



TEDI-London

Strategic partnership impact report

Year 2 | March 2023

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Introduction

This report explores the impact of the second year of the TEDI-London and Engineers Without Borders UK strategic partnership.

Established in 2021, the success of our first year of partnership, detailed in the [previous impact report](#), provided us with the foundations for an impactful second year. During year two we aimed to develop students at TEDI-London, combining our cross-sector experience to ensure we continue to challenge what is considered normal in engineering education.

We continued to support TEDI in delivering the Engineering for People Design Challenge to all first-year students, and Team UK2022-019 were able to join us for the 2021/22 Grand Finals in June.

This year has also seen us work closely with the educator team at TEDI-London. In September 2022, we delivered a bespoke team-building workshop to TEDI-London's core educator team as part of their team day, sharing a preview of our competency compass and providing a framework to explore individual and team strengths.

Through partnerships such as ours, we can ensure that engineering education responds to sector and society needs, ensuring students have the ability to innovate and experiment, build critical competencies and have the ability to grow their understanding of globally responsible engineering.

We are looking forward to continuing our partnership with TEDI-London impacting our commitment to challenging what is considered normal in engineering education.

Purpose of the partnership

Purpose statement

Engineers Without Borders UK and TEDI-London have a shared vision to challenge what is considered normal in engineering education. We have established a first in kind, mutually beneficial and unique partnership, to be able to:

Innovate and experiment.

Test and pilot new ways of ensuring graduates have the competencies and attributes required to tackle complex and critical societal problems. We will reflect, collaborate and innovate to provide evidence and showcase the potential of engineering education at a pivotal moment during the decade of actions towards the Sustainable Development Goals.

Create a cultural tipping point

within TEDI-London, so that the culture drives for globally responsible engineering as the norm.

Engineer Collaboration.

Together we will build frameworks of critical competencies required to produce globally responsible engineering. Both organisations have strategic priorities to focus on internationally, together we will gain insights from working and valuing collaboration globally.

Encourage collective action.

Inspire the change in the direction of engineering education. Be part of the broader conversation, and bring students into that conversation, and inspire others to commit to change.



“Coming to the end of our second year of partnership with Engineers Without Borders UK, we are delighted with the synergies developing between the two organisations. Our students have embraced opportunities for real-life project-based experiences that are helping them understand the social impact of the decisions and designs they make. I have been amazed by the way our values align across our organisations, from trying to transform engineering education to ensuring that professional engineers have the skills and creativity to respond to 21st Century challenges. I'm looking forward to what's next in the partnership.”

Professor Judy Raper, Dean & CEO, TEDI-London

Partnership objectives

1

Run project-based Designathons and Design Challenges in curriculum.

2

Co-create real-world educational resources and accelerate training of early-career educators.

3

Work with educators to provide a programme of support and facilitate volunteering opportunities for a broad and diverse group of people to shape the education of hundreds of students.

4

Build and share globally responsible competency frameworks and learning journeys that guide learners to be capable in producing sustainable, equitable and ethical outcomes.

5

Showcase a new and innovative approach as part of the wider conversation on what is needed in engineering, and bring students into that conversation, and inspire others to commit to change.

6

Share our work, approach, and learnings broadly to influence a wider sector change.

7

Establish a University Chapter as a mechanism for student-led activities

8

Gather evidence from our partnership to track the success and failings of approaches that focus on how to take action on the need to develop socially responsible professions.

Achievements to date

Engineering for People Design Challenge

TEDI-London students attended the Engineering for People Design Challenge Grand Finals in June 2022. They delivered pitches to judges representing industry and networked with other students.

The delivery of the Engineering for People Design Challenge continued, with over 40 students participating in the 2022/23 academic year.

Thinking ahead programme

In June 2022 Emma Crichton joined TEDI-London for the Thinking Ahead programme to deliver a keynote talk on the opportunities being an engineer offers and the challenges of the future.

Improving our communication strategy

In July Engineers Without Borders UK met with TEDI-London's communications and marketing team to plan how we could collaborate more effectively.

Collaboration

In August Engineers Without Borders UK ran an afternoon session with the core TEDI-London team. It focused on the partnership and identified priorities for the coming year.

Competency Compass

Engineers Without Borders UK delivered bespoke, in-person, team-building work for the TEDI-London educator team during their team day. A preview of the global responsibility competency compass was shared with valuable insights shared.

**Engineers Without Borders
UK networking event**

TEDI-London joined us for our first in-person networking event since 2019. They were joined by members of the movement and other key university and industry partners.

Student engagement

We successfully set up a student-led Chapter at TEDI-London, offering students a place to shape their own learning around global responsibility.

**Innovation within
education**

Emma Crichton, Head of Engineering, worked with Julie Bregulla to write an article shared in January 2023.

