



## WELCOME

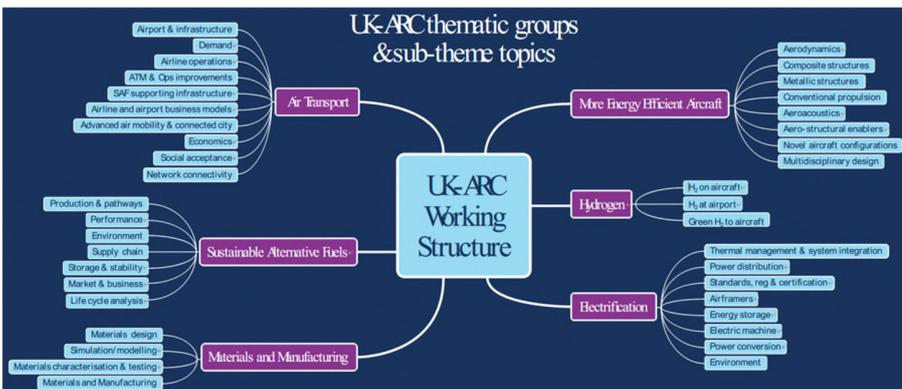
*After the success of UK-ARCs presence at FI22, we are building on connections made and increasing profile with UK and international stakeholders. Our presence in the R & D Zone alongside consortium members, the University of Nottingham, and Cranfield University and also the ATI attracted significant attention and demonstrated appetite for exploiting low TRL research. As our research theme narratives and new proposals develop, we are expanding discussions with new universities, government and the aviation sector. As announced at the FI22, this includes being instrumental in forming the Strategic Aerospace Research Forum with the AGP to strengthen research planning and exploitation for sector advancement.*

## NEWS & EVENTS

The UK-ARC backdrop image on our stand at FI22 became a great conversation opener. It was a focal point for discussion, explanations, and talking through consortium ambitions and working structure. Consortium research work was show-cased and member capabilities highlighted to those looking to exploit low TRL research. Thanks to those who kindly gave up their time to promote UK-ARC.



DfT Minister Robert Courts visited the stand on Day 1 and supported UK-ARC theme work to define research needs. He recognized that much of the UK-ARC focus was closely aligned with the government's Jet Zero Council ambitions. Of particular interest was the UK-ARC working structure of research areas being addressed by theme groups.



During the show, we talked with nearly 400 visitors including the engineers of tomorrow during the Day 5 focus on future skills and talent. We have followed up with all visitors and encourage you to build upon our discussions so that the research activity of UK-ARC universities can be supported and pulled through by the sector.





## STRATEGY & POLICY



The UK-ARC welcomes the Jet Zero strategy launched at Farnborough 2022. The [Jet Zero report](#) acknowledges that finding solutions to the decarbonization of aviation challenge is a partnership endeavor between government industry and academia. University experts, now part of the Delivery Groups on SAF and ZEF, bring research insights and provide a conduit to the broad academic base. UK-ARC theme groups shown on the previous page, which fit well with the Jet Zero Council structure, are baselining research knowledge to identify the research needed to accelerate solutions. Finding the optimum technology and fuels pathways requires a broad knowledge base which UK-ARC is committed to enabling through a growing community of universities and also by working closer with the sector. The Strategic Aerospace Research Forum (SARF) aims to align agendas, improve government, and sector familiarity with emerging research work. A good example of where bridging communities is needed is on non-CO<sub>2</sub> aviation emissions impacts.

## UNIVERSITY NEWS

UK-ARC member, the University of Manchester is part of the H<sub>2</sub>GEAR project team that is unlocking the potential to use hydrogen-electric propulsion for commercial aviation. Project lead GKN Aerospace announced at Farnborough that research knowledge gained through H<sub>2</sub>GEAR on development of the hyperconducting network and cryogenic motor technology suggests that scaling hydrogen-electric propulsion beyond regional aircraft may be possible. These exciting research findings fit well with the UK-ARC hydrogen theme goal to mobilise academic expertise. Find out more about the H<sub>2</sub>GEAR developments [here](#).



Cranfield academics Bobby Sethi, Peri Pilidis and Devaiah Nalianda are presenting at an ISABE (International Society for air Breathing engines) Greening Aviation conference in Ottawa in September. The conference is held in association with CNRC Canada and the Royal Aeronautical Society. Addressing hydrogen combustion, low NO<sub>x</sub> and system level decarbonisation, the event showcases latest research thinking. The event is open for participation and details can be found [here](#).



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