company's commitment to inclusion. By being considerate of the candidate's needs throughout the hiring process, a company can signal that the workplace is inclusive and accessible. Encouraging applicants to request necessary accommodations, such as sign language interpreters, accessible formats for written materials, such as braille and large print, and wheelchair-friendly access where interviews take place, signals that the role would be accessible and inclusive for people with disabilities (Woods, Tharakan & Brown, 2021).

Beyond these necessary adaptations of the hiring process, providing flexibility for candidates, for example flexible scheduling for interviews or offering virtual interview options demonstrates an understanding of candidates' other responsibilities, such as care commitments (Woods, Tharakan & Brown, 2021). These considerations can build trust between candidates and employers about the company commitment to inclusion and meeting the needs of a diverse workforce. Another way to build trust with candidates, particularly candidates from under-represented groups, is to provide "informational interviews" for candidates with current employees, offering an opportunity for candidates to better understand the workplace culture before committing to a role (Woods, Tharakan & Brown, 2021). Another consideration for employers is the hiring timeline. According to a 2016 study, 47% of job offers were rejected because applicants chose to go elsewhere (Woods, Tharakan & Brown, 2021). Slow hiring timelines can cause suitable candidates to look elsewhere and ultimately can lead to companies having a reduced applicant pool to choose from. The hiring process is ultimately an important opportunity for employers to attract suitable and talented candidates. By improving the inclusivity and accessibility of the hiring process, employers can attract a wider range of talent, particularly candidates who may have otherwise felt alienated or unwelcome in the industry or company.

Another way the hiring process can be made more inclusive is to use standardised questions and tests in interviews to minimise subconscious bias among interviewers. These tests might include cognitive ability tests, cognitive ability tests or knowledge tests, which offer an opportunity to assess the candidates' suitability to the position independent of their background (Woods, Tharakan & Brown, 2021). This can help reduce apprehensions or bias towards candidates with non-traditional or unconventional education or work history. Another form of bias that should be addressed in the hiring process is affinity bias. Interviewers can tend to accept or reject candidates based on a perceived "culture fit", often relating to similarities or a lack thereof between the interviewers' own experience or background and the candidates (Woods, Tharakan & Brown, 2021). This can often lead to suitable candidates with different backgrounds being overlooked. To reduce this unconscious bias, interviewers can use more measurable, predetermined evaluation matrix when making decisions, and they can provide supporting specific reasoning for their decisions (Woods, Tharakan & Brown 2021). By addressing many of these barriers that can lead to under-represented candidates being deterred from a position and interviewers overlooking them due to bias, companies can add diverse and wide-ranging talent to their teams.

Mutual Mentorship Programmes

Mentorship programmes in the workplace can be highly effective in creating a more cohesive work culture and retaining a diverse workforce. Not only can mentorship programmes benefit the workplace social atmosphere and relations between

employees, but they can create career development opportunities for under-represented employees.

Mutual mentorship programmes between older and younger employees have been shown to improve workplace productivity, offer networking opportunities and career advice to mentees and improve employees' perception of the workplace environment (Anderson & AARP Research, 2019). Participants of the mentorship programme were more likely than non-participating employees to find that working with colleagues of different ages, both younger and older, makes the work environment more "fun", "creative", and "productive" (AARP, 2018). Mentorship programmes also offer an opportunity for career development within the company. 83% of participants in the mentorship programme considered it to have been "very important" or "extremely important" to their career (AARP, 2018). In the same AARP study 90% of mentees valued "training or advice on job skills" as the most valuable aspect of mentorship (AARP, 2018). The social and career skill impacts of mentorship can therefore be of great value for employers and employees.

