

# CELLSIUS

The future of aviation

Project e-Sling and Project H2

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Project Team







# CELLSIUS - Who We Are

Founded by electrical and mechanical engineering students at ETH Zurich

50 members

Goal:  
enable sustainable aviation

Implementation & supervision of focus projects with ETH Zurich



**MeteoSwiss**





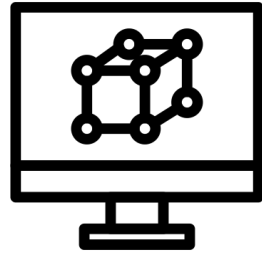
# ETH Zurich Focusproject



Idea



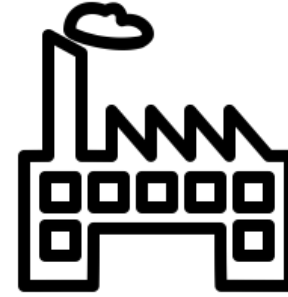
Concept



Design/  
Engineering



Simulation



Production



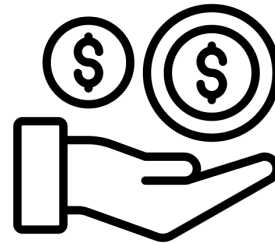
Assembling



Testing



Finances



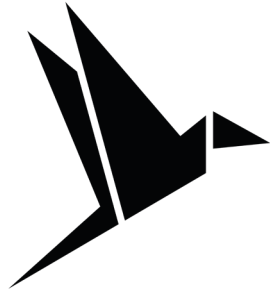
Sponsorship



Marketing/PR

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# E-SLING



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# Powertrain



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# Project Kickoff



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# Assembly

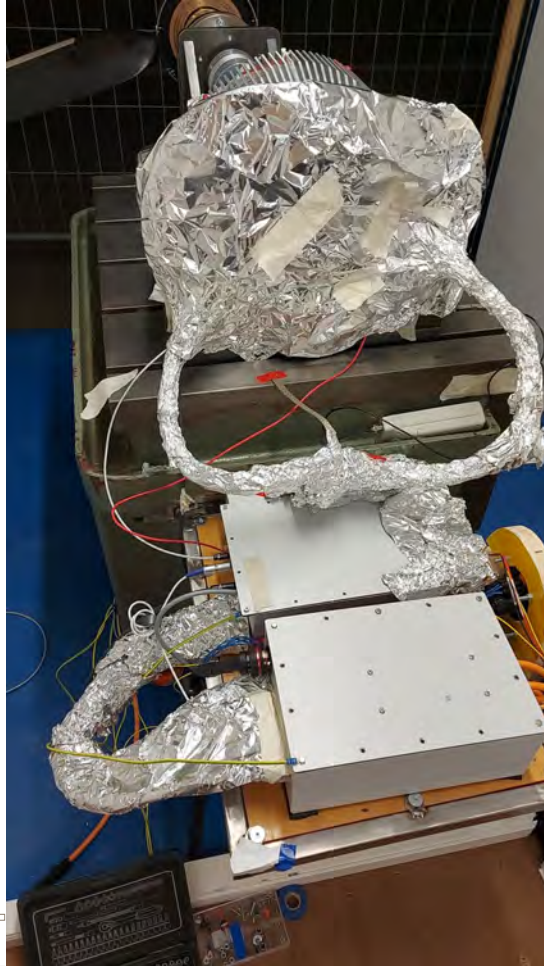


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# Testing



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# Low Speed Taxi



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# Maiden Flight



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# Flighttesting



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# Phase 1 – Groundtesting



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# Phase 2 – Flight Characteristics



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# Phase 2 – Flight Characteristics



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# Phase 3 – Performance







# Flight testing - results

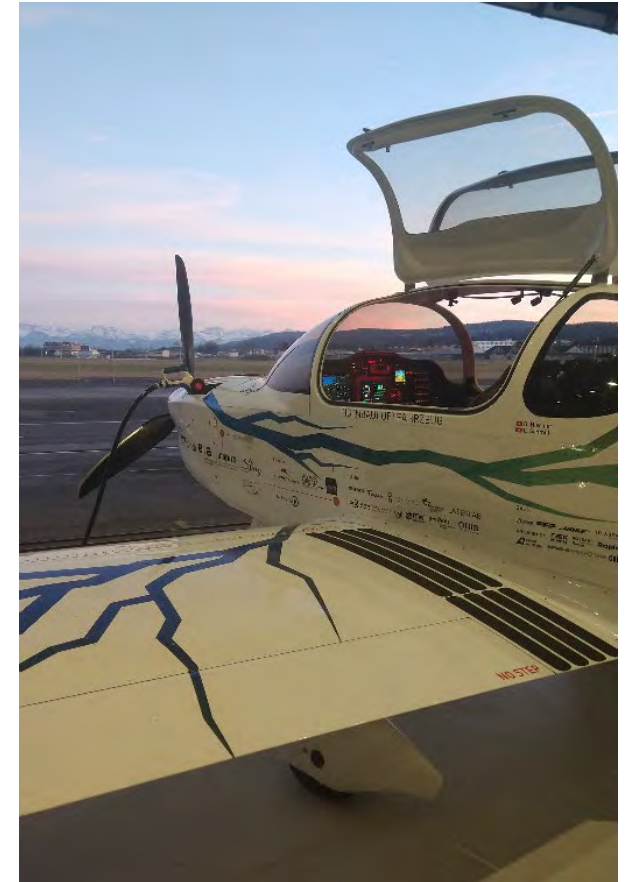
- Opened complete envelope
- Challenges:
  - Limited endurance
  - Battery cooling
- ~14h Flight time, 46 Landings





