



Equality, Diversity and Inclusion in the Foundation Industries

Workshop Report
March 2022

<https://tfinetworkplus.org/>

Foreword

by Prof. Bill Sampson



It is my pleasure to provide a foreword to this report on the recent workshop on Equality, Diversity and Inclusion (EDI) in the Foundation Industries delivered by the Transforming Foundation Industries Network+. The materials manufacturing sectors, collectively captured as Foundation Industries – bulk chemical cement, ceramics, glass, metals and paper – are characterised by their energy intensive manufacturing processes and associated contributions to the carbon footprint of UK manufacturing, but they have much in common beyond this.

All face long standing challenges in recruiting staff to replenish aging workforces that are overwhelmingly male and rarely representative of the demographics of the UK or the communities where they are based.

The challenge of diversity in the workforce is closely coupled with that of skills, which is where Universities and other providers of education can contribute. Beyond the part of our mission to develop skills, Universities have made progress in EDI, but still have much work to do. Our role in this Network+ is not only to share our experience, but also to facilitate and support the establishment of a Foundation Industries community that can work across sectors to establish the more diverse and inclusive workforces required to improve sustainability and competitiveness of these industries.

This report captures the start of this process as delivered through our EDI Workshop.

"OUR ROLE IN THIS NETWORK+ IS NOT ONLY TO SHARE OUR EXPERIENCE, BUT ALSO TO FACILITATE AND SUPPORT... "

The representatives of the partner universities of the Transforming Foundation Industries Network+ – Sheffield, Leeds, Manchester and Swansea – look forward to building on this platform and working collaboratively with the Foundation Industries to progress their common agendas.

We would like to thank you for your interest in our activities and we look forward to working with you on this important agenda.



Prof. William. W. Sampson CSci CEng FIMMM
Equality, Diversity & Inclusion Lead for the Transforming Foundation
Industries Network+.
Manchester, May 2022

Executive Summary

The Foundation Industries face challenges in delivering sustainable practices that meet UK Government Net-Zero targets. Without significant investment to transform the workplace and embed equality, diversity and inclusion, these industries risk missing out on vital skills needed to secure the future of the sectors.

On March 23rd 2022, Transforming Foundation Industries Network+ teamed up with Inclusioneering to deliver a workshop exploring Equality, Diversity and Inclusion in the Foundation Industries.

Speakers established what Equality, Diversity and Inclusion (EDI) means for the sectors and showcased individual and industry perspectives and success stories to encourage an industry-wide discussion about greater diversity and inclusion. The event was interactive with opportunities for audience members to engage with speakers in Q&A and to reflect on learning and ways ahead through breakout discussions.

The agenda was designed to spark discussion and thought, to take the audience on a journey through understanding, contextualising and building clarity on their own organisation's next steps:

- Surveying the EDI landscape of the Foundation Industries – Including an introduction from TFI Network+ and Keynote speaker Gary Ford, IT consultant and co-founder of Men for Inclusion.
- Showcasing EDI success stories from the industries as well as practical advice and opportunity for questions. Moderated by Professor Sue Black, panellists were Myrtle Dawes, Lisa Nicholas, Dr. Kyra Sedransk Campbell and Jeffrey Fox.
- Building commitment to EDI action – an opportunity for attendees to share experiences, advice, and best practices to define areas for collaboration across industry and EDI next steps for their organisations.

The event was well attended with a peak of 55 participants, spanning each of the Foundation Industries, academia, and the wider engineering community. As is typical for such events, numbers dropped for the final breakout discussions, but engagement was high throughout, with insightful discussion from participants and responses to the entry/exit poll question showed an increase in participants' confidence to define next steps for EDI at their organisations.

Key themes highlighted by speakers that resonated through participants discussions emerged as:

- Attracting new talent to industry – covering multifaceted considerations of education, industry culture, influence, and image.
- Female representation.
- The role of men in supporting progress towards a more diverse and inclusive workplace.
- The impact of everyday behaviours.
- Addressing change at scale: Governance and policy.

Participants shared that support needed to progress these topics in their organisations includes greater knowledge about reasons for attrition from industry, resolving ethical tensions, and setting up formal organisational structures that support change.

Recommendations for next steps are to:

- Continue to seek and capture feedback from participants to gain greater insight into the impact of the event and lessons to learn.
- Continue to develop the themes and priorities that emerged through subsequent events and resources, to both broaden and deepen coverage of topics.
- Strengthen and foster new connections to create a community with momentum around EDI topics.
- Consider the role of EDI for upcoming TFI Network+ events, funding awards, and publications on engineering topics, as well as those dedicated specifically to EDI.



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1 Introduction

The Foundation Industries face challenges in delivering sustainable practices that meet UK Government Net-Zero targets. Without significant investment to transform the workplace and embed equality, diversity and inclusion, these industries risk missing out on vital skills needed to secure the future of the sectors.

On March 23rd 2022, Transforming Foundation Industries Network+ teamed up with Inclusioneering to deliver a workshop exploring Equality, Diversity and Inclusion in the Foundation Industries.

The importance of diversity in the workforce is increasingly recognised, with benefits demonstrated to organisations' innovation, productivity, risk management and profitability [1]. Yet engineering businesses specifically face skills shortages and challenges to attract new talent to industry. Furthermore, a report on EDI by Innovate UK has highlighted the lack of representation of younger workers and female employees in the Foundation Industries, but also that there is limited data available on a broader profile of diversity [2].

While larger organisations may have established equality, diversity, and inclusion practices, many smaller organisations in the Foundation Industries are yet to gain experience with EDI topics.

As a relatively new topic to the Foundation Industries, the TFI Network+ EDI workshop was conceived as a means to bring together leaders and interested parties from across the industries, to provoke thought and spark discussion.

This event was a first, but not an only; it's intention to be the beginning of on-going collaboration, and initiate a focus for activity around EDI in the Foundation Industries.

The event brought together expert speakers on topics of EDI and the Foundation Industries, and encouraged purposeful audience participation through discussion of their challenges and successes, actions and plans.

[1] <https://inclusioneering.com/why-diversity-in-tech-and-engineering>

[2] <https://www.enterpriseresearch.ac.uk/publications/equality-diversity-and-inclusion-in-uk-foundation-industries/>

EDI Workshop Objectives 2

The objectives for the EDI workshop were:

- To begin an industry-wide discussion about greater diversity and inclusion in the Foundation Industries, aligned to the Innovate UK Transforming Foundation Industries Challenge study recommendations [3] and strategy [4].
- Provide a learning opportunity for Foundation Industry management and leaders to engage with the benefits of increased diversity.
- To facilitate collaboration, bring together knowledge and share best practice between organisations in the Foundation Industries.
- To build commitment for change within the Foundation Industries.
- To establish TFI Network+ as a central point for resources and knowledge sharing, supporting industry-wide change to implement new EDI policy, strategy and interventions.
- To progress goals of the TFI Network+ EDI strategy: Encouraging talent, developing skillsets and highlighting successes, tackling culture, ensuring inclusive challenge activities.

[3] <https://www.enterpriseresearch.ac.uk/publications/equality-diversity-and-inclusion-in-uk-foundation-industries/>

[4] <https://www.ukri.org/our-work/our-main-funds/industrial-strategy-challenge-fund/clean-growth/transforming-foundation-industries-challenge/improving-equality-in-the-foundation-industries/>



3 Event Summary

Overview

The event was hosted by Professor Bill Sampson, Professor of Materials Modelling at University of Manchester and EDI Lead for TFI Network+. It took place on 23rd March 2022, from 1-4 p.m. online via Zoom.

In his opening remarks, Bill introduced the EDI landscape of the Foundation Industries, and shared that the diversity profile of this event was quite different to typical in the Foundation Industries. As shown in Figure 1, registrations comprised 63% women, inverting the gender balance usually seen at Foundation Industry events.