Staff Community Groups

Community groups in the workplace are another inclusivity initiative that have been found to provide social and business benefits to employers and their staff. Firstly, the benefits of employee community groups for the work culture and employee experience are significant. Community groups usually comprise of employees who share certain characteristics or interests (CIPD, 2025), for example women, ethnic minority groups, LGBTQ people or parents. Alternatively referred to as employee resource groups (ERGs), these groups can be an effective way for under-represented communities in the workplace to be given a platform (CIPD, 2025). ERGs can cultivate a sense of belonging in the workplace, particularly for employees who might otherwise feel like an "outsider" (Rodriguez, 2022). This sense of belonging is further heightened when ally membership exists within community groups (Rodriguez, 2022), as it is indicative of a wider inclusive and accepting work culture. While ERGs might be perceived as a "non-work essential" taking away from work focus, Rodriguez argues that without a sense of belonging, the effort of concealing one's authentic self "can undermine one's focus and performance" (Rodriguez, 2022). In this way, community groups offer a way to improve employee focus and productivity instead of taking away from it.

In addition to creating a community space and sense of belonging, ERGs can also be effective talent development pipelines, particularly for under-represented groups. For junior employees, community groups can be a way to increase "visibility, capability [and] promotability" (Rodriguez, 2021). Community groups with a mixed membership of junior and senior employees can be most effective to improve

leadership at a company. For senior employees, involvement in community groups can enhance their understanding of employee perspectives and needs, specifically of under-represented groups in the workplace, making them more effective and inclusive leaders for a diverse workforce (Rodriguez, 2022). Junior employees can benefit greatly in community groups with a focus on professional development. Initiatives such as workshops, book clubs and conferences focussing on leadership can be effective at diversifying leadership long-term (Rodriguez, 2022). One can also assert that by demonstrating a commitment to talent progression and leadership opportunities for under-represented groups, employees can better understand potential career advancement opportunities within the company. The combination of a social space at work where employees are welcomed, included and given the opportunity to develop their leadership skills, encourages members to “feel more confident” as “authentic leaders” (Rodriguez, 2022).

In addition to cultivating a sense of belonging and helping to develop effective, inclusive and diverse leadership, community groups can give businesses a unique and competitive perspective. In particular, community groups can be used to provide market insights for specific demographics, for example women, parents, etc. Where these groups can be the most economically beneficial, is by providing “consumer insights and market penetration” (Rodriguez, 2022). ERGs can be highly effective in an advisory capacity where their insights and understanding of specific market demographics can be leveraged to expand customer base. Community groups can both directly and indirectly provide market insights, either through the formal establishment of community group advisory councils (Rodriguez, 2022), or one might assert that confidence built by the community groups could encourage members to voice their perspectives when making business decisions.

Psychological Safety in the Workplace

According to the Chartered Institute of Personnel and Development (CIPD), psychological safety refers to a sense of comfort and safety in the workplaces that encourages employees to speak up (CIPD, 2024). Inclusivity and EDI practices can foster a sense of psychological safety, which has benefits in terms of both productivity and risk mitigation in the workplace (Royal Academy of Engineering, 2024). EY reported that employees in workplaces with high levels of trust, often created by psychologically safe environments, reported being 50% more productive (EY, n.d.).

Furthermore, by creating an open culture at work, employees are encouraged to raise concerns. This can be particularly beneficial when potential health and safety risks are identified and addressed early (Royal Academy of Engineering, 2024). The necessary open and safe work culture required for this, however, requires employee

confidence and comfort that often doesn't exist. We see this in an EY study which found 56% of global workers to be resistant to share certain aspects of their identity at work, as they feared it "holding them back" (EY, 2023). This was especially prominent among LGBTQ workers, where 77% felt reluctant to share their full identity at work (EY, 2023). Socioeconomic background, religion and political views were ranked as the three aspects employees felt most uncomfortable sharing at work (EY, 2023). These findings demonstrate a close link between equality, diversity and inclusion policies and psychological safety, as protected characteristics including religion and sexuality are widely not considered safe to be shared at work.

This lack of psychological safety can create a dangerous working environment, as seen in a survey which found employees who felt "psychologically unsafe" at work to be 80% more likely to report being injured at work than psychologically safe employees (Royal Academy of Engineering, 2024).

