UNIVERSITY OF BATH

Engineer Your Fit

How-To Booklet

Diversity Impact Programme (DIP)
With support from The Royal Academy of Engineering (RAEng): Diversity Impact Programme which is funded by DSIT

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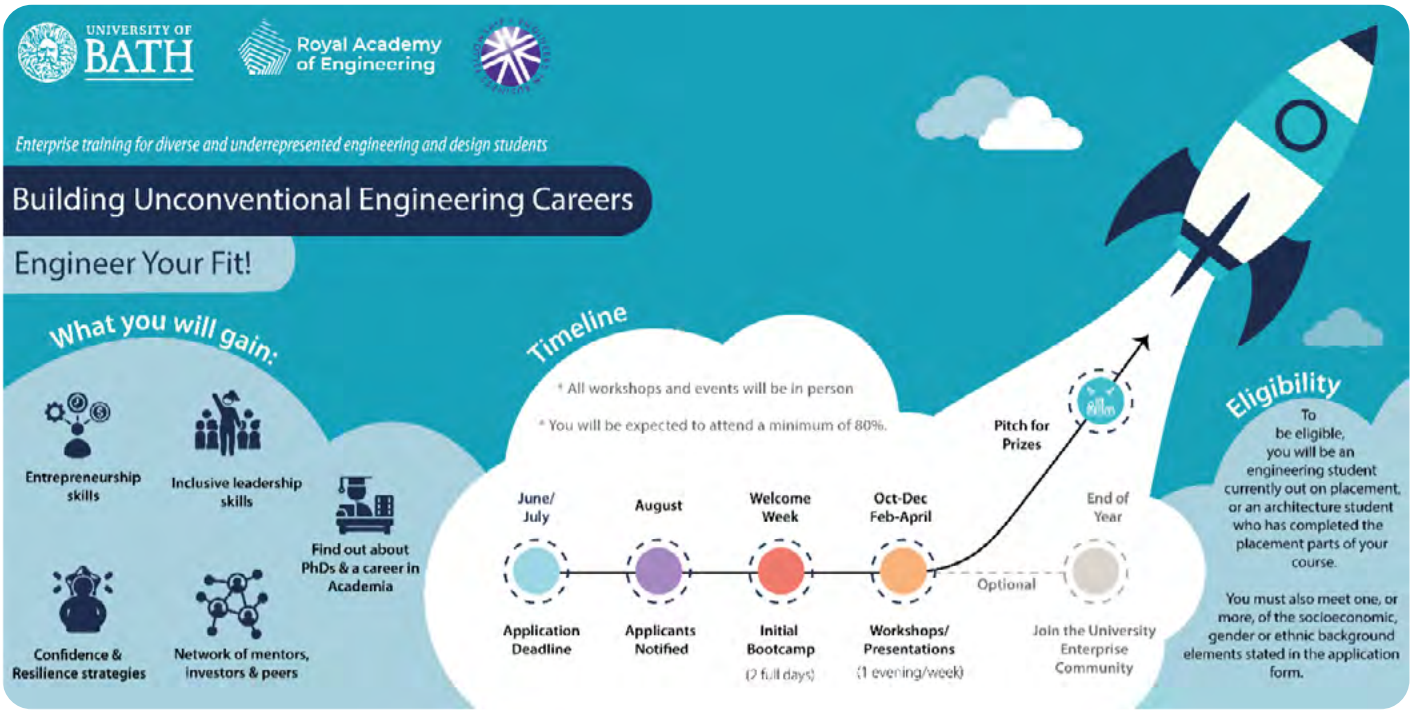
1. Introduction



1.1 Purpose of the Booklet

This booklet has been developed to support universities and educators who are interested in creating programmes that combine entrepreneurship, inclusive leadership, within an engineering or design context.

It is not intended to be a rigid blueprint. Instead, it offers a practical and adaptable guide and resources based on the experiences of the Engineer Your Fit programme at the University of Bath, supported by the Royal Academy of Engineering Diversity Impact Programme.

The aim is to share ideas, activities, and approaches that can be adapted to suit different institutional contexts, student groups, and available resources. Whether delivered as a full extracurricular programme or integrated into existing employability, enterprise, or student support initiatives, the principles outlined here are designed to be flexible, practical, and student-centred.

At its heart, this guide encourages institutions to think creatively about how entrepreneurship and inclusive leadership can help students from underrepresented backgrounds build confidence, belonging, and career agency within engineering and related disciplines.

1.2 Background

Engineer Your Fit was created in response to a challenge that became increasingly visible within engineering education: the transition from university into professional life is not experienced equally by all students. (Atkins Report, Career Deflection 2021)

Many women, students from minority ethnic backgrounds, and students from lower socioeconomic groups described feeling excluded from traditional engineering pathways. While engineering careers are often presented as open and meritocratic, students frequently reported barriers linked to representation, workplace culture, confidence, and access to professional networks.

These challenges became particularly apparent following industrial placements. Some students returned feeling uncertain about their future in engineering, disconnected from the profession, or unsure whether they truly belonged within the sector.

In response, the programme team explored a different approach. Rather than focusing solely on helping students "fit into" existing structures, the programme used entrepreneurship and inclusive leadership as tools to help students:

- recognise their strengths and lived experiences as valuable assets;
- develop confidence and professional identity;
- build supportive peer and mentor networks;
- explore alternative and unconventional career pathways;
- reimagine engineering as a space where they could thrive and lead.

Core Principles

- **Inclusion First:** Inclusion is embedded throughout the programme rather than treated as a separate topic. Sessions encourage open discussion around belonging, bias, representation, and lived experience within engineering and professional environments.
- **Entrepreneurship as Agency:** Entrepreneurship is framed broadly — not simply as starting a business, but as developing creativity, initiative, resilience, and the confidence to create opportunities and influence change.
- **Interactive & Student-Centred Learning:** Activities are designed to minimise hierarchy and maximise participation. Workshops prioritise discussion, collaboration, experimentation, and peer learning over traditional lecture-style delivery.
- **Mentoring & Role Models:** Mentors play a central role in helping students build confidence and expand their understanding of possible career pathways. Exposure to diverse career journeys helps make professional futures feel more visible and attainable.
- **Community & Belonging:** Creating a supportive community is as important as developing technical or enterprise skills. The programme prioritises psychologically safe spaces where students feel valued, heard, and empowered to contribute.

1.3 Programme Vision & Core Principles

Engineer Your Fit aims to equip engineering and architecture students from underrepresented backgrounds (targeted underrepresented groups prioritised included gender, race and low socioeconomic background) with the confidence, social capital, entrepreneurial mindset, and inclusive leadership skills needed to navigate professional environments and shape careers on their own terms.

The programme recognises that success in engineering is not only about technical ability. Belonging, visibility, confidence, and access to expert supportive networks are equally important. By creating psychologically safe and collaborative learning spaces, the programme encourages students to see themselves not only as future engineers, but also as innovators, changemakers, and leaders.

"Diversity and inclusivity is an essential part of today's generation. As a placement student, I had the opportunity to work for a big corporate company, however, I was the only Asian female engineer working with male engineers."

"Having completed my placement year, have realised the importance of developing entrepreneurship skills at the beginning of any career"

"By developing my inclusive leadership and entrepreneurial skills on the programme, I hope to open up more routes to fulfilling my potential as a woman and an engineer."

2. Programme Structure

Engineer Your Fit was delivered as an extracurricular activity offered only to eligible students (please refer to 3.1) across the academic year (September to April), concluding ahead of the examination period, through interactive sessions designed to fit alongside students' academic commitments. Across each delivery cycle, the programme included approximately 19–21 workshops, networking events, mentoring activities, and enterprise sessions, typically delivered as 1.5–2 hour sessions on a regular, near-weekly basis.

The programme combined four interconnected strands:

- **Enterprise & Entrepreneurship Skills:** Developing creativity, opportunity recognition, problem solving, pitching, teamwork, and innovation skills.
- **Inclusive Leadership Development:** Exploring topics such as belonging, imposter syndrome, workplace culture, resilience, bias, and reflective practice.
- **Mentoring & Networking:** Connecting students with mentors, alumni, industry professionals, and peers to strengthen confidence and professional identity.
- **Experiential & Applied Learning:** Using practical activities, team challenges, discussion-based workshops, and pitching exercises to encourage active participation and confidence building.

Sessions were intentionally interactive, with minimal top-down teaching. Pre-reading and resources could be offered where useful, but participation, engagement and discussion remained the primary focus. Peer learning proved especially valuable, allowing students to learn from one another's experiences and perspectives.

2.1 Programme Components

Programme components included:

- Interactive enterprise and entrepreneurship workshops
- Interactive inclusive leadership workshops
- Industry and alumni mentoring
- Networking events
- Team-based innovation challenges
- Confidence and resilience development
- Celebration event

Programmes may choose to deliver all components or select elements most relevant to their students and institutional priorities.

2.2 Programme Resource

The programme is scalable and adaptable. Institutions can tailor delivery to suit available resources, staff capacity, student needs, and local priorities.

Impactful delivery does not require large budgets or specialist enterprise facilities. Many elements can be delivered using existing university spaces and by drawing on expertise already available across the institution and wider network, including careers teams, enterprise colleagues, academics, alumni, mentors, and external partners.

At the University of Bath, core costs included:

- refreshments for workshops and events;
- a small number of externally facilitated specialist sessions;
- competition prizes (sponsored);
- and staff time for coordination and delivery.

Our approximate staffing resource was:

- 0.10 FTE academic lead
- 0.20 FTE programme manager

Institutions with fewer resources could deliver a lighter-touch version by reducing the number of workshops, using internal facilitators, or running individual elements such as mentoring or networking as standalone activities.

The most important ingredients were not budget or scale, but thoughtful design, committed people, and creating space for students to connect, build confidence, and grow.

2.3 Delivery Options

Possible delivery approaches include:

- **Extracurricular Programme:** A standalone programme running alongside degree studies.
- **Embedded Curriculum Model:** Integrating selected workshops or activities into existing engineering, design, enterprise, or employability modules.
- **Short Intensive Model:** Delivering activities as a concentrated bootcamp, summer school, or innovation challenge week.
- **Cross-University Collaboration:** Partnering with careers services, widening participation teams, enterprise units, or external organisations.

