TRANSFIRE

Transforming Foundation Industries
Research and Innnovation Hub

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Research and Innovation Hub**

Equality, Diversity and Inclusion Strategy

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Background

TransFIRe is funded by UKRI under the ISCF TFI challenge set out to develop innovative technology to reduce energy and resource use within the foundation industries – which include the cement, glass, ceramics, paper, metals and bulk chemicals sectors.

The projects will look at new ways to reduce waste and energy use and in a new research facility to accelerate development of promising clean technologies.

Key aims for the challenge include:

- providing funding opportunities to accelerate development of clean glass technologies
- supporting research on new ways to reduce waste and energy use
- supporting university-led research into radical new technologies
- developing foundation industries' common identity to better meet challenges for the sector
- partnering with the financial sector to encourage more investment in technology companies that can reduce the environmental impact of the sector.

TransFIRe is an UKRI funded (ISCF TFI challenge) proactive, interdisciplinary, inclusive research and practice driven hub with 12 research organisations based in the UK and more than 70 project partners from across the foundation industries, trade associations, professional membership bodies, civic sector and government organisations.   TransFIRe aims to engage the full stakeholder community involved in transforming the foundation industries in interdisciplinary research for solutions that can be rapidly deployed within these industries.

EDI Challenges in the Foundation Industries

The TransFIRe Engagement and Impact Strategy[1] lists the challenges regarding EDI in the Foundation Industries, which are summarised below. Sources include the ERC Research Report on EDI in the Foundation Industries[2], and UKRI Research of Future Skills for the Foundation Industries[3].

1. Lacking representation
   a. Women and younger employees are underrepresented in the Foundation Industries
   b. The female workforce is predominantly in non-production roles, and there are few female business owners and partners
2. Aging workforce
   a. There is concern about loss of skills through retirement, and insufficient pipeline to develop new talent
3. Keeping up with evolving skillsets
   a. The future skills profile for the workforce is changing as industry transformation is underway, including digitisation and new technologies and processes to underpin the transition to net zero
   b. HR practices and leadership skills, especially in small businesses, are not well developed. Succession planning is often on a like-for-like basis, rather than considering a more diverse talent pool who can be trained
   c. There is concern within the industries that future skills needs will not be met without engagement with the higher education system on curriculum development

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[1] TransFIRe Engagement and Impact Strategy - <link to be added when published>

[2] ERC Research Report: Equality, Diversity and Inclusion in the UK Foundation Industries. Published 18th June 2021. https://www.enterpriseresearch.ac.uk/publications/equality-diversity-and-inclusion-in-uk-foundation-industries/

[3] UKRI: Future skills for the foundation industries. Published 21st October 2021 https://www.ukri.org/blog/future-skills-for-the-foundation-industries/

4. Other barriers
    a. Many foundation industry facilities are located in remote areas. Transport links and access to these remote sites is a barrier for those without suitable transport, which is often people from underrepresented groups
5. Lacking research
    a. Beyond gender and age representation, little research has identified the baseline state of equality, diversity and inclusion in the foundation industries
    b. The ERC Research of EDI in the FIs identifies research gaps regarding other demographic groups, and the types of roles (e.g. production/non-production) held by those in underrepresented groups
    c. There is no research identified that considers future skills required with an EDI mindset
6. Lacking business case of EDI specific to the Foundation Industries
    a. The business case for diversity, while well-established in general terms, has not been made specifically for the foundation industries. This lack of clear business case is constraining development of company-wide strategies for EDI in the industries
7. Sector Image and Culture
    a. Sector image prevents interest from younger generations, and particularly women applicants due to perceptions of a male-dominated industry and hostile working environment
    b. Good practices for EDI are not yet normalised across the FIs, and most firms have no formal processes related to diversity
    c. The ERC Report considers that firm-level efforts alone will be insufficient to tackle the challenges in the timescales required, and therefore recommends policy interventions to improve firms' capability to develop diversity strategies, increase engagement with the education sector, and to increase collaboration to promote best practice and improve perceptions of the industry

This strategy can be read as the response to these identified challenges.

