Winter 2021

Enhancing Equality, Diversity and Inclusion
for Transport Infrastructure Skills

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Executive Summary

If the UK infrastructure sector is to address its future challenges, it will need to draw on a wide range of talents. This will require improvements in equality, diversity and inclusion (EDI).

This research report was commissioned by the Strategic Transport Apprenticeship Taskforce (STAT) to independently explore problems with EDI. The report focuses on gender across the UK's infrastructure sector and suggests improvements based on new empirical evidence on EDI problems, integrated with academic research on the most effective ways to improve EDI outcomes. Kurt Lewin's **unfreeze-change-refreeze** model is used as a framework for organisational change (Bohnet, 2016).

While there has been considerable progress towards improving EDI, a number of gender equality challenges were identified. The research found evidence of problems with **gender stereotyped** training and development which limited career opportunities for women. It also found a **low uptake of shared parental leave** that has potential to perpetuate bias against women in the workface.

Women in the sector also found that **working arrangements were often inflexible**, compared to other sectors, leading to a *"leaky talent pipeline"* of women leaving the sector early. The research also found evidence of **inaccessible progression pathways** for women that constrained their career development.

At a practical level, women explained that **onsite facilities were often designed for men** which in some instances, made their working experiences unsatisfactory and potentially dangerous. Lastly, despite improvements, the interviewees complained of **inappropriate personal conduct** and comments that went well beyond the usual banter one might find in the workplace.

Improving EDI is difficult for any organisation. The report draws heavily on the work of Harvard Professor Iris Bohnet to present potential options for improvement.

'...evidence on what works suggests a need to collect, analyse and widely discuss EDI data, experiment, learn and re-adjust over time.'
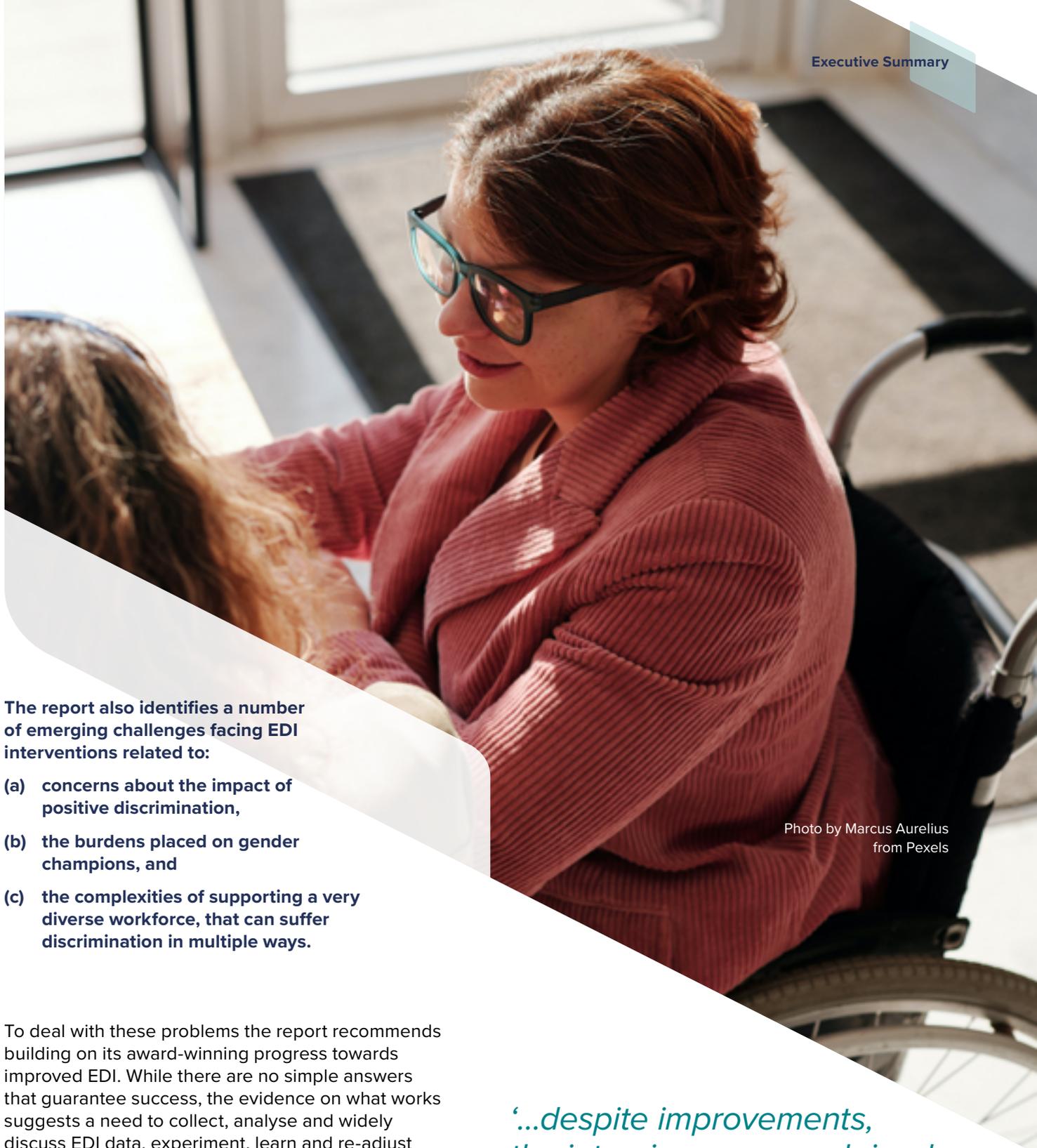
The report also identifies a number of emerging challenges facing EDI interventions related to:

(a) **concerns about the impact of positive discrimination,**

(b) **the burdens placed on gender champions, and**

(c) **the complexities of supporting a very diverse workforce, that can suffer discrimination in multiple ways.**

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To deal with these problems the report recommends building on its award-winning progress towards improved EDI. While there are no simple answers that guarantee success, the evidence on what works suggests a need to collect, analyse and widely discuss EDI data, experiment, learn and re-adjust over time. By empowering HR, recruitment and progression processes can be overhauled to better reflect the diversity of talent that is available.

To secure the skills the sector will require in the future, there is a need to integrate EDI interventions throughout our organisations. By extending EDI interventions beyond attracting and recruiting talent, we can create a better working environment for everyone.

'...despite improvements, the interviewees complained of inappropriate personal conduct and comments that went well beyond the usual banter one might find in the workplace.'
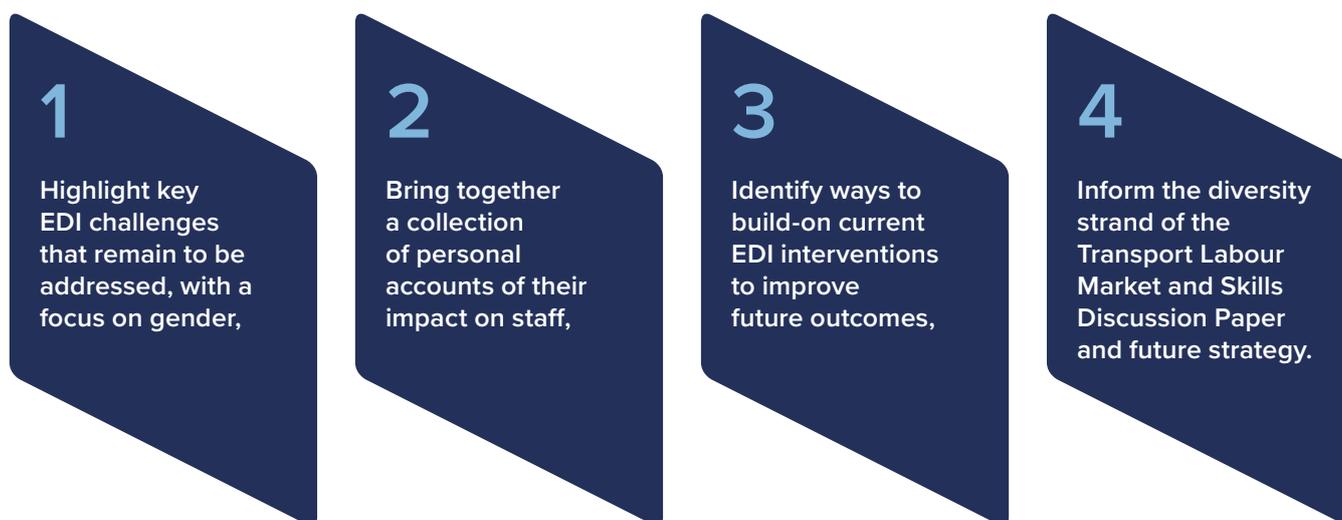
Introduction

Over the last decade, the UK's transport infrastructure sector has taken significant strides to improve its equality, diversity and inclusion (EDI). The sector is committed to further improvement and has commissioned independent research that opens the sector up to external scrutiny in order to identify further areas for improvement.

