Drones in arctic environments

Work package 8
Reykjavik 2017-01-25
Umbilical Design

• National Space Broker, Sweden, for the European Space Agency, ESA
• 1 of 15 Space Technology Brokers in Europe, contracted by the European Space Agency
• Collaboration with ESA and NASA
• Technology Transfer from space down to earth and for extreme environments
• Strong focus on sustainable development
• Founded in 2001

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ÅF

- Largest engineering and consulting company in Sweden
- 8600 employees. 27 000 within partner network
- Assignments in over 100 countries, offices in 30 countries
- Energy, Infrastructure, Industry, IT, Technology and Product development
- Founded in 1895

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Objectives - Work package 8

Developing technology for drones for scaling up from research stations

- Increasing awareness of drone technology (UD)
- Drone technologies to be used in arctic terrestrial settings (ÅF)
- Producing best practices and standards for use of drones at INTERACT research stations (ÅF)
- Transfer new technology from industry to research projects
Task

Workshop

• **Utilize the research you are conducting**, and explore how drone technology can be beneficial for your research.

• The workshop will take place **together with station managers and industry at a Station Manager Forum (SMF)** and a side meeting of the TA community workshop.

• These meetings will **increase awareness of drone technology while inviting representatives from the industry and the technology community** which will identify particular needs.

• Preliminary during Q3
Tasks

Drones technologies to be used in arctic terrestrial settings

- Scientists and station manager interviews
- Sensors and drone technologies, now and in the future
- Seminar with stakeholders, trials – drones and sensors, technology development

Produce a best practice scheme for use of drones with sensors at INTERACT research stations

- Identify sensors for UAV’s specifically for Arctic research currently underrepresented
- General regulation and legislation with an application on the Arctic environment and their respectively countries
- Report and presentation for station managers
Deliverables

• D8.1: SMF Drone Workshop Report *(Month 12)*
• D8.2: Report on Drone legislation *(Month 12)*
• D8.3: Report on drone in arctic environments requirement specification, drone types, drone projects and sensor technology *(Month 18)*
• D8.4: Report on recommendations for new sensor development *(Month 18)*
• D8.5: Guidelines for drone usage in arctic environment *(Month 18)*
• D8.6: TA Drone Workshop Report *(Month 19)*
Partners

- ESA Technology Transfer Network across 15 countries
- Innovation Labs & Research Institutes
- Mediation between space and non-space industry
- Identification of applications to non-space market for all industries and environments
How can we help you?

We are here for you - to help you facilitate your research

- Can drones support your research?
- What kind of technology would you like to see in the future?
- Are you already an experienced user of drones within the scope of your research?
- **Come see us and let us know!**

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