

# Advanced U-space capabilities and social acceptance (Uspace4UAM)

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Petr Cásek, Honeywell



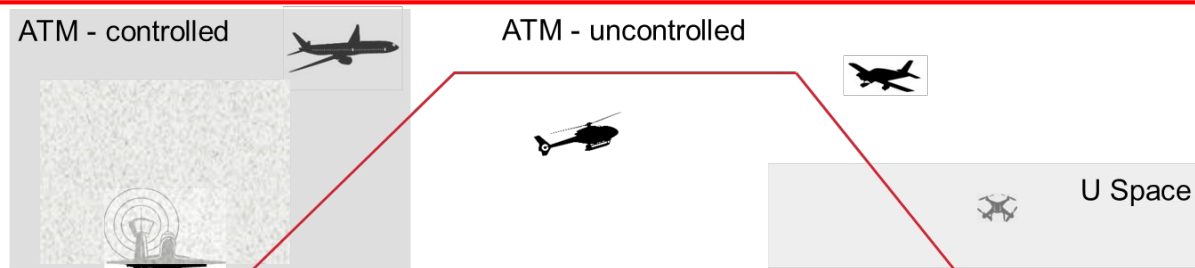
# SESAR 2020 SHOWCASE

# Towards sustainable UAS/UAM Operations – Operational Challenges

- Flexible airspace access – ATM & U-space
- Varying CNS infrastructure
- Mixed traffic – Conflict management (strategic & tactical)
- “All weather” operations
- Flexible/dynamic mission planning
- Vertiports eco-system – not existing, under development

## **USPACE 4UAM**

SESAR Large Scale  
Demonstration  
project



# USPACE 4UAM

Project led by

# Honeywell

**sesar**  
JOINT UNDERTAKING

February 2021 – December 2022

 Air Navigation Services  
of the Czech Republic

  
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— ANGEL —

 CRIDA  
I-D-I - ATM

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## 5 Demonstration Exercises

**Tecnalia demo, Spain (Atlas)**  
Air taxi live trials  
Contingency scenarios



**Vertical demo, UK (Bristol)**  
Air taxi hardware in the loop simulation  
Contingency scenarios



**Dronehub demo, Poland (Rzeszow)**  
Drone live trials using drone hub  
AED delivery, automated monitoring  
service using drone hub



**UpVision demo, Czech Republic (Brno)**  
Drone BVLOS live trials in CTR  
Medical delivery

**Honeywell demo**  
Czech Republic (Brno)  
Air taxi simulation  
Contingency scenarios



Feedback to social acceptance collected from 3000 respondents covering 6 countries.



# Conclusions & Recommendations

- Gradual transition to pre-deployment phase for UAM Operations:  
Feasibility → Business Sustainability
- U-space services and UAM/UAS capabilities need to efficiently complement each other (e.g., tactical conflict resolution & DAA).
- Performance-based CNS approach needed – in particular for communication
- Deployment of vertiports eco-system including operational framework.
- Accelerated development of collaborative ATC – U-space interface (both technical and procedural)




# Learn More ....

## USPACE 4UAM

- Project Manager – Jiri Ilcik, Honeywell
  - [jiri.ilcik@honeywell.com](mailto:jiri.ilcik@honeywell.com)
- Technical Lead – Pavel Drasil, Honeywell
  - [pavel.drasil@honeywell.com](mailto:pavel.drasil@honeywell.com)
- Communication Lead – Jakub Karas, UpVision
  - [jakub.karas@upvision.com](mailto:jakub.karas@upvision.com)

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- Vehicle Management
- Fly-by-Wire
- Detect-and-Avoid
- Connectivity
- Actuation
- Show all

**PROPULSION**

- Motors/Controllers
- Turbogenerator
- Thermal Management
- Show all

Working with Advanced Mobility partners



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