Improving EDI is not easy. Many interventions do not work and there is not a simple recipe for improvement. If such a recipe existed, the problem would not be so intractable. This report builds on extensive previous research on how organisations can improve. This research suggests that one way organisations can improve is if they follow Kurt Lewin's three-stage **unfreezing-changing-refreezing** model of organisational change (Bohnet, 2016).

This involves firstly **unfreezing** – where organisations stop and recognise that there are problems that can be addressed and should be addressed. They then move onto **changing** behaviour in the organisation. This involves drawing on research about what works, giving people the tools that they need to make better decisions, and experimenting with a range of approaches to improve outcomes. Finally, they **refreeze** that new behaviour and undergo a continuous process of improvement, improving how data is collected and drawing on evidence to understand what works best for them.

...as of 2018, women comprised only 12% of engineers and 1% of onsite construction workers

To support this work, the Strategic Transport Apprenticeship Taskforce (STAT) has commissioned this report to:

1

Highlight key EDI challenges that remain to be addressed, with a focus on gender,

2

Bring together a collection of personal accounts of their impact on staff,

3

Identify ways to build-on current EDI interventions to improve future outcomes,

4

Inform the diversity strand of the Transport Labour Market and Skills Discussion Paper and future strategy.

The first part of this report presents some stark findings about the EDI experiences of women in the sector. This focus on identifying problems means that the findings are not intended to be representative of all the behaviour in the participating organisation, or the sector more broadly. It is important that this is not misunderstood, as the sector is improving and many people are working very hard and very effectively to achieve better outcomes. To continue with this work, Government, industry and academic partners have sought to identify additional areas for improvement.

This progress on improving EDI can be seen in recent prestigious awards. Network Rail and the DfT, for example, were recently celebrated in **The Time's** Top 50 Employers for Women 2021 (BITC, 2021). **Data published by NSAR indicates that the delivery of effective EDI interventions has increased female participation in the rail sector from 8% to 17% over the last five years**[1]. These awards recognise the energy, enthusiasm and eagerness that exists to improve EDI across the sector. Despite this progress, improvements need to continue.

Over the last five years, delivery of effective EDI interventions has increased female participation in the rail sector from

8% to 17%

Research Approach

To help identify ways to improve equality, diversity and inclusion (EDI) interventions across the UK's transport and infrastructure sectors[2] 45 interviews were conducted with a cross-section of policy makers and practitioners **from across 14 public sector and 16 private sector organisations**.

The experiences of technical and engineering apprentices were also included in a series of six focus groups.

The analysis draws on the work of Iris Bohnet (2016) whose research at Harvard explores what interventions work most effectively to improve gender diversity within organisations. The report draws on the Kurt Lewin's **unfreeze-change-refreeze** framework, which highlights the importance of moving beyond simply raising awareness of problems, to providing specific tools that help people make better decisions. These then need to be embedded within the organisation to improve future outcomes.

The initial process of **unfreezing** requires people to recognise problems and question why they continue with their current approaches despite evidence of significant problems. The next section of this report highlights a number of areas where current approaches are not working as well as they might, and where other nations, sectors and organisations do things very differently. It highlights how dysfunctional behaviour can become ingrained in how organisations and people behave.

Research suggests people are more likely to *'unlearn'* current organisational behaviours when they are involved in and collaborate with change programmes, and when those change programmes are informed by evidence and analysis. The report therefore identifies and explores some emerging concerns that may hinder change. For example, it identifies concerns about positive discrimination, which suggests a need to improve evidence and better engage with the workforce.

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on Unsplash

Stage 1: Unfreezing

To drive organisational change organisations must first **unfreeze** and recognise that some of their normal patterns of behaviour are not normal in other organisations, and in some cases, their normal behaviour is not acceptable in other organisations.

This section helps organisations to unfreeze, by acknowledging shared problems facing the UK infrastructure sector (as summarised in Figure 1).

The equality, diversity and inclusion (EDI) challenges identified relating to gender equality can also be used to indicate wider EDI issues across the sector.

Figure 1. Gender equality challenges from throughout the UK Infrastructure sector:

1 Training and development opportunities	**2** Shared parental leave and biases against women	**3** Working arrangements and the leaky pipeline
4 Progression pathways	**5** Onsite facilities designed for men	**6** Personal conduct

1
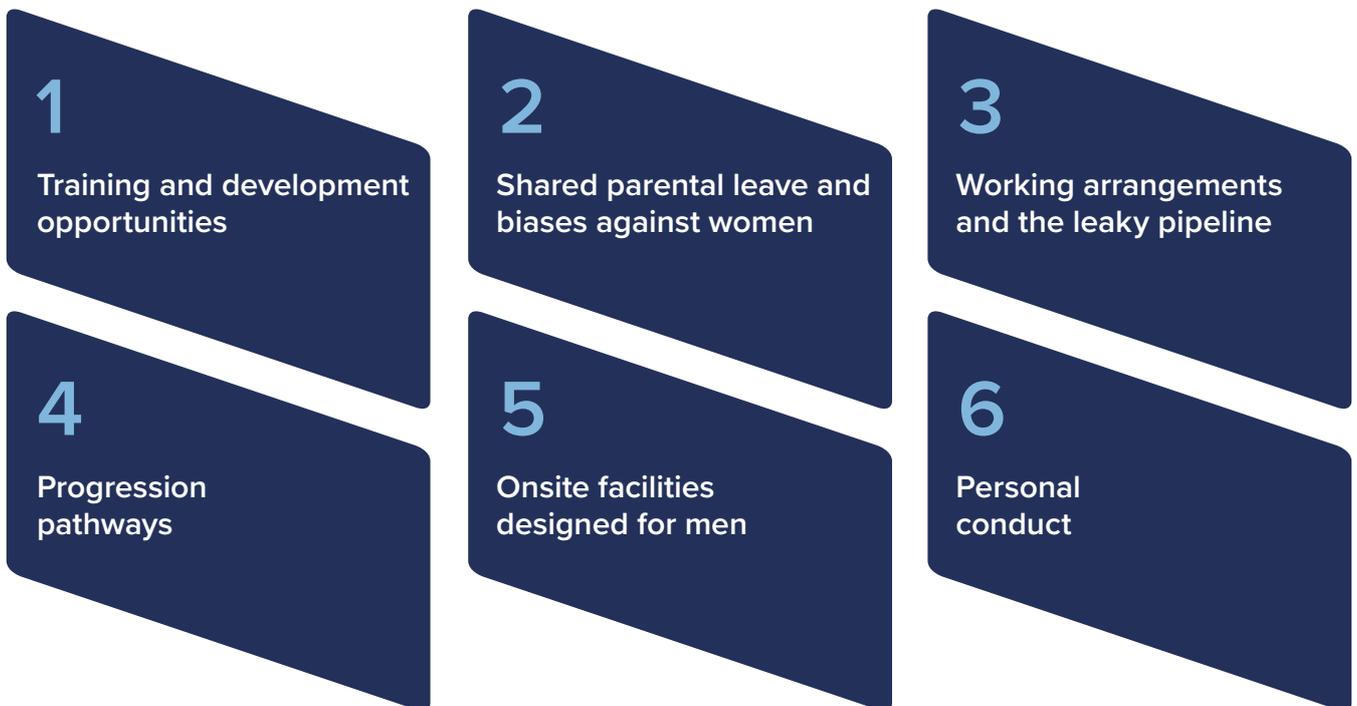
Training and development opportunities

Conscious and unconscious biases shape the educational and professional choices made by young people and their subsequent career trajectories (Eccles et al., 1990). This can often lead women to pursue lower-paid employment in cleaning, catering, cashiering, clerical work, and caring (GEO, 2019a). These occupational stereotypes can be disrupted by organisations like the Strategic Transport Apprenticeship Taskforce (STAT) and Women in Science and Engineering (WISE) who redirect young women into Science, Technology, Engineering and Mathematics (STEM) disciplines using inspirational school outreach and novel pre-employment schemes (DfT, 2020; WISE, 2021). Despite these interventions, research suggests that occupational stereotypes carry on through into employment, hindering female professional development in STEM-based roles (Faulkner, 2009; Hatmaker, 2013).

We found evidence of transport apprentices being exposed to negative stereotypes from the outset of their training e.g., *"women can't use a spanner"*, *"women aren't good engineers"*, and *"women can't hack-it"*. We also found evidence of well-intentioned but potentially counter-productive attempts to address these problems.

