Bristol Composites Institute Strategy 2030

Our mission is to be a world leading institute for composites research and education, addressing the overarching grand challenges of sustainability and Net-Zero. We combine cutting edge fundamental and applied science with strong industrial links for exploitation and technology transfer, to deliver inherently sustainable composites solutions for the benefit of society and the global community.

Our aims:

- Research excellence, through:
    - Fundamental and applied research
    - Positive and inspirational Leadership
    - National and international partnerships
    - Funding from a diverse range of sources
    - Cooperative, equitable and inclusive culture
- Impact, through:
    - Working with industry and global partners
    - Wide dissemination and publicity
- Education excellence, through:
    - Research inspired teaching
    - Innovative curricula and course content
    - Supporting the growth of talent and empowering student development

Our aims will be realised through the implementation of the mechanisms identified below.

Leadership

- **Internal:** The Bristol Composites Institute (BCI) will provide effective leadership through its Directorship and the Institute management team who will enact continuous improvement and pledge to deliver the aims of the Institute in allyship with its members.
- **External:** As a world-renowned research centre BCI aims to be a thought leader within the wider composites discipline, with a strong commitment to setting the agenda and direction for future research. To deliver this, BCI will work in partnership with its industry advisory board and wide partnership networks in industry, academia and policy makers.

Research & Impact

BCI embraces a wide range of research topics, from ground-breaking fundamental science to applied topics of direct industrial relevance and significance with a strong commitment to address the global challenges of climate crisis, scarcity of resources and pollution, in line with the University's strategy. In particular, BCI will conduct frontline research in sustainable composites engineering, lightweight structures, digital innovations, natural materials and recycling.

BCI will nurture a professional culture of working with industry and active encouragement of entrepreneurial activity at all levels. Impact development is an integral part of the BCI ethos, and impact activities will be actively followed and supported.

Education

BCI is committed to delivering world class training and education programmes in sustainable composites engineering at undergraduate and postgraduate levels, including an internationally leading MSc course, and PhD and EngD training at the highest levels.

BCI draws inspiration from its state-of-the art research and extensive knowledge base to provide a first-class education in composite materials and their applications. It is an enthusiastic environment that aims to lead on education topics in composites discovery, design, manufacturing, digital transformation, sustainability and end of life, as well as their technological applications. By making use of extensive network and collaborative partnerships across sectors and applications, BCI will meet the current and evolving training needs of the composites industry. We will incorporate sustainability and NetZero into our teaching.

Collaborations and Partnerships

BCI will create and sustain collaborations and partnerships to further its strategic aims: -

- Building strategic partnerships based on research strength and impact, BCI aspires to increase its interactions with national and international academic institutions and explore opportunities for collaboration, joint funding and secondment of staff and students.
- The **National Composites Centre (NCC)** is a key partner and collaborator to BCI. Through jointly appointed staff and combining capabilities and knowledge to deliver solutions, we will grow the relationship between BCI and NCC. BCI strives to develop strong collaborative relationships with **key national stakeholders** including the UK High Value Manufacturing Catapult (HVMC) centres, RTOs, the Henry Royce Institute, and is open to developing strategic partnerships.
- BCI aims to open a dialogue with more **local companies**, whilst maintaining and growing links with **national and international industry partners**. We aim to diversify the industry sectors we engage with, adding to our already strong collaborations with the aerospace sector.
- We will increase our **internal University of Bristol interactions** and endeavour to make new partnerships with researchers in a wide number of disciplines across the Schools and Faculties.

Funding

Members of the BCI will have a keen awareness of the national and international funding landscape, being able to respond agilely and creatively to emerging priorities and calls. BCI will strive to secure research funding from diverse sources across sectors and applications through national public and international funding schemes as well as industry. BCI will actively encourage researchers to apply for grants, including individual fellowships and will work positively with all available mechanisms of support.

Dissemination

Communication and dissemination of research is actively encouraged and supported. We have a strong commitment to outreach and dissemination of our research through appropriate events and opportunities.

Culture

BCI aims to create a supportive and friendly community where members feel valued and respected.

- BCI researchers are given time and space to develop their research ideas, and professional development is a focus at all stages of careers.
- BCI strives to nurture a culture of support from more experienced members through mentoring and effective leadership with diverse representation and relatable role models throughout the Institute.
- Education and awareness of EDI (Equity, Diversity & Inclusion) are core values in BCI, and institute members should feel the Institute is a safe space in which to work and study.
- The BCI management is open to constructive criticism and encourages open dialogue to enact improvements.