(see also section 11 for ideas of how to adapt this program for your institution)

3. Participant Recruitment & Selection

Recruitment and selection play an important role in shaping the tone, inclusivity, and success of the programme. Our aim was to create a supportive and diverse learning community where students felt comfortable contributing, experimenting, and developing confidence.

3.1 Eligibility Criteria

The programme was designed for undergraduate engineering and architecture students from underrepresented backgrounds who were preparing for the transition from university into professional life.

At the University of Bath, eligibility focused on students who had completed their industrial placement year and returned to study for their final stages of study. This timing proved particularly valuable, as many students had recent experiences of workplace culture and professional environments to reflect upon.

Participants needed to meet one or more of the following criteria:

- from a minority ethnic background;
- from a lower socioeconomic or widening participation background;
- female or not identifying as male;

Institutions adapting the programme are encouraged to tailor eligibility criteria to align with their own widening participation priorities, student demographics, and institutional context.

The process was intentionally transparent, accessible, and supportive, making sure that non-eligible students interested in entrepreneurship could be signposted to alternative options offered within the university.

Recommended Cohort Size

We recommend a cohort of approximately **20–30 students.**

This size is large enough to create diverse discussion and peer learning opportunities, while remaining small enough to maintain interaction, trust, and active participation during workshops.

3.2 Application Process

Applications were submitted using a simple online form created through Microsoft Forms. The process was designed to be approachable and low-barrier, while still enabling students to reflect on their motivations and interest in the programme.

Recruitment began during the summer while students were still on placement and before the start of the academic year. This gave students sufficient time to consider the opportunity and allowed the programme team to complete the selection process before teaching resumed. In practice, recruitment and selection took place largely outside the academic year, ensuring the cohort was confirmed and ready to begin the programme from the start of term. The application form included:

- student name;
- course and placement details;
- widening participation/low socio-economic eligibility information;
- gender
- ethnicity
- a short motivation or supporting statement;
- commitment to attend programme activities.

Example “Why Join?” Messaging

Students were encouraged to apply through messaging focused on opportunity, confidence, and community rather than competition.

Typical programme messaging included:

- Build entrepreneurial and leadership skills
- Connect with mentors, industry professionals, and peers
- Develop confidence in presenting and networking
- Explore alternative and innovative career pathways
- Be part of a supportive and inclusive community
- Pitch for a share of a funded prize competition

Selection Approach

Selection focused on:

- quality and thoughtfulness of the supporting statement;
- enthusiasm and willingness to engage;
- commitment to attending sessions;
- creating a balanced and diverse cohort across disciplines, gender and backgrounds.

The selection was made in collaboration between the academic PI and the professional services Program Manager, based on the application data, in order to make sure an inclusive process was in place considering all program requirements and aspects.

3.3 Communication With Applicants

Clear and encouraging communication is essential throughout recruitment and onboarding.

Many students applying to programmes like this may already feel uncertain about belonging, confidence, or whether they are "the right fit." Communication should therefore reinforce inclusion, expectations, encouragement, and accessibility from the outset.

Key communication stages included:

- programme promotion, written and a webinar;
- application guidance;
- offer and waiting list communications;
- session reminders;

We found that informal and welcoming language worked particularly well. Students responded positively when communications emphasised community, growth, experimentation, and support rather than achievement alone.

Practical Tips

- Keep application forms concise and accessible.
- Clearly communicate time commitments and expectations.
- Send regular reminders and updates throughout the programme.
- Use consistent online spaces (e.g. Moodle or SharePoint) to store schedules, resources, and announcements.
- Celebrate participation and progress regularly to maintain momentum and belonging.

"After a year of working, I've had many doubts about pursuing this field after graduation due to some of the treatment I have experienced. The lack of diversity, inclusivity, and probably unconscious bias from peers have left me doubting this career entirely."

"I am a motivated student who wishes' to explore the entrepreneurial world as I do not have the circle around me which can support me in that field. I'm a student with ADD and come from an international background, while it might be hard to explain in a sentence, they both made me value diversity of ideas, thoughts and background (cultural)."

4. Workshop & Event Planning

Academic Week 1 Two Day Bootcamp		Delivered By
Inclusive Leadership Day	Day 1	Equality, Diversity & Inclusion Consultant
Entrepreneurship Day	Day 2	Entrepreneur Professor/Specialist

The programme was designed to weave the themes together. Sessions were sequenced to build confidence over time, with each workshop connecting back to earlier learning and introducing ideas that would continue to develop in future sessions. Where possible, facilitators were encouraged to reference previous discussions and draw links across the programme to help participants recognise the wider connections between leadership, innovation, identity, and professional practice.

The running order was also shaped by practical considerations, particularly facilitator availability.

The fixed points in our calendar were typically the mentor networking events, as these needed to be scheduled well in advance with mentors and were deliberately spaced to support the participant journey — first to allow confidence to build before mentor matching, and later to create a meaningful opportunity for reconnection and reflection before the end of the semester.

Most sessions followed a similar delivery model:

- approximately 20% facilitator input or presentation
- 60% participant discussion or group activity
- 20% whole-group feedback and reflection

This balance worked well in maintaining energy, encouraging peer learning, and creating space for participants to contribute their own experiences and ideas rather than passively receiving content.

Weekly 1.5-hour Evening Workshops/Events		Delivered By
Customer Centric Design	2	Programme Manager
Pitching Yourself Without Shrinking Yourself	3	EDI Consultant
Factivism – Driving Change with Data	4	Programme Manager
Business Models + Getting the Most from Mentoring	5	Programme Manager
Meet the Mentor Event	6	Programme Manager
Competition Launch	7	Programme Manager
Engineering Inclusive Workplace Culture & Practices	8	EDI Consultant
Sustainable & Inclusive Design	9	Industry Guest
Exploring PhDs & Research Careers	10	Guest Speakers
Delivering a Winning Pitch	11	Programme Manager + Guest Speaker
Mentor Networking Event	12	Programme Manager
Presenting with Impact	20	External Trainer
Business Essentials I	21	Programme Lead + Manager
Business Essential II	22	Programme Lead + Manager
Competition Pitches	24	Programme Manager
Competition Pitches	25	Programme Manager
Reflective Practice	26	Programme Lead + Manager
Competition Final	29	Programme Manager

4.1 Co-designing with students

Originally, the programme team considered delivering two intensive five-day blocks. However, focus groups with students highlighted that this would be unrealistic alongside academic workloads and personal commitments.

Student feedback directly shaped the final delivery model:

- two intensive bootcamp days;
- followed by shorter weekly evening sessions during term time.
- in person events and not online

This proved significantly more accessible and sustainable for participants. The experience reinforced an important lesson co-designing with students from the outset improves both accessibility and engagement.

4.2 Delivery Style

Rather than positioning students as passive recipients of information, workshops encouraged participants to:

- contribute lived experiences;
- test ideas;
- challenge assumptions;
- reflect critically;
- build confidence through experimentation.

This approach proved especially valuable in creating an environment where students felt comfortable participating regardless of prior entrepreneurial experience or confidence levels.

Group allocation methods

For all group work activities, participants were either pre-allocated to ensure a mix of disciplines and other characteristics, or randomly grouped on the day (e.g. counting 1–5). This approach created a good mix and was very positively received by participants

4.3 Facilitators & Delivery Partners

We found that consistency of staff presence throughout the programme was particularly important. At the University of Bath, either the Program Manager or Academic Lead attended every session. This continuity helped students build trust and contributed significantly to the psychologically safe environment that developed across the programme.

We recommend drawing widely from your own institutional and professional ecosystem. In many cases there will already be colleagues with relevant expertise who are enthusiastic to contribute, often on a pro-bono basis.

Potential contributors may include:

- careers and employability teams
- enterprise or innovation hub colleagues
- equality, diversity and inclusion specialists
- alumni and industry partners
- visiting professors
- entrepreneurs in residence
- mentors
- academics

This approach not only supports delivery but also increases participant exposure to different perspectives, career journeys, and role models.

For specialist areas — particularly those involving more complex or sensitive topics such as neurodiversity, inclusive practice, or neuroscience-informed leadership — it may be beneficial to bring in an external facilitator or consultant with dedicated expertise.

4.4 Materials & Resources

Included:

- flip charts and sticky notes;
- pens and dry-wipe markers;
- printed templates and worksheets;
- presentation screens/projectors;
- breakout spaces for smaller group work
- refreshments

Providing refreshments and creating a welcoming physical environment made a significant contribution to participation, energy levels, and a sense of community. We were also mindful that some participants may be experiencing financial hardship, and we wanted to ensure no one was disadvantaged or distracted by hunger.

Practical Delivery Tips

Based on our experience, we recommend:

- using smaller group-based activities wherever possible;
- building regular opportunities for discussion and reflection;
- mixing groups frequently to encourage wider peer interaction;
- balancing serious discussion with creative and lighter activities;
- ensuring sessions remain conversational rather than lecture-heavy;
- allowing flexibility for activities to develop organically;
- providing refreshments.

5. Bootcamp (2 Full Days)

5.1 Aim and Rationale

The programme began with two full-day bootcamp sessions designed to establish trust, connection, confidence, and momentum at the very start of the programme. It was held during the University welcome week when there wasn't a conflict with timetabled lectures.

The bootcamps created dedicated time for students to:

- get to know one another;
- begin building a supportive peer network;
- explore inclusive leadership and entrepreneurship concepts;
- practise collaboration and creative thinking;
- build confidence in contributing and sharing ideas.

Importantly, the bootcamp format also helped establish the tone of the programme. Sessions were deliberately interactive, welcoming, and discussion-based, helping students feel that this was a different kind of learning environment from traditional academic teaching.

Shared principles of enganement

5.2 Creating the Right Environment

Small details helped establish the programme as something meaningful and professional from the outset.

We set the room up more like a conference or professional development event than a traditional classroom. This helped reinforce that participants were being invested in and valued.

Helpful touches included:

- name badges and table name cards;
- printed schedules visible throughout the room;
- University-branded notepads and pens;
- sweets and refreshments;
- clearly displayed group allocations and timings;
- breakout spaces for smaller discussions.

Displaying schedules and group information physically in the room also supported inclusivity, reducing pressure on students to remember instructions or continually refer back to presentation slides.

5.3 Bootcamp Content Overview

The bootcamp workshops established many of the core themes explored throughout the wider programme:

Day One
Inclusive Leadership & Belonging

Focused on creativity, opportunity recognition, enterprise skills, teamwork, and entrepreneurial thinking within engineering contexts.