For example, more senior staff refraining from swearing in the presence of young women, and steering young women away from hands-on opportunities for training and development, encouraging them, in one interviewee's terms, to instead *'sit back and relax with a cup of tea'*. As a result, one transport apprentice felt she had to take her own learning into her own hands.

A young woman reflected: *'very clearly... organisational jobs were given to the girls and proper engineering jobs were given to the boys. Certainly, the bigger, more exciting projects were given to the men. It sounds small, "You have to organise the Christmas lunch, poor you," but those few hours that you're doing that, and you're not learning about structural engineering, then that's your experience. It's on your CV. It's what people know you for. It's just slowly, slowly...and before you know it, this man is a chartered engineer and this woman is just really good at organising stuff vaguely related to engineering.* **(41. Industry Manager).**

By gendering the accessibility of early training and development for transport apprenticeships during the formative years of a young person's career, the transport industry risks unintentionally limiting their progression.

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2

Shared parental leave and biases against women

Women are often seen as the primary care giver within a family, responsible for the development and welfare of children. Although this is changing, the strong association between women and family commitments can mean employers are less likely to recruit and promote them. Employers consider the risk that women may take maternity leave and ask for Part-Time working arrangements (Kelly and Dobbin, 1999)[3].

Shared parental leave (SPL) enables a more equal distribution of family responsibilities and helps to reduce the potential employment bias against women. SPL was introduced in 2015 and allows couples to divvy-up 50 weeks of parental leave between them. This is substantially more than the traditional 2 weeks of paternity leave allocated to new fathers (HM Government, 2021). **However, in 2017 only 2% of eligible couples took SPL in the UK** (BBC, 2018).

The low uptake of SPL may indicate a wider societal stigma against men who are seen to engage in fatherhood if it is detrimental to their employer. Within an organisation, this discrepancy between work-life and home-life can be informally policed through interactions between colleagues.

One manager described receiving *'a few funny views' over his decision to take SPL* **(13. Government Manager). Through his personal experience of SPL, he was able to better understand and empathise with the professional challenges facing many women in the workplace:** *If more men take time off for childcare, they will directly experience what many women experience. If you've experienced something yourself, I think in human nature it's then harder to inflict it on or direct it at other people.* **(13. Government Manager).**

Unfortunately, eligible couples who would like to take SPL can find themselves financially disadvantaged due to the enhanced maternity packages offered by many organisations.

A manager, caught between these two policies, explained that: *'Most people are already pregnant by the time they look-up what they're entitled to. So, it's a bit late to be arguing over company policies.'* **(41. Industry Manager).**

The low up-take of SPL in the UK limits the policy's potential to equalise the impact of childcare across both same-sex and heterosexual couples, and therefore reduce biases about the employment and promotion of women.

Photo by Thirdman
from Pexels

3

Working arrangements and the leaky pipeline

Women remain the primary care givers in UK society and are often responsible for dependents, children and elderly relatives. This generates what has been referred to as the leaky pipeline, where women leave employment mid-career to fulfil family obligations (Hewlett and Luce, 2005).

As one senior leader put it, *'this is the point where women lose momentum and visibility'* **(35. Government Leader).**

Inflexible working arrangements add pressure to primary care givers as they try to balance their competing commitments.

Construction managers described all-consuming working hours, driven by hard targets and tight deadlines: *'There is an expectation that you will drop everything'* **(25. Government Manager).**

'this is the point where women lose momentum and visibility'

A manager described *employees concealing or repressing personal circumstances, for fear of being labelled as only 'half-committed' to their profession* **(01. Industry Manager).**

Frustrated by assumptions that work must be gruellingly 'relentless', a senior woman countered: *Well, I do have a [personal] life even if I wanted to [work all hours]. I'm the one who's still responsible for the cooking and cleaning and washing in my house.* **(40. Government Leader).**

These working conditions reduce the professional and personal opportunities available to women and men (Watts, 2009).

A senior leader described how professional mothers may be less able to join the *'bunch of men who worked throughout the night to get a project delivered'* **(38. Government Leader).**

Another story surfaced of a male manager advocating for improved work-life-balance: *"I need this to work, because I am on my third marriage, and I don't want to lose this one"* **(32. Industry Manager).**

Cases emerged of young female apprentices refusing to progress up the ranks in transport, defending their interest in having a family and limiting their working hours to 09:00-17:00. For these young women, engaging in family life was seen as incompatible with progression in transport.

4

Progression pathways

*On receiving feedback from a rejected job application, she was told that her **'brilliant track record'** left **'no room for improvement'**.*

With senior leaders and engineers in the UK being predominantly male, infrastructure leaders can become synonymous with male leaders.

A senior leader described an audience member at a conference announcing: *"Let's be frank. The best project managers are men, because the best engineers are men"* **(42. Government Leader).**

As a result, gender bias can creep into organisational processes of evaluation and selection.

Traditional leadership across infrastructure sectors has often relied on **'command and control'** management that has been considered overly-masculinised, relying on single-minded, authoritarian and combative ways of managing people i.e., **'my-way-or-the-highway'** **(37. Government Leader).**

Such expectations of leadership permeated job advertisements and professional training through the gendered use of language e.g., demand for a **'heavy-hitting'** leader like a **'silverback gorilla'** **(40. Government Leader).**

Women, by definition, do not fit the image of the competent male leader. As a consequence, they can be met with lost opportunities and promotions.

A senior leader shared damaging episodes from the latter-half of her career. *On receiving feedback from a rejected job application, she was told that her **'brilliant track record'** left **'no room for improvement'**. The winning candidate, however, had strongly self-advocated, assuring the interview panel that his drive and determination compensated for his lack of qualification. On a separate occasion, she had been told that her lack of experience would hinder the strength of her job applications. But, with over 20-years in the field, she suspected that her youthful, feminine appearance has been the more honest stumbling block: **'There are men with less experience, or of lower age, in more senior jobs. So, what is actually meant by experience?'** **(40. Government Leader).**

Of the senior women interviewed, many preferred an inclusive form of leadership, *'to better understand different perspectives around the table' and 'integrate behaviours'* **(35. Government Leader).**

But one manager felt *that interpersonal skills were the* **'forgotten'** *leadership attributes in infrastructure sectors* **(19. Industry Manager).**

To improve their career prospects, some women felt pressure to conform, instead, to an archetypal stereotype of what is acceptable.

For one manager, this dilemma culminated in an existential crisis: *So here was me, trying to hide some of these qualities that, in other places, would probably get me promoted. In this environment, they hold me back. I just suddenly thought,* **"So what am I doing?" (28. Industry Manager).**

For another manager, *the depiction of infrastructure leaders as an* **exclusive 'boys club',** *was up-held by an assumption that* **"there are just not that many people out there who can deliver these kinds of works" (19. Industry Manager).**

Carrying forward this assumption, there was concern that the prospect of hiring unfamiliar minorities into senior positions could trigger an underlying *'fear of failure'.* From this perspective, the unprecedented recruitment of diverse candidates is seen to expose the recruiter to unnecessary criticism and reputational risk[4] **(12. Industry Manager).**

These findings suggest that we can overlook opportunities to engage, value and promote female candidates. By challenging the assumption that effective leaders in infrastructure are male, the skills that underpin these roles can be renegotiated.

Photo by Ono Kosuk
from Pexels

5

Onsite facilities designed for men

Historically, working onsite in UK transport and construction has been a predominantly male vocation. Railway track maintenance, depot operation, and construction site groundworks are traditionally seen as male environments because they depended so much on manual labour.

However, recent technological developments have reduced the dependence on manual labour, and opened-up opportunities for more female participation.

However, as of 2018, women comprised only 12% of engineers and 1% of onsite construction workers in the UK workforce (Construction UK, 2020; RAE, 2020).

Over the last decade, organisations have publicly recognised the need to accommodate female staff working onsite. However, some have suggested adapting onsite facilities is commercially unviable or too challenging to implement. Where this is the case, female recruits experience working conditions that are less practical and comfortable for them, than for their male counterparts.

One industry manager we interviewed, expressed frustration over the onsite facilities available to her: *On one site, there was only one toilet, doubling-up as a storage unit. It didn't have a sanitary bin. When I raised this with management, they were like,* **"Well, you know, find a solution."** *And then shortly later the toilet blocked, of course because tampons kept getting flushed down it. They would not want to talk about it in front of us, but there were snide remarks showing that clearly the men had been discussing the fact it was tampons down the toilet. And it was like,* **"If you just put a bin in there in the first place, it wouldn't have been an issue."** **(41. Industry Manager).**

She also felt that mandatory onsite protective equipment (PPE) put her at higher risk of injury. For example, wearing safety shoes that did not fit her felt more dangerous than wearing trainers that did. Women entering onsite work can find themselves issued ill-fitting 'one-size-fits-all' PPE based on the average male physique. **In a survey by the Trades Union Congress of over 5,500 respondents, 57% of women in the UK reported that PPE hampered their ability to work (TUC, 2017)**[5].

