



Digital Aviation Research
and Technology Centre

Addressing the digital aviation challenge



Cranfield IVHM Centre



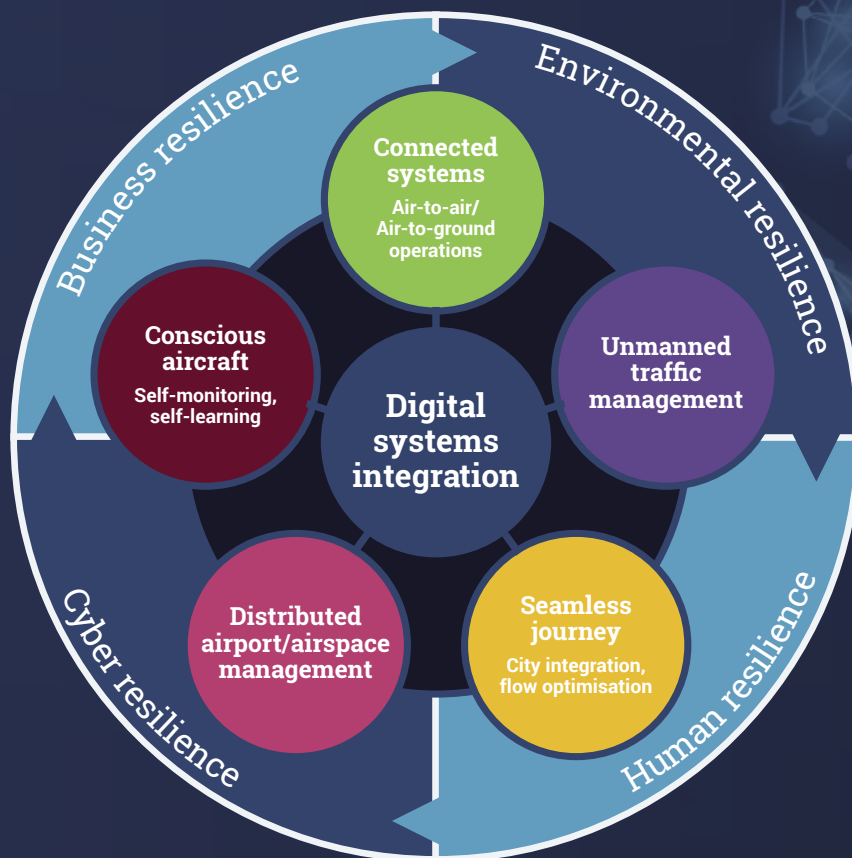
DARTeC at Cranfield University

The new Digital Aviation Research and Technology Centre (DARTeC), located at Cranfield University, the number one university in Europe for aerospace, is a world-class centre for the research and development of cross-sector digital integration solutions.

DARTeC, co-funded by Research England, an industry consortium of leading aviation organisations and Cranfield University, is a £67 million investment in state-of-the-art facilities that will leverage both the University's airport and its newly opened autonomous vehicle research facility.

Opening in 2020, DARTeC will initially focus on five primary research challenges, within a resilience framework, that individually have direct relevance to the digital agenda and collectively provide the opportunity to explore and address systems integration challenges through advances in technology, intelligence, regulatory frameworks and business models:

DARTeC research challenges



The research challenges are generally well understood individually. DARTeC, however, provides the opportunity to address them simultaneously and within a collaborative research and technology environment.

Opening 2020

DARTeC will provide an entirely new digital research environment, which is protected from, and yet accessible to an operational airport, allowing research at a variety of technology readiness levels.

The DARTeC facility will consist of a central building containing advanced digital research laboratories that will focus on delivering the DARTeC research challenges within the resilience framework. Adjacent to the building will be a 'hangar laboratory' capable of housing a 737-400 aircraft and enabling next generation maintenance, repair and overhaul (MRO) experimentation. The building will be digitally connected to Cranfield's airport and airspace management systems including the Digital Air Traffic Control Centre and multiple advanced radar systems. Airborne digital communications research will be undertaken using the University's flying laboratory.



The Digital Aviation Research and Technology Centre is a unique opportunity to bring together sector leads from across the aviation industry (airspace management, airport, airline and aircraft) within a collaborative research environment to create, experiment and challenge the digital status quo through accelerating digital systems integration.

Joining DARTeC

Cranfield and the current DARTeC industry consortium are welcoming applications from third parties to join the emerging DARTeC community. A tiered membership structure has been established that allows stakeholders from all parts of the sector and beyond to fully engage with the opportunity that DARTeC provides:

DARTeC consortium members (co-investment required)

With a seat on the DARTeC board, full DARTeC members are offered a presence at the facility and are able to be fully involved in DARTeC research projects and participate in networking, plus all DARTeC technical and marketing events.

DARTeC consortium associate members (SMEs and funded start-ups)

Associate members will be able to participate in relevant DARTeC projects as full project partners to develop, validate or exploit their expertise and participate in appropriate DARTeC technical and marketing events.

DARTeC consortium strategic observers (regulatory authorities, trade associations and academic organisations)

Strategic observers will have an influential presence on the DARTeC board, participating in the discussions of the board providing guidance and advice as appropriate. Strategic observers will also have the option to participate in DARTeC projects.

Further details

Professor Graham Braithwaite FRAeS FCILT FISASI
Director, Transport Systems
Professor of Safety and Accident Investigation
Cranfield University
E: g.r.braithwaite@cranfield.ac.uk

Dr Adrian Cole CEng FIMechE
DARTeC Launch Manager
Cranfield University
E: a.c.cole@cranfield.ac.uk

www.cranfield.ac.uk/dartec

Cranfield University
Cranfield
MK43 0AL, UK
T: +44 (0)1234 758540
www.cranfield.ac.uk

