

DARWIN

Digital Assistants for Reducing Workload and Increasing collaboration

Project Duration: 06.2023 - 05.2026

Increasing safety and efficiency of air travel by introducing Human-AI teaming

CHALLENGES

- Increased air traffic demand and upcoming pilot shortage.
- Keeping the cockpit workload low enough for one person to handle even the most demanding situations.
- Replacing the second pair of eyes to cross-check actions of the pilot in command.
- Detecting and mitigating a pilot incapacitation.

PROJECT IN NUMBERS

4

Countries

(Czech Republic, Belgium, Germany, Slovenia)

2

Experienced Technology and R&D Partners
(Honeywell, DLR)

2

Air Traffic Management Actors
(EUROCONTROL, Slovenia Control)

1

Certification & Regulatory Agency (EASA)

1

Pioneering Electric GA OEM (Pipistrel)

FOCUS AREAS AND THE TECHNOLOGIES WE DELIVER



Safety-critical & trustworthy AI system based on existing technology.



Extended Minimum Crew Operations and Single Pilot Operations.



Viable path towards Human-AI collaboration technology interfaces.



Early involvement of standardization and regulatory bodies.

OBJECTIVE

DARWIN's ambition is to develop AI-powered digital assistants and a Human-AI collaboration framework to support both eMCO (extended Minimum Crew Operations) and SPO (Single Pilot Operations), ensuring the same or higher level of safety and the same or lower workload as today's full-crew operations.

High Technology Readiness Level 7 system validated through flight demonstration in a real operational environment



CONTACT INFORMATION



www.darwinai.eu

[darwin-ai-project](#)

Honeywell



PIPISTREL



EASA
European Aviation Safety Agency



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