Through the speakers and panellists, the workshop centred on lived-experience from the perspectives of gender, age, ethnicity, socio-economic class, across the industries and through production, non-production roles and also academic roles.

As a male-dominated set of industries, a secondary aim of the workshop was to explore the vital role of men in making change for greater equality, diversity and inclusion.

The workshop was structured into three main parts to take the audience members on a journey through understanding, contextualising and building clarity on their organisation's next steps:

1. **Establish** what is EDI, why EDI matters to the Foundation Industries, and how to create a more diverse and inclusive workplace - led by expert EDI speaker Gary Ford, IT consultant and co-founder of Men for Inclusion.
2. **Showcase** perspectives, experiences and success stories from individuals and organisations working in the Foundation Industries and adjacent industries, through an interactive panel discussion. Moderated by Professor Sue Black, panellists were Myrtle Dawes, Lisa Nicholas, Dr. Kyra Sedransk Campbell and Jeffrey Fox. Speaker biographies can be found in the Appendix.
3. **Deepen** clarity and commitment to change, with breakout sessions to reflect on the learning from the earlier sessions and delve into strategic actions for organisations to take forwards.

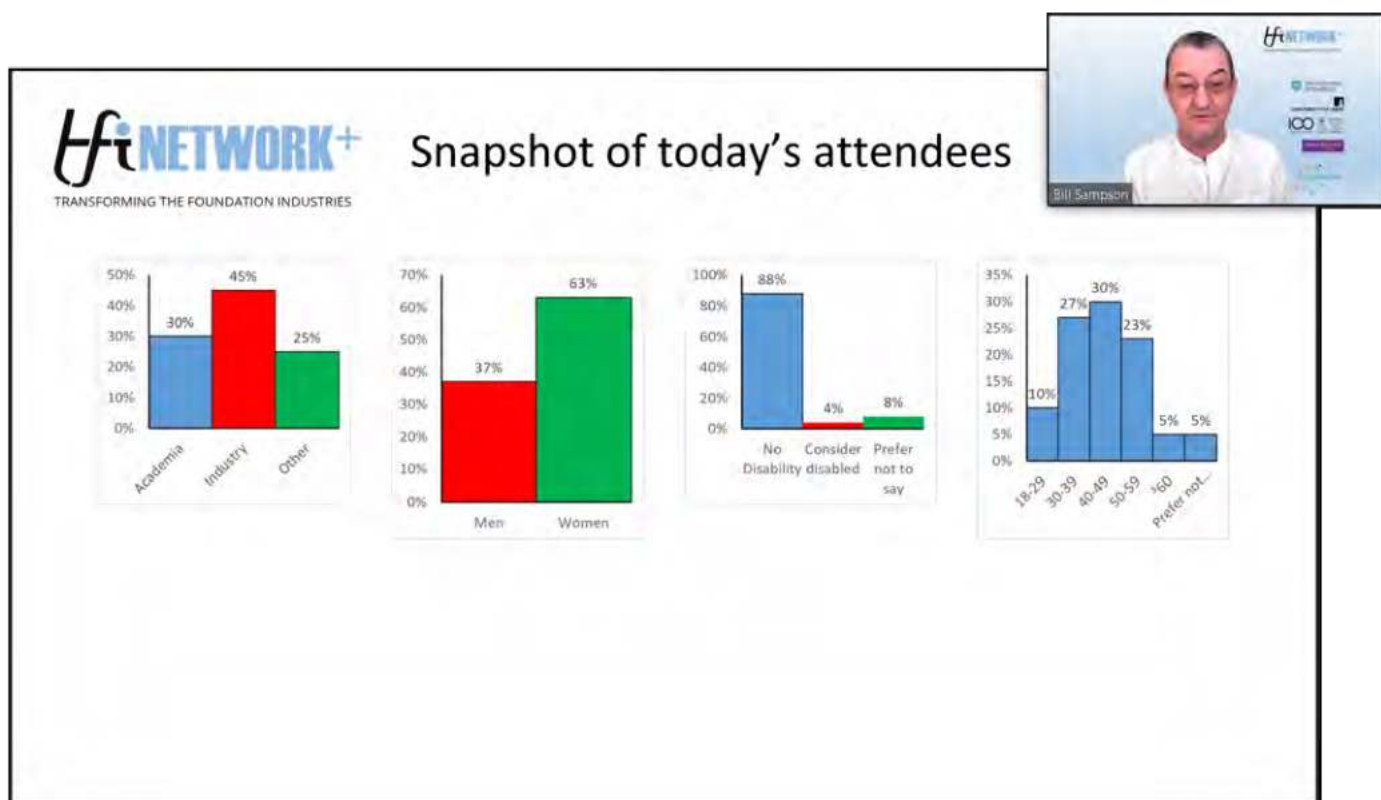


Figure 1. A Screenshot of Bill Sampson's opening presentation, showing a graphical snapshot of attendees



Figure 2. The EDI Workshop team: (Top left to right) Deborah Froggatt, Jo Stansfield, Professor Bill Sampson, Gary Ford (Middle left to right) Jeffrey Fox, Dr. Kyra Sedransk Campbell, Neil Lowrie, Professor Sue Black, (Bottom left to right) Lisa Nicholas, Myrtles Dawes, (Not in photo) Professor Ian Reaney.

Part 1: Keynote

The Accidental Sexist: Talking to men and women about creating a more gender equal workplace



Gary Ford was a Managing Director at JP Morgan where he co-founded a male allies programme for Women in Technology which ultimately became a firm-wide network across the whole company. The group developed an inclusion workshop that has been run over 200 times across 6 countries and spoke to more than 2,000 allies.

He now works with other organisations around inclusion and is the male allies advisor for Women on the Wharf. He co-founded Men for Inclusion, a new organisation that aims to bring help companies set up programmes to engage men in diversity and inclusion efforts.

In his keynote, Gary shared how companies today understand the strategic importance of having a diverse workforce where all employees feel they belong and are valued. Yet, many underestimate the continuing impact of everyday, accidental sexism on the opportunities for women to advance their careers.

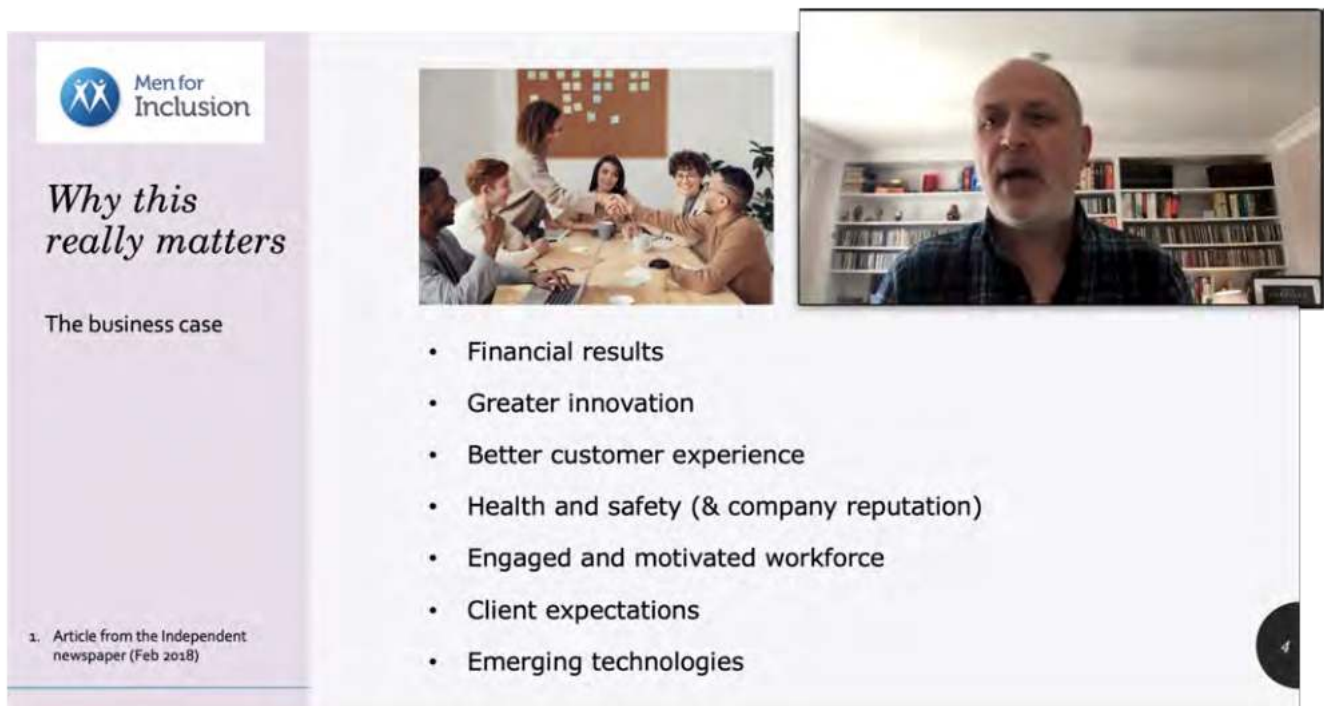
Men, in particular, can shy away from involvement in action for inclusion as they may not see the problem, understand what's in it for them or realise what they can do personally.

