

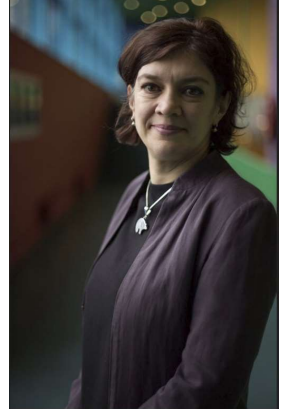
Korea-EU Horizon Europe Researchers Networking Forum on Energy & Advanced Mobility

• **Marilena D. Pavel**

• **Associate
Professor**

• **Delft University of Technology,
Faculty of Aerospace Engineering**

• **Advanced Air
Mobility (AAM)**
• **Future Vertical Flight**





1. Short Introduction of your Organization

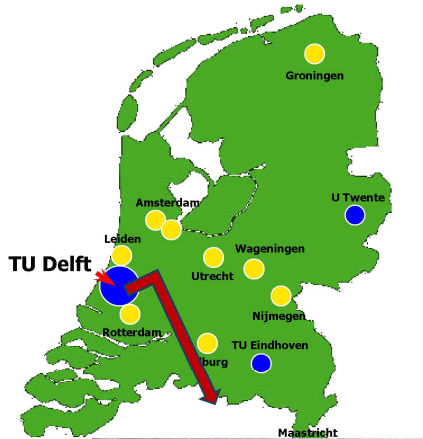
DELFT UNIVERSITY OF TECHNOLOGY (TUD)

TUD: 14th place in the QS World University Rankings by Subject 2025: Engineering & Technology

FACULTY OF AEROSPACE ENGINEERING



- Largest Aerospace Engineering (AE) Faculty in Europe (2900 students)
- One of leading Faculties of AE worldwide
- Top facilities for education and research
- Outstanding scientific laboratories and facilities