Day Two
Entrepreneurship & Innovation

Focused on creativity, opportunity recognition, enterprise skills, teamwork, and entrepreneurial thinking within engineering contexts.

Together, these themes established the foundations for the wider programme.

5.4 Suggested Schedule (Day 1)

Redefining Leadership

Leadership isn't a title — it's a practice

Key Points:

- Leadership = small, everyday choices that influence others positively.
- Inclusive leaders notice, listen, and act — even without formal authority.
- Influence grows from **consistency, empathy, and curiosity**, not status.

Day One
Inclusive Leadership & Belonging

The first bootcamp day focused on building trust, establishing psychological safety, and introducing inclusive leadership concepts in an accessible and practical way.

The atmosphere of the day was intentionally welcoming, interactive, and reflective. Many participants arrived not knowing one another, so creating a sense of belonging early on was essential.

Suggested schedule

10:00	Registration, refreshments, informal networking
10:30	Welcome & programme introduction
11:00	Inclusive Leadership Workshop Begins
13:00	Lunch
14:00	Interactive leadership activities & group discussion
15:30	Reflection & action-setting
16:00	Close

Workshop Themes

The day was facilitated by an external inclusivity specialist with expertise in leadership, neuroscience, and higher education contexts. Core themes included:

- psychological safety;
- inclusive leadership;
- imposter syndrome;
- stereotype threat;
- structural barriers in engineering;
- bias and decision-making;
- belonging and workplace culture;
- Inclusive communication and behaviours.

Interactive Activities

Activities were discussion-based and highly participatory. Students worked in groups using engineering placement scenarios and workplace examples to explore:

- how bias can emerge in everyday situations;
- how inclusive leaders can intervene;
- the relationship between systems, culture, and belonging;
- practical “micro-actions” that support inclusion.

One particularly effective activity invited students to redesign workplace cultures by identifying values they wanted to experience in engineering environments and translating those values into practical behaviours.

The day concluded with a personal reflection exercise where students identified one small inclusive action they would practise during the coming week.

Resource

5.4 Bootcamp Day One Content summary.pdf

5.5 Suggested Schedule (Day 2)

Day Two
Entrepreneurship & Innovation

The second bootcamp day introduced entrepreneurship in a way that felt accessible, creative, and directly relevant to engineering and design students.

A key aim was to reframe entrepreneurship as more than business start-up culture. Instead, the focus was on creativity, problem-solving, innovation, systems thinking, and identifying opportunities for positive impact.

The day combined interactive exercises, practical frameworks, and informal talks from academic entrepreneurs and start-up founders.

Suggested schedule

- **09:00** Registration & refreshments
- **09:30** Welcome and recap from Day One
- **10:00** Introduction to Entrepreneurship Workshop
- **13:00** Lunch
- **14:00** Guest entrepreneur talks & Q&A
- **15:15** Reflection & discussion
- **16:00** Close

Resource

5.5 Bootcamp Day Two Entrepreneurship and Engineering.pdf

Workshop Themes

- what entrepreneurship means in engineering contexts;
- similarities between engineering design and entrepreneurial thinking;
- innovation and opportunity recognition;
- systems thinking and problem identification;
- customer needs and validation;
- value propositions and business models;
- sustainable development and global challenges;
- creativity and idea generation.

The workshop deliberately balanced practical tools with creative experimentation.

Interactive Activities

Students participated in a range of collaborative activities, including:

- “How many uses for a brick?” ideation exercise;
- customer segmentation exercises;
- pizza product design challenge;
- business model and competitor analysis activities;
- customer journey mapping;
- feature prioritisation exercises.

These activities helped students understand that entrepreneurial thinking is often closely aligned with engineering problem-solving and design processes.

Guest Speakers

The afternoon included informal talks from academics and entrepreneurs who had experience establishing companies, often through research spinouts or innovation projects.

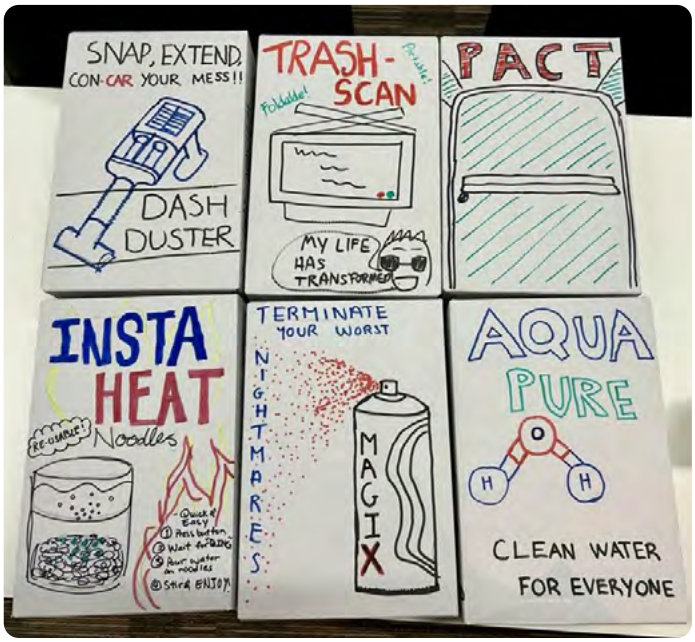
Short presentations followed by open Q&A sessions worked particularly well. Students valued hearing honest reflections about:

- uncertainty and setbacks;
- balancing technical and commercial priorities;
- career journeys that were not always linear;
- practical realities of innovation and start-up culture.

These sessions helped make entrepreneurship feel more realistic, achievable, and relatable.

6. Detailed Workshop Outlines

What follows is an outline of the workshops and events delivered across the programme after the initial two-day bootcamp. While the precise order and content varied slightly from year to year, the overall structure remained intentionally consistent.



6.1 Customer-Centric Product Design

Aim

Introduce participants to designing solutions based on real user needs and delivering clear value.

Description

This workshop introduces the principles of customer-centric design, focusing on identifying customer needs, defining value propositions, and aligning product features with real-world problems. Learners explore segmentation, personas, and targeted marketing approaches. Real examples from global brands help bring concepts to life and show how successful products are built around the customer.

- Identifying user needs and pain points
- Challenging assumptions in design
- Applying user-centred design thinking

Outline of Activity

Learners are given pens and a plain cardboard box. They work in groups to create a “Product in a Box” for an imagined product. They quickly generate a fun product idea/concept, define its value proposition, identify a target customer, and design key features that solve customer pain points.

Each group presents their product box to the wider cohort, explaining who it is for, what problem it solves, and why it matters. This creates space for discussion around assumptions, customer needs, and how design choices are influenced by the end user.

Resource

6.1 Customer-Centric Product Design Workshop.pdf

Limbic system responses:

The limbic system is your brain's emotional centre, driving instinctive reactions

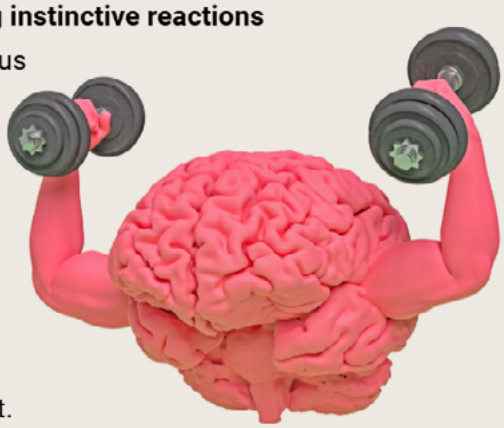
When we sense threat, our brain reacts instantly to protect us

Amygdala Hijack →

- Instant, instinctive reactions: fight, flight, freeze, fawn
- Protects you, but can shrink your voice

Prefrontal Cortex Control →

- Pause, plan, and choose your response
- Turns instinct into strategic influence



Takeaway: Your brain is doing its job — and you can guide it.
You can train your brain to regulate instinctive reactions.

6.2 Pitching Yourself Without Shrinking Yourself

Aim

Build confidence in self-presentation and personal narrative. Equipping learners with practical strategies to communicate, influence, and present their ideas.

Description

This workshop explores the neuroscience behind confidence, communication, and influence in professional settings. Learners examine instinctive responses such as fight, flight, freeze, and fawn, and how these can impact their voice. Through understanding leadership behaviours and applying ethical influence techniques, participants develop skills to communicate clearly, confidently, and authentically.

- Exploring identity and confidence
- Reframing imposter feelings
- Practising how to talk about skills and experience

Outline of Activity

Learners reflect on a real experience where they held back their voice and share this in small groups to build awareness and connection. They then take part in practical exercises, including role-play scenarios, to practise influencing different leadership styles and delivering short, structured messages with confidence, receiving peer feedback to refine their approach.

Resource

6.2 Pitching yourself without shrinking yourself workshop content summary.pdf

6.3 Factivism – Driving Change with Data

Aim

Develop critical thinking and evidence-based decision-making to influence behaviour, communicate ideas, and drive meaningful social or environmental change.

Description

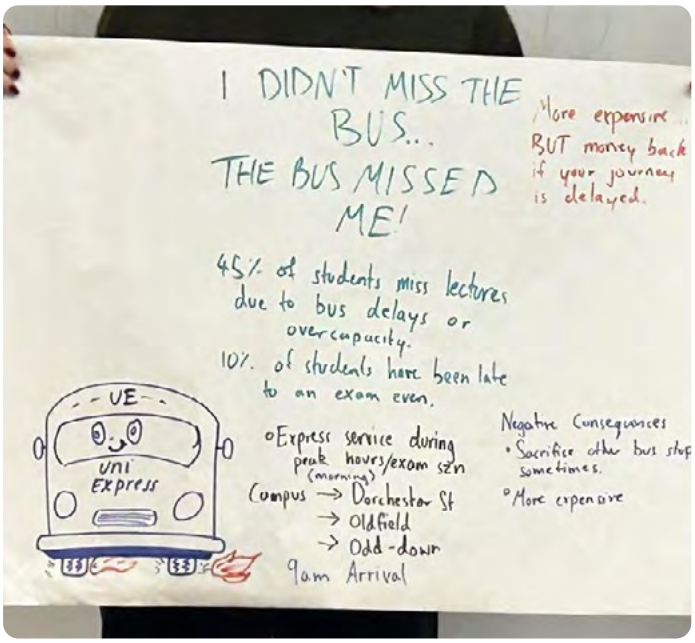
This workshop introduces the concept of factivism, combining data with advocacy to inspire action and change. Learners explore how facts can be used to influence decisions, alongside behavioural insights and communication strategies that make messages more impactful. Real-world case studies highlight how evidence-based approaches can shape policy, products, and consumer behaviour.