# Flight testing – weather challenges

- Strict weather constraints due to flight conditions
  - VFR Day
  - 20Nm away from active CB
  - No precipitation
- Homebase Dübendorf prone to fog during winter
- Calm air needed for performance and calibration flights





# Collaboration with MeteoSwiss

- How will the weather be in Dübendorf?
- When should we schedule the next test flights?
- When will the fog be gone the day after tomorrow?
- When can we fly to AERO Friedrichshafen?

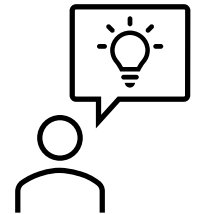
**MeteoSwiss**



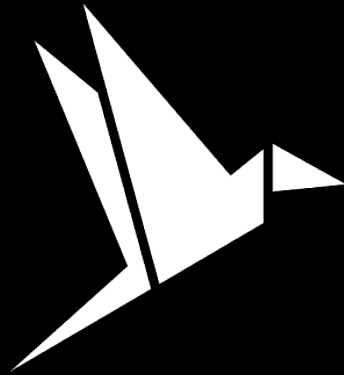


# Collaboration with MeteoSwiss

- How will the weather be in Dübendorf?
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- 
- Solution: MeteoSwiss Phone-based aviation weather advice
    - 0900 162 737
  - Professional meteorologists competently answer questions

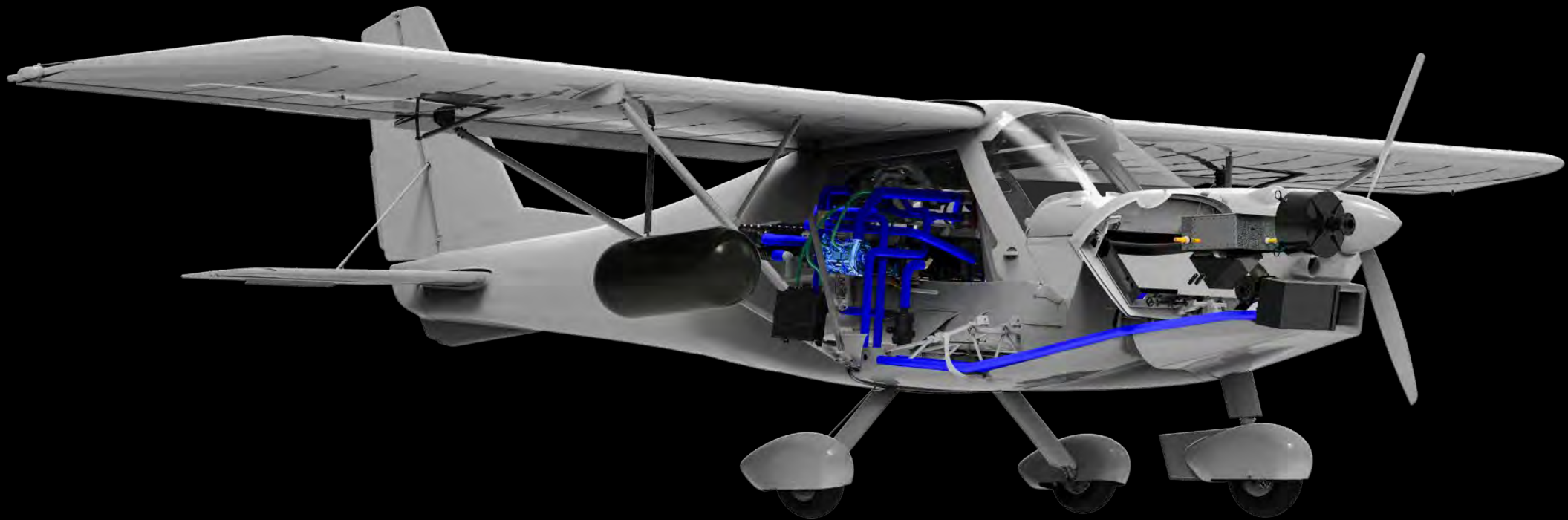