Vision and mission

We believe equality, diversity and inclusion (EDI) will be integral to achieving the overarching vision of TransFIRe as a research and practice hub that:

- optimises the flows of all resources within and between the foundation industries and their supply chains
- improves their competitiveness
- works with communities in which they are located
- supports UK Net Zero 2050 targets for GHG emissions
- furthers equality, diversity and inclusion in the foundation industries.

Specifically, our EDI vision is to inform and support not only the participating organisations, but also best practice within the UK Foundation Industries and beyond. Furthermore, we believe EDI to be requisite to embed the new learning, behaviours, process and innovation required for industry transformation for this sustainable future.

Within the lifespan of TransFIRe, we will establish foundations and leadership within the composite industries to create and sustain this industry transformation.

Our mission is to:

- Identify gaps in knowledge and build a body of research of equality, diversity and inclusion in the foundation industries.
- Establish self-sustaining industry practices regarding EDI and a forum to drive strategic leadership, to develop and share best practice.
- Align the EDI agenda to Net Zero, future skills, digitisation and innovation goals to paint a compelling, holistic future vision and business case for EDI in the foundation industries.
- Establish structures and build capabilities to attract, retain and progress diverse talent across each of the foundation industries.

Approach

Equality, diversity and inclusion will be embedded throughout the TransFIRe programme from the beginning.

Equality, diversity and inclusion in the Foundation Industries

Diversity refers to the mix of individuals in a group. A group is diverse when people from a range of backgrounds and identities are represented.

Inclusion is a set of behaviours and attitudes that enable everyone to feel valued, respected and included.

Equality is achieved when the needs of each individual are met, so that they can contribute to their full potential. Achieving equality means treating people fairly and without bias or discrimination. This may require that systemic barriers to the inclusion of underserved groups are removed.

We consider all aspects of diversity within the TransFIRe project including, but not limited to:

- Race/ethnicity
- Gender
- Social class
- Disability
- Sexual orientation

We recognise the challenges facing the foundation industries with respect to the aging workforce, and the need to attract people in early careers to the industries. We therefore also consider intersection of age with the above characteristics to be imperative.

Guiding Principles

We will be guided by principles of transparency and openness, while retaining privacy and confidentiality of individuals and TransFIRe partner organisations.

We will adopt an evidence-based approach of continuous improvement, to collect EDI related data throughout the project and use this to inform activities and decision making.

We will work to embed EDI good practice throughout each TransFIRe workstream, starting with reflection and education to address unconscious bias and build key areas of knowledge, understanding and skills amongst the project partners.

We recognise that the Foundation Industries are following behind others that have made greater EDI progress in recent years. Applying the "Gentani" approach, we will partner with appropriate organisations and advisors to leverage their expertise, best practices and networks, to identify cross-sector opportunities to share resources and drive improvement and innovation in EDI practices for the foundation industries.

We succeed by bringing people together. We will support individual members and organisations by creating a safe space with opportunity to learn from minority perspectives, and to hold constructive dialog and exchange of views.

Our EDI Governance

It is becoming increasingly apparent and widely accepted that ED&I are of paramount importance in the success of any organisation or project.

We have an award winning, experienced lead in this area, Professor Sue Black.