...of over 5,500 respondents, 57% of women in the UK reported that PPE hampered their ability to work.

Photo by ThisIsEngineering
from Pexels

6

Personal conduct

The recent increased representation of women in infrastructure has disrupted pre-established group dynamics. As women begin to transition into traditionally male roles, we would expect to see a degree of resistance. If left unaddressed, this can create unpleasant working conditions, and in some instances is intended to achieve exactly that.

Young women entering into transport apprenticeships were often met with high-levels of banter from their male peers. Those with family in the trade were armed with their own comical retorts to *'put the boys back in their place'*. However, banter that resorted to sexist jibes overshadowed personal achievements and generated professional insecurity e.g., *"women can't use a spanner"* or *"you only got this job because you're a woman"*. Examples arose of female transport apprentices being hyper-sexualised. Although most sexual remarks were brushed-aside as harmless, barbed allegations of promiscuity and a case of unwanted stalking proved disconcerting. In one account, a young woman would feign illness to avoid brazen casual sexism from her peers at college.

Despite these challenges, many of the female transport apprentices we interviewed were open to a future career in the industry.

However, as women proceed through their careers, new challenges arise. After praising the infrastructure sector for its life-changing impact on society, a manager hesitates, her tone changing before revealing that she would not actually recommend the profession:
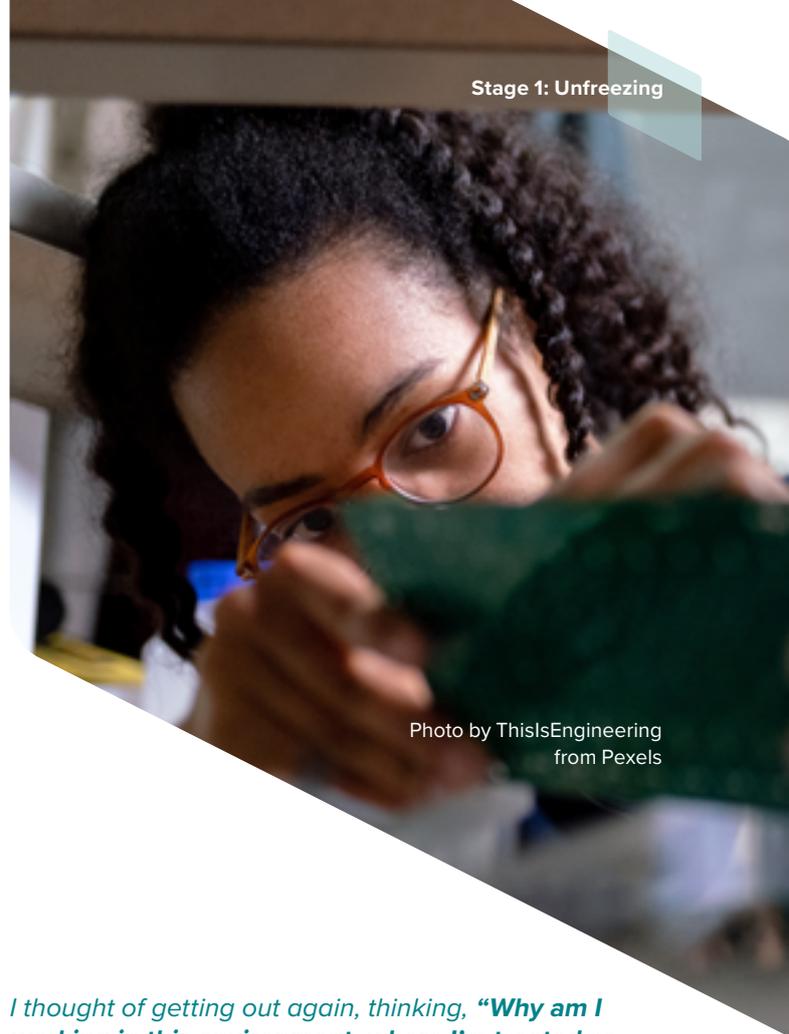
I thought of getting out again, thinking, **"Why am I working in this environment, where I'm treated so badly? I have great ideas, and no-one listens to me."** *I've actually had,* **"Stop talking in this meeting. If she speaks, I will throw her out".** **(28. Industry Manager).**

The further women progress up the career ladder, the more of a minority they become. Senior women described working environments led by bullish, testosterone-driven competition.

One senior leader felt overwhelmed: *like a 'rabbit in headlights' when faced with aggressive episodes from the highest-ranking official. She described* **'walking on eggshells',** *as her and her team would endure tense* **'silence where nobody would really say anything'.** *Caught in a moral dilemma, she stated* **'when they're that senior, your routes to try and address it are actually really quite difficult'** **(38. Government Leader).**

Another senior woman described occupational stereotypes, linking women with support roles, being used to undermine her authority and knowledge. If employees do not feel valued and able to contribute, they are unlikely to feel professionally fulfilled and committed to their careers within the sector.

Where unpleasant working conditions remain unaddressed over a sustained period, those impacted may choose to leave their organisation (a phenomenon explored further in the section on 'Unintended consequences…')[6]. This does not have to be the case, and is not the case elsewhere. Organisations have the power and resource to better support those who are both qualified and interested in working in the infrastructure sector through meaningful EDI interventions.

Stage 2: Changing

The second stage of the **unfreeze-change-refreeze** framework involves organisational **change**.

Change management is difficult to achieve, and is often more difficult when it involves equality, diversity and inclusion (EDI), as EDI interventions often have to address deep rooted cultural assumptions and organisational practices.

Even so, organisations across the UK infrastructure sector have taken pro-active steps to address issues and pioneered a wide variety of EDI interventions to help protect and advance the position of minority groups.

This section summarises effective EDI interventions, as evidenced by the highly esteemed, Harvard Professor, Iris Bohnet (2016). We go on to explore the emerging challenges practitioners face implementing them.

The **target set was 20%** of all apprenticeship starts to be female; by final year of STAT **only 12%** were female
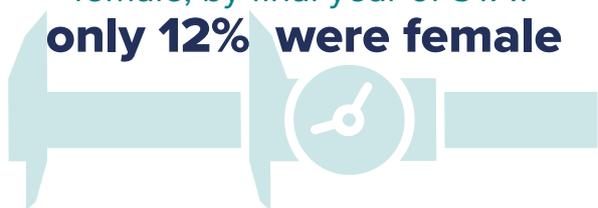
In 2010, nearly 100,000 female STEM graduates were found to be either unemployed or economically inactive.

How can organisations design meaningful EDI interventions?

The UK infrastructure sector needs to attract and retain talented people to create the innovative workforce it will need in the future[7] (CITB, 2020; ECITB, 2020; NSAR, 2020). The National Infrastructure Strategy (HM Treasury, 2020), The Construction Playbook (HM Government, 2020), the new Plan for Growth (HM Treasury, 2021) and the Government's levelling up agenda, all envisage radical changes in the UK's national infrastructure. New technologies will be introduced, and new investment is being committed. The Government plans to spend £100bn on major projects in 2021 alone. The sector cannot afford to exclude large numbers of talented people, or have large numbers of talented people leave the sector.

Despite substantial remedial action, attempts to attract and recruit a more diverse workforce are still producing a shortfall (see Figure 2) (DfT, 2020). This problem partly reflects the sector's history of unpleasant working conditions for minority groups (Dainty and Lingard, 2006; Faulkner, 2007; Miller, 2004; Watts, 2009). To attract and retain the people it needs, the UK infrastructure sector will need more effective EDI interventions that create more appealing working conditions and more accessible career prospects.