Gary described what he discovered when talking to thousands of men and women about gender equality, and ideas on how to spot examples of subtle accidental sexism and how everyone can take an active role in creating a more inclusive workplace.

Key messages from Gary:

- Research has dispelled the myth that women are less ambitious than men.
- But assumptions made about women, especially when they have small children are constraining. They gain less actionable feedback, less airtime in meetings, and are more likely to be interrupted.
- Women in senior roles are more harshly judged than men.

- Affinity bias means men tend to form social bonds more often with other men, and this is where progression opportunities often come from.
- Men and women are all culprits of accidental sexism – and also victims – but it impacts women’s careers more.
- We need to start to address the big challenges. First leadership teams need to fix their behaviours, then the rest of the organisation follows.
- It’s great that EDI is recognised as a key component in transforming the Foundation Industries, not as a separate activity (which is often done by women in their spare time). Time, resources and governance are needed to ensure success.
- Men in the workplace tend to have a relative advantage, as workplaces tend to be designed by men for men.
- Reverse mentoring is a positive intervention for senior leaders to learn about the experiences of women in their organisations.
- The whole workforce need to become engaged on EDI, not just one half of it. EDI is a necessary skill for future leaders.
- Advice for leaders striving for greater EDI in their teams: give permission to your teams to call you out when you get it wrong.
- When hiring, shift from a mindset of “always hire the best person for the job” to “always hire the best person for the team”.
- EDI is a marathon not a sprint. It takes planning, repeated time and investment.



The slide is titled "Why this really matters" with the subtitle "The business case". It features the "Men for Inclusion" logo in the top left corner. A small inset image shows a group of people in a meeting. A video inset on the right shows Gary Ford speaking. The main content is a bulleted list of business case points.

Men for Inclusion

Why this really matters

The business case

1. Article from the Independent newspaper (Feb 2018)

- Financial results
- Greater innovation
- Better customer experience
- Health and safety (& company reputation)
- Engaged and motivated workforce
- Client expectations
- Emerging technologies

Figure 3. “Why this really matters” slide presented by Gary Ford

Audience Questions

Following the keynote, there was an opportunity for audience questions.

Asked about the value of unconscious bias training, Gary shared that these types of sessions have attracted criticism for being unclear about actions to take away, and that he himself has experienced training with this issue.

Bill Sampson asked if parallels exist with other protected characteristics. Gary's work has been focused on gender equality and he replied that the root causes of issues affecting diverse groups come from different places, and it is important to understand the causes to be inclusive of all identities. However, the actions that can be taken do have overlap.

Gary was asked if it is possible to learn to be more inclusive without being confronted about mistakes that have been made. He acknowledged that this can be a catalyst for change, but that in his experience most people do want to be educated. The challenge is to convert that to action.

Another participant raised that women in support functions tend to be seen as just the helping hand. How can we ensure that they have a voice and are heard? Gary shared that women are more likely to volunteer for tasks, and we must make sure it is not only the women who end up with these supporting tasks. Managers and meeting chairs have an important role to play here.

Gary's slides are available and will be shared on request.



Part 2: Panel Discussion

Experiences of EDI in the Foundation Industries



The Panel Moderator was **Professor Sue Black**, EDI lead for TransFIRE (Transforming Foundation Industries Research and Innovation hub), Professor of Computer Science at Durham University, and widely known for her expertise and advocacy for EDI in the technology sector.

On the panel she was joined by:

- **Lisa Nicholas**, EDI Manager at the University of Southampton and former Process Operator.
- **Jeffrey Fox**, Partnership Development Manager at AMRICC.
- **Dr. Kyra Sedransk Campbell**, Senior Lecturer at the University of Sheffield.
- **Myrtle Dawes**, Solution Director at Net Zero Technology Centre.

Sue kicked off the discussion with introductions and a question to all panellists about their relationship with the topic of EDI.

Lisa has worked for 20 years in Engineering. She went to an all-girls school, then found herself amongst all boys when she entered her apprenticeship and engineering career. When she had her two children, she suddenly understood the barriers facing women in this type of workplace. She was working as a Process Operator at Exxon Mobil, which was very male dominated. However, from her experience, she was able to make change in the organisation to support women and mums at work. It's led her to a new career, and Lisa now works on the EDI team at Southampton University.



Myrtle is Solution Director at Net Zero Technology Centre. She has been an engineer for 30 years, and originally studied Chemical Engineering. Earlier in her career, she was the only woman offshore with BP, and it has normal for her to be the only woman throughout. She has recently been appointed to serve as a board member for FirstGroup, and is the first black woman on their board.





Jeffrey works for AMRICC, research and technology in advanced ceramics. His interest in EDI is in opportunities - which comes from not having had them early in his own career. Jeffrey shared a story of how at the start of his working life he needed work, stuck a pin in a newspaper, and found a machine job. It was all men. But 30 years later, nothing has changed. Jeffrey realised he had to bootstrap his education to progress his career. Now he sees how difficult it can be for young people to get the careers they desire, so asked himself, "can I create the opportunities to change the education and skills landscape?". With AMRICC, he has set up the first Materials degree apprenticeship in the UK.



Kyra is a Senior Lecturer in the Department of Chemical and Biological Engineering at University of Sheffield. She has 3 children and is co-founder of a start-up, Nanomox. As an academic, she sees the EDI issue of who comes into the system, and who goes out. Universities don't have the totality of people entering an engineering career, but they have an important role to play. She sees EDI issues impacting development of new technologies, and wants to see EDI progress snowball to become self-sustaining.

Sue asked Lisa to share more of her story of her enlightenment about EDI. Lisa explained that on her first day back on site after maternity leave, she worked alone in a portacabin all day, with no acknowledgement she was back. Her flexible work application was handled slowly, and then declined. She realised that previously she had felt she had to change to fit in. After her maternity experience, she recognized she wasn't one of the men on the team, and she couldn't be. It lit a fire in her, and she reached out to other women in the organisation. Most were the only woman in their team, and it was clear EDI policy wasn't translating to the shop floor. That's where she started work to make change.

Myrtle also talked about experience of being an "only", and Sue was curious about the coverage of her recent board appointment as "balancing the board". Myrtle explained that the appointment process had been very thorough, but that press commentary has raised the topic of her identity. While she doesn't want to be an area of study all of the time, Myrtle explained her pleasure to have this position on a diverse board, stating "diversity breeds diversity".

The topic moved on to education and training. For Jeffrey, diversity is not just a goal in itself, but also the answer to challenges to find engineering talent. Students often have misperceptions of engineering as a man's world, entailing dirty work, which can turn them away.