- Interpreting data and statistics
- Understanding bias and misinformation
- Challenging assumptions

Resource
6.3 Factivism.pdf

Outline of Activity

Learners work in groups to design a campaign that encourages a specific change. They identify a target audience, use relevant facts to support their message, and consider how to influence behaviour effectively. The activity culminates in creating a poster that communicates their idea clearly and persuasively.



Business Model Research Challenge

Goal: Understand how different companies create, deliver and capture value – and how their business models evolved over time.

Each group will research two companies and share their findings

- When and how was it founded?
- What was its original business model?
- How did the business model change over time?
- What model(s)does it use now?
- What can we learn from this company?

20-25 minutes for discussion and research.

Prepare a presentation, up to 5 minutes to share findings, using whatever format you like.

6.4 Business Models

Aim

To explore how organisations create, deliver, and reach their customer. Introduces participants to the wide variety of business models used by modern organisations.

Description

This workshop builds on earlier sessions around idea generation, customer needs, and value propositions. Participants are introduced to common business models and encouraged to think about how organisations evolve their approaches over time as markets, technologies, and customer expectations change.

The session reinforces the idea that successful organisations rarely rely on a single model and often combine multiple approaches as they grow.

Outline of Activity

Participants begin with an introduction to the concept of business models and examples of common approaches, including subscription, freemium, marketplace, B2B, B2C, franchise, social enterprise, and B Corp models.

A short “Guess the Business Model” activity is used to explore familiar companies and brands.

Working in small groups, participants are then allocated a pre-selected organisation to research. Companies are chosen to showcase a diverse range of business models, include examples of female founders and leaders, and demonstrate how organisations have adapted over time in response to changing markets and technologies.

Groups investigate:

- how the organisation started;
- its original business model;
- how that model evolved;
- the approaches it uses today; and
- key lessons that can be learned from its journey.

Each group shares their findings through a short presentation and discussion.

Resource

6.4 Business Models.pdf

6.5 Getting the Most from Mentoring

Aim

Prepare participants to engage effectively with mentors.

Description

This workshop introduces the purpose and value of mentoring, exploring the roles and responsibilities of both mentors and mentees. The session also supports participants in preparing for mentor meetings, including creating an elevator pitch and setting expectations for a successful partnership.

- What mentoring is (and isn't)
- How to prepare meaningful questions
- Setting expectations and goals

Outline of Activity

Learners take part in discussions, role-play scenarios, and listening exercises to practise mentoring conversations. Activities include developing a personal elevator pitch, reflecting on mentoring experiences, and exploring real-life scenarios to identify effective behaviours. Learners also collaborate to define goals, expectations, and strategies for making the most of their mentoring relationships.

Resource

6.5 Getting the Most out of Mentoring.pdf

6.6 Meet the Mentor: Speed Networking Event

Aim

Provide first exposure to mentors and build networking confidence build learners' confidence, enabling them to engage with a diverse range of mentors and perspectives.

Description

This interactive speed networking session provides learners with the opportunity to connect with multiple mentors from a variety of backgrounds and career paths. The session encourages participants to practise professional introductions, gain insight into different lived experiences, and explore a range of career journeys. It supports confidence building and helps learners identify potential mentoring matches.

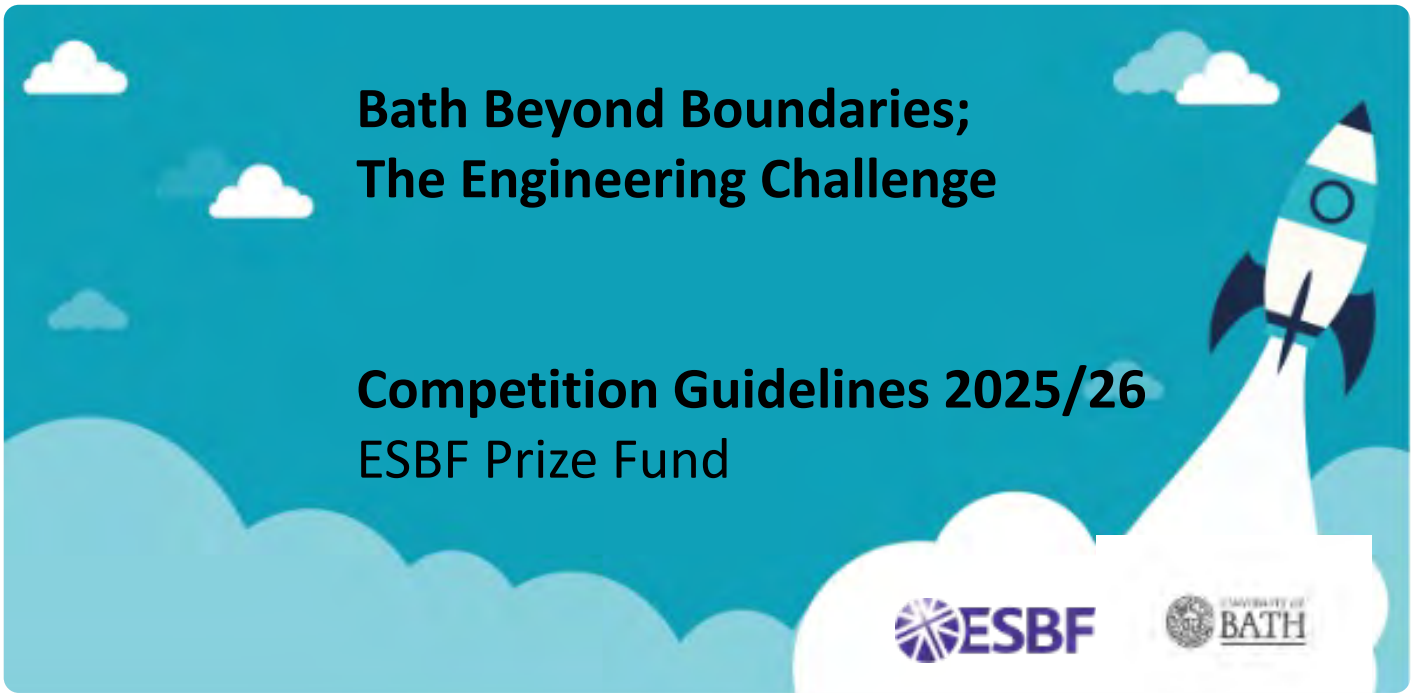
- Timed table rotations
- Short, focused conversations with multiple mentors
- Informal follow-up discussion

Resource

6.6 Meet the Mentor Event.pdf

Outline of Activity

Learners rotate through structured, timed networking rounds, engaging in short conversations with different mentors at each table. They deliver brief personal introductions, ask questions, and explore career experiences before moving on to the next mentor. This fast-paced format ensures all participants interact with a wide range of people while developing networking confidence and skills.



6.7 Competition Launch
(embedded within a session)

Aim

To introduce the optional competition and spark early thinking about ideas, collaboration, and participation.

Description

This short introduction launches the programme competition, encouraging learners to consider developing an innovation that addresses real-world challenges. It is positioned partway through the programme to build on growing confidence and skills, making participation feel achievable. Learners are encouraged to start exploring ideas, potential teammates, and how their learning could translate into a practical venture.

- Overview of competition structure and timeline
- Encouragement to begin idea generation

Outline of Activity

A brief 5-minute overview introduces the competition structure, timeline, and expectations. Learners are prompted to begin informally generating ideas, reflecting on problems they could solve, and identifying others they may want to collaborate with as the programme progresses.

"It's not everyday that you get the opportunity to pitch an idea and listen to other ideas in front of such an engaged, supportive group. It's been an amazing chance to learn. Thank you again for creating this brilliant opportunity."

6.8 Engineering Inclusive Workplace Culture & Practices

Aim

To equip learners with the knowledge and tools to design inclusive workplace systems and practices across the employee lifecycle.

Description

This workshop explores how inclusion can be intentionally designed into organisational systems, from recruitment through to exit. Learners examine the impact of bias, the role of neuroscience in behaviour and decision-making, and how inclusive practices can improve culture and performance. The session introduces practical frameworks to help learners think like “designers” of inclusive workplaces.

- Mapping bias across organisational systems
- Redesigning processes for inclusion
- Developing a workplace blueprint

Resource

6.8 Inclusive workplace culture workshop content summary

Outline of Activity

Learners work in groups to identify where bias may exist across the employee lifecycle and redesign processes to improve inclusion. Activities include analysing recruitment practices and creating an “inclusive company blueprint,” where participants develop and present ideas for more equitable systems and workplace practices.

6.9 Guest Workshop: Sustainable & Inclusive Design

Aim

To inspire learners through real-world insight into sustainable and inclusive business practice, and apply these principles to a practical design challenge.

Description

Delivered by a guest speaker who is a business owner within a BCorp organisation, this workshop provided insight into how businesses can operate with a focus on sustainability, inclusion, and social impact. Learners gain an understanding of alternative business models and how engineering and design decisions can create positive environmental and societal outcomes.

- Guest speaker insight (BCorp business owner)
- Real-world design challenge

Guest Speakers

Where possible, incorporating a guest speaker adds valuable variety and energy to the workshop series. An experienced engineering professional who has founded and run a business and worked extensively on developing and pitching project ideas can provide a real-world perspective that enriches learning. These sessions should ideally follow the established format of a short presentation, followed by an interactive activity and an opportunity for groups to share their ideas. Bringing in an external voice introduces learners to a different case study, helping to broaden their understanding of how engineering and entrepreneurship intersect in practice.

Outline of Activity

Learners take part in a hands-on design challenge based on a real-world project brief, working in teams to develop creative and practical solutions. The activity encourages experimentation, problem-solving, and collaboration, allowing participants to apply sustainable and inclusive design principles in a realistic business context.

6.10 Exploring PhDs & Research Careers in Engineering

Aim

To raise awareness of postgraduate research pathways and highlight alternative pathways for developing ideas.

