

## NEWS RELEASE

### UK Consortium Launches Project to Propel Next Generation of Electric Aircraft

- The consortium will develop a next generation, integrated propulsion module with zero tailpipe emissions to enhance aircraft performance, while reducing operating costs
- The propulsion module will help meet the Government's commitment to achieve zero carbon and noise reduced transportation by 2050
- Support and co-funding from The Aerospace Technology Institute and Innovate UK will help develop new UK based skills and electrified propulsion technology to help galvanise the global Advanced Air Mobility market sector.

Blue Bear Systems Research, a UK Small to Medium Enterprise in Bedford, has formed a seven-strong consortium to develop a next generation, all electric, propulsion module to enhance aircraft performance while reducing operating costs. The propulsion module is a scalable design and is the first in a range of products that can be used for aircraft less than 5 tonnes in the near term.

The project - **Integrated Flight Control, Energy Storage and Propulsion Technologies for Electric Aircraft (InCEPTion)** - is supported and co-funded by the UK's Aerospace Technology Institute and Innovate UK and has just been launched this January. The 24-month project will deliver a highly power-dense, quiet and efficient propulsion module with zero tailpipe emissions.

Yoge Patel, CEO of Blue Bear, said: "The future electrification of aircraft propulsion will have a significant positive environmental effect, helping to reduce emissions and lower the carbon footprint of aviation. The InCEPTion consortiums propulsion module will bring game-changing technology to manned and unmanned aviation, delivering unrivalled performance and value in this newly emerging sector."

The propulsion module will be inherently scalable, enabling different combinations of the same module to power multiple aircraft concepts, such as large cargo drones, electric vertical take-off and landing (eVTOL), general aviation aircraft and sub-regional aircraft. This will enable a broad range of new mobility services across the UK, from large cargo delivery to regional commuting.



Pictured: **Integrated Propulsion Module**

Unmanned aerial systems (UAS) specialist, Blue Bear Systems Research, will lead a consortium of innovation partners from industry and academia, which includes:

- Dowty Propellers
- Electrified powertrain specialists, Drive System Design
- Electrified propulsion systems and thermal management, Ricardo
- Materials specialists, M&I Materials
- University of Cambridge's Whittle Laboratory
- University of Salford's Acoustics Research Centre

The project will develop skills, tools and infrastructure for the consortium and its UK supply chain. It will result in new capability development and the expansion of electric, zero-carbon propulsion systems.

**-Ends-**

#### **Notes to Editors:**

1. The project is supported by the **ATI Programme**, a joint Government and industry investment to maintain and grow the UK's competitive position in civil aerospace design and manufacture. The programme, delivered through a partnership between the Aerospace Technology Institute (ATI), Department for Business, Energy & Industrial Strategy (BEIS) and Innovate UK, addresses technology, capability and supply chain challenges.
2. **The Aerospace Technology Institute (ATI)** - promotes transformative technology in air transport and supports the funding of world-class research and development through the multi-billion-pound joint government-industry programme. The ATI stimulates industry-led R&D projects to secure jobs, maintain skills and deliver economic benefits across the UK. Setting a technology strategy that builds on the UK's strengths and responds to the challenges faced by the UK civil aerospace sector; ATI provides a roadmap of the innovation necessary to keep the UK competitive in the global aerospace market and complements the broader strategy for the sector created by the Aerospace Growth Partnership (AGP). The ATI provides strategic oversight of the R&T pipeline and portfolio. It delivers the strategic assessment of project proposals and provides funding recommendations to BEIS.
3. **Department for Business, Energy and Industrial Strategy (BEIS)** - is the government department accountable for the ATI Programme. As the budget holder for the programme, BEIS, is accountable for the final decision regarding projects to progress and fund with Government resources, as well as performing Value for Money (VfM) assessment on all project proposals, one of the 3 ATI Programme assessment streams.
4. **Innovate UK** - Innovate UK is the funding agency for the ATI Programme. It delivers the competitions process including independent assessment of project proposals and provides funding recommendations to BEIS. Following funding award, Innovate UK manages the programme, from contracting projects, through to completion. Innovate UK is part of UK Research and Innovation (UKRI), a non-departmental public body funded by a grant-in-aid from the UK government. Innovate UK drives productivity and economic growth by supporting businesses to develop and realise the potential of new ideas, including those from the UK's world-class research base. UKRI is the national funding agency investing in science and research in the UK. Operating across the whole of the UK with a combined budget of more than £6 billion, UKRI brings together the 7 Research Councils, Innovate UK and Research England.

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