There is a different image problem in ceramics that they don't really have an image. No one knows what it is! AMRICC couldn't find a qualification that suited their industry, so they created one. Now they have a tangible programme to use to draw in the diverse workforce they want. Entry requirements are now under their control, enabling more inclusive selection.

There was agreement between the panellists on the difficulties to make changes happen on a larger scale. Kyra has experienced that many school teachers are unaware of what engineering really is. Students trust their teachers, so educating teachers is the current stumbling block to overcome. While there are many great initiatives, they don't yet work at scale. Myrtle responded that to address the challenges of scaling up and making an impact we need to remove old fashioned thinking and barriers that permeate into policies.

In the final part of the moderated questions, Sue directed the panel to discuss solutions for more diverse and inclusive companies. Lisa described how inclusion and belonging are the most important terms in the various EDI acronyms.

In engineering it's about making sure there is suitable PPE, changing rooms, or toilets. In her work, she has created a playbook for pregnancy, fertility, and pregnancy loss in the workplace.

Kyra raised that diversity profile of organisations is informed by society and reflects the problems we face beyond the workplace. Myrtle added that leaders tend to look for people like themselves when recruiting. Having these discussions can be difficult, but she is glad to have them, as the influence of leaders is needed to make change.

Discussion turned to what we can control. Organisations can only have control in their own workplaces, and even then cannot control everything. Sue wrapped up with the thought that to address challenges at this scale, policy is vitally important. Change for EDI cannot be treated as a side issue but must be championed at the highest levels.

Audience Questions

The moderated discussion was followed by 15 minutes of audience questions. A theme that had resonated was the question of how to bring about change in such a large industrial sector. One audience member drew a parallel with effective change he has seen in Health and Safety with the Bradley Curve of maturity levels. This guides organisations through four stages of maturity to build a culture of safety. He asked, could there be an equivalent for EDI? For example, at level 1 require that policies are in place, or have guidelines for how to behave in meetings. As organisations progress up the maturity curve it will develop to become second nature.

The panellists responded positively to the ideas but did give caution that mandating change for EDI can backfire. Lisa recommended to approach it from the perspective that putting policies in place makes an organisation a more attractive place to work, and which leads to it becoming more competitive.

Another audience member gave the example of government intervention to introduce acts including the Environment Act for sustainability, and the impact this had made to organisations' behaviour. This led to the question of whether something comparable for EDI would have similar impact.



Figure 4. A screenshot of the panel in action, with comment from Myrtle Dawes in text saying “I have used the men’s loos quite a lot over the years”

Part 3: Breakout Discussions

Opportunity for participants to reflect and explore ways ahead

The final session invited the participants to reflect on the learning from the earlier sessions and explore strategic actions for organisations to take forwards. The participants divided into three breakout groups, with discussion guided by facilitators around three key questions:

What challenges do we have in common?

What opportunities or ideas will you take forwards?

What support do you need to be able to achieve this?

Discussions were varied. Themes that emerged across breakout groups were as follows:

Attracting new talent to industry

This line of discussion built from Jeffrey and Kyra's panel contributions:

- It is a challenge to retain young people, particularly women, as they enter degrees and beyond. What needs to be done to create a culture that encourages them?
- The alignment with skills is closely linked to this question. It was noted that Metallurgy degrees exists but none in Paper.
- Industry must play a prominent role to influence education - in school, universities, apprenticeships and beyond through initiatives like the Industrial Cadets.
- There is a need to change the image of manufacturing to be attractive to talent.

Female Representation

- Participants noted that women leave the industries in greater rates than men.
- Even when women stay in the industry, there is a tendency for them to migrate away from the engineering roles .
- Is the environment the cause? Lacking PPE, facilities? Do people feel included? There was a desire to know more about the causes of people leaving career paths, with acknowledgement that the cause can be a catalogue of small things.
- Challenges faced by women resonated with those shared by Lisa and Myrtle in the panel discussion.
- Women with these experiences seem drawn to make change, but at the cost they are lost from engineering roles. In one of the breakout groups, all of the women present had made some kind of transition away from core engineering roles.

The role of men

- Points from Gary's keynote were reflected in this discussion theme.
- The need for flexibility affects everyone. Flexible working must be available for men too.
- Men need to step in and take responsibility to make changes for EDI, not leave it all to the women.



The impact of everyday behaviours

- Unintentional bias or lack of awareness in verbal or email communications may lead to misunderstanding and offense. For example, comments that are gender related may illicit a negative response, such as addressing a group as “guys”. Participants discussed how best to deal with this appropriately and proportionately. Giving feedback can be challenging.
- It is important to being mindful, but this may lead to reticence and self-censoring if taken too far.
- Work based training to increase awareness was an avenue discussed to address these everyday behaviours. It was also notes as important to create safe spaces where issues can be addressed in an informal manner, e.g., not necessarily involving HR. Allowing opportunities for discourse within organisations will help a gradual change of culture.

Addressing change at scale: Governance and policy

- Ownership of EDI is a challenge.
- It takes a career span to change culture and behaviour without it being mandated.
- Policy or legislation is needed for faster and scalable change .
- A maturity model like the Bradley Curve for Health and Safety could be effective.
- We must create structures within organisations that allow people to speak out if issues arise, whilst ensuring that feedback is acted upon.
- It is important to demonstrate the benefits of inclusivity, and tangible outcomes.

Support Needed

- There was limited time spent on this question by each of the groups, as discussion tended to focus towards the first two questions of challenges and opportunities.
- There was a desire to know more about the reasons for people leaving career paths, as a basis for setting an appropriate strategy for change.
- Another line of support considered was with resolving ethical tensions inherent in the EDI domain e.g., between corporate websites to showcase EDI initiatives to become more attractive, and reflecting the reality of the diversity and inclusion of the organisation.
- Lastly raised on the topic of support needed, setting up formal structures in organisations that enable change.

4 Participation and Engagement

Key Figures

Registrations	
Number of participants registered	83
Number of organisations represented	63
Foundation Industries represented	All: Bulk chemicals, cement, ceramics, glass, metals, paper
Attendance	
Peak attendance	55
Keynote attendance	55
Panel discussion attendance	46
Breakout attendance	27
Social Media Engagement	
Number of posts (Twitter and LinkedIn)	8 (Twitter), 8 (LinkedIn)
Engagements	545

Engagement during the event

The event attracted 88 registrations, with a high of 55 attendees logging into the event. This difference in registration and attendance numbers is in line with previous TFI Network+ virtual event which have seen similar differences in numbers.

Engagement remained high throughout the event, as evidenced by the attentive question and answer sessions for both the keynote and panel sessions. Attendance dropped following the panel session for the breakout groups, but participation in the groups was strong with the majority of participants actively contributing to the discussion, and progressing this beyond the content shared by the speakers and panellists.

It was noted that the timing of the breakout sessions (3.10pm) may have led to some parents to leave for school pickups. However, it has been observed that breakout sessions at other network events have also suffered a drop-off in attendees, so this may also be reflective of reticence to participate in online discussion. Future session planning should be cognisant of this likelihood and designed to enable and encourage participants to stay for the discussion portions.

Format of the event

The number of registrations and geographic spread of registrants (see next section) implies that an online event was a suitable choice to enable the greatest number of participants to join. An in-person event is likely to have attracted fewer participants, who are based more locally to the venue.

Social media engagement

The Network utilised Twitter and LinkedIn to promote the event, with 8 posts on each channel between early February and the day of the event. Overall, the posts attracted 545 engagements, with posts showcasing the profiles of speakers proving most popular. The event was also promoted through the monthly TFI Network+ newsletter, generating 13 clicks (included in December, January and February issues). These were accompanied by 2 direct bulletin emails which generated 176 clicks.