Not only can a lack of psychological safety be harmful for employees, it can also be financially risky for employers, as health and safety violations that go unreported cost companies £150k on average in 2018/2019 (Royal Academy of Engineering, 2024). Beyond these direct costs, a reputation for poor EDI standards and discrimination can damage a business' public standing and deter potential employees and consumers (Royal Academy of Engineering, 2024).

Case Studies: EDI in the Engineering Industry

To gain a better understanding of how engineering firms are addressing barriers towards equality, diversity and inclusion in the workplace, this report investigates four big engineering firms, Mott MacDonald, ARUP, AtkinsRéalis and Rolls-Royce and the EDI initiatives they have implemented. Pay gap data is also included to provide the context behind company policies.

Mott MacDonald

Mott MacDonald is a global engineering consultancy firm with several talent development programmes specifically aimed at promoting career progression within the firm for under-represented groups, including women and ethnic minorities. In 2025, Mott MacDonald reported that while women represented over 40% of the lower pay quartile, they represented only 22% of the upper pay quartile (Mott MacDonald, 2025). Similarly, people of ethnic minorities made up only 8.9% of the upper pay quartile compared to 24.7% of the lower pay quartile in 2025 (Mott MacDonald, 2025).

Initiatives introduced to tackle the lack of career progression include Mott MacDonald's "Inclusive Network for Women (INFW)" and the "Aspire" talent development programmes (Mott MacDonald, n.d.). The INFW programmes is a career development programme specifically for women that has been implemented in several countries in Asia Pacific, New Zealand and Australia. The programme is led by employees and connects women with mentors for development and networking advice and opportunities. 100% of mentees involved supported the programme (Mott MacDonald, 2023).

In addition to the INFW, Mott MacDonald introduced "Aspire", a talent development programme for ethnically diverse employees. The initiative aims to address structural barriers to inclusion within the industry and promotes internal career progression. The initiative was developed with the Royal Academy of Engineering to address the problem of "limited access to informal networks, role models [...]" within the company for people of ethnic minority background (Mott MacDonald, n.d.a). Both talent development programmes were developed to address the barriers preventing progression to senior, higher paying positions for women and people of ethnic minorities within the company.

To improve ethnic diversity at a junior level and tackle systematic barriers faced by Black students or students of Black heritage in the UK, Mott MacDonald began working with the non-profit "10,000 Black Interns". In this partnership, Mott MacDonald commits to hiring Black interns from this foundation while the non-profit supports the students in internship applications, connecting them with potential employers (10,000 Interns Foundation, n.d.).

The hiring process has also been adapted at Mott MacDonald to remove potential barriers under-represented or non-traditional applicants might face. These policies include highlighting the using inclusive language in job advertisements, removing what they deemed "unnecessary qualification criteria" to encourage non-traditional applicants and interviewing candidates with diverse panels who have received inclusive recruitment training (Mott MacDonald, n.d.b)

Mott MacDonald saw reduced gender and ethnicity pay gaps between 2024 and 2025, with the mean ethnicity pay gap dropping from 20.4% to 19.5% and the mean ethnicity pay gap dropping from 24.8% to 23.4% in the same time period (Mott MacDonald, 2025). One can assert that while further progress is still required, the initiatives in place are having a positive effect on the company's EDI standards.

ARUP

ARUP is another global engineering consultancy firm in the UK with examples of inclusivity and diversity initiatives in place. One of their main inclusivity initiatives is the introduction of “Connect Networks” across the company (ARUP, n.d.). “Connect Networks” are staff community groups that aim to cultivate a sense of belonging and an inclusive culture in the workplace. These groups represent different communities including groups for women, various ethnic minorities, LGBTQ+ people and people with disabilities and have the purpose of both building community and promoting allyship but also encouraging the networks to engage in advocacy in the wider community outside ARUP (ARUP, n.d.).

In addition to working to improve inclusivity within the workplace, ARUP has a dedicated research series called “Cities Alive” investigating how engineering and design approaches can help make public spaces and infrastructure more inclusive for women, disabled people, ethnic minorities and others (ARUP, n.d.). This research initiative demonstrates a commitment to improving equality, diversity and inclusion not just in the workplace, but through the projects they work on.

