

Welcome to the Bristol Composites Institute Postgraduate Research and Training Showcase 2021

Tuesday 13th April 2021

Welcome and Introduction

CDT Director: Professor Steve
Eichhorn

CDT vision and evolution

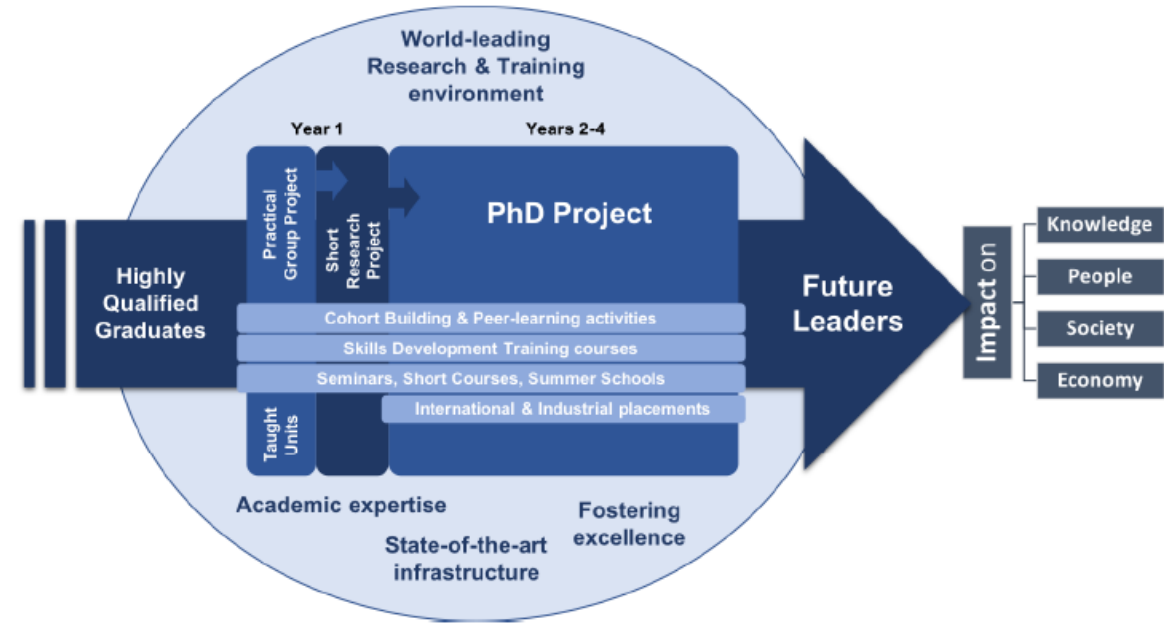
To develop highly talented science and engineering graduates by giving them the technical toolsets and the multidisciplinary research and professional skills required to become the next generation of technology leaders in the science, engineering, and manufacture of advanced composite materials

- Established in 2019 with £6.3m award from the EPSRC
- Training outstanding graduates until 2028
- Embedded within the Bristol Composites Institute (ACCIS)
- Funded by EPSRC, University and industrial partners
- Significant industrial support
- National and international academic collaborations
- Evolved from two previous composites CDTs spanning 2009-2022



What we offer

- 4-Year PhD in Advanced Composites
- At least 10 funded places per year
- Cohort-driven training approach
- Transferable skills training
- International and industrial placements
- Public engagement
- Integrated taught component:
 - Small group teaching
 - Hands-on laboratory work, including flagship group design, build and test (DBT) project
 - Individual 3-month exploratory research project
- Wide choice of cutting-edge PhD projects – blue skies and applied



