EIT Awards INNOVATORS

Gate-to-gate connectivity

Key words: **broadband, air travel, connectivity**

ICARO-E

Çiçek Çavdar
ICARO-EU Activity Leader | Main product: **Icaro EU**

Aim
To provide seamless gate-to-gate mobile broadband connectivity for aircraft passengers

KEY FACTS

Project started: 2016

Innovation Community: EIT Digital

Theme: Digital infrastructure

Funding generated: EUR 6.2 million

Number of partners: 5

The project

Overview
ICARO-EU is an integrated gate-to-gate direct air-to-ground communications (DA2GC) system that seamlessly connects network infrastructures on aircraft with ground cellular networks to provide passengers with broadband services and cellular coverage.

EIT Digital support
In addition to the funding, the main source of support from EIT Digital for the ICARO-EU Innovation Activity has come from Henrik Abramowicz, the Digital Infrastructure Action Line Leader from the EIT Digital Stockholm Node.

Groundbreaking innovation
Air passengers today aren't able to use their mobile phones for broadband connection when they are flying, and only a few airlines provide Wi-Fi access after take-off. Current solutions relying on satellite backhaul connectivity and in-cabin Wi-Fi access have various limitations: these include higher costs for service providers, inability to support broadband cellular services, capacity related issues, etc. for providers and consumers alike.

Our aircraft connectivity will be integrated through a high-capacity DA2GC system with ground cellular networks, and this solution will be considerably more reliable and more affordable than the in-flight access available today.

Societal impact
ICARO-EU will bring high-speed broadband internet connectivity over 4G to European aircraft passengers, letting them travel gate-to-gate without ever losing connectivity.

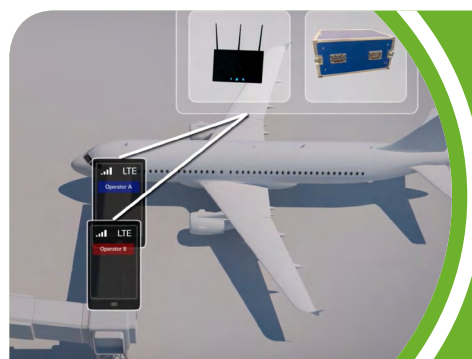The project will also provide improved services for transportation safety boards and European flight movement tracking agencies through enriched monitoring and management approaches (e.g., live cockpit video streams, flight data information in the cloud, etc.) and for premium services.

Achievements so far...
Ericsson, as telecommunications vendor, is providing Airbus with radio connectivity equipment. Airbus is coordinating the integration of the ICARO-EU system and will provide airlines with the fully integrated solution. ICARO-EU has also developed a business model recognising the complex relationship between actors and the value chain.

Teamwork
ICARO-EU is an EIT Digital Infrastructure innovation activity with various partners: Airbus Group, Ericsson, Create-Net, and KTH Royal Institute of Technology (lead partner). The collaboration between all of our partners is crucial to the success of the business.

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