Our EDI Governance is embedded throughout the overall governance structure of the TransFIRe programme.
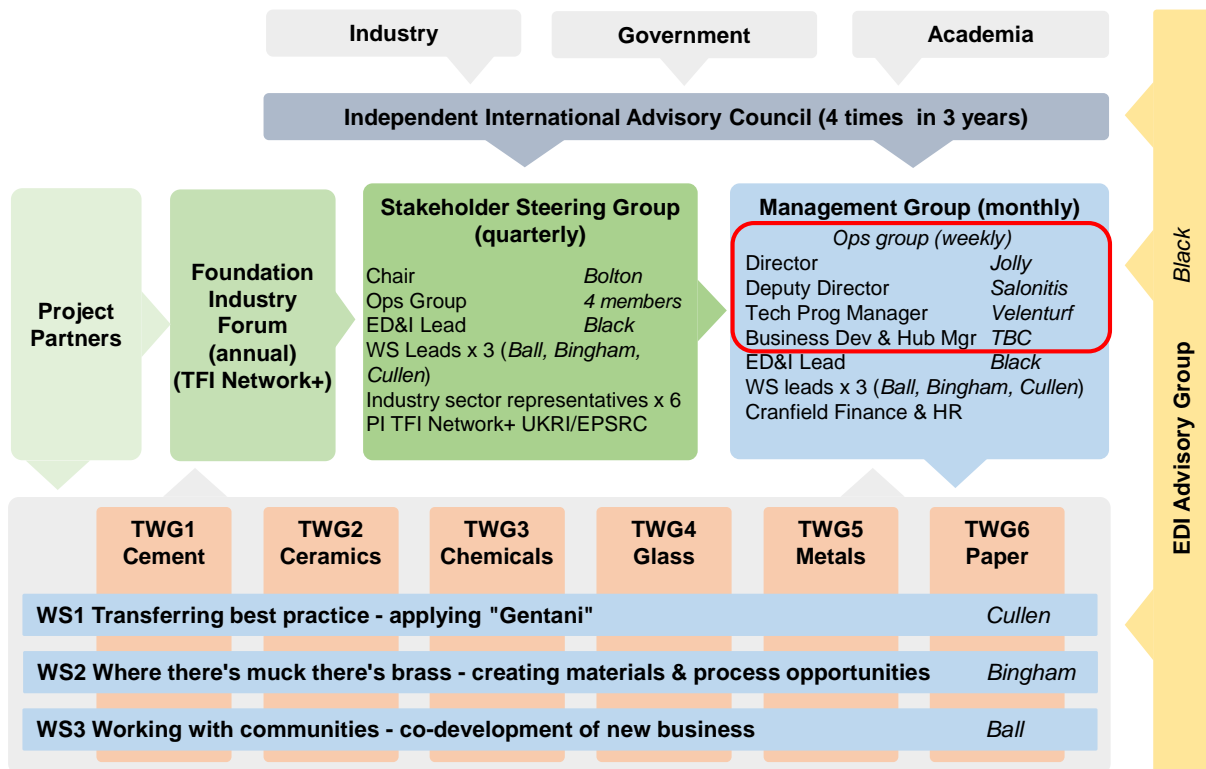

Figure 1 TransFIRe governance

EDI is everybody's responsibility. Embedding EDI practices across the foundation industries will require a co-ordinated, interdisciplinary approach, and we envisage that our project partners will become champions of EDI in their businesses and industry sectors.

EDI will be a standing item on every board agenda. There will be a nominated EDI lead for each work package. They will be responsible to advise on EDI related issues, seek diverse inputs and feedback, and report to the board if any particular support is needed at any stage. Furthermore, each of the partner universities have operational units dedicated to EDI and each university will consult therewith to ensure that the latest good practice in encouraging EDI is included into day-to-day activities.

An internal EDI working group will be established, comprising leaders from our project partners, representing diverse identities, industries and roles. The EDI working group will be responsible to identify opportunities for learning and collaboration, and will work in alignment with the EDI lead to support delivery of the strategic action plan for EDI. A key deliverable of this working group will be a Foundation Industries EDI Playbook; a set of resources for EDI best practices to support organisations to create inclusive cultures, and attract, develop and retain diverse talent.

The TransFIRe EDI Advisory Board will play a crucial role to inform each workstream, technical working group, case studies, steering groups and council sessions. It will be comprised of the EDI working group, as well as internal and external EDI experts. This board will monitor and advise the team on impact throughout the programme.

Strategic Action Plan

Our planned actions align to five strategic themes.

1. Start by listening

EDI is a new topic to the foundation industries. It is an area that has been under-researched[4], and there are significant gaps in current knowledge. We will therefore start by listening and learning from our industry partners, and from progress made in other sectors.

The result will be a plan of action that is informed and prioritised by the most pressing needs of the foundation industries, including a research agenda in support of evidence-based EDI innovation.