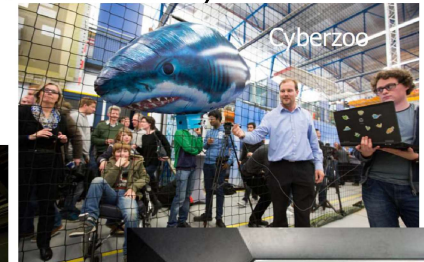
1993+ Cessna Citation II



2025+ Cessna F337F Skymaster



SIMONA Research Simulator

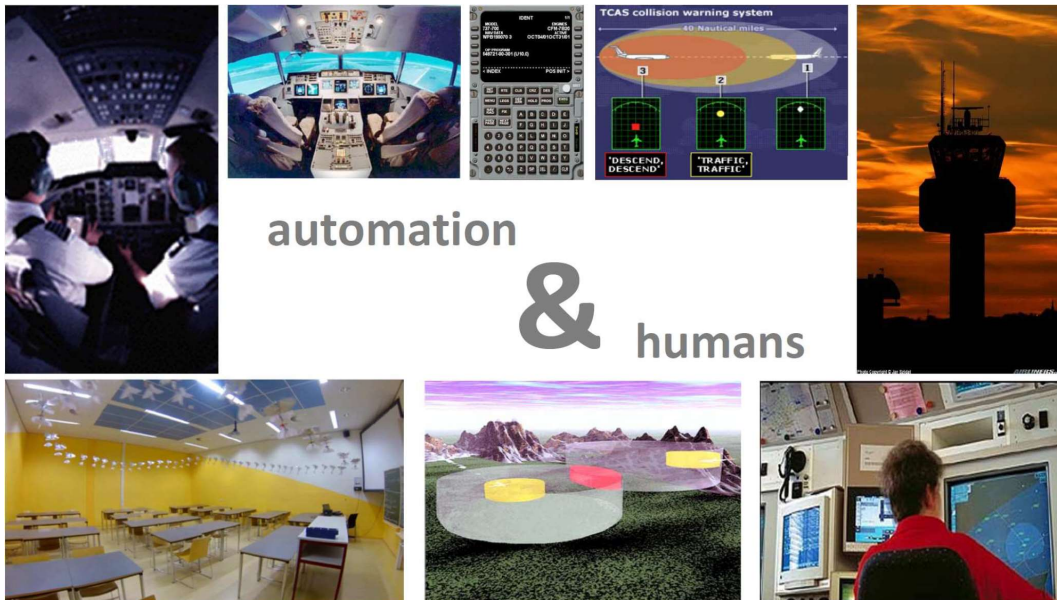


10 Wind tunnels



2. Expertise

Combining theory and practice in challenging aerospace studies



automation
&
humans

Vision

Autonomous Control

MAV + AGNC + CNS/ATM

Supervisory Control

AHMS + CNS/ATM

Automatic Control

AGNC

Manual Control

AHMS

AHMS = Aerospace Human-Machine Systems
AGNC = Aerospace Guidance Navigation and Control
CNC = Communication, Navigation, Surveillance
ATM = Air Traffic Manager
MAV = Micro Air Vehicles

Keywords: Modeling & Simulation, Flight Control System, VTOL (Vertical Take off and Landing) Aircraft, Simulator, Handling Qualities, Rotorcraft Design



3. Your Project Idea

HORIZON-CL5-2026-10-D6-07

Supporting sustainable and smart urban mobility in Europe (CIVITAS)

HORIZON-CL5-2027-06-D6-08

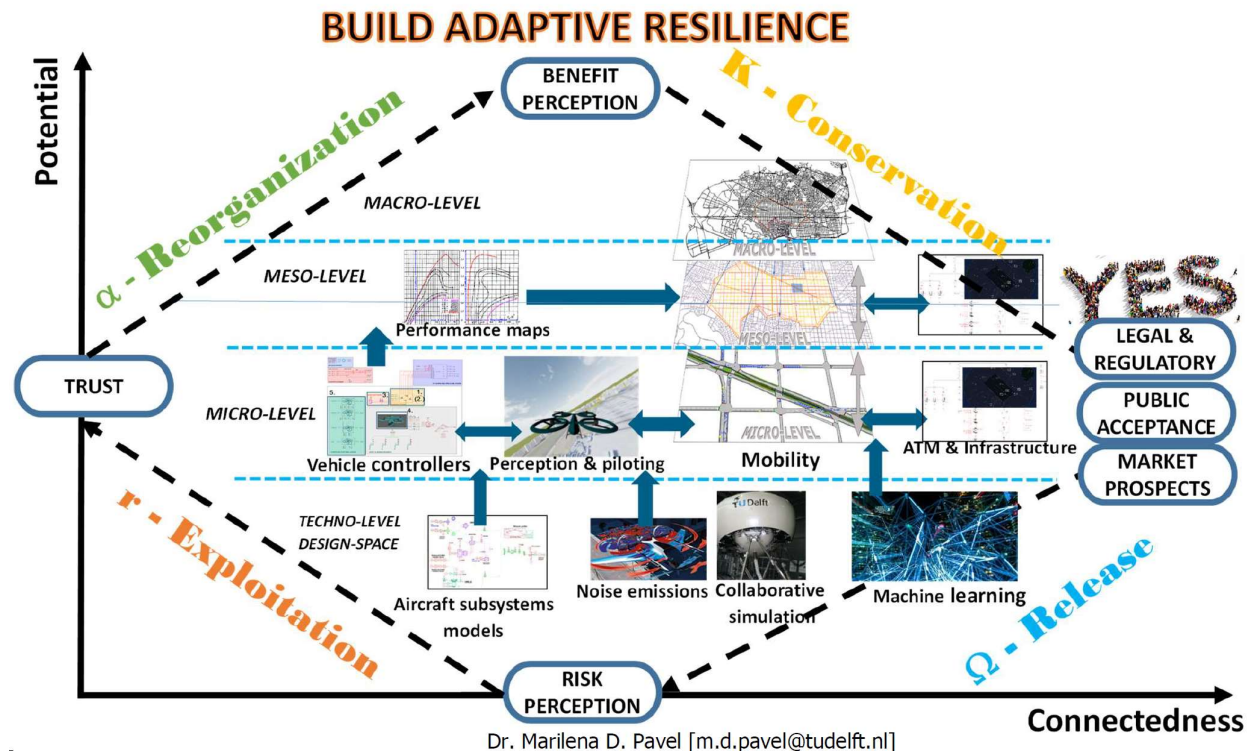
Enhancing Mobility for All: affordable, reliable and accessible multimodal transport for inclusive rural and urban connectivity – Societal Readiness pilot

