



CELTIC-NEXT



Proposers Brokerage Day

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Pitch of the Project Proposal

Enabling Advanced and Urban Air Mobility with 6G

Honeywell

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Teaser

What is the main benefit of the idea/proposal?

Development of 6G connectivity technology for Advanced Air and Urban Mobility (AAM/UAM)

- ***That unlocks new and sustainable autonomous and semi-autonomous modes of transport for people and goods***
- ***Enabling a multitude of industrial and social use cases such as asset inspection and remote health care.***

What makes the added value?

World class technology consortium bridging the gap between the satellite and cellular industries. Honeywell's aerospace heritage in airborne connectivity for civil aviation and substantial investment in other AAM/UAM enabling technologies gives us significant credence, leverage and channel to market.

Why should I participate in the project?

AAM is a burgeoning market that will be enabled by new connectivity technologies such as 3GPP NTN

Organisation Profile

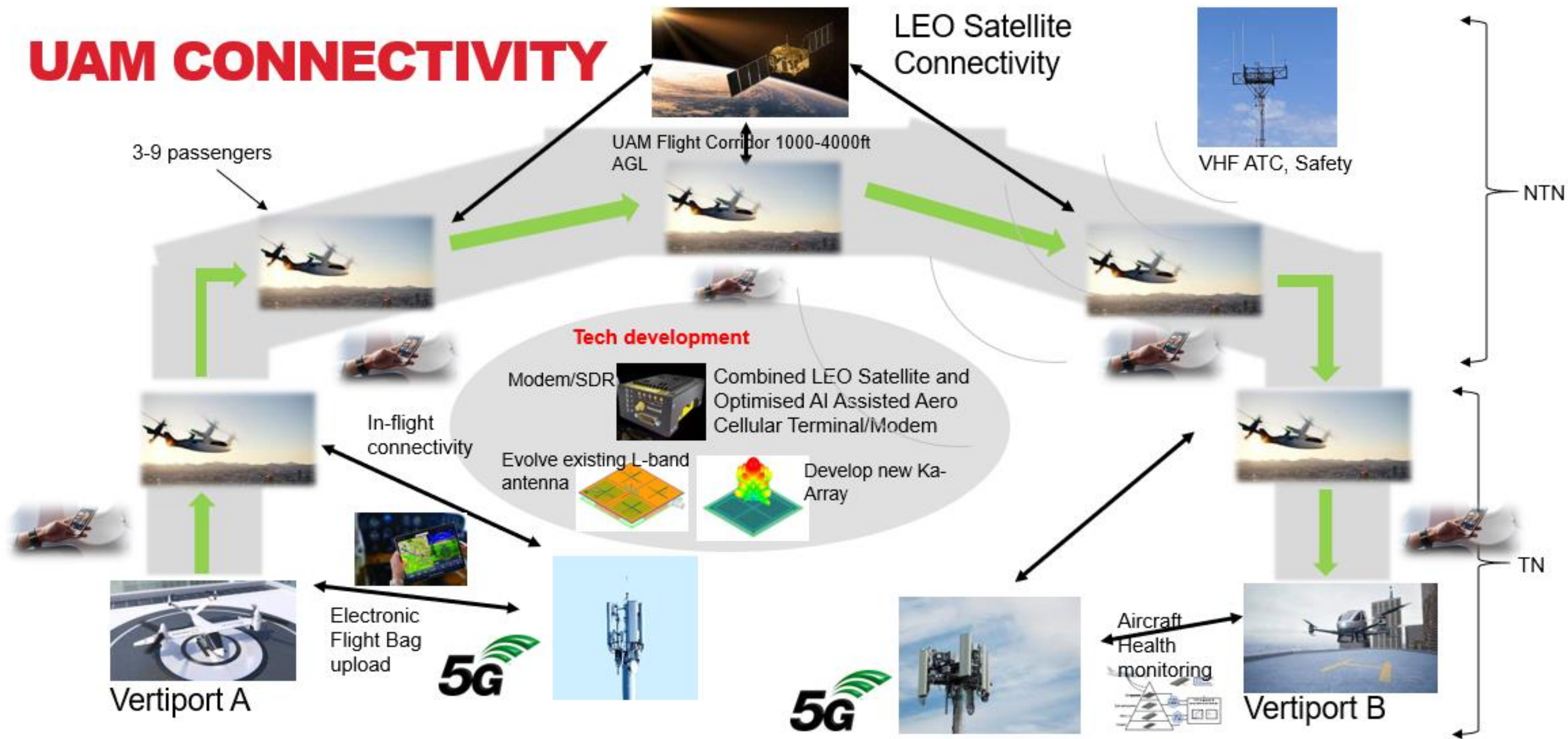
Very short info about the profile of your organisation

- Honeywell Service and Connectivity is part of Honeywell Aerospace.
- Engineering teams in: UK, Czech Rep., Canada
- Design and develop connectivity solutions for Air Transport, Business Jets, General Aviation
 - Satellite Communications
 - Connectivity Enablers
 - Airtime Reseller
- Strategic focus on Advanced Air Mobility - Urban Air Mobility
 - Satellite Communications
 - Cellular Communications: 5G
 - Non-Terrestrial Networks: 5G, 6G



Proposal Introduction (1)

UAM CONNECTIVITY



- Development of a highly optimized, low SWaP, resilient and mission critical connectivity terminal.
- 3GPP NTN Sub 6GHz and Ka-band capable of LEO constellation connection
- Optimized PHY for airborne connectivity and seamless link switching between satellite and cellular
- Enabling vehicle command and control, health monitoring, video services, passenger connectivity through resilient narrowband and broadband links.

Proposal Introduction (2)

Expected Outcomes:

The world's first high reliability NTN/TN based connectivity terminal for AAM, capable of worldwide adoption

Program Duration: 4 yrs; 2025-2028

Covering the following activities:

- Service and platform requirements incl airspace management and security
- Overall system architecture design
- Antenna and RF subsystem design and test
- 6G NTN subsystem protocol stack development
- Software radio subsystem development
- Avionics terminal development and integration
- 6G NTN/TN Network integration and end-end testing
- Security and network architecture design, development and testing
- Airborne platform integration, verification and pre-flight testing
- Flight trial planning and demonstrations
- Industrialization and commercialization planning

Partners

1 slide:

Existing consortium, involved countries.

Expertise, profiles and types of partners you are looking for.

Honeywell - (Canada, UK, Cz)

UE Protocol Stacks - Software Radio Systems (Ireland/Spain)

5G/6G NTN Test Network – Lasting/ Fraunhofer IIS? SAC? (Ro/ De/
UK)

NTN services – Inmarsat/ Viasat, Telesat (UK / Canada)

Ka-band Antenna – Ensilica (TBC) (UK)

Advanced antennas techniques - Swansea University (UK)

Test facility - flight trial – Cranfield, Saab (UK, Sweden)

Cyber, AI optimisation – Livewire, Bradford University (UK)

Test houses – RF subsystems, Channel sim – SAC/ SquarePeg?

Contact Info

For more information and for interest to participate please contact:

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Presentation is available via:



Join the Consortium Building Session Friday 20th at 11 CEST

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