Figure 2. Gender Diversity of Technical and Engineering Transport Apprentice Starts
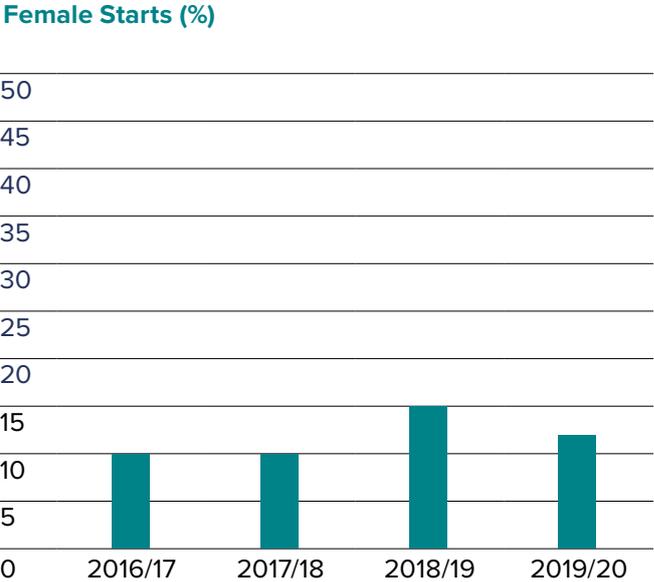
Female Starts (%)

The Transport Infrastructure Skills Strategy (TISS) set a target for 20% of Technical and Engineering Apprenticeship starts to be female by 2020 (DfT, 2016). This target was not met, despite collective efforts to do so by STAT members over the last 4-years. Between 2016-2020, the total percentage of female starts in technical and engineering apprenticeships rose from 10% to 12% (DfT, 2020).

The current situation does not have to be the case. There is now a need to change behaviour in the sector.

As one manager noted: *"People are getting tired of telling their story, because there's been no movement. In order for things to move, we've got to do things differently. We can't keep doing what we've always done, because nothing will change."* **(30. Industry Manager).**

While the problems identified in the previous section are widespread, they are not unchangeable. In fact, many sectors and organisations have faced similar problems and have gone on to improve their working practices. Changes are not impossible or too costly to implement, instead, we find that higher performing organisations tend to have higher quality HR practices (Bloom et al., 2011). The COVID-19 pandemic has shown that many organisations have been able to radically change how they work.

The UK has a problem with gender diversity, especially in Science, Technology, Engineering and Mathematics (STEM) disciplines. In the UK, women make up 12% of practising engineers and 16% of engineering graduates (RAE, 2020), reported as the lowest percentage of female engineering professionals in Europe (Engineering UK, 2011). In 2010, nearly 100,000 female STEM graduates were found to be either unemployed or economically inactive (WES, 2018). In other nations the situation is very different to the UK.

According to UNESCO, the engineering profession has reached a gender-balance in Oman and Malaysia, as is also the case for engineering graduates in Cyprus. In New Zealand, for example, it is common to find mixed teams working together in the construction and transport sector (UNESCO, 2015).

Shared Parental Leave has reached as high as
45% in Nordic countries,
compared to that of only
2% in the UK

Emerging best practice can inspire new ways-of-working and alternative futures. For example, the uptake of Shared Parental Leave (SPL) has reached as high as 45% in Nordic countries, compared to that of only 2% in the UK (Smith, 2019). Contrary to the traditional 09:00 to 17:00, it is now extremely common to find that working hours are negotiated, to accommodate employees' individual needs e.g., part-time, remote working, job sharing, compressed hours and flexi-time[8]. Organisations can play an active role in designing family friendly policies to fundamentally change how professional mothers and engaged fathers are attracted and retained[9]. This would help to reduce biases against hiring and promoting women.

Within the UK, other sectors have faced similar problems and made significant improvements in their EDI. Banking and law were previously very male dominated, as was the military, and they have all managed to make major changes. Even within the transport sector there are some organisations that have made significant improvements, as noted in the introduction. However, recognising a need for change is not enough. Change in any organisation is difficult. To guide organisations towards effective EDI interventions, we have included a summary of Iris Bohnet's (2016) evidence-led 'what works' framework (Table 1).

Table 1. Iris Bohnet's What Works - Gender Equality by Design (2016)[10]

Change Practices and Procedures	Apply Data to People Decisions	Build Capacity
→ Stop simple diversity training focused on raising awareness → Follow an unfreeze-change-refreeze framework → Train people in more reasoned judgement strategies, such as consider-the opposite or the crowd-within approach	→ Collect, track, and analyse data to understand patterns and trends and make forecasts → Measure to detect what is broken and refine interventions. Experiment to learn what works → Give people some leeway to adjust algorithmic judgements	→ Stop showering women (and men) with generic leadership development training → Build leadership capacity by supporting people with the resources required for success, including mentors or sponsors and networks → Use behavioural design to help people follow through, with actions such as plan making, goal setting, and feedback
Create Equal Opportunities for Negotiation	**Create Smarter Evaluation Procedures**	**Attract the Right People**
→ Invite people to speak up or initiate negotiations → Increase transparency about what is negotiable → Have people negotiate on behalf of others	→ Evaluate comparatively and hire or promote in batches → Remove demographic information from job applications → Use predictive tests and structured interviews to evaluate candidates. Do not use unstructured interviews	→ Purge gendered language from job advertisements and company communications → Pay for performance, not for face time → Make the application process transparent
Reduce Bias in Risky Environments	**Level the Playing Field**	**Create Role Models**
→ Adjust risk when gender differences in willingness to gamble may bias outcomes → Remove clues triggering performance-inhibiting stereotypes → Create environments inclusive of different risk types	→ Prevent gender bias from having an impact: use gender-neutral designs → Mitigate the impact of gender bias on yourself and others; do not share biased self-assessments with supervisors; give feedback to help people correct their biases → Compensate for differential impact due to gender bias	→ Diversify portraits on the walls of your organisations → Increase the fraction of counter-stereotypical people in positions of leadership, through quotas or other means. Seeing is believing. → Know that fathers with daughters are more likely to care about gender equality
Create the Conditions for Collective Intelligence	**Become a Norm Entrepreneur**	**Behaviourally Informed Disclosure and Accountability**
→ Combine average ability with complementary diversity of perspectives and expertise to maximise team performance → Include a critical mass of each subgroup in teams to avoid tokenism → Create inclusive group processes to allow for diverse perspectives to be contributed and heard, for example, by introducing unanimity rules or political correctness norms	→ Make others' successes increasing gender diversity salient → Use rankings to motivate people to compete on gender equality → Use rules, laws, and codes of conduct to express norms	→ Make information salient, simple, and comparable → Set both long-term targets and specific, short-term, achievable goals → Hold people and organisations accountable for their follow-through

Emerging challenges facing EDI interventions in practice

EDI interventions are becoming more prominent within organisations across the UK infrastructure sector. In the interviews we found that a number of challenges were emerging, which we summarise in Figure 3.

Figure 3. Emerging challenges facing EDI interventions in practice

1

The unintended consequences of positive discrimination concerns

2

The burdened gender champion

3

Recognising difference

*"**The next chair will be a woman. Now make it so.**" Now that's me being told. It's quite shocking, in good and bad ways.*

1

The unintended consequences of positive discrimination concerns

'unless you get to the root of meritocracy, and you destroy that myth first, you're always on the back foot'

Our interviews highlighted that organisations are now facing mounting pressure to demonstrate tangible change from their EDI interventions. Progress is often measured through workforce diversification, but the diversity data being reported is stubborn to shift[11]**.** The interviewees revealed some rising tensions between organisational narratives about improving fairness, and concerns about opaque (and hence potentially underhand) forms of positive discrimination.

Positive discrimination involves the use of preferential selection, or quotas, to advance the position of minority groups (Johns et al., 2014). Our interviews suggest that concerns about positive discrimination are wide-spread, featuring throughout the various infrastructure sectors and across a number of organisational levels.

A senior leader was very honest in describing increasing unease amongst his peers over *'women being groomed for jobs'. With caution, he revealed that some organisations were resorting to positive discrimination to accelerate* **"progress"**: *I've just appointed a new chair. This is a process that is mediated through the top people in the industry. I was very clearly told, "The next chair will be a woman. Now make it so."* *Now that's me being told. It's quite shocking, in good and bad ways.* **(09. Industry Leader).**

The EDI debates underlying important recruitment decisions can be sensitive and divisive.

For this reason, public figureheads often avoid debating them in public to protect their reputational integrity: *'we don't have a language or a way of handling that, because it's the thing that cannot be said'* **(09. Industry Leader).**

This dilemma for practitioners signals a lack of open and transparent debate around the challenges and acceptable boundaries of EDI interventions, especially those relating to senior positions.

Concerns over positive discrimination emerge in response to EDI interventions which are seen to infringe the fundamental principle of meritocracy, where opportunities are allocated on merit alone – to the 'best person for the job' (Johns et al., 2014).

A manager challenged this idea. *He argued that it is necessary to acknowledge that society is* **'rife with bias'** *favouring different groups at different times. From his perspective, positive discrimination happens every single day in favour of majority groups through informal networking and mentoring practices. As the holder of a wealth of diversity and equality data, he highlighted that these* **numbers did not indicate positive discrimination** *in the hiring of women into the sector. He concluded,* '**unless you get to the root of meritocracy, and you destroy that myth first, you're always on the back foot**'[12] **(12. Industry Manager).**

This highlights the importance of gathering high quality EDI data and ensuring it is widely shared and discussed throughout the organisation.