In relation to pay equity and equality within the company, ARUP’s gender pay gap has been reducing in recent years, from a mean gender pay gap of 14.1% in 2021 to 10.8% in 2025 (ARUP, 2025). The mean ethnicity pay gap, however, has increased from 11.6% in 2021 to 17.3% in 2025. This increasing pay disparity is largely due to the increasing percentage of the people of ethnic minority backgrounds mostly taking place within the lower pay quartiles. While the upper pay quartile saw an increase of only 0.4% between 2023 and 2025 to 12.3%, the lower paid quartile’s global ethnic majority representation increased from 21.3% in 2023 to 29.2% in 2025 (ARUP, 2025). These statistics demonstrate an overall diversification of the ethnic representation at ARUP, however the issue of low ethnic minority representation at senior levels must also be tackled.

AtkinsRéalis

The engineering consultancy firm AtkinsRéalis faces a similar problem with a disparity in representation of women in senior roles compared to junior roles. While the company does not publish ethnicity pay gap reports, the gender pay gap report from 2025 highlighted the lack of women in high-paying and senior roles, with men outnumbering women 3 to 1 in most senior roles, compared to the general workforce which is 33% women. The mean gender pay gap in 2025 of 13.9% emphasises the uneven pay distribution between men and women largely due to a lack of upward mobility for women in the workforce (AtkinsRéalis, 2025a)

To address these challenges related to equality, diversity and inclusion within the company, AtkinsRéalis introduced their “Different Makes a Difference” strategy. (AtkinsRéalis, 2025b) The strategy implements initiatives such as employee resource groups for many different under-represented groups, including community groups for women, ethnic minorities, LGBTQ+ people, employees with disabilities and more (AtkinsRéalis, n.d.a). Another inclusivity initiative at AtkinsRéalis is their “buddy scheme” for returning employees who have taken a career break. This programme connects returning employees to other employees with experience transitioning back to work and offers tailored support including flexible working schedules and skills training (AtkinsRéalis, n.d.b)

Furthermore, to address barriers towards upward mobility and career progression within the company, “Opportunity Marketplace” was implemented. “Opportunity Marketplace” is an online platform launched in 2025 that connects employees with relevant career opportunities and roles within the company based on the employee’s interests and experience (AtkinsRéalis, 2025b). By actively encouraging employees to engage with new career opportunities at AtkinsRéalis, employees from different demographics and backgrounds are exposed to new roles and chances for career progression.

Similar to ARUP’s “Cities Alive” research initiative focussing on making public spaces more inclusive, AtkinsRéalis has introduced the “Getting Home Safely” initiative. “Getting Home Safely” is focused on creating more inclusive and safer public spaces, specifically for women, through inclusive urban design. Aspects of this inclusive design strategy include using lighting and improved visibility to create safer walking routes for women (AtkinsRéalis, n.d.).

Rolls-Royce

Rolls-Royce plc is another global engineering consultancy, however the company’s approach to EDI stands in stark contrast to the previously mentioned engineering firms. While many firms continue to expand and further develop equality, diversity and inclusivity initiatives, Rolls Royce faced criticism in the media in 2025 when they announced plans to remove EDI initiatives targeting specific demographics within the company, such as the company-wide employee resource groups (Barlow, 2025). Instead, these groups are being replaced by an “Employee Voice Network” for all employees, rather than providing groups for specific communities such as women, LGBTQ+ people and people of various ethnic minorities (Barlow, 2025). While one could argue that the company’s low mean gender pay gap of only 2.3% and mean ethnicity pay gaps ranging between 8.16% between Asian and white employees and 11.72% between white and black employees (Rolls-Royce Holding plc, 2025a) renders EDI initiatives less urgent, the company still struggles with an overall low representation of women and

people of ethnic minority groups, with women making up for only 18.9% of the overall workforce (Rolls-Royce Holding plc, 2025b) and only 11.9% of employees being from ethnic minority backgrounds (Rolls-Royce Holding plc, 2025a). Rolls Royce therefore clearly has not sufficiently addressed structural barriers and EDI challenges, narrowing their possible talent pool.