Demographic Analysis of Registrations

Industry

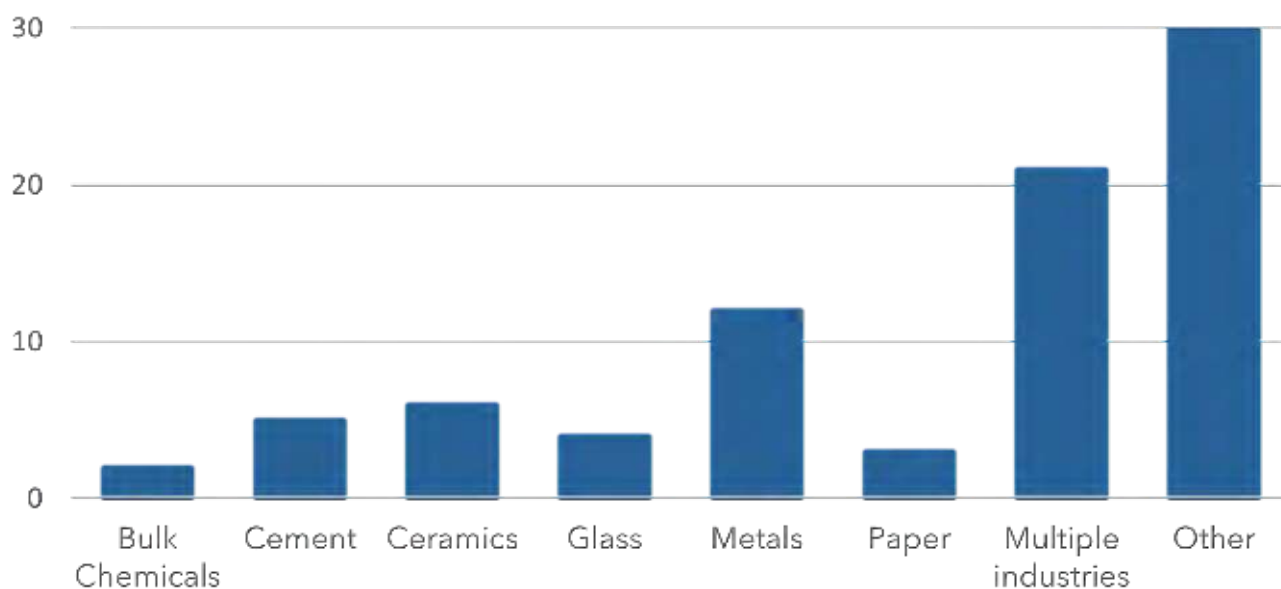


Figure 5. Chart showing breakdown of industries represented

Gender

Disability Status

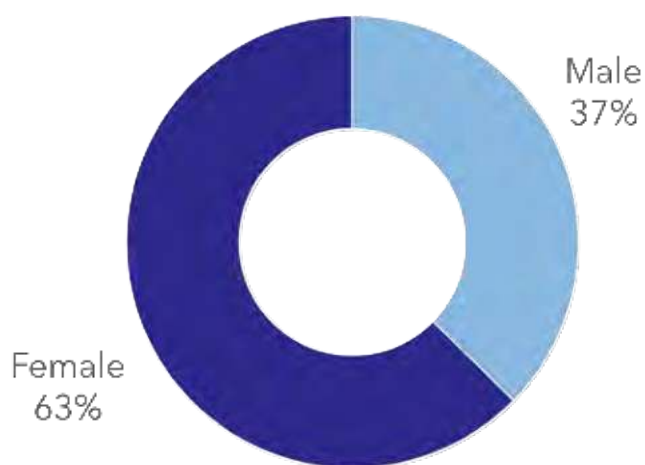


Figure 6. Gender of registrants

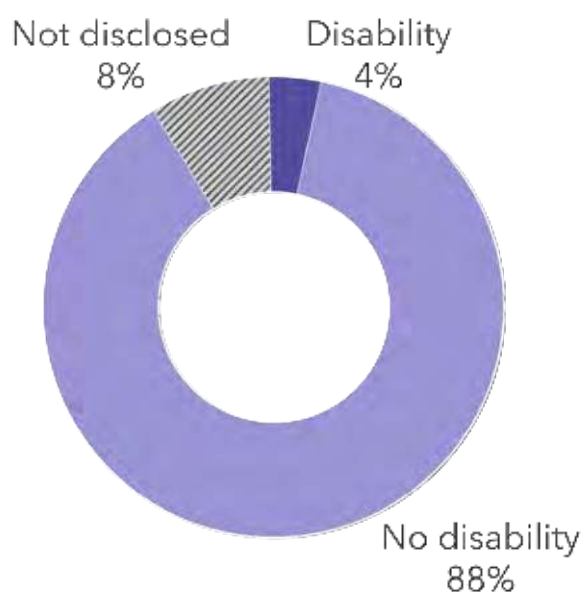


Figure 7. Disability status of registrants

Age

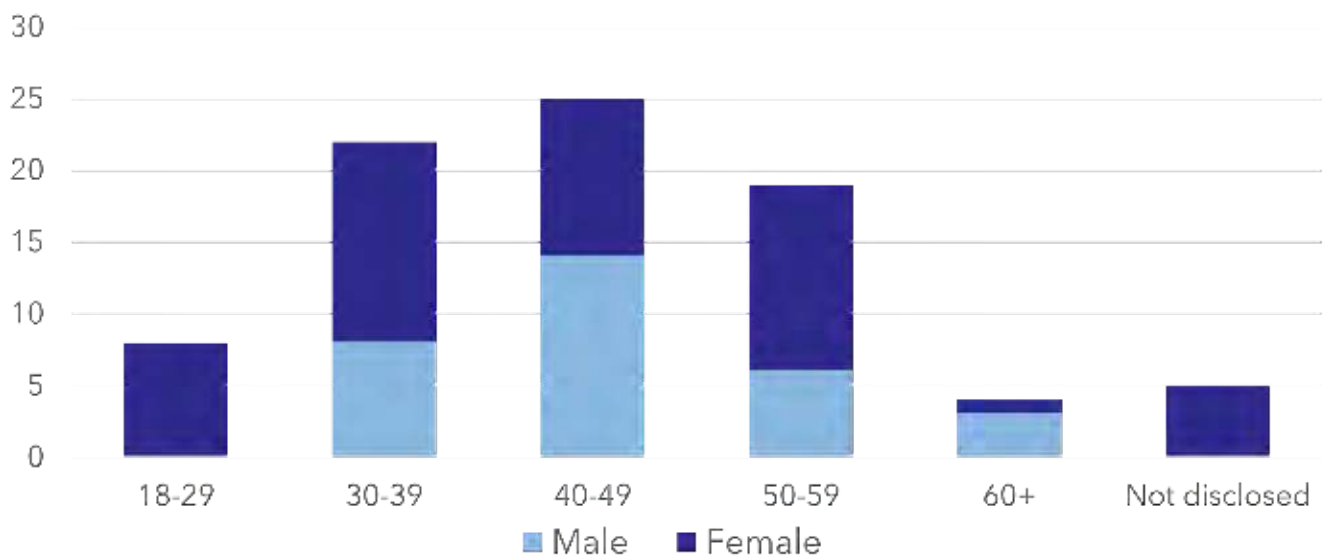


Figure 8. Age distribution of registrants, disaggregated by gender

Country



Figure 9. Country of registrants

56 registrations were from people in the United Kingdom. They were joined by participants around the world in Australia, Canada, Finland, Germany, India, Nigeria, Spain, Saudi Arabia and USA.