Research suggests that positive discrimination allegations can have far-reaching and damaging consequences for women by A. de-legitimising their appointment, B. pressuring them to out-perform, and C. accelerating their burn-out.

We discuss each of these in turn.

A. De-legitimising

Positive discrimination allegations risk de-legitimising female appointments, regardless of their individual performance. Over time, a 'stigma of incompetence' can develop, undermining women's authority and knowledge (Heilman, 1994). A senior leader described starting a job whereby the contractors used **'various tactics'** to treat her like **'the admin person'**, making requests of her she could not imagine being made to a senior man in her position e.g., **"Can you go and book us a projector?"**.

On a separate occasion, she described her experience on-boarding into a new role: *He sat down in our first meeting and explained to me what a project life cycle was, which was astonishing. I'd spent many years delivering, you know, multi-million-pound programmes across Europe.* **(40. Government Leader).**

By compromising the professional status of women, positive discrimination allegations feed the damaging belief that women are intellectually inferior to their male counterparts (de Beauvoir, 1949).

As another senior leader put it: *'You can set as many targets and quotas as you like, but it is meaningless if it is believed that the people promoted don't deserve it'* **(43. Government Leader).**

B. Pressure to out-perform

Women can find themselves under pressure to legitimise their appointment, by excelling professionally. Transport apprentices described being told often how they had only secured their apprenticeships because they are women. Those effected sought to justify their selection, explaining how they had been the **'highest-scoring'** within their cohort etc.

By default, the exceptional women who rise-up the ranks can find themselves assuming a role-modelling capacity, shaping how wider society perceives female talent through their own high-performance: *A way forwards is to seed some very capable senior women into key posts so that they're very visible. They must be able to keep up with their male counterparts and not be found wanting. It's an awful thing to say because it is a pressured position, but that's what changes perception. If you're putting a woman in a senior role and they're not capable, they can undermine this whole piece really quickly.* **(43. Government Leader).**

This perspective perpetuates gender inequalities through a double-standard; one woman holds the weight of representing all women, whilst one man does not hold the weight of representing all men[13].

Well, why would we bother to pay her more? Because she'll do it, anyway.

Why would we support her? She'll just do it.

Photo by Ron Lach from Pexels

C. Burn-out

The experience of women working in the UK infrastructure sector can be complex and challenging - and for some, not worth it. Pressing-demands from all sides can leave women susceptible to burn-out.

One manager described how, by giving 150% of her energy to everything that she does, she is left vulnerable to being taken advantage of: *Well, why would we bother to pay her more? Because she'll do it, anyway. Why would we support her? She'll just do it.* **(28. Industry Manager).**

If unpleasant working conditions remain unaddressed over a sustained period, women may decide that stepping-down from their post is the best option available to them.

Having recently left her own organisation, a senior leader explained how she herself had come to this point: *You have to know how much you can take and how much you can't. I just knew I'd got to the edge. I'd got to the end of what I could cope with. I think it's about knowing yourself really well, being honest with yourself, and knowing when it's time: "Actually, no. I need to hand over this battle to somebody else. I've done my bit". And not to feel bad about it. I don't...You've got to judge it in terms of your own personal wellbeing, and that of your family.* **(38. Government Leader).**

On reflection, she stated, *'the loss of experience, talent and knowledge is so sad. That's my biggest frustration'.* These experiences demonstrate the unsustainable expectation that women will progress in an organisation, should they be both under strain and under resourced.

2

The burdened gender champion

EDI interventions are often championed and implemented by those minorities who are directly impacted by the problems they address. On the surface, this makes sense, as the people who have the passion and personal experience to drive forward change are in charge. But research indicates that EDI interventions need serious and close engagement from leadership to succeed.

Senior women may choose to - or be asked to - assume the role of **gender champion**, under the assumption that it is women who are needed to fix women's problems. But those who advocate for improvements in EDI often do so in *'magic time around their day-job'* **(26. Industry Leader)**[14].

One senior leader described having a 'pact' with female colleagues to stand in support of one another, should someone be 'spoken over or excluded' in meetings: *'This way, you don't feel quite so alone in those circumstances.'* (38. Government Leader). *If senior women choose not to advocate for EDI interventions, gendered issues can remain non-visible and silent in decision-making, in what is known as a case of* **'gender blindness': 'I've learnt that unless you [intervene], it doesn't happen by default... which is why I make myself unpopular'** **(35. Government Leader).**

Lower down the chain of command, responsibility for EDI interventions falls upon specialist teams of diversity practitioners. But these practitioners can feel that they do not have the power to incite meaningful change.

One manager explained how her role is not seen as credible, denying her the necessary respect and regard to inspire action: *'I think that we're just a talking shop most of the time. I can bang on about it until the cows come home.'* **(32. Industry Manager).**

A manager shares how tackling EDI issues without wider organisational engagement can be a frustrating and lonely experience: *When everyone else seems to be accepting these structural barriers, it's very difficult to be the sole voice, the only person protesting against something that is really hard to prove.* **(31. Government Manager).**

Importance was placed on integrating EDI interventions into core business practice, beyond the bounds of EDI workstreams and HR departments. If organisations disengage, EDI interventions can become siloed and disempowered.

Dissociation between diversity practitioners and senior leadership was seen to restrict daunting yet pivotal communication: *Do the EDI teams dare to challenge the senior leadership team? Does senior leadership dare to challenge itself in what it's actually doing? In the decisions that it's making? In the people that it's engaging to make those decisions? Do they dare start to have that conversation? I mean dare literally, like we're scared of what the answer might be. We don't want to admit that there's a problem. We don't, as an EDI team, want to commit career suicide.* **(19. Industry Manager).**

"...it's very difficult to be the sole voice, the only person protesting against something that is really hard to prove."

In the face of day-to-day pressures to deliver and maintain transport infrastructure, there were concerns that EDI interventions can become *'extraneous'*, existing beyond the bounds of a leader's remit **(22. Government Leader).**

A senior leader recognised that *'we still pay a little bit of lip service to diversity and inclusion. We don't want to own that we pay a little bit of lip service to it because we know that we shouldn't.'* **(22. Government Leader).**

It is important that senior leadership engage seriously with EDI interventions, relieving the burden on women and other minority groups, and instead, empowering them to succeed professionally.

Photo by Edmond Dant
from Pexels

3

Recognising
difference

EDI workstreams in UK organisations have grown in sophistication in recent years. For some organisations, targeted interventions extend beyond the nine protected characteristics[15] to better accommodate additional under-served groups e.g., ex-military personnel, ex-convicts and those of lower socio-economic status. But practitioners are well-aware that an individual's experience cannot be bound by just one social identity.

A senior leader stated, *'it is important to acknowledge that the human condition doesn't really operate like that'* (22. Government Leader).

And so, there is a call for more nuanced EDI interventions, those which cater for the multitude of different identities, roles and values we embody as individuals at any one time. These can ebb and flow over the course of our working life, at points, either advantaging or disadvantaging our position.

Professor Kimberlie Crenshaw (1989) introduced the contested academic term 'intersectionality' to describe this. She explained how a person's race, class and gender (amongst many other characteristics) interconnect to shape their experience of discrimination in society. This concept of intersectionality emerged from the transformative contributions of prominent black feminists throughout the 1980s (Davis, 1981; Hooks, 1981; Lorde, 1984) who argued that mainstream feminism often overlooks the interests of black women.

In simpler terms, a senior leader described inclusive intersectionality as, *'recognising people for who they are and allowing people to be themselves'* (22. Government Leader).

Practitioners and policy makers are now beginning to tentatively engage with intersectional EDI, *but the approach remains 'massively missing' in practice and faces immense operational challenges* **(30. Industry Manager).**

Layering different social identities can feel overwhelming, with organisations not yet having the language, understanding nor processes to navigate the concept: *It is mind-boggling, the complexities of intersectionality and everybody being different. How do you address that in a way which is accessible to people? To make people want to get behind it? To not alienate people or make them feel small? Nobody wants the sympathy card, they want action.* **(36. Government Manager).**

I think there's a disproportionate number of white women who are advising organisations but really don't have any insight or expertise on other areas.

In the spirit of inclusion, some organisations have opted for all-encompassing initiatives designed to meet the needs of everyone **(01. Industry Manager), but concern was raised that well-intentioned decision-makers may lack the experience required to address the needs of those most severely impacted by compounding disadvantage:** *I think there's a disproportionate number of white women who are advising organisations but really don't have any insight or expertise on other areas* **(24. Industry Manager).**

This is all made more difficult by the differences between visible and non-visible social identities.

