The first commercial cargo drone operational across Europe

Speaker: Thomas Markert, Head of Operations

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Our Mission

Be the worldwide leader in cargo drones for safety-critical applications.
Team

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CEO
Helicopter and Drone Pilot
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Helicopter and Drone Pilot
7y experience in Drone Design
Bsc. Software Engineer

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Drone Pilot, Aerospace Engineer

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Head of Sales
Service Sales Manager, Business Development at
FB3 drone - Technical data

- Max Speed 30 m/s
- 70kg empty weight
- Up to 100kg of payload
- Fully electric with swappable Li-ion battery
- From 10 to 25 minutes flight time
- Maximum altitude: 3000 m confirmed, designed for over 5000 m
European Operations

- Located in northern Italy FlyingBasket has served customers in Italy, Austria, Germany and Switzerland
- ENAC granted FlyingBasket Operational Authorisation in Italy
  - LBA (Germany) and Austro Control (Austria) confirmed the OA for operations in specific locations
- As Switzerland is outside EU FlyingBasket acquired separate authorisations
• UAS regulations in EU are major milestone for UAS industry
  - Common framework (design and operational requirements) enable to operate the same UAS type design in the 27 EU Member States
  - Administrative effort for UAS operation in multiple EU member states significantly reduced
  - Important step for creating a real European UAS ecosystem

• Further harmonisation with non-EU countries will finally unlock full potential of UAS
  - Think of civil aviation without globally harmonised regulations and standards
EU regulations – outlook

- Amendments to regulations must take into account the limited resources of UAS manufacturers/operators as well as of the authorities
  - For example, NPA 2021/09 requires tests of contingency procedures cover whole flight envelope for SAIL III and number of test flights to be agreed with authorities
    - Huge effort for UAS operator considering all dimensions of the flight envelope (payload, speed, temperature, wind, altitude…)
    - Additional iteration with authorities to agree on number of flights will increase the processing time of Operational Authorisations
    - Doesn’t seem proportional for SAIL III medium risk UAS operation

- Definition of Special Condition and Means of Compliance for Design Verification should reflect the limited risk of SAIL III and IV and not be a “Type Certification light”
  - Too demanding requirements to comply with will hinder UAS industry in Europe to grow and fulfil the expectations
EU cross-border operation

- Article 13 of regulation 2019/947 important to create a common European UAS services market
- Operational authorisation recognised in all EU member states, only confirmation by NAA for specific location required
- Initial application of was a learning process for industry and authorities
  - Significantly improved in the meantime, processing time two weeks or less

Improvements required

- Despite having a general Operational Authorisation (e.g. for sparsely populated areas) only specific locations are confirmed for cross-border operation
  - Additional lead time and costs reduces the number of feasible use cases
- In some cases significant fees for cross-border confirmation charged making one-time (demos, small customers) operations economically unfeasible
  - Fees for cross-border confirmation should be limited relative to the fees for operational authorization in the same member state (1/5 or less?)
The future of transportation is now.