HORIZON-CL5-2027-10-D6-10

Enhanced resilience in multimodal passenger transport through digital technologies and generative and discriminative AI

HORIZON-CL5-2027-10-D6-11

Enhancing Resilience and Accuracy in Positioning, Navigation, and Timing (PNT) Systems and e-conspicuity solutions



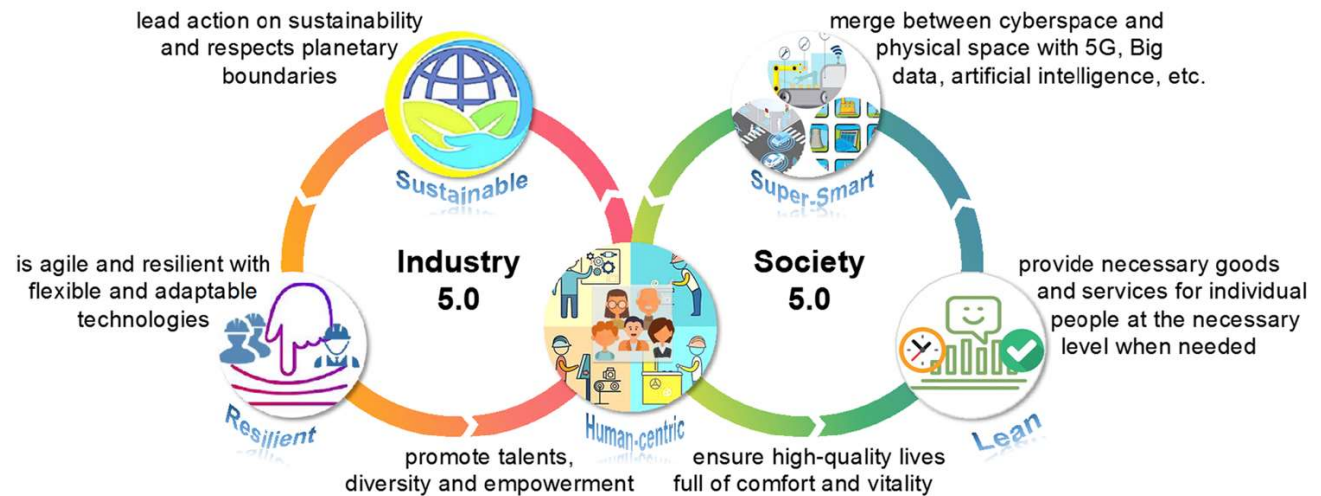


4. Profile You are Seeking and Why

Partners for HORIZON-CL5-2026 & 2027 CALLS

- What partners: Help to connect vertical mobility to other transport modes
- How: Extend technology evolution towards society transformation
- Why: Achieve societal acceptance for the Advanced Air Mobility

**Create a future of industry
towards a human-centric,
sustainable, and resilient
society**



The pillars of Industry 5.0 according to EC versus Society 5.0 (Huang et. al., Industry 5.0 and Society 5.0—Comparison, complementation and co-evolution, Journal of Manufacturing Systems, 2022)



5. Contact Details

Thank you!

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W <https://www.tudelft.nl/lr/tu-delft-advanced-air-mobility-ta2m>