Conclusion

This report found that an employer's standards of equality, diversity and inclusion are becoming increasingly relevant for applicants, with 81% of engineers considering EDI an important factor when making career decisions (Royal Academy of Engineering, 2024). EDI can not only draw talent in, but a lack of EDI supports, such as flexible working options and health and wellbeing supports in the workplace are increasingly becoming a reason employees leave (McKinsey & Company, 2022).

Beyond attracting and retaining talent, the engineering industry can benefit from the increased levels of innovation cultivated by diversity. This correlation is evident in the US survey which found diverse and inclusive companies were awarded 121% more patent citations than those with lower levels of diversity (Royal Academy of Engineering, 2024). Diversity of backgrounds and experience is also linked to more inclusive design, offering an opportunity to expand market base by appealing to under-represented demographics (Royal Academy of Engineering, 2024).

EDI practices were found to not only be important to employees, but also to clients and investors. By prioritising and highlighting EDI practices, engineering firms can gain a competitive advantage when vying for investment, contracts and client deals. This is evident in the increasing number of investors (McKinsey & Company, 2022b) and clients (Royal Academy of Engineering, 2024) requesting EDI information.

Inclusivity initiatives were also found to offer employers the opportunity to grow their talent pool. Adjusting job advertisements to appeal to a wider talent demographic and by providing flexibility and transparency in the hiring process demonstrates an ability and commitment to address and accommodate employee needs (Woods, Tharakan & Brown, 2021). Furthermore, inclusivity initiatives such as mentorship and community groups are effective ways to not only create an inclusive environment, but also create talent development opportunities, particularly for employees from under-represented groups (Rodriguez, 2022). An inclusive environment can also foster psychological safety, which has been linked with creating a more open workplace environment. This is particularly relevant in the engineering industry, where it is vital employees feel comfortable raising concerns, particularly surrounding health and safety risks (Royal Academy of Engineering, 2024).

In addition to a wider literature review of the potential benefits of EDI, this report includes the findings of a survey on the influence of EDI in career decisions among Imperial College engineering students. This survey has a very small sample size, but the results mirror theories found in wider literature, indicating that poor EDI standards can deter applicants in engineering. Pay gaps were particularly strong deterrents in this survey, having a potential “negative” or “very negative” impact on likelihood to pursue a position for a large majority of respondents.

The report also explored the EDI standards and initiatives in place for four major engineering firms in the UK; Mott MacDonald, ARUP, AtkinsRéalis and Rolls-Royce. These four case studies face similar problems of pay gaps and a lack of ethnic diversity and female representation, particularly at senior levels. Mott MacDonald, ARUP and AtkinsRéalis have all implemented some form of strategy aimed at improving EDI standards. These initiatives include staff networks, talent development programmes and inclusive hiring policies (ARUP, n.d.), (AtkinsRéalis, 2025b), (Mott MacDonald, n.d.a.). In contrast, Rolls-Royce has retreated in its EDI efforts, removing staff network groups and much of their EDI strategy. These case studies provide interesting insights into how the engineering industry is using targeted EDI initiatives to address pay gap and diversity problems.

In conclusion, one can assert from these findings that addressing problems with equality and diversity in the engineering industry, such as a lack of significant diversity and widespread pay gaps, offers employers the opportunity to not only demonstrate commitment to employees and foster an inclusive and welcoming workplace environment, but also has the potential to be greatly beneficial in economic terms. By implementing some of the initiatives highlighted in this report, including targeted talent development programmes for under-represented demographic groups, fostering inclusivity through mentorship and employee community group programmes and creating a more inclusive and considerate recruitment and hiring process, the engineering industry can widen and help develop the current talent pool. These efforts could transform the industry to becoming more representative, successful and innovative.

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