What we will do:

- Convene an Industry EDI working group, comprising leaders from our project partners, representing diverse identities, industries and roles. This group will be responsible to plan and deliver the initiatives that implement this EDI Strategy
- Carry out site visits to industry partners to observe and learn in the place where the work happens (Gemba). These visits will be used to identify common factors, initiatives and opportunities that affect businesses across the foundation industries. Outcomes will be shared with all TransFIRe workstreams to integrate into their case studies as appropriate.
- Conduct a landscape mapping exercise to identify existing EDI related activity and programmes within the foundation industries, and relevant case studies from other sectors.

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[4] ERC Research Report: Equality, Diversity and Inclusion in the UK Foundation Industries. Published 18th June 2021. https://www.enterpriseresearch.ac.uk/publications/equality-diversity-and-inclusion-in-uk-foundation-industries/

- Establish an interdisciplinary research agenda to address current gaps in understanding of the baseline state of equality, diversity and inclusion in the foundation industries. Initial proposed areas for consideration include:
    - Representation of the traditionally underserved communities in the foundation industries, by gender, race/ethnicity, social class, disability, and sexual orientation.
    - Factors that impact representation, including talent attraction, retention, education, returners, career changers
    - Role profiles (e.g. production/non-production roles, levels of seniority) of the workforce, disaggregated by identity characteristics
    - Barriers to entry to the foundation industries, *for example*, STEM skills, influence of teachers and parents on children's career choices, current perceptions of the foundation industries, and career paths - routes in and up – through the industries
    - Impacts and changes due to the COVID-19 pandemic
    - The role external influences, such as investors, trade unions, local community groups, and candidate expectations, regarding EDI in the foundation industries
- From the above discovery and research activities, we will identify key themes and problem areas, identify low hanging fruit and propose solutions to major issues.
- A Foundation Industry Playbook will be the output from these activities. It will capture guidance and case studies, in the form of blogs, articles, videos, and other formats, produced in collaboration with partner organisations and the EDI working group.

2. Look to the future

As a fundamental strand of the overarching TransFIRe vision, we will establish a research and innovation hub for EDI solutions that can be rapidly deployed in the foundation industries, and initiates self-sustaining practices that endure beyond the lifespan of the TransFIRe programme. The change we seek is long-term, and industry wide.

Furthermore, we consider EDI to be integral to the overarching TransFIRe vision, not as a self-contained piece. Rather, it is an enabler for *how* the goals of clean technologies, reduced waste, and Net Zero 2050 will be achieved.

These objectives are most powerful and compelling when considered together. The result will be an integrated, interdisciplinary roadmap that clearly situates the need and role of EDI within the overarching TransFIRe programme: the three workstreams, technical working group and case studies.

What we will do:

- Designate an EDI lead for each TransFIRe work package
- Conduct interdisciplinary research and collaborate with industry partners to align EDI with the goals for Net Zero 2050, resource flows between the industries and their supply chains, and improved competitiveness.
- Partner with researchers on the future skills required in the foundation industries, to address the changing nature of work towards the 2050 vision. We will bring together investigations of the skills gap for new and changing jobs with exploration of how EDI contributes to addressing these skills gaps, current innovation barriers, digital transformation, and new markets.
- Support programmes to upskill the workforce with EDI education
- Begin to build the pipeline of diverse talent in education. We will build collaborations with the education sector, and develop new structure where needed, to increase skills supply that comprises greater diversity. We will consider multiple educational pathways, including graduate, apprenticeship, returner and career changer programmes

- Identify key messages to appeal to broader communities for careers in the foundation industries. Messages and outcomes will be captured in the EDI Playbook
- Identify existing EDI initiatives, organisations and programmes that already support the foundation industries (to be captured in the EDI Playbook), and opportunities to bring these together existing for more systemic, scalable change.

3. Engage industry leadership

To drive good EDI practice within the foundation industries requires industry-wide, organisational change. The role of leaders is vital to establish the need for change, to role model, lead inclusively, and embed best practices in their organisations. Our approach will be to provide support to leaders, and therefore organisations, with their EDI policies, strategy, interventions, and practices.

The result of our work will be a cohort of industry leaders who are engaged, motivated and skilled to drive change for greater EDI within their organisations. Our goal is to create sustainable change that endures beyond the life of TransFIRe, and can be scaled across industry.