**Project-based learning
educator workshop**

Mike Bramhall was invited to speak on behalf of TEDI-London at an educator workshop in January. The workshop focused on project-based learning.

Student mentoring

Milly Last, Communication & Engagement coordinator, will be supporting a TEDI student as a mentor over the next year.

A list of achievements made in the first year of the partnership can be found [here](#).

Engineering for People Design Challenge

Grand Finals 2022

The beginning of our second year of partnership saw the end of the delivery of the 2021/22 Engineering for People Design Challenge. This year focused on Cape York, an area of Queensland, Australia, home to Aboriginal and Torres Strait Islander peoples.

TEDI-London's top teams had their submission entered into the national competition, and 1 team reached the top 36 and attended the Grand Finals event in June 2022. The team chose to focus their design on marine waste, producing a prototype of the Bio-PET design.

"I am worried about the human impact we have had on the planet and the large difference in living standards across countries. It is important to help in any way possible and this reinforces the roles we can play."

- TEDI-London student on the 2021/22 Engineering for People Design Challenge.

2022/23

In September 2022 TEDI-London joined us for another year of Engineering for People Design Challenge delivery. This year they have over 40 first-year Engineering students taking part, designing solutions for the community in Govan, Glasgow.

"The Engineering for People Design Challenge helps student engineers to "think beyond engineering" and "understand their role in society"

- **Mike Bramhall, TEDI-London**



University Chapters

This year the EWB TEDI-London Chapter joined our network of 24 student-led Chapters across the UK. Students who engage with the Chapter not only develop their understanding of global responsibility but have the opportunity to build transferable skills in parallel with their studies.

The students who formed the Chapter at TEDI-London were participants in the 20/21 Engineering for People Design Challenge and were inspired by their learning during this challenge. It has been great to see the continuation of their development and the first-hand impact of the Engineering for People Design Challenge in inspiring students.

Innovation within education

This year we have had the opportunity to work closer with TEDI-London's communication team. In January 2023, we co-released an article focused on innovation within education and the impact TEDI-London are having in this space.

To understand more, Emma Crichton, Head of Engineering at Engineers Without Borders UK sat down with Julie Bregulla, Director of Innovation at TEDI-London, to discuss the role of experience in tackling today's global challenges.

In addition, we had Prof Mike Bramall, Professorial Teaching Fellow at TEDI-London, join Milly Dyer, University Engagement Lead at Engineers Without Borders UK and Leticia Ozawa-Meida, Senior Research Fellow at De Montfort University for an educator workshop sharing experiences of project-based learning with fellow educators.



Competency compass

In September, Engineers Without Borders UK ran a bespoke workshop for TEDI-London's educator team. Using the competency framework Engineers Without Borders UK has been developing, the session helped the TEDI-London team identify their competencies and provided an overview of the team's collective strengths and potential gaps.

This session was delivered whilst the competency framework was being developed, and valuable feedback provided by TEDI-London contributed to the final product, which will be shared publicly in Summer 2023.



Next steps

As we move into the third year of the partnership, we'd like to see developments in a number of areas.

Education

We will see the continuation of the delivery of the Engineering for People Design Challenge.

We will also be exploring new ways to collaborate, either through increased networking, the delivery of the Efficiency for Access programme, or understanding how we can both support the development of skills within the industry.

Competency compass and reimagined degree map

As we develop our competency compass and reimagined degree map, we will be working with TEDI-London to share our learnings and collect valuable feedback from educators.

Summary

There is a close alignment between Engineers Without Borders UK's mission and vision with the work TEDI-London are doing in engineering education. Our intentions behind this partnership were to provide a platform for TEDI's innovation and identify ways we can collaborate. In our second year of partnership, we have continued to work together, providing opportunities for students and educators within TEDI-London.

Our shared focus will continue into our third year of partnership. Thank you for your ongoing support, we look forward to the opportunities we will have to continue to work together to ensure we are continue to transform engineering education.



Thank you for your ongoing support

Acknowledgements

With thanks to the people who make it happen

Contributors:

- Prof Judy Raper, Dean and CEO
- Prof Kay Bond, Academic Director
- Prof Julie Begulla, Director of Project-based Learning
- Cheryl Pillner-Reeves, Head of Learning Tree
- Prof Mike Bramhall, Professorial Teaching Fellow
- Student participants of the Engineering for People Design Challenge 21/22 and 22/23
- EWB TEDI-London Chapter committee
- Milly Dyer, University engagement lead, Engineers Without Borders UK
- Emma Crichton, Head of Engineering, Engineers Without Borders UK
- Jonathan Truslove, Education and skills lead, Engineers Without Borders UK
- Tom Whitehead, Programme activities coordinator, Engineers Without Borders UK