Category of employment

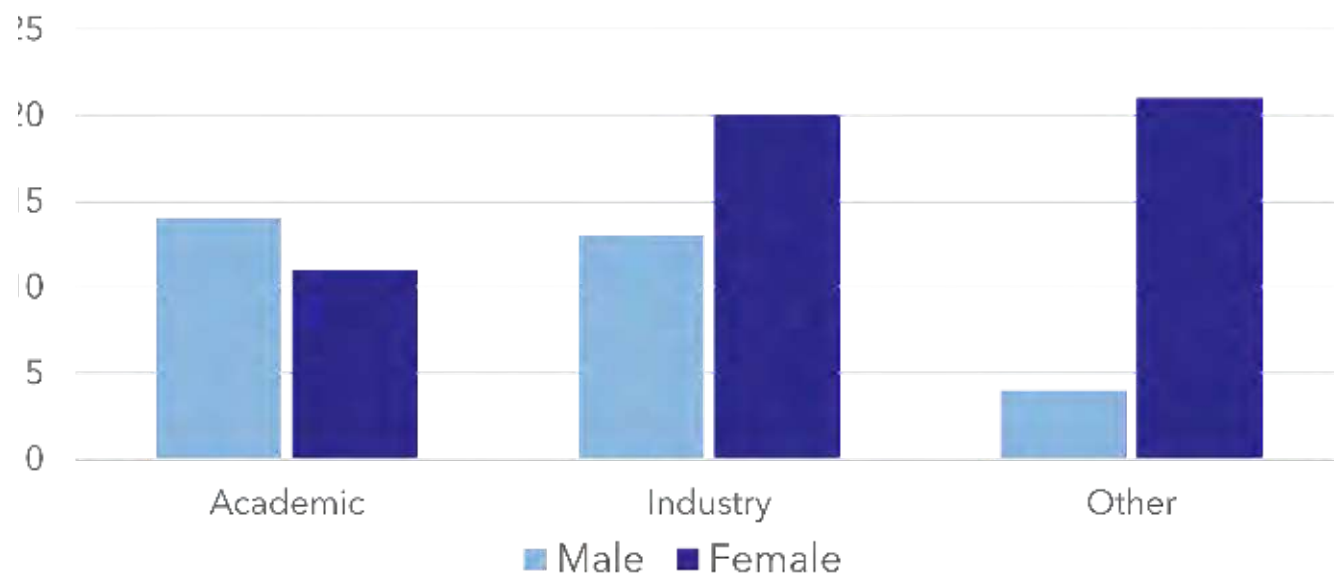


Figure 10. Academia/industry distribution of registrants, disaggregated by gender

Type of role

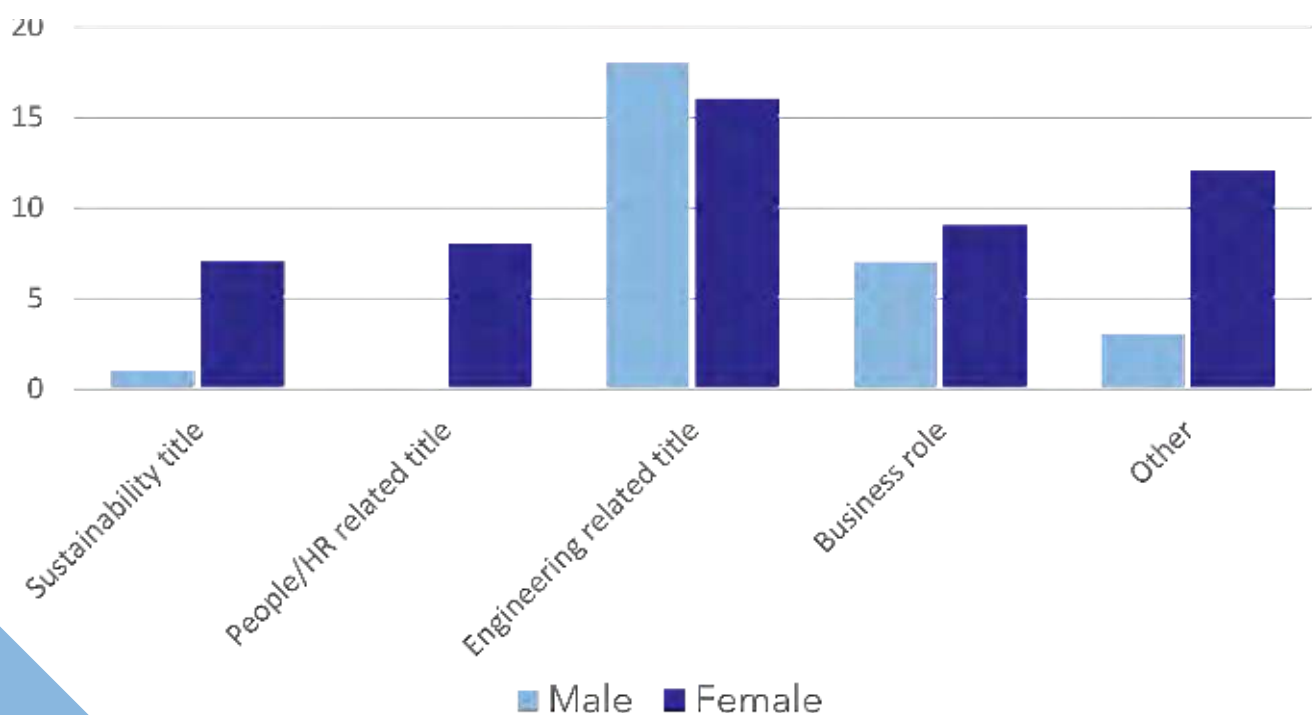


Figure 11. Role type of registrants, disaggregated by gender

Analysis of "type of role"

A crude analysis was carried out to categorise the type of roles held by registrants. This was inferred from information shared during the registration process of job title, industry, and company.

Notes about categorization:

- Sustainability related roles include those with sustainability, environment or similar in the job title. The majority of these could also be classified as a sub-category of an engineering role.
- People/HR related roles include those with HR, EDI, Reward, Talent Acquisition or similar in the job title.
- Engineering roles include job titles related to engineering, innovation, or technical fields, and academic roles associated with an engineering industry.
- Business roles include CEO, senior leadership, sales and marketing in the job titles.
- "Other" category represents roles that were not readily apparent from job title and company, or were unrelated to any of the above categories.

This analysis shows that

- The event attracted people from People/HR and business/leadership roles as well as those in more practical engineering and technical roles. This is a success for the event, as it goes towards the objective to provide an opportunity to foundation industry management and leaders to engage with the benefits of increased diversity.
- In this group, male engineers outnumber women engineers, but only by a small margin. This is unlike the UK engineering industry average of only 12% women.
- In this group, women outnumber men by a large margin in roles with sustainability/environmental terms in the title. This finding is interesting as the majority of these roles can also be classed as engineering roles, implying that sustainability/environmental engineering roles are particularly attractive to women.

5 Key Outcomes

Key themes and priorities

The key themes and priorities that emerged through the speaker, panel, and discussion sections were:

- Attracting new talent to industry - covering multifaceted considerations of education, industry culture, influence, and image.
- Female representation.
- The role of men in supporting progress towards a more diverse and inclusive workplace.
- The impact of everyday behaviours.
- Actions for leaders.
- Addressing change at scale: Governance and policy.

Support needs raised by participants to progress these topics include greater knowledge about reasons for attrition from industry, resolving ethical tensions, and setting up formal structures in organisations that support change.

A theme that gained little discussion in the breakout sessions, although introduced in the keynote, was the business case for EDI – the discussion about why change is needed. It can perhaps be assumed that the audience at this event have self-selected to be those who have already bought into this business case, so did not feel the need to dwell on these points. However, this does not imply that this discussion will not be important as a broader group are engaged on the topic.

Audience poll results

A simple question was asked at the start and close of the event:

I feel confident to define the next steps for EDI in my business.

Results showed a positive shift of the peak response from most participants reporting they feel “A little” (60%) to “Quite a lot” (55%) of confidence to define their next EDI steps.

In terms of numbers of participants, this reflected an actual increase in numbers of participants feeling confidence level “quite a lot”, even considering the drop in participant numbers towards the end of the event.