Description

This interactive session features guest PhD students and academics from across a range of engineering disciplines, sharing their personal journeys into research. Learners gain insight into what a PhD involves, including time commitment, funding, career opportunities, and the realities of academic and research careers. The session highlights how university environments can support innovation, idea development, and potential spin-out ventures.

Outline of Activity

Guest speakers each deliver short, engaging talks followed by a panel-style Q&A, allowing learners to ask questions and explore topics in more depth. The session encourages open discussion, helping participants to consider research as a potential pathway for developing ideas, building expertise, and accessing specialist support and resources.

6.11 Delivering a Winning Pitch

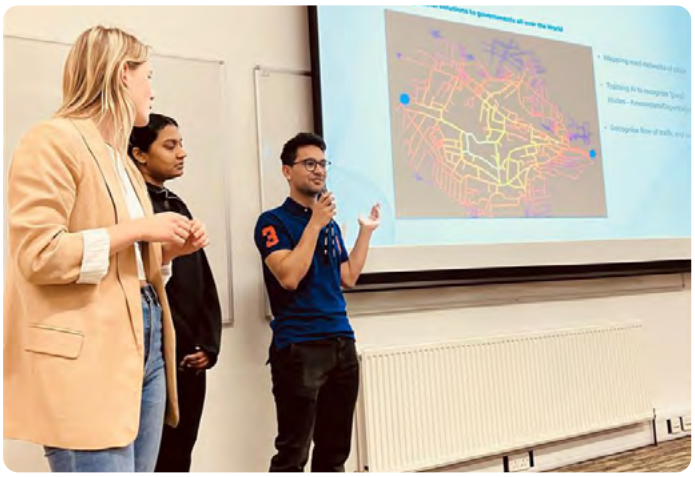
Aim

To build learners' ability to clearly communicate a business idea with confidence, structure, and impact.

Description

This workshop introduces the key components of an effective business pitch, exploring how to communicate ideas clearly and persuasively. Learners develop an understanding of pitch structure, storytelling, and delivery techniques, alongside common pitfalls to avoid. The session supports participants in preparing for competitions, presentations, and real-world opportunities to present ideas. It is good to have someone deliver their pitch for the group to watch.

- Introduction to pitch structure (problem, solution, market, business model)
- Group pitch development
- Short pitch presentations

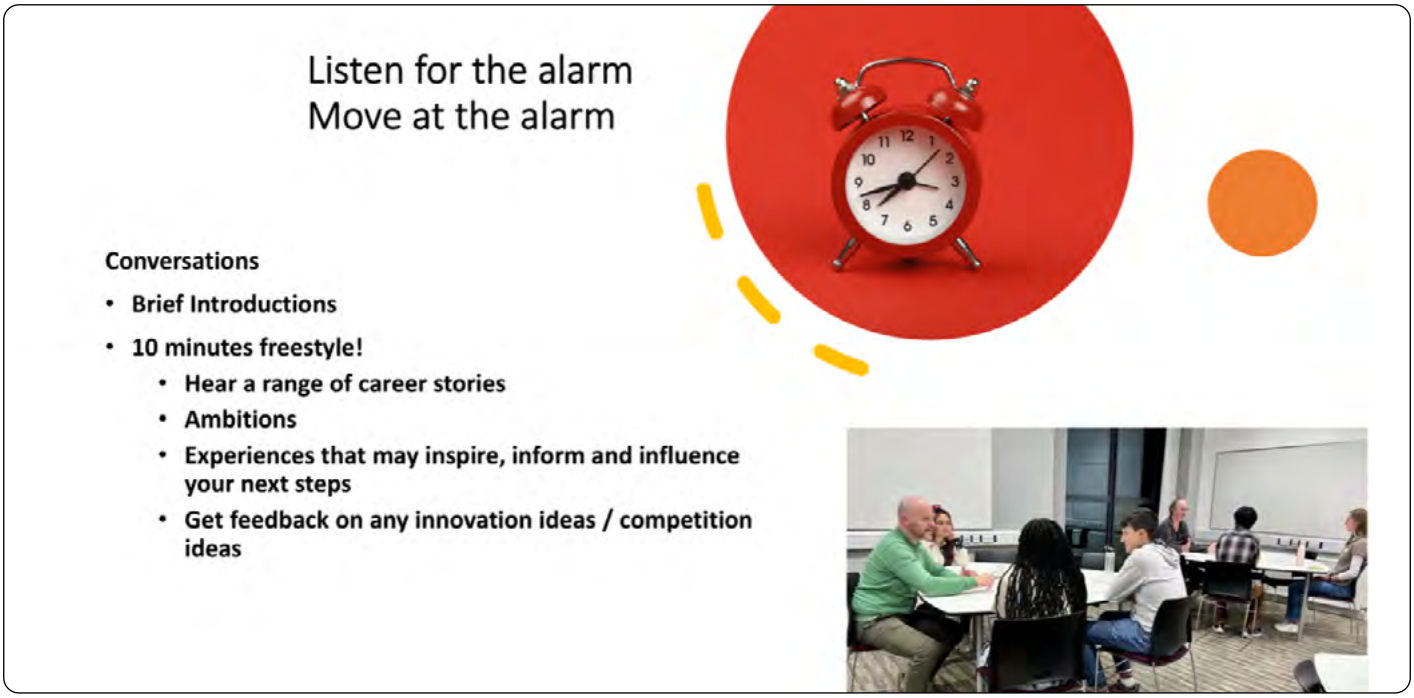


Outline of Activity

Learners are introduced to a simple pitch framework covering the problem, solution, market, and business model. They then work in groups to develop and deliver a short pitch, applying structured templates and receiving feedback to refine their ideas and presentation skills. The activity focuses on clarity, confidence, and effective communication.

Resource

6.11 Deliver a Winning Pitch.pdf



6.12 Mentor Networking Event: Connections and Community

Aim

To strengthen mentoring relationships, and build a sense of community through informal and engaging interaction.

Description

This follow-up networking event combines structured speed networking with a relaxed, social environment. Learners have the opportunity to reconnect with mentors, meet new people, and explore a wider range of perspectives, experiences, and career pathways. The session is designed to build confidence, deepen relationships, and create a supportive and inclusive network.

- Two rounds of speed networking (new mentor pairings)
- Informal networking with refreshments
- Team quiz (Mentimeter-based, inclusive and fun)

Outline of Activity

The session begins with two rounds of structured speed networking, ensuring participants meet mentors they have not previously engaged with, while maintaining opportunities for mentee–mentor connection. The second half transitions into an informal networking session with refreshments and a fun, interactive quiz, encouraging collaboration, conversation, and community building across the group.

Programme Break

Until Start of Semester Two, allowing for Christmas Holidays and Exam Period

6.13 Presenting with Impact: Confidence & Delivery Skills

Aim

To develop learners' confidence and effectiveness in presenting by focusing on delivery skills rather than content.

Description

This workshop focuses on how to deliver presentations with confidence and impact, rather than on content creation. Learners explore techniques such as body language, vocal delivery, audience engagement, and managing nerves. The session provides practical strategies to help participants communicate clearly, connect with an audience, and present more professionally.

- Exploration of delivery techniques (body language, vocal projection, pace, audience engagement)
- Strategies for managing nerves and preparing effectively
- Short group presentation exercises with clear parameters
- Immediate, constructive feedback from the facilitator

Outline of Activity

Learners take part in short group presentation exercises, applying delivery techniques in a supportive environment. They receive immediate, constructive feedback from the facilitator, enabling them to reflect, improve, and build confidence in real time. The session emphasises practice, critique, and continuous improvement.

6.14 Business Essentials Part I: Foundations of Starting a Business

Aim

To introduce participants to the wide range of considerations involved in starting a business and to build awareness beyond the technical development of an idea.

Description

This session provides a broad overview of the practical foundations required to start a business. Learners are introduced to essential topics such as business planning, market research, intellectual property, and company structures. The focus is on raising awareness of the range of considerations entrepreneurs and organisations must manage when developing and implementing ideas.

- Overview of key topics including business planning, market research, intellectual property, and company structures
- Exploration of common startup challenges and mistakes
- Signposting to external resources (e.g. GOV.UK, business planning tools)
- Open discussion to connect concepts to participant ideas

Outline of Activity

Through a fast-paced, presentation-led session, learners are guided through core business concepts, supported by examples and links to real-world resources. The emphasis is on exposure rather than depth, helping participants understand the key components involved in turning an idea into a viable business.

Resource

6.14 Business Essentials Part One.pdf

6.15 Business Essentials Part II: Financial & Operational Realities

Aim

To build learners' ability to clearly communicate a business idea with confidence, structure, and impact.

Description

Building on Part I, this session explores the practical realities of managing a business, including finance, funding, legal responsibilities, and operational decision-making. Learners gain insight into how businesses are structured and sustained, and the wider responsibilities that influence organisational strategy and success.

- Introduction to finance basics (costs, cashflow, profit and loss)
- Overview of funding routes (grants, loans, investment, research funding)
- Exploration of legal responsibilities, compliance, and business administration
- Discussion of operational considerations (suppliers, HR, systems)
- Group case study activity analysing a real or well-known business journey

Outline of Activity

Learners explore topics such as funding routes, financial planning, legal compliance, and supplier relationships, alongside examples of real-world business processes. The session concludes with a group-based activity, where learners analyse and discuss a business case, applying their understanding in a practical context.

" I now have a much better understanding of business and feel that entrepreneurship is much more accessible to me."

Resource

6.15 Business Essentials Part Two.pdf

6.16 Competition Pitches

Please note the competition is outlined in full in Section 9, but is referenced here in relation to workshop delivery and programme timeline

After the Business Essentials sessions, we had a one week break in workshops to encourage students to finish developing their competition ideas and preparing their pitches.

Initial pitching rounds are then delivered over one or more sessions, depending on format (e.g. single round, staged shortlisting, or full competition).

This flexibility allows the competition structure to be adapted to cohort size and programme timing.

A further short break may follow before the final event, ensuring learners have time to refine their ideas before presenting again.

Resource

6.16 Reflective Practice.pdf

> ‘The unexamined life is not worth living’
>
> Socrates

6.17 Reflective Practice & Competition Shortlist Results

Aim

To provide learners with an opportunity to reflect on their development, recognise progress, and celebrate achievement through the competition shortlisting announcement.