What we will do:

- Bring together leaders from the across the TransFIRe partners: academics, foundation industries, trade associations, professional membership bodies, civil sector and government organisation.
- Initiate discussion and integrate EDI into Industry Strategy workshops
- Build the business case for EDI that is specific to the foundation industries, in collaboration with partners (To be captured in the EDI Playbook).
- Share and promote best practice through the EDI Playbook, wherever possible by highlighting plans and practices already adopted by partners. Where necessary, develop supporting materials, that are stratified by business size and so can address the needs and challenges of spanning global corporations through to the small businesses that comprise the foundation industries.
- Provide training and education about the vital role of leadership.
- Encourage public commitment of partners through activities such as becoming signatory to relevant charters
- Appoint executive sponsors from the partner group to EDI topic areas

4. Establish goals, measures and targets

Comprehensive data, benchmarks, performance and impact measures are crucial for effective impact. We will establish the baseline state of EDI in the foundation industries, and evaluate the impact of all EDI interventions to learn and continuously improve.

EDI will be included in the long-term monitoring strategy for TransFIRe to enable evaluation of impacts for 10 years to ensure legacy from our Hub. This is critical given that major environmental, economic, and societal benefits might accrue years after our activities end, as is typical for academic-industry programmes.

The result will be measurable change, described with both quantitative and qualitative measures.

What we will do:

- Measure the baseline of EDI in the foundation industries, by conducting research of our project partners and more broadly within the industries
- Establish measures across each of equality, diversity and inclusion
- Conduct both quantitative and qualitative research
- Establish a long-term monitoring strategy to enable evaluation of impacts for 10 years to ensure legacy from our Hub.
- Track progress throughout the lifespan of the TransFIRe and beyond.
- Adopt an approach of continuous improvement

5. Set foundations for an industry culture that is attractive to and inclusive of diverse talent.

The foundation industries face challenges to attracting and retaining a diverse workforce through long-established stereotypes about the types of work, and types of people that work in them. We must work to change the perceptions of these industries, and build more inclusive, equitable cultures for those already working in them.

What we will do:

- We will focus on first addressing unconscious bias within ourselves as a project team to ensure that we understand and acknowledge our biases and seek to identify areas of knowledge and understanding that may be lacking.
- We will educate ourselves to ensure that all project partners have a good understanding of all relevant issues in this area.
- We will seek diverse representation within the TransFIRe team.
- Hold events including workshops, networking events and speaker sessions. These will be run both internally to the project and including external stakeholders and the public as appropriate to both champion EDI within the project and stakeholder group. Events will start with an internal project team focus, then as the project progresses, these will become more public facing and more directed towards sharing our project EDI successes and best practice. Outputs and outcomes will be shared via the EDI Playbook.
- Networks will be set up as appropriate focusing on, for example, gender, race/ethnicity, social class, disability, and sexual orientation.
- Tailored mentoring will be provided both to individuals and networks as appropriate throughout the project to ensure everyone involved has a named person to speak to on any issues that may arise
- We will partner with existing organisations to achieve these aims wherever possible
- We will take a coordinated industry approach, to enable change at scale

- Work with the central TransFIRE team to develop a Marketing Campaign to change perspectives of industry
- We will share and celebrate our successes through social and traditional media.

Document control

Version	Date	Name	Comment
0.1	7/2/2022	Jo Stansfield	Partial initial version, for feedback from Sue
0.2	14/2/2022	Jo Stansfield	Completed initial draft for feedback
0.3	14/2/2022	Jo Stansfield	Additions from discussion with Sue
0.4	21/2/2022	Jo Stansfield	Additions from feedback from Anne Velenturf. Added a section to summarise the EDI challenges for the FIs
0.5	7/3/2022	Jo Stansfield	Minor update: EDI network now referred to as EDI working group. Attached measures as appendix A
0.6	14/3/2022	Jo Stansfield	Applied the TransFIRe document template. Distributed to CoIs for review and feedback
0.7	18/5/2022	Jo Stansfield	Incorporated feedback received
0.8	4/7/2022	Jo Stansfield	Incorporated more detail of the Foundation Industry EDI Playbook plan