Where diverse characteristics such as race and sex are most often involuntarily apparent, alternative social identities can remain hidden from view e.g., sexual orientation, religion, and in select cases, disability: *If you can hide certain things, you have the ability not to be judged on those things. There is only some information that you're going to see from my face.* **(30. Industry Manager).**

To avoid discrimination, employees may choose not to disclose particular aspects of their social identity, with disclosure rates for disability and sexual orientation reported as being particularly low. Associated General Data Protection Regulation (GDPR) and privacy concerns were raised with regard to reporting layered analyses of diversity data, from which individuals risk being identified against their will.

The intersectional analysis of diversity data was described by one practitioner as being akin to overlaying different combinations of lenses at the opticians as a tool for diagnosis, with each lens representing a different social identifier **(30. Industry Manager)**. For example, a statistical analysis could include a comparison of outcomes across black women, white women, black men and white men. Although practitioners expressed curiosity over the intersectional analysis of diversity data, it was suggested that appetite at senior levels remains low due to the initial scoping of diversity commitments and aims formalised at the outset of a project or policy **(02. Government Manager)**. Nonetheless, EDI interventions are heading towards a layering of social identities, even though organisations and researchers alike do not yet have the answers on how to manage such a process[16].

Designing and implementing all-inclusive EDI interventions which cater for everyone's needs and recognise difference is very difficult. Despite this, organisations across the UK infrastructure sector have made commendable progress, drawing together diversity data, resource and expertise for collective learning. This is a valuable platform from which to build-on.

Stage 3: Re-freezing

The final stage of the **unfreeze-change-refreeze** framework involves **refreezing** an organisation into a state of continuous learning and improvement.
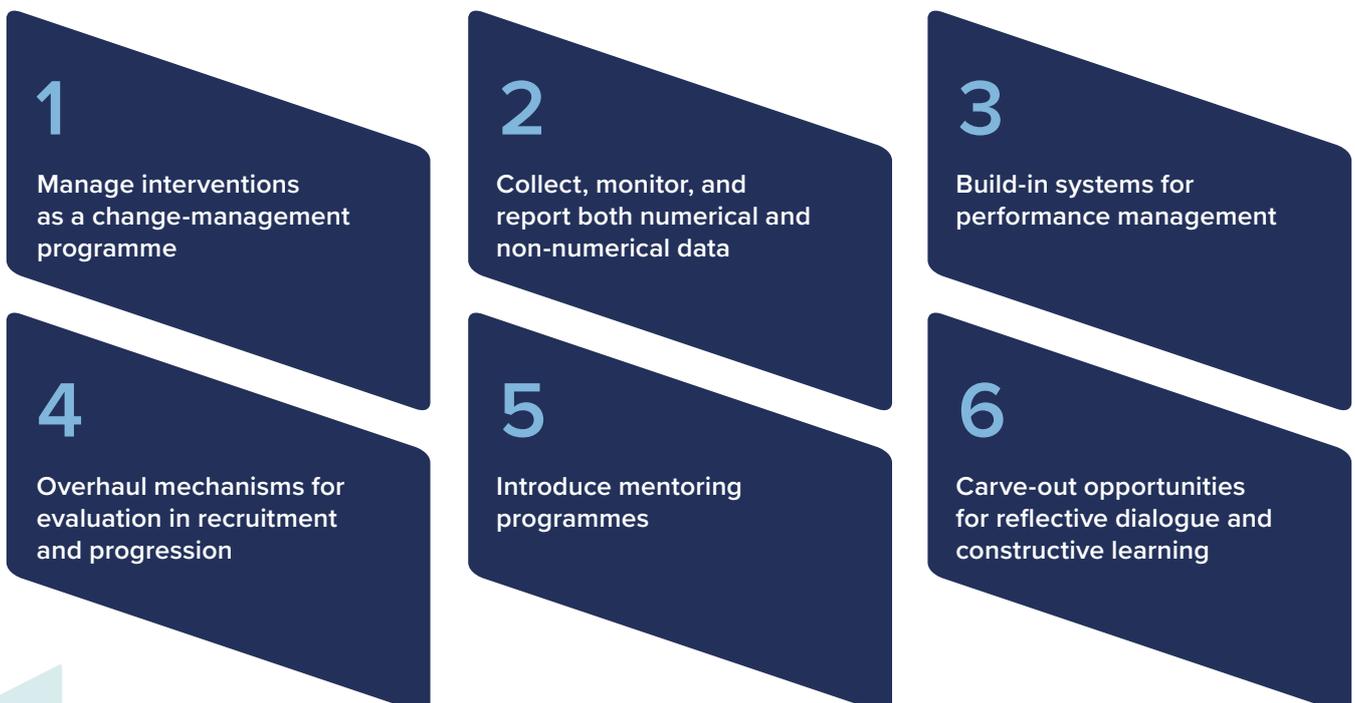
By treating equality, diversity and inclusion (EDI) interventions as a serious, organisation-wide, change management process, organisations can begin to realise the benefits of an improved, more productive workforce.

Although there is no route-map to guarantee success, organisations can continually upgrade and improve what they do. By gathering data, monitoring performance and re-strategising, EDI interventions can be improved in a process referred to as the policy cycle (Bridgman and Davis, 2003). All organisations are different, and will need to experiment, draw on evidence and gradually learn what works best for them.

While there is no simple recipe for improving EDI that works for all organisations at all times, there is a body of evidence on what works (see Table 1 for examples). The following strategies listed in Figure 4 draw on that evidence, and the evidence gathered in our interviews and focus groups, to suggest a starting point for future improvements to EDI across the UK infrastructure sector.

These actions will hopefully start to address some of the blind-spots identified over the course of this study and empower organisations, their leaders, managers and HR functions to better integrate and implement EDI interventions (Bohnet, 2016).

Figure 4. Performance framework for 'equality, diversity & inclusion' interventions:

1
Manage interventions as a change-management programme

2
Collect, monitor, and report both numerical and non-numerical data

3
Build-in systems for performance management

4
Overhaul mechanisms for evaluation in recruitment and progression

5
Introduce mentoring programmes

6
Carve-out opportunities for reflective dialogue and constructive learning

1

Manage interventions as a change-management programme

2

Collect, monitor, and report both numerical and non-numerical data

Consistent messaging is needed to clearly communicate the 'who, what, when, why and how' of the EDI interventions driving organisational change (Dodgson et al., 2015). To prevent EDI interventions from becoming disjointed, a systems approach can be used to respond to those emerging complexities and uncertainties inherent to innovative change-management programmes (Davies and Mackenzie, 2014; Whyte and Davies, 2021). Interorganisational project teams, such as the Strategic Transport Apprenticeship Taskforce (STAT), can collaborate to design systems-integrated EDI interventions, tailored to address different organisational aspects e.g., 'attraction, recruitment, retention and progression' or 'early-entrant, middle-management and leadership' (Davies et al., 2009; Roehrich et al., 2019). A systems approach provides a holistic framework to co-ordinate interventions and integrate EDI into daily operations and decision-making across the infrastructure sector. As collective knowledge accumulates, EDI interventions can be tailored to the needs and capabilities of different organisations (Davies et al., 2009).

Numerical data can be a valuable tool to direct focus and stimulate deeper enquiry (in honour of the popular adage, *'what gets measured, gets managed'*) (Espeland and Stevens, 2008). Organisations can collect, monitor, and report diversity data to gain insight into how EDI issues manifest across different social groups e.g., sex, gender, race, ethnicity, social class, disability and LGBTQ+. Collective diversity data management is being pioneered by mature organisations aspiring to standardise proceedings and benchmark performance nation-wide[17]. But it is important to consider that a diverse organisation does not equate to an inclusive organisation. Hence, organisations can complement their diversity data by considering non-numerical equality and inclusion data in parallel e.g., one-on-one interviews, facilitated focus groups and staff surveys (Tienda, 2013).

Collective diversity data management is being pioneered by mature organisations aspiring to standardise proceedings and benchmark performance nation-wide.

3

Build-in systems for performance management

4

Overhaul mechanisms for evaluation in recruitment and progression

Mechanisms to monitor accountability can be built into day-to-day activities to keep both policy makers and practitioners engaged with the task at hand. This requires organisations to identify and assign the role of 'responsible owners' for EDI interventions. Rather than treating performance management as a one-off exercise it is important to encourage an ongoing dialogue to supplement cyclical reviews (Ferreira and Otley, 2009). This ongoing dialogue can be augmented with systems that enable reporting and feedback between responsible owners and governing bodies. This can be reinforced with a system of benchmarking and assurance with accreditation processes to audit due diligence and performance comparison based on formal standards e.g., via the National Equality Standard. To optimise opportunities for learning, best practice should be shared (Simons, 1994). Organisations can also consider using rewards and sanctions to incentivise or discourage particular behaviours (Otley, 1999). For example, linking EDI interventions with remuneration structures, performance targets, tendering and contractual requirements. The need to demonstrate tangible improvements from EDI interventions can help to position them as an organisational priority.