Description

- Following a dedicated period for competition preparation and initial pitching rounds, this session brings learners back together to reflect on their journey so far. It reinforces the importance of reflective practice in personal and professional development, while also signposting further opportunities for enterprise engagement beyond the programme.
- Guided reflection prompts encouraging participants to consider key learning moments, personal growth, and memorable experiences
- Small group or pair discussions to share reflections and insights
- Whole-group feedback to highlight common themes and shifts in confidence or mindset
- Overview of further enterprise opportunities within the university and wider ecosystem
- Announcement of shortlisted teams progressing to the final stage of the competition

Outline of Activity

The session begins with a guided reflection activity, encouraging learners to consider key takeaways, achievements, and areas for growth. This is followed by an overview of enterprise opportunities within the university and wider ecosystem. The session culminates in the announcement of shortlisted teams progressing to the final stage of the competition.

7. Mentor Scheme

The mentor scheme became one of the most valued aspects of the Engineer Your Fit programme. For many students, access to supportive professionals with diverse career experiences helped make future pathways feel more visible, achievable, and inclusive.

Mentoring was designed not simply as career advice, but as a way of helping students:

- build confidence and professional identity;
- expand networks;
- gain insight into workplace culture;
- explore different career pathways;
- practise professional communication;

A key principle was that mentors did not need to have all the answers. Instead, we looked for people who were approachable, reflective, encouraging, and genuinely interested in supporting students from underrepresented backgrounds.

7.1 Purpose

The mentor scheme aimed to connect students with a diverse network of professionals from engineering, business, innovation, and higher education. Mentors reinforced the relevance of programme content while also acting as visible examples of the many possible routes through engineering and related industries.

For students, mentoring provided:

- encouragement and reassurance;
- exposure to varied career journeys;
- opportunities to discuss challenges and ambitions;
- insight into workplace culture and professional environments;
- practical guidance around careers, entrepreneurship, and leadership.

7.2 Mentor Recruitment

Mentors were recruited through a combination of:

- professional networks;
- LinkedIn outreach;
- recommendations from colleagues;
- alumni and former students;
- industry contacts;
- existing university partnerships.

This approach helped create a mentor community with varied professional backgrounds, career stages, and lived experiences.

Several former students also volunteered to become mentors after seeing the opportunity shared online. These mentors often proved especially relatable for participants because they could speak openly about recent transitions into industry and professional life.

"In addition to being female, I grew up in one of the UK's most deprived areas in South Bristol. To this day I believe that one's socioeconomic background is one of the most difficult barriers to success where self-belief and opportunity can be greatly reduced."

"I'm particularly keen to be involved in diversity and inclusion as I can see room from for improvement in engineering. It is also something that I have a more limited experience of, so would relish the chance to learn more."

What We Looked For in Mentors

We prioritised mentors who demonstrated:

- openness and approachability;
- aligned values around inclusion and student support;
- willingness to encourage and motivate students;
- reflective leadership styles;
- understanding of diverse career experiences;
- interest in innovation and entrepreneurship.

Relevant expertise included:

- entrepreneurship and start-ups;
- engineering consultancy;
- product development;
- project management;
- business development;
- leadership;
- inclusive workplace practice;
- mentoring and coaching experience.

Importantly, mentors did not need to be senior executives, experienced entrepreneurs or be from a minority background. A range of professional experiences and perspectives added value to the mentor community.

Recruitment Process

Prospective mentors received:

- an overview of the programme;
- mentoring expectations and time commitment;
- safeguarding guidance;
- and a link to an Expression of Interest form (Microsoft Form).

The application process helped ensure mentors understood:

- the aims of the programme;
- the student demographic;
- safeguarding responsibilities;
- and the supportive tone of the mentor-mentee relationship.

Applicants were asked to share:

- relevant professional experience;
- mentoring interests;
- availability;
- motivation statement for participating;
- and any relevant lived or workplace experience that may support the cohort.

An online briefing session was held before mentoring began. This introduced:

- programme aims and structure;
- mentoring expectations and boundaries;
- safeguarding considerations;
- communication guidance;
- and approaches to supportive mentoring.

This briefing helped establish a shared understanding of the kind of mentoring culture the programme aimed to create.

Mentor Commitment

Mentors were invited to support the programme in one or more of the following ways:

- one-to-one mentoring;
- networking events;
- competition judging and feedback;
- celebration and showcase events.

The expected minimum mentoring commitment was approximately one meeting per month, either online or in person, from October to April.

Some mentor pairs chose to meet more frequently, while others preferred lighter-touch engagement. Flexibility proved important.

Mentor Benefits

Mentorship was beneficial not only to students, but also to the mentors themselves. Mentors reported benefits including:

- supporting motivated students from diverse backgrounds;
- developing mentoring and coaching skills;
- reflecting on their own professional journeys;
- strengthening university and industry connections;
- networking with other professionals;
- and contributing to more inclusive engineering cultures.

7.3 Matching Mentors & Mentees

Mentor matching was intentionally delayed until students had completed the bootcamp and several workshops. This allowed:

- participant confidence to grow first;
- peer relationships to develop;
- and students to better understand what kind of mentor support they wanted.

Before the first networking event and matching took place, participants attended the mentoring workshop, introducing the purpose of mentoring and expectations of mentor-mentee relationships.

Mentor Profiles

Information from mentor application forms was used to create short online mentor profiles accessible to participants. Providing profiles in advance gave students time to explore the mentor community. Profiles typically included:

- role and organisation;
- areas of expertise;
- professional background;
- mentoring interests;
- LinkedIn profile links;
- and their personal motivation statement.

Matching Process

Students were asked to complete a preference form, on Microsoft Forms, listing all available mentors, indicating their preferences on a scale of 1-10, regardless of whether they had met them in person.

To support informed decisions, students were encouraged to review the mentor profile document and conduct their own research, including exploring mentors' LinkedIn profiles.

As only around half of our mentors were able to attend the initial networking event, this process ensured that every student had equal opportunity to consider the full mentor cohort. All participating mentors were committed to being matched, enabling us to create meaningful and well-aligned partnerships for the programme.

7.4 Running the Mentoring

The expected minimum mentoring commitment was approximately one meeting per month, either online or in person, from October to April. Some mentor pairs met more frequently, while others preferred lighter-touch engagement.

The programme team regularly checked in with students and mentors throughout the year to:

- encourage engagement;
- identify any issues;
- and provide informal support where needed.

Students were encouraged to take ownership of arranging meetings and maintaining communication with their mentor, while mentors acted as guides, sounding boards, and sources of encouragement. Meetings varied depending on the mentor relationship and student needs. Typical discussion topics included:

- career planning;
- confidence and workplace identity;
- entrepreneurship and innovation;
- navigating professional environments;
- placement reflections;
- networking and communication;
- applications and interviews.

Recognising Mentor Contribution

Although mentors volunteered their time on a pro-bono basis, recognising their contribution remained important. At the end of the programme, mentors were thanked through:

- certificates of participation;
- invitations to the final celebration event;
- ongoing programme updates and outcomes;
- opportunities to remain connected with the university community.

These small gestures helped reinforce that mentors were valued partners in the programme rather than simply guest contributors.

7.5 Monitoring & Troubleshooting

Although most mentoring relationships developed positively, ongoing light-touch monitoring remained important. The programme team periodically reminded students to arrange meetings and maintain engagement, particularly during busy academic periods.

Mentors were instructed to notify the Program Manager and signpost students to university support services where appropriate, rather than attempting to provide specialist wellbeing or pastoral support themselves.

Clear expectations from the outset helped create professional, supportive, and appropriate mentoring relationships.

8. Networking Events

(Speed Mentoring Sessions)

The networking events formed an important bridge between the student participant community and the wider mentor network.

For many students, traditional professional networking environments can feel intimidating or inaccessible. Structured networking sessions helped reduce this anxiety by creating supportive, facilitated opportunities to practise professional interaction in a lower-pressure setting.

The events also played an important role in helping students:

- build confidence;
- practise introductions and conversation skills;
- hear diverse career stories and experiences;
- expand professional networks;
- and identify mentors they connected with naturally.

Implementation Insight

Structured networking significantly reduced anxiety for students who lacked confidence in professional settings. Pre-planned table rotations ensured all participants interacted with a broad range of mentors and avoided awkward group dynamics.

8.1 Purpose

The networking events were designed to:

- make professional networking feel more accessible;
- reduce anxiety around speaking with industry professionals;
- encourage confidence and communication skills;
- expose students to diverse career journeys;
- support mentor matching;
- strengthen the wider programme community.

Students consistently reported that hearing honest career stories — including challenges, setbacks, and uncertainty — was one of the most valuable aspects of these events.

The structured format also allowed students to observe and learn from the interactions of their peers, helping to normalise networking and professional discussion.

8.2 Event Format

The first networking event took the form of a structured speed networking session.

Event Structure

The session included:

- four networking rounds;
- 15-minute conversations per round;
- 1–2 mentors per table;
- 1–3 students per group;
- pre-planned table rotations;
- refreshments and informal networking opportunities.

Each round followed a simple format:

- First 5 minutes: introductions and initial conversation;
- Remaining 10 minutes: open discussion guided by student questions and shared interests.

This structure helped conversations feel natural while still giving students enough guidance and confidence to engage.

Why This Worked Well

The format created multiple benefits for participants:

- practising professional introductions;
- developing networking confidence;
- hearing varied career experiences;
- exploring different industries and roles;
- identifying mentor qualities and communication styles that felt supportive;
- reducing anxiety around professional networking.

Students also benefited from hearing the conversations and questions of their peers, which often helped spark additional discussion and reflection. Careful planning of table allocations ensured students interacted with a broad range of mentors throughout the evening.

Practical Delivery Tips

Based on our experience, we recommend:

- assigning networking groups in advance;
- keeping conversations relatively short and informal;
- including refreshments and break periods;
- ensuring the environment feels welcoming rather than highly corporate;
- briefing mentors beforehand about the tone and purpose of the event;
- encouraging students to prepare a few conversation starters in advance.

8.3 Example Agenda

Example Speed Networking Event

17:30	Arrival, refreshments, informal welcome
17:45	Introduction & event briefing
18:00	Networking Round 1
18:20	Networking Round 2
18:35	Refreshment break
18:50	Networking Round 3
19:05	Networking Round 4
19:20	Informal networking & close

"The group networking event was great. Spoke to different people and heard all their different journeys."

8.4 Winter Networking & Quiz Event

A second networking event took place before the winter break.

