



EASN Proposal for an Open Innovation Test Platform

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The role of EASN

Incubate technological innovation and disseminate knowledge

- ☐ EASN is an **open Association, structuring and representing the European Academia** in Aviation research related issues
- ☐ Since its establishment in 2002 **EASN has become a major Stakeholder** in European upstream research
- ☐ The objective of EASN is to **structure, support and upgrade the research activities** of European academia in order to **incubate technological innovation** and breakthrough technologies
- ☐ Key priorities for Europe are to **stay competitive** and to **support sustainable growth** in aviation
- ☐ EASN therefore proposes an **Open Innovation Test Platform** to foster the transformation of research results to market innovation



Motivation

Accelerate Technology Readiness

- ☐ Europe has to **stimulate innovation for a sustainable air transport system**
- ☐ Key for innovation is a reduced “**science to business**” lead-time:
 - Accelerate market impact of upstream research
 - Shorten innovation cycles
 - Reduce time and cost for the implementation of novel technologies in future aircraft designs
- ☐ Provide an **Open Test Platform** in the context of **Open Science** and **Open Innovation**
- ☐ **Suitable funding schemes** to be identified for such an open platform



Modular UAS-Platform

An open innovation test bed

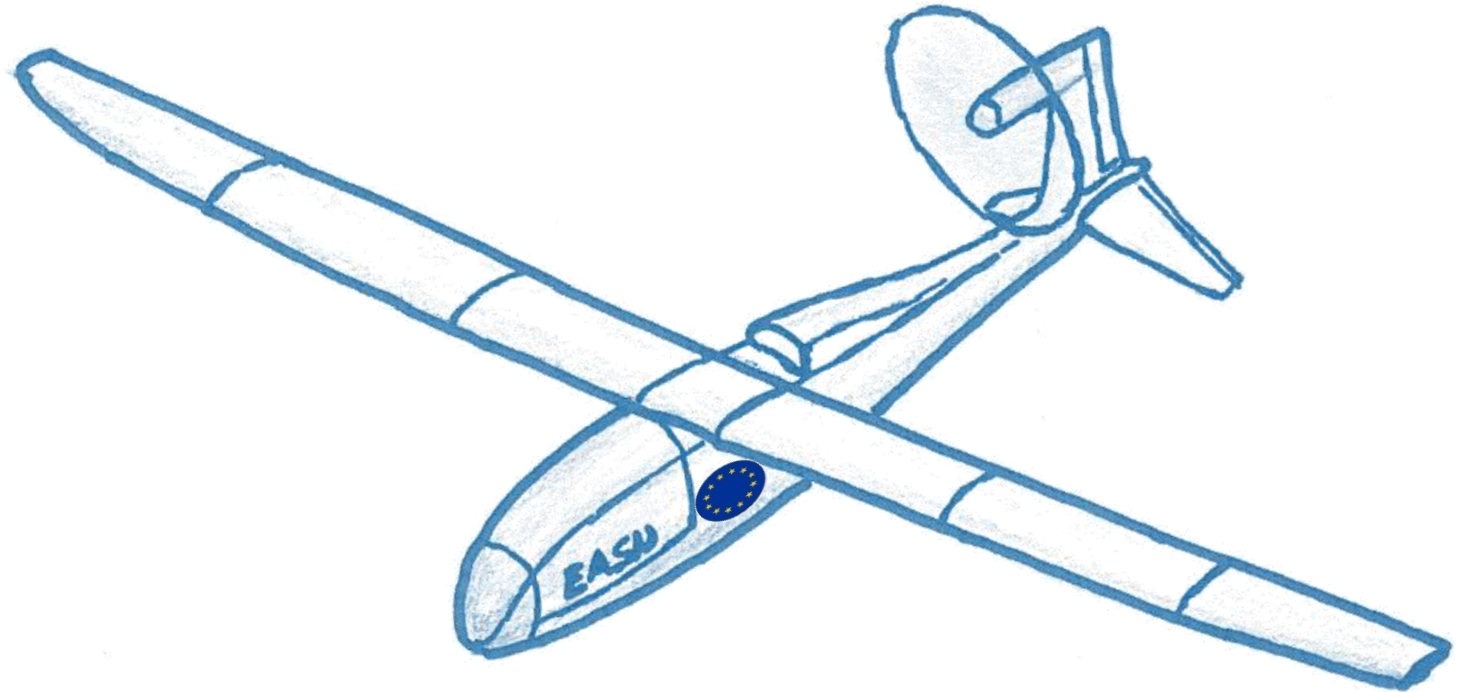
- ☐ A modular airborne platform to **demonstrate feasibility and impact** of new technologies and innovative concepts resulting from upstream research, i.e. at a $TRL \leq 4$
- ☐ Validation of new technologies in an operational environment **typically limited to flight test campaigns of new developments**, considerably **increasing program risk**
- ☐ Validation of new technologies on **large manned testbeds** is **limited by regulatory environment**
- ☐ While **less restrictive** in the approval of test campaigns on board of a UAS platform, the **regulative bodies** can be **involved at very early stages** of technology maturity

Modular UAS-Platform

An airborne platform to demonstrate maturity and impact

☐ **Boost innovation of**

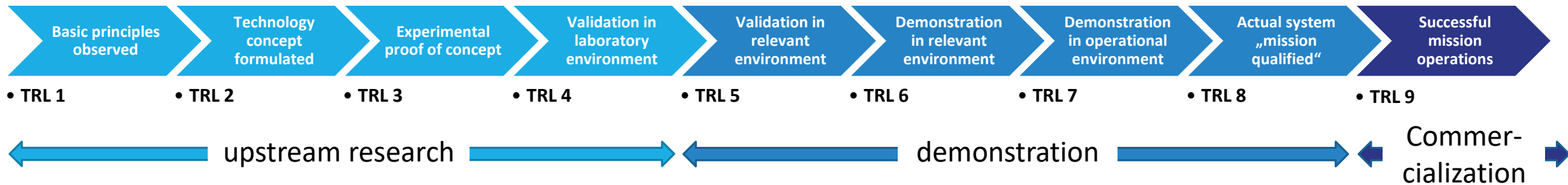
- novel design concepts
- materials and structures
- aerodynamics and acoustics
- propulsion and propellants
- systems and equipment
- flight guidance and navigation
- data transmission
- ...



Fast-track Technology Readiness

Accelerate innovation

- Foster innovation by **accelerating technology readiness** from academic research to applied development



- Demonstration in relevant environment to **identify concept immanent issues** (technical, operational, environmental, ...) and **potential regulatory barriers** at an early stage
- Efficient transition **from research and innovation** to **commercialization**



European Aeronautics Science Network



Create Innovation – Incubate Breakthrough Technologies

An Open Innovation Test Platform

Generate economic value from knowledge

- ☐ Facilitate **access to an open test platform** to validate innovative technologies in a relevant environment
- ☐ Create **independent European body** to operate the UAS platform(s)
- ☐ Accessible at **fair cost and conditions** to the innovative European aeronautics research community:
 - Academia
 - Research establishments
 - Industry (SMEs & large companies)
- ☐ Enable Open Science by **sharing experiments and knowledge** while **protecting the related IP** of innovative researchers