"I feel confident to define the next steps for EDI in my business"

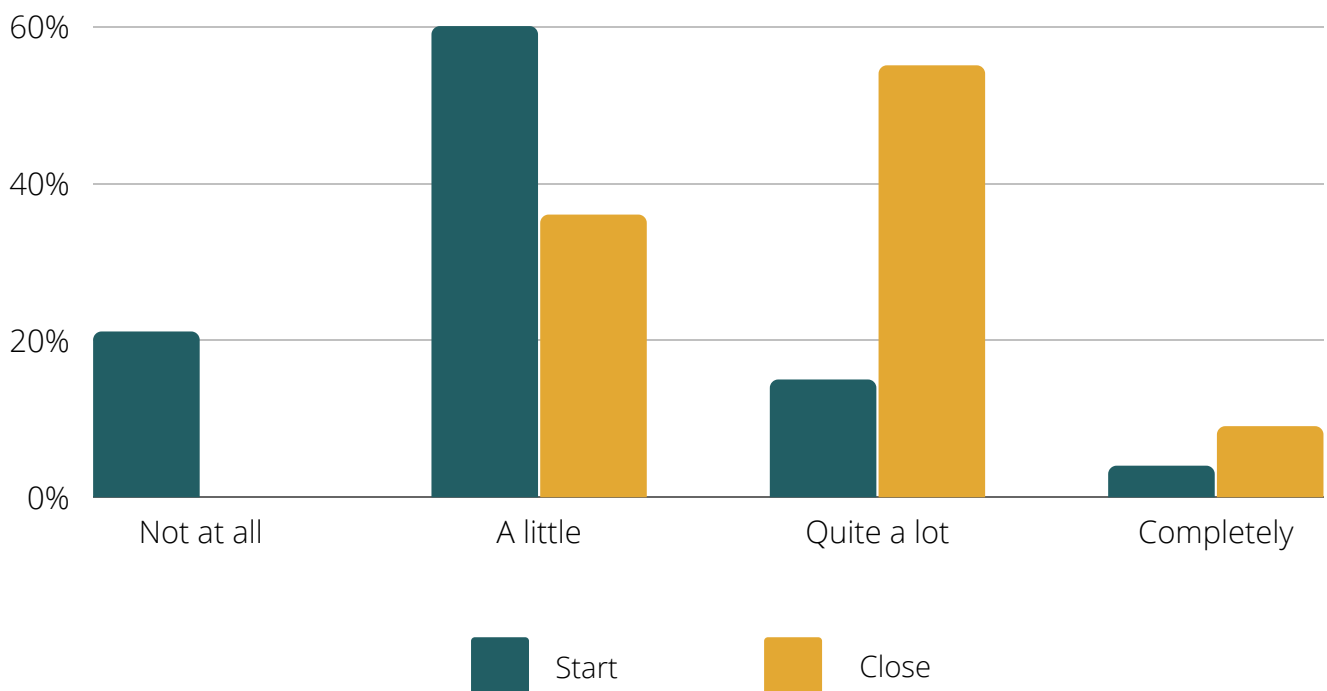


Figure 12. Audience responses to the question asked at the start and close of the event

Feedback

Informal, word of mouth feedback about the event was positive.

"I thought the session was very thought-provoking and delivered perspectives that the FI sectors wouldn't have seen before. It felt fresh and not like we were retracing old ground."

"I found the event so useful 😊"

Feedback from the speakers and panellists was similarly positive, with comments that it was a rewarding experience, and that the perspectives shared by the others were valuable. Some expressed interest to be involved in follow-up events.

However, despite a feedback survey being shared the day following the event, no participants completed the survey. This limits insights to the impact of the event.

Causes for such low response rate should be examined, with the aim to increase responses for subsequent events. They may include:

- Emails requesting feedback may be lost in spam.
- The emails were not seen as priority, so didn't prompt action.
- The survey may have been perceived as long or complex so too time consuming to complete.

Actions that may help with response rates include:

Increased emphasis on the importance to share feedback in the event closing messages

- Survey shared immediately on exiting the event.
- Feedback requested personally, or by a personal email/message.
- Additional reminders to complete the survey.
- Incentive to complete the survey, e.g. some benefit offered for taking part.

Achievement of objectives

The objectives of the workshop can be considered as met:

- Each of the Foundation Industries were represented in the workshop participants, meeting the objective to initiate an industry-wide discussion.
- Roles represented spanned business leaders, HR practitioners, engineers, and others, providing a learning opportunity for foundation industry management and leaders to engage with the benefits of increased diversity.
- Engagement in the Q&A and discussion sessions was high, and succeeded in bringing together knowledge and sharing best practices between organisations in the Foundation Industries.
- Confidence to define next steps for EDI increased as a result of the workshop. Combined with the discussion themes, this demonstrates a level of commitment to lead change for greater EDI for the individuals and organisations involved.
- This event was a first for the Foundation Industries, so positions TFI Network+ as a focal point supporting industry-wide change for greater EDI.
- The workshop content and subsequent discussion were in close alignment with the goals of the TFI Network+ EDI strategy, and has progressed the discourse on these within the Foundation Industries.

6 Recommendations

This EDI workshop was intended as the first of an on-going collaboration between industry organisations.

It is recommended that TFI Network+ continue to develop the themes and priorities that emerged through future events and resources developed, with the goal to build a community with momentum around these EDI topics. The community itself is a valuable resource for organisations to learn and share best practices.

- Develop relationships built from the event, including with speakers, panellists and participants who were key contributors to the breakout sessions.
- Involve the community to shape the content and pacing of follow up events.
- Give opportunity to community members to share at events or through development of resources. This can be an effective way not only to showcase good practices, but also to deepen understanding and commitment of those who step up to share.
- Showcase role models (organisations and individuals) from the Foundation Industries – this could also be an opportunity to reengage the panellists from this event, and explore their stories in a new way.
- Increase engagement through social channels by sharing relevant content in follow-up to the workshop, and promotion of new content and future EDI events.

As a first session, coverage of the EDI topic was necessarily broad with quite light touch on each point. There are rich topics to consider for further exploration in future events and resources – to both broaden and deepen coverage:

- Broaden to include topics and perspectives relating to LGBTQ+, disability, neurodiversity, religion and more.
- Consider a deeper dive on specific identities, and intersectional identities.
- Explore emerging evidence on the relationship between goals for transformation for sustainability with greater EDI in leadership and the workforce [5].
- Explore future skills requirements arising from transformation goals, and how these relate to EDI.

If possible, continue to seek and capture feedback from participants to gain greater insight into the impact of the event.

Consider the role of EDI for upcoming TFI Network+ events, funding awards, and publications on engineering topics, as well as those dedicated to EDI:

- Who are in the teams?
- How does EDI interact with the desired outcomes?
- Are calls scheduled at inclusive times and dates?
- Is inclusive language consistently used?

[5] IFC Corporate Governance Group, Women in Business Leadership Boost ESG Performance: Existing Body of Evidence Makes Compelling Case, 2018: https://www.ifc.org/wps/wcm/connect/60a2e87d-5c50-433f-b831-b77ee6d300cf/IFC+PSO_Women_Business_Leadership_web.pdf?MOD=AJPERES&CVID=nvUDNLJ

APPENDIX

Speaker and Panellists Biographies





Gary Ford

Keynote speaker

Gary Ford is an independent consultant working across the IT sector and the wider management environment, where he has a particular interest in the intersection between technology and diversity and inclusion. He is the founder of Moonshot Consultancy Ltd.

He has more than 30 years' experience in the IT industry, focused on Financial Services.

Most recently, Gary was a Managing Director within Global Technology at JPMorgan Chase (JPM), a large US financial services organisation with over 270,000 employees. Whilst there, he led a number of strategic programmes across the firm, as well running several large IT service management functions for their Corporate and Investment Bank.