The "Winter Networking & Quiz" combined:

- additional networking rounds x2 ;
- informal conversations;
- refreshments;
- and a light-hearted quiz activity.

New table plans ensured students interacted with:

- their matched mentor where possible;
- and additional mentors they had not previously spoken with.

The quiz format worked particularly well in reducing hierarchy and encouraging relaxed interaction between students and professionals. Questions included:

- programme themes and topics;
- engineering and innovation;
- light-hearted cultural questions;
- fun multiple-choice rounds.

Small prizes such as chocolates helped keep the atmosphere informal and enjoyable.

The event provided an important midpoint reflection point and helped maintain momentum and connection across the programme community.

9. Competition – Business Concept Pitch

The competition provided participants with an opportunity to apply and showcase the entrepreneurial, leadership, and communication skills developed throughout the programme.

Importantly, the competition was designed to feel supportive, developmental, and achievable rather than highly commercial or intimidating. The aim was not to produce fully developed start-ups or polished investment-ready businesses. Instead, the competition encouraged students to explore ideas creatively, think critically about real-world problems, and gain confidence presenting their thinking to others.

For most of the participants, this was the first time they had publicly shared an idea, pitched to professionals, or considered themselves capable of innovation and entrepreneurship.

The competition became one of the most energising parts of the programme and helped reinforce a sense of possibility, confidence, and achievement.

Implementation Insight

Many students initially assumed entrepreneurship competitions were only for highly polished business ideas or technically advanced prototypes. Repeatedly reinforcing that the competition welcomed early-stage ideas and creative thinking significantly increased participation and confidence.

9.1 Aim

The competition aimed to encourage ideas with the potential to address real-world challenges through engineering, design, innovation, and socially conscious leadership.

Participants were encouraged to develop ideas that:

- solved problems;
- responded to social or environmental challenges;
- demonstrated customer or market awareness;
- reflected inclusive and sustainable thinking;
- and explored how engineering and entrepreneurship could create positive impact.

It was not designed to reward only the “best business idea” or most technically advanced concept.

Instead, equal importance was placed on:

- clarity of thinking;
- evidence of problem understanding;
- communication skills;
- reflection;
- and the ability to explain an idea persuasively.

9.2 Competition Sponsorship

The competition prize fund was supported through the Engineers and Science in Business Fellowship (ESBF) Engineers in Business Competition Fund. esbf.org.uk/university-competitions

The availability of meaningful cash prizes added excitement, legitimacy, and motivation for participants. However, the wider educational and developmental value of the competition remained the priority.

While the ESBF funding enabled us to offer substantial prizes, meaningful competition experiences can still be delivered with smaller budgets. Certificates, vouchers, books, sponsored prizes, or development opportunities can all work well in encouraging participation and celebrating achievement.

“This is my favourite part of the programme!! The competitiveness aspect makes the learning experience richer.”

9.3 Competition Structure

The competition ran alongside the programme from approximately November to April.

Participation was optional rather than compulsory. This helped maintain a supportive atmosphere and ensured students entered because they genuinely wanted to explore an idea. The benefits of both participating and watching the pitches was emphasised.

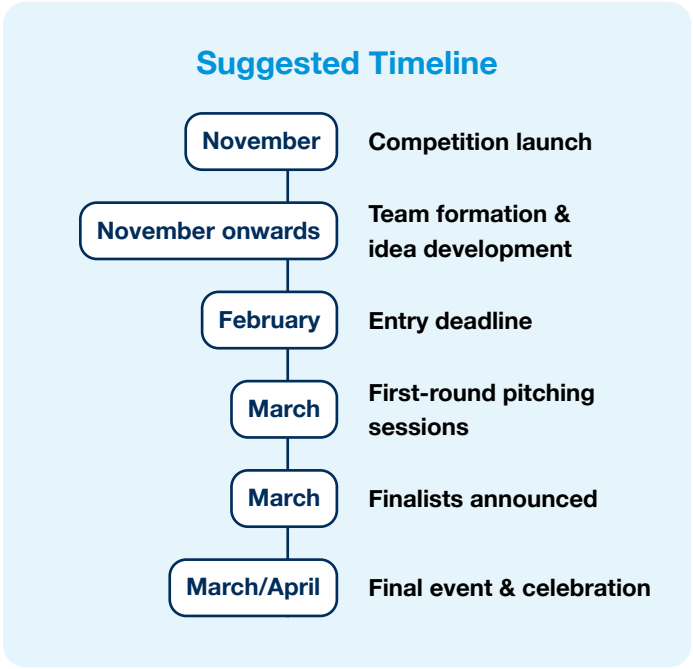
Students were much more willing to participate when the competition was framed as developmental rather than high stakes, and a celebration of learning rather than a test of commercial success.

Participants could enter:

- individually;
- or in teams of up to five people.

Students developed ideas independently in their own time and were encouraged to seek support from:

- mentors;
- peers;
- academics;
- and workshop facilitators.



Competition Journey

The competition included:

1. Competition launch;

2. Idea development period;

3. Initial entry submission;

4. First-round pitching sessions;

5. Shortlisting;

6. Final pitching event and celebration.

Because of time constraints and participant numbers, the first-round pitches were delivered across two evenings. From these rounds, four finalists were selected to progress to the final showcase event.

Entry Requirements

To enter the competition:

- all participants had to be members of the EngineerYourFit programme;
- entries could be individual or team-based;
- teams could contain up to five members;

Participants submitted:

- a project title;
- names of participants;
- and a short summary describing:
  - the problem being addressed;
  - the proposed innovation;
  - and the intended audience or customer need.

9.4 Judging Process & Pitch Format

Pitch Format

Participants delivered:

- a 5 minute pitch presentation;
- followed by a short question-and-answer session.

Students could use slides or visual aids if they wished, although these were not mandatory.

The atmosphere was intentionally designed to feel:

- professional;
- encouraging;
- and psychologically safe.

Judges were briefed beforehand about the aims and ethos of the programme and encouraged to provide constructive, supportive feedback.

Judging Panel

Panels typically included:

- 3–4 judges;
- a mix of genders and professional backgrounds;
- mentors, visiting entrepreneurs or academics.

Having four judges provided flexibility in case of last-minute absence while still ensuring a balanced panel.

Judging Criteria

Judging recognised the limited time participants had available to develop ideas and the early-stage nature of the concepts. Participants were not expected to conduct full market validation, build prototypes, or produce detailed business plans.

Judging focused on a balanced range of areas including:

Clarity of Business Concept

- Clear explanation of the product, service, or innovation.

Market Understanding

- Awareness of audience, customer need, or market opportunity.

Feasibility & Viability

- Some evidence that the idea could realistically work or develop further.

Social & Environmental Impact

- Consideration of wider impact and responsible innovation.

Execution Plan

- Awareness of possible next steps or future development.

Presentation Skills

- Confidence, clarity, and communication style.

Q&A Session

- Ability to respond thoughtfully to questions.

Feedback Process and Shortlisting

Judges completed simple scoring and comment sheets using a 1–5 scale for each category. The process was intentionally light-touch rather than overly technical or scientific. Written feedback from judges was summarised and shared with participants following the initial rounds.

Programme organisers used the judging feedback collectively to determine the final shortlisted entries.

9.5 Final Event, Awards & Celebration

The final event acted as both:

- the conclusion of the competition;
- and a celebration of the wider programme.

The atmosphere was designed to feel professional, celebratory, and welcoming.

The evening typically included:

- finalist pitches;
- networking;
- refreshments;
- guest speakers;
- judge deliberation;
- and the awards presentation.

Awards

The competition prize fund totalled £3,000:

- First Prize: £1,000
- Runner-Up Prizes (x3): £650

The first-prize winning team also had the opportunity to receive additional mentoring support through the Engineers in Business Fellowship network. Importantly, prize funding came with no restrictions on how students used the money.

Photographs, certificates, refreshments, and informal networking all helped create a positive and memorable conclusion to the programme.

Example Final Event Structure

17:00	**Arrival & refreshments**
17:15	**Welcome**
17:30	**Finalist pitches**
	Judges deliberation
18:30	**Networking & refreshments**
19:15	**Guest speaker & judges' feedback**
19:30	**Winner announcement**
19:45	**Closing remarks**

"It's not everyday that you get the opportunity to pitch an idea and listen to other ideas in front of such an engaged, supportive group. It's been an amazing chance to learn. Thank you again for creating this brilliant opportunity."

10. Evaluation & Learning

Evaluation was embedded throughout the programme to help us understand participant experience, measure confidence and knowledge gains, and identify where the programme had the greatest impact.

Our approach combined quantitative and qualitative feedback, capturing measurable outcomes alongside personal reflections from participants.

"I think every week has been useful. We covered areas that focus on product design, business models, registering your business and public speaking skills. it was a well-rounded program"

10.1 Evaluation Approach

Participants completed surveys at the beginning and end of the programme.

These explored changes in:

- career aspirations and future plans;
- confidence in professional settings;
- understanding of entrepreneurship;
- understanding of inclusive leadership;
- sense of belonging within engineering;
- confidence in networking, communication, and presenting ideas.

Participants were also invited to reflect on key transition points, including their expectations before university, experiences following placements or internships, and how their thinking developed during the programme.

Responses were gathered using a 1–10 scale, with higher scores indicating increased confidence, knowledge, or capability.

Alongside this, participants shared open-text reflections in their own words. These comments provided some of the richest insight into the programme's impact.

Additional feedback was gathered specifically on:

- the mentoring scheme;
- and the business ideas competition.

10.2 Selected Findings From Year One

The first year of Engineer Your Fit (2023/24) generated a very positive response from participants, with the majority indicating that they would recommend the programme to other students.

Would you recommend this programme to other students?

As with any extracurricular programme, changes in attitudes, confidence and aspirations cannot be attributed solely to participation in Engineer Your Fit. Students were also influenced by placements, academic study, personal experiences and wider university opportunities. However, the evaluation data suggests that the programme made a meaningful contribution to participants' development and helped create space for reflection, confidence-building and career exploration.

Career Aspirations

One area explored throughout the programme was how participants viewed their future career options.

