## **Innovative and Emerging Operations**



## **STRATOBUS<sup>TM</sup>**

Automated Stratospheric Platform

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### Vision and Requirements for High Airspace Traffic Management

- · Low airship density environment
- Minimum HATM complexity
- Low constraints

**Early Stage** 

Progressive Approach

**End-State** 

- High density, expanded operations
- Highly autonomous HATM

#### **Early Stage Drivers for System Design**

- Ascent and Decent Phase through existing ATM controlled airspace
  - Abide by existing ATM rules
  - Minimum onboard equipment meeting safety rules

- Stratosphere Operations
  - Autonomy of operations for airship Operators
  - Collaborative environment
  - Self-separation
  - > Trajectory based operations enabling situational awareness
  - Contingency and abnormality management procedures
  - Highly automated man in the loop airships







with the FEDER - granted European amount 3,3 M€





## Applying UTM Concepts to High Airspace Traffic Management

#### **Core Principles of UTM**

- Fair & equitable access to airspace
- **Build off existing construct**
- Incremental, pragmatic approach
- Operational needs driving performance standards
- Traffic density and risk drives solution
- Building towards one airspace picture

#### **Potential Common Concepts**

- Separation, Deconfliction and **Prioritization**
- Data Exchange Models
- Situational Awareness
- Interfacing with existing ATM

Learning from UTM shall be progressively applied to HATM, depending on traffic density evolution and maturity of concepts and technologies















# **STRATOBUS<sup>TM</sup>** THANK-YOU!

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