Appendix A: Proposed measures and targets

Item	Theme	Activities	How to measure	Target
1	Start by listening	Convene industry EDI working group	Number of organisations, number of individuals, number of leaders, number of EDI experts	At least 1 organisation per industry. Min 6 leaders - 1 from each industry. 12 individuals - 2 roles per organisation. 6 EDI experts (not necessarily from the FIs)
2	Start by listening	Carry out site visits	Number of visits	6 - 1 per industry
3	Start by listening	Landscape mapping	Number of existing EDI related activities and programmes engaged	At least 6 engagements
4	Start by listening	Establish interdisciplinary research agenda to address current gaps in understanding of baseline state of EDI	Number of publications, presentations given.	1 publication per year = 3 total. 1 presentation per publication
5	Start by listening	Identification of key themes and proposed solutions	Themes identified, specific measures of impact established.	Evidence that themes, measures etc established

6	Look to the future	Designate EDI lead for each workstream	Number of leaders engaged	6
7	Look to the future	Interdisciplinary research of EDI alignment with net zero etc goals	Number of publications, reach of publications	1
8	Look to the future	Interdisciplinary research of EDI alignment with future skills required	Number of publications, reach of publications	1
9	Look to the future	Support programmes to upskill workforce on EDI	Number of programmes, number of participants, geographical and industry reach	At least 1 programme, 20 participants
10	Look to the future	Identify key messages (changing perceptions of industry)	key messages defined. Qualitative feedback on messages from stakeholders	2 key messages
11	Look to the future	Identify existing EDI initiatives and bring together	see 3.	See 3
12	Look to the future	Build pipeline of diverse talent in education	Number of collaborations, number of new initiatives, breadth of educational pathways, numbers of participants (disaggregated by demographics), numbers of participants gaining work in FIs. Sustainability of these initiatives (how to measure TBD)	6 collaborations. 3 new initiatives (industry led). List types of pathways.

13	Engage industry leadership	Bring together leaders	Total number of leaders engaged in all "engage leaders" activities. See 2.	
14	Engage industry leadership	Build business case	business case defined. Qualitative feedback on business case from stakeholders.	Business case exists, feedback gathered and shared. Captured in EDI Playbook
15	Engage industry leadership	Share and promote best practice	Number of resources created	Guidance to 6 industries. Captured in EDI Playbook
16	Engage industry leadership	Training for leaders	Number of leaders trained. Qualitative feedback of training	1 training programme run
17	Engage industry leadership	Public commitment	Number of organisations with EDI policy, material on website, signatory to charters, with designated EDI leader	EDI maturity has increased in 80% of participating organisations
18	Engage industry leadership	Appoint exec sponsors to EDI topic areas	Identified leaders. Quotes from leaders about impact. See 1 - these will be the responsibilities of the EDI working group leaders	See 1
19	Establish goals, measures, targets	Baseline data of industries, & track progress over programme	TBD from research agenda. Likely - Diversity measures: Workforce data by roles and seniority, disaggregated by demographics (gender, race, age, socio-	Baseline measured

			economic class, sexual orientation). Inclusion measures: Survey data. Interview data. Equity measures: pay gap. Measure baseline see 5.	
20	Inclusive culture	Training for transfire project team	Number of participants, feedback scores, quotes	1 training programme run
21	Inclusive culture	Events	Number of internal events, number of external events	1 internal, 1 external per year
22	Inclusive culture	Networks	Numbers of existing networks engaged, number of new networks created	6 networks engaged
23	Inclusive culture	Mentoring	Hours of mentoring provided. Feedback from mentors and mentees. Formal and informal (drop in sessions at events, TechUp like, informal connections)	No quantitative target at this stage - qualitative evidence will be feedback gathered and shared.
24	Inclusive culture	Celebrate success through social and traditional media	Number of articles, social media posts, likes, comments, shares	1 article in traditional media per year. 1 social media post per month. Findings/Results/Outcomes captured in EDI Playbook.