The chart below illustrates responses to the question:

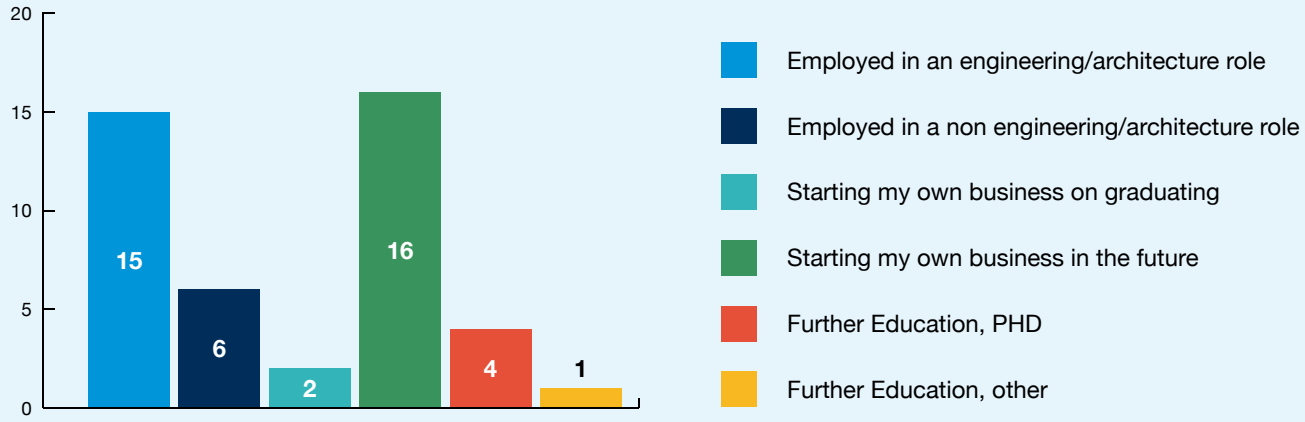
“Where do you see yourself after graduation?”

Responses were collected at multiple points across the year, allowing us to observe how aspirations evolved over time.

While many participants consistently saw themselves pursuing careers within engineering and related sectors, the data also showed growing interest in entrepreneurship and business creation. By the end of the programme, more students indicated that they could envisage starting a business at some point in their career.

This was particularly encouraging given that many participants initially viewed entrepreneurship as something undertaken by “other people” rather than a realistic option for themselves.

Where do you see yourself after graduation?



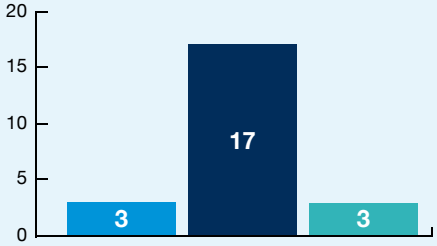
Confidence and Inclusive Leadership

Participants were also asked to rate their confidence in their own abilities and their understanding of inclusive leadership principles.

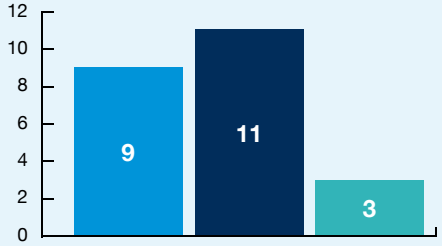
Across the cohort, average scores increased between the start and end of the programme. The most notable increases were seen in participants’ understanding of inclusive leadership and their confidence in their individual qualities and abilities.

While confidence naturally develops through many experiences during university, participant reflections suggested that mentoring, networking opportunities, workshop discussions and the supportive peer environment all contributed positively to this growth.

How confident are you in your individual qualities and abilities?



How would you rate your understanding of inclusive leadership principles?



Participant Reflections

The quantitative data was supported by participant feedback, which frequently referenced:

- increased confidence;
- greater willingness to speak up and contribute;
- stronger professional networks;
- improved understanding of entrepreneurship;
- increased awareness of different career pathways;
- a greater sense of belonging within engineering.

Several participants described the programme as helping them recognise strengths they had not previously acknowledged and encouraging them to pursue opportunities they may otherwise have overlooked.

"Attending this programme has benefitted me holistically. Learning entrepreneurial skills such as how to present, build a team, have a diverse team, etc. has positively impacted how I think. What once seemed like a distant dream of becoming an entrepreneur is now a clear path with actionable steps forward."

"Although I myself am not pursuing a Ph.D., the course exposed me to continuing education possibilities. It provided a nuanced understanding of what pursuing further studies entails and allowed me to assess whether it aligns with my future aspirations."

10.3 Attendance & Engagement

Attendance was monitored throughout the programme as one measure of engagement.

Participants were asked to attend at least 80% of sessions to complete the programme. Sign-in was recorded at each workshop and event, with attendance reviewed at the end.

Participants were encouraged to send apologies if unable to attend. Absences due to health, workload, interviews, or other unavoidable commitments were treated with flexibility and understanding.

As an extracurricular programme, we recognised students were balancing academic deadlines, part-time work, personal responsibilities, wellbeing, and wider university commitments.

Maintaining a supportive and welcoming tone was central to the programme. We wanted participants to feel committed and accountable while recognising that studies and wellbeing had to remain the priority.

"This program has personally helped me to understand the fundamentals of startups and how to start my own business. I also learned how to think critically and inclusively to make my future work place a better space for my future employees."

10.4 Reflections & Key Learning

Evaluation showed that the programme supported growth across many areas beyond academic development.

Participants frequently reported increased:

- self-confidence;
- clarity about future career options;
- willingness to speak up and contribute;
- understanding of entrepreneurship;
- confidence in networking;
- and belief in their own potential.

One team, Filterra, progressed beyond the programme and later achieved second place nationally in the ESBF Champion of Champions competition.

While this represents a particularly visible success story, one of the most significant outcomes of the programme was the growth in confidence, aspiration and sense of possibility reported by participants across the cohort.

Our experience suggests that entrepreneurship, mentoring and inclusive leadership can provide powerful vehicles for developing confidence, agency, professional identity and career readiness within engineering education.

11. Adapting the Model to Your Institution

A key aim of sharing this programme is to show that impactful, confidence-building entrepreneurial leadership experiences can be created in many institutional settings.

You do not need:

- a large budget;
- a dedicated enterprise school;
- specialist entrepreneurship staff;
- or extensive infrastructure.

What matters most is creating the right environment—one that is:

- supportive;
- inclusive;
- practical;
- collaborative;
- and student-centred.

Many of the most valuable elements can be delivered using expertise already available within your institution or wider network, including:

- careers teams;
- enterprise colleagues;
- academics;
- alumni;
- mentors;
- industry partners;

Often the strongest contributors were those already connected to the institution and willing to support because they believed in the aims of the programme.

The model can be adapted to suit local context. Areas that can flex include:

- cohort size;
- number of workshops;
- programme length;
- mentoring format;
- competition structure;
- prize budget;
- guest speakers;
- and in-person or hybrid delivery.

Final Reflection

The Diversity and Inclusion Engineer Your Fit programme demonstrates that supporting underrepresented students is not simply a matter of widening participation—it is about transforming the opportunities available to talented individuals who have too often been excluded from shaping the future of engineering and design. By creating a space where students can develop entrepreneurial thinking, build confidence, access meaningful mentorship, and see their identities and experiences reflected as strengths rather than barriers, the programme empowers participants to redefine what success in engineering and design can look like.

The significance of this work extends far beyond the individual students who take part. Engineering faces urgent challenges in attracting, retaining, and enabling diverse talent to flourish. Traditional career pathways do not work equally well for everyone, and many capable graduates leave the profession because they struggle to see a place where they can thrive authentically. This programme has proven to offer a practical and evidence-based alternative. It equips students with the confidence, networks, leadership skills, and entrepreneurial mindset needed not only to navigate existing systems, but also to challenge and improve them. In doing so, it helps create future engineers who are more innovative, more resilient, and better equipped to respond to the complex needs of society.

If adopted nationally, the impact could be transformative. Universities across the UK would have access to a proven, adaptable model that can be delivered using existing institutional infrastructure while responding to local needs. A national network of programmes would create new pathways into entrepreneurship, leadership, research, and industry for thousands of students from underrepresented backgrounds. Over time, this would contribute to a more diverse engineering workforce, a stronger culture of belonging within higher education, and a profession that better reflects and serves the communities it seeks to support.

Ultimately, the programme is about more than careers. It is about unlocking potential that might otherwise be overlooked, ensuring that talent is not lost because of background, circumstance, or lack of opportunity. By helping students discover their unique fit within engineering, we are creating the conditions for a more inclusive profession, richer innovation, and a stronger future for engineering and architecture in the United Kingdom. The legacy of this work will not only be measured by the number of students reached, but by the generations of engineers, leaders, entrepreneurs, and changemakers who will go on to influence the profession for years to come.

Engineer Your Fit – Credits

The Program was co-led by:

- **Despina Moschou** – Associate Dean for Community, Culture and Inclusion and Principal Investigator
- **Joanne Pike** – Programme Manager

With thanks to the colleagues and contributors who helped shape and deliver the programme:

- **Tim Ibell** – Dean of the Faculty of Engineering & Design
- **Davide Mattia** – Professor of Chemical Engineering
- **Leen Jabban** – Lecturer in Electronic and Electrical Engineering
- **Sanjae King** – Postgraduate Researcher, Founder of Black Engineering Society
- **Dawn Bonfield MBE FREng** – Professor of Practice Engineering for Sustainable Development, KCL
- **Georgina Brown** – BARDO Inclusive – Inclusion and Organisational Development Consultants www.bardoinclusive.com
- **Tinashe Verhaeghe** – EDI Consultant
- **ESBF** – University Competition Prize Funds
- With support from **The Royal Academy of Engineering**: **Diversity Impact Programme** which is funded by **DSIT**

Appendix

Bootcamps

5.4 Bootcamp Day One: Content Summary.pdf

5.5 Bootcamp Day Two Entrepreneurship and Engineering.pdf

Workshops

6.1 Customer-Centric Product Design Workshop.pdf

6.2 Pitching yourself without shrinking yourself workshop content summary.pdf

6.3 Factivism.pdf

6.4 Business Models.pdf

6.5 Getting the Most out of Mentoring.pdf

6.6 Meet the Mentor Event.pdf

6.8 Inclusive workplace culture workshop content summary

6.11 Deliver a Winning Pitch.pdf

6.14 Business Essentials Part One.pdf

6.15 Business Essentials Part Two.pdf

Application, guidelines and practice

Engineer Your Fit student application form.pdf

Engineer Your Fit competition guidelinespdf

6.16 Reflective practice.pdf