In 2016, he co-founded JPMorgan's male allies programme for Women in Technology. The programme was rolled out to over 2,000 men within JPM and the programme was extended into Singapore, India, Argentina and the US in 2018. In September 2018, following the success in technology, a male allies programme across the whole firm was launched.

In 2020, he was nominated alongside his Allies co-founder Stephen Koch, for the Everywoman Tech Male Agent of Change Award. More recently, he

was a winner of the WeAreTheCity Rising Star award in the Men for Gender Balance category. He has been a panellist on a number of Diversity and Inclusion events, including a slot at the Women of the World (WOW) London festival at the Royal Festival Hall.

Alongside Stephen and Dr Jill Armstrong, he has written a book on his experiences of building a male allies programme – "The Accidental Sexist" (Rethink press), which is now an Amazon best seller.

He has developed and led several diversity workshops across multiple sectors, including finance, energy, higher education, construction and the civil service. He is the male allies advisor to the Women on the Wharf – a network of women's groups for firms based in Canary Wharf in London.

With a number of partners, he has now formed the Men for Inclusion company on LinkedIn with the ambition of building a platform to help other men feel more comfortable in discussing gender equality in the workplace.

He is currently working part-time for NHS Digital, leading an enterprise service management programme.

Gary lives with his wife, Julie, on the edge of the Meon Valley in Hampshire in the UK. They have 2 children, Isabella who is a Press Officer for the Department of Health and Social Care, and Lily, who is social media journalist with PA Media.

Professor Sue Black

Panel moderator



A multi award winning Computer Scientist, Technology Evangelist and Digital Skills Expert, Professor Sue Black was awarded an OBE for “services to technology” in the 2016 Queen’s New Year’s Honours list. She is Professor of Computer Science and Technology Evangelist in the Department of Computer Science at Durham University, a UK government advisor, thought leader, Trustee at Comic Relief, social entrepreneur, writer and public speaker, and Equality, Diversity and Inclusion Lead for the Transforming Foundation Industries Research and Innovation Hub (TransFIRE).

Sue set up the UK’s first online network for women in tech BCSWomen in 1998 and led the campaign to save Bletchley Park, home of the WW2 codebreakers. Sue’s first book Saving Bletchley Park details the social media campaign she led to save Bletchley Park from 2008-2011. Sue has championed women in tech for over two decades, founding the #techmums social enterprise in 2013 and the pioneering TechUPWomen retraining underserved women into tech careers in 2019.

Passionate about technology as an enabler Sue didn’t have a traditional start to her career. She left home and school at 16, married at 20 and had 3 children by the age of 23. A single parent at 25 she went to university, gained a degree in computing then a PhD in software engineering. Sue now has 4 children and 6 grandchildren.



Dr. Kyra Sedransk Campbell

Panellist

Kyra Sedransk Campbell is a Senior Lecturer and Royal Society – EPSRC Dorothy Hodgkin Research Fellow in the Department of Chemical and Biological Engineering at the University of Sheffield and the co-founder of Nanomox. She is a passionate advocate for the research and development of new sustainable technologies, including waste treatment and management, to support the Foundation Industries for a greener future. Her research uses fundamental underpinnings to derive application-specific solutions. Her areas of research interest include the use of ionic liquids for development of metal particles and waste treatment; new advances in waste treatment technologies including electrodialysis and electrodeionisation; and supporting the deployment of carbon capture technologies through understanding and addressing corrosion challenges.

Kyra is an active member of the Foundation Industries Future Leaders Group, driving change to transform perceptions of the Foundation Industries, increase the pipeline of future talent, and championing the diversity and inclusion agenda in the industries.

Myrtle Dawes

Panellist



Myrtle Dawes is Solution Centre Director at the Net Zero Technology Centre where she leads the development of technology for net zero in the energy sector, and an Advisory Board member for the Association for Black and Minority Ethnic Engineers (AFBE). A Chartered Chemical Engineer, Myrtle is an established leader with extensive experience in the energy sector both in the UK and overseas. Respected as a prominent voice on the energy transition, she began her career 30 years ago as an offshore engineer for BP, before delivering on leadership roles in engineering, project management, technology and digital transformation. Myrtle's passion for innovation and technology galvanises her colleagues, government and industry to take action and push boundaries.

In 2017, Myrtle received recognition for her contribution to business, having featured in *Breaking the Glass Ceiling* and being selected as one of 100 Women to Watch in the Cranfield FTSE Board Report 2017. In 2021 she was recognised by TE:100 as one of the Women of the Energy Transition.

Myrtle holds a Masters in Chemical Engineering and Chemical Technology from Imperial College. She is a Fellow of the Institute of Chemical Engineers, Fellow of the Energy Institute, Fellow of the Forward Institute and Honorary Fellow of the Association of Project Managers. She is a non-executive board member of the Centre for Process Innovation, a member of the Board of Governors at University of Lincoln and sits on the Technology Leadership Board.

Myrtle has two children and in her spare time studies mathematics, is a keen cat lover, and gamer.



Jeffrey Fox

Panellist

Jeffrey Fox worked in teaching and management in Further and Higher Education in the Midlands and Northwest for 25 years before a pivot into the third sector and then into technical ceramics as Partnership Development Manager for AMRICC, a wholly owned subsidiary of Lucideon.

On leaving school, and by his own admission, having achieved little, Jeffrey is acutely aware of how a combination of an inauspicious start, a lack of mentoring and opportunities, can still hold back aspiring talent.

Working class young people leaving school in North Staffs in the 1970's seemed almost predestined to have a short-lived career in the ailing legacy ceramic industries and social mobility was not on the agenda. Jeffrey knows through experience, that education and training has always been, and remains, vital if industry is to meet the socio-economic challenges of the post pandemic era.

With that in mind, as lead of the Education, Skills & Diversity work stream of the MICG four-year Strength in Places Fund project, he is determined to play a part in creating opportunities for those underrepresented groups looking for catalytic opportunities to set them on their way to an exciting and fulfilling career in the Foundation Industries.

Lisa Nicholas

Panellist



Lisa is on a mission to use her lived-experience of over 20 years as one of the “the onlys” in manufacturing and engineering to help others to succeed in these industries.

Throughout her Engineering Apprenticeship and her following roles as a Combustion Engineer and Technical Support Engineer, Lisa was the only woman. Taking a shift worker position with ExxonMobil in 2012 as a Process Operator, she was in the company of less than 10 women, but over 700 men!

But it was Lisa’s experience of maternity that highlighted to her the acute need for change. On returning from maternity leave, Lisa worked tirelessly to pave the way for new global requirements, drive diversity and inclusion on site, in particular focussed on the needs of female Process Operators, and those that were pregnant or new mothers.

Lisa has recently navigated a career change to diversity and inclusion, following her passion to improve the experiences of others and help build a more equitable future.



About TFI Network+

TFI Network+ brings together academia and industry to assist the Foundation Industries to remain competitive whilst simultaneously facing challenges from environmental legislation and the drive towards net-zero carbon 2050. The virtual Network allows stakeholders the opportunity to connect and collaborate across the sector to address key challenges and opportunities faced throughout the industry through world-class research. The core aim of TFI Network+ is to co-create with the Foundation Industries new science and technology that can transform their sustainability and performance by coordinating and channelling a wide range of expertise throughout UK academia. TFI Network+ is a collaboration between the University of Sheffield, University of Leeds, University of Manchester and University of Swansea and is supported by Engineering and Physical Sciences Research Council (EPSRC).

www <https://tfinetworkplus.org/>



<https://www.linkedin.com/company/tfinetworkplus>



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About Inclusioneering

Inclusioneering™ is a UK-based social enterprise specialising in equality, diversity and inclusion (EDI) solutions and consultancy for technology and engineering organisations – that is, working towards a point where teams and management reflect the composition of the communities they serve; recognising and meeting the different needs of individuals; and removing barriers between talent and opportunities. We believe that industry transformation must be accompanied by human transformation if everyone is to reap the rewards.

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