Recruitment and progression opportunities are allocated on the merit of competing candidates. Contrary to popular belief, merit is not an absolute measure, but rather a subjective determination of what matters; merit is a value judgement (Liff, 1997). Professor Edgar Schein's (1985) research has shown how merit reflects organisational culture. He cautions: *'Leaders create cultures when they create groups and organisations, once cultures exist they determine the criteria for leaders. If leaders are not conscious of cultures, the cultures they are embedded in will manage them.'* Organisations can redefine merit by renegotiating the skills and attributes considered desirable for a job. By overhauling mechanisms for evaluation, organisations can de-bias processes of selection, whilst re-orienting skills requirements in line with shifting organisational needs (Castilla, 2008; Castilla and Benard, 2010).

In turn, the demographic of appointments changes, indirectly diversifying recruitment: *We could see that the results for women at senior leadership level just weren't doing great at the interview or shortlisting stages when we were using executive search firms. We introduced EDI requirements and briefings for the executive search firms. Also, we now recruit against our diversity-proofed leadership framework, and the assessment is sort of bias-proof, etc. What do you know, the stats have increased.* **(12. Industry Manager)**

5

Introduce mentoring programmes

6

Carve-out opportunities for reflective dialogue and constructive learning

Mentoring can help people to defy negative stereotypes, raise their aspirations, and improve their career prospects (Allen et al., 2004; Chao et al., 1992). Formal mentoring programmes can facilitate pairings, for example, by hosting a series of short one-to-one greetings between potential mentors and mentees. This selection process allows for pairings to emerge more organically, mirroring the format of 'speed-dating'. In this way, the mutual respect and consent associated with effective informal mentoring can be better translated into formal programmes (Noe, 1988; Ragins and Cotton, 1999). Senior men are often asked to mentor junior women to improve their access to critical networks, resource and training (Ragins, 1997). By making cross-gender mentoring an explicit component of mentoring programmes, organisations can help prevent counter-productive gossip (Burke and McKeen, 1990; Ragins and McFarlin, 1990). It is also important to protect mentees from the potential dangers of close, power-imbalanced relationships. To do so, organisations can provide periodic and confidential oversight of formal mentoring relationships (Merriam, 1983). In addition, 'reverse mentoring' can enhance intergenerational learning, by encouraging junior employees to share valuable insights with those more senior (Chaudhuri and Ghosh, 2012; Marcinkus Murphy, 2012).

Proposing and debating contested new-ways-of-working can be a challenging experience for both policy makers and practitioners. When such changes relate to EDI, holding these debates can be avoided all together (see page 23 – The unintended consequences of positive discrimination concerns). To handle sensitive or divisive topics, organisations can carve-out opportunities for reflective dialogue and constructive learning. Participants can be put as ease by inciting dialogue whereby honest inquiry is encouraged and different perspectives are respected (Bagshaw, 2004). Drawing on the emotional intelligence of an external mediator to guide proceedings can also be a helpful tool to consider.

By making cross-gender mentoring an explicit component of mentoring programmes, organisations can help prevent counter-productive gossip

Conclusion

This report integrates empirical evidence on some of the equality, diversity and inclusion (EDI) challenges facing the UK infrastructure sector with academic research on how organisations can improve their EDI interventions.

By following Kurt Lewin's *unfreeze-change-refreeze* framework (Bohnet, 2016), the reader is taken on an important, and at times uncomfortable, journey to better understand EDI issues. This is intended to help them understand the problems and the challenges practitioners can face when implementing interventions. The findings suggest that significant additional action is needed, that goes beyond attracting and recruiting new-staff, to develop working conditions where diverse talent can thrive.

Transforming working practices is not easy. Change-management programmes relating to EDI are made even more difficult by their divisive and complex nature. The evidence generated in this report suggests that while progress is being made, practitioners are now facing rising tensions around issues such as perceptions of preferential treatment.

Organisations can integrate EDI interventions throughout core-business practices and empower their HR departments (Bohnet, 2016). Although there is no route-map to guaranteed success, organisations can educate themselves, collect data, pioneer interventions and review progress for continual improvement. Many sectors and organisations have faced similar problems and have gone on to improve their working practices.

Moving forward, the infrastructure sector can build on its existing progress around EDI. The sector continues to face EDI challenges, and will need to improve its EDI interventions. Doing so will help the sector to attract and retain the diverse talent it needs to deliver for the nation, whilst also enabling it to better harness the value of behavioural and organisational change. As such, improving EDI interventions will be necessary for the infrastructure sector to address the wider challenges it will face in the future.

The evidence generated in this report suggests that while progress is being made, practitioners are now facing rising tensions around issues such as perceptions of preferential treatment.

Organisations can integrate EDI interventions throughout core-business practices and empower their HR departments.

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Research Participants

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Endnotes

1 Promising EDI interventions include the Women in Transport (WiT)'s mentoring programme, Advance (WiT, 2021), and the Strategic Transport Apprenticeship Taskforce (STAT)'s novel pre-employment schemes (DfT, 2020).

2 The infrastructure sector in this report includes the following industries and disciplines: Transportation, Construction, Project Delivery, and STEM (Science, Technology, Engineering and Mathematics).

3 An example of employment bias against women was shared by one senior leader. She described being passed over for opportunities in favour of junior men, under the explicit assumption that as a mother, she should not be taking on any extra responsibility. Ironically, one such opportunity was offered instead to two junior fathers, both of whom reported to her. Following this incident, she left the organisation (40. Government Leader).

4 Research findings indicate that senior women were less subject to risk-aversion in recruitment. Accounts were shared of their own recruitment practices, bringing-together diverse talent in an eclectic team of 'misfits' (37. Government Leader).

5 Not all organisations have the same problems with onsite facilities. Some, such as Transport for London (TfL), Tarmac and Network Rail, have expanded their range of PPE and now include maternity-wear, and provide mechanical aids that are more suitable for women (Tarmac, 2019; TfL, 2015) (14. Industry Leader).

6 By collecting and reporting EDI data, one organisation discovered that they were losing female graduates at twice the rate of male graduates following the first two years of their employment (24. Industry Manager).

7 The relationship between group diversity and innovative decision-making is supported by literature, see (Bridgstock et al., 2010; Steele and Derven, 2015; Talke et al., 2011).

8 A senior leader we interviewed from the public sector, described working part-time, in various configurations over 14 years, until she got promoted to the position of Director (35. Government Leader).

9 Example resources for family friendly policies include a toolkit from Birmingham University's Equal Parenting Project (Birkett et al., 2020), alongside the Government Equality Office (GEO)'s actions for employers (GEO, 2019b).

10 Table 1 displays a verbatim summary of Iris Bohnet (2016)'s world-leading research on effective ways to improve gender diversity within organisations.

11 Workforce diversification can be hampered by slow rates of staff turn-over e.g., only 3% per annum in the rail sector (DfT, 2016).

12 The Meritocracy Myth - Through a meritocratic lens, the precedent of hiring a predominantly male workforce insinuates that men are the best candidates for roles in the UK infrastructure sector. As a consequence, purposeful attempts by EDI interventions to deviate from the hiring of male candidates is perceived by the majority to be a case of positive discrimination. The critical assumption being that women must be, in some manner, inherently deficient, given their absence from infrastructure roles historically. This model of reasoning does not account for the UK's history of discriminatory sexism, withholding women's access to higher education and participation in the profession (Miles, 1988).

13 A senior leader cautioned against scrutinising the performance of individual women, arguing that it should be accepted that not all women in positions of power need to 'do better than the best men in these jobs'. She framed gender equality as a society where women are in jobs which they are not ready for, as mirrored by her own observations of working men (40. Government Leader).

14 Young female apprentices described receiving multiple invitations to 'change the face of Transport' through extra-curricular marketing campaigns. On one such an occasion, an apprentice described feeling pressurised into contributing, to the detriment of her own studies.

15 The Equality Act 2012 covers nine protected characteristics: age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

16 For the Government Equalities Office (GEO), intersectionality is an emerging research priority as the demand for policy advice in this area increases (GEO, 2019c).

17 Collective diversity data management is in early development with groups such as the Strategic Transport Apprenticeship Taskforce (STAT), the Infrastructure Client Group (ICG) and the Supply Chain Sustainability School.