Management team



Prof. Steve
Eichhorn

CDT Director



Prof. Ian
Hamerton

Deputy Director



Dr Alberto
Pirrera

Deputy Director



Keri Montague
Industry
Engagement
Manager



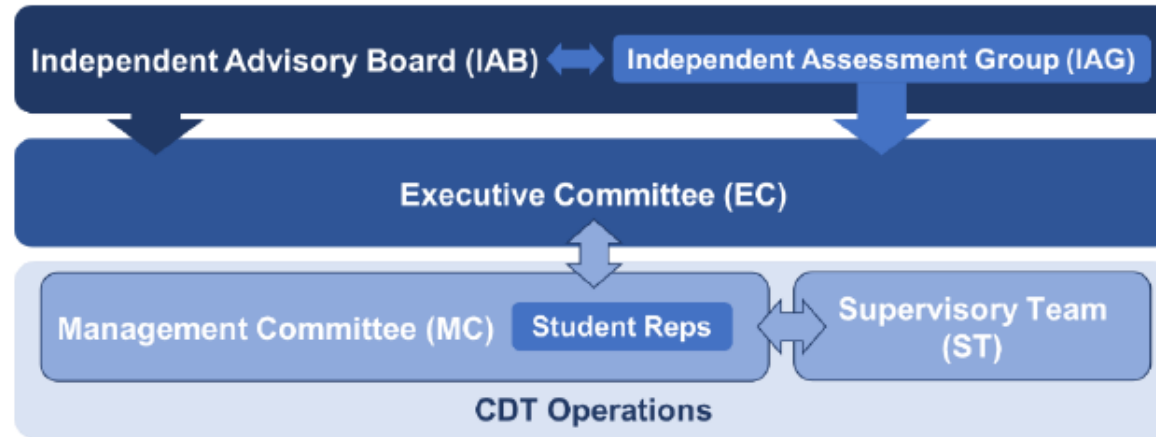
Sarah Hallworth and Briony
Spraggon

CDT Manager (job share)



Cat Gilmour and Kat Watts

CDT Administrator (job share)



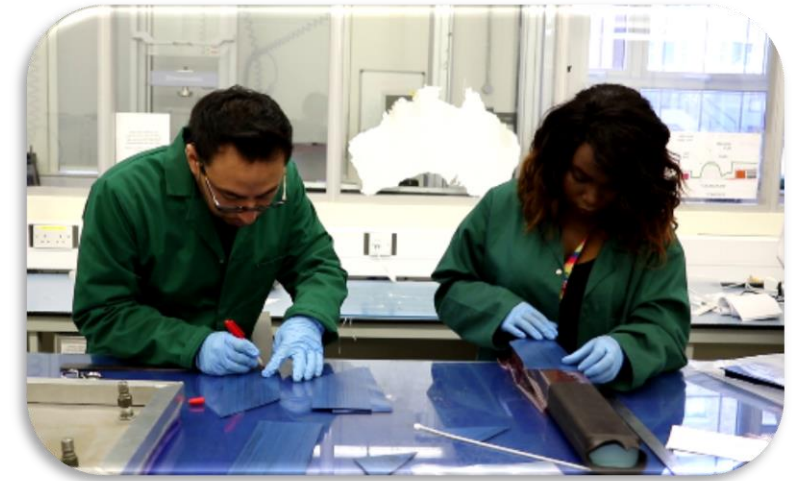
Our cohorts

- First two intakes in 2019 and 2020
- 21 core students, plus 2 aligned students
- Diverse backgrounds in engineering (chemical, computer systems, aerospace, mechanical) and science (chemistry, physics materials)
- UK, EU and international



Taught component

- 12 months / 180 credit points
- Tailored to academic background
- Additional support for non-engineers
- Wide range of topics comprising:
 - **Core** composites units
 - e.g. Mechanics of Composite Materials, Advanced Composite Materials
 - **Broadening** units
 - e.g. Sustainable Composite Material, Smart Materials, Nature's Materials
 - **Deepening** units
 - e.g. Advanced Composites Analysis, Composite Product Development
- 3-month Research Project from June-September (60 cps)
- Adapted for online delivery from March 2020 due to the Covid-19 pandemic



Research component

3-Month Research Project June-September of Year 1

- Projects sought from wide-ranging research interests of BCI and our external industrial / academic collaborators
- Can develop into a PhD project

PhD Project Years 2-4

- Projects chosen towards the end of Year 1
- £7k personal PhD project budget (conference travel etc)
- International Placement Scheme



Read project summaries on the website at:

bristol.ac.uk/composites/cdt/research-projects/

Collaborators

- Airbus
- CHOMARAT
- Centre for Process Innovation
- ELG Carbon Fibre
- FiberLean Technologies
- GKN
- Heraeus Holdings GmbH
- Hexcel
- INSA
- National Composites Centre
- ORE Catapult
- Oxford Space Systems
- QinetiQ
- Rolls-Royce
- Solvay
- Vestas
- Victrex
- Deakin University
- Harvard University
- Hong Kong University of Science and Tech
- Lulea University of Technology
- Massachusetts Institute of Technology
- Nantes University
- RMIT University
- Technical University of Dresden
- Texas A and M University
- University of British Columbia
- University of Delaware
- University of Leuven
- University of Michigan
- University of Nottingham
- Zhejiang University

- Placements
- Site visits
- Short courses
- Student-run industrial seminar series
 - iCOMAT, Solvay, NCC, ATI
- Industry sponsored prizes
 - Best taught mark (ORE Catapult)
 - 2020 joint winners: Chantal Lewis & Chris Grace
 - Best 3-month project (Hexcel)
 - 2020 winner: Calum McInnes
 - PhD project sponsorship
 - Rolls Royce, Solvay, ORE Catapult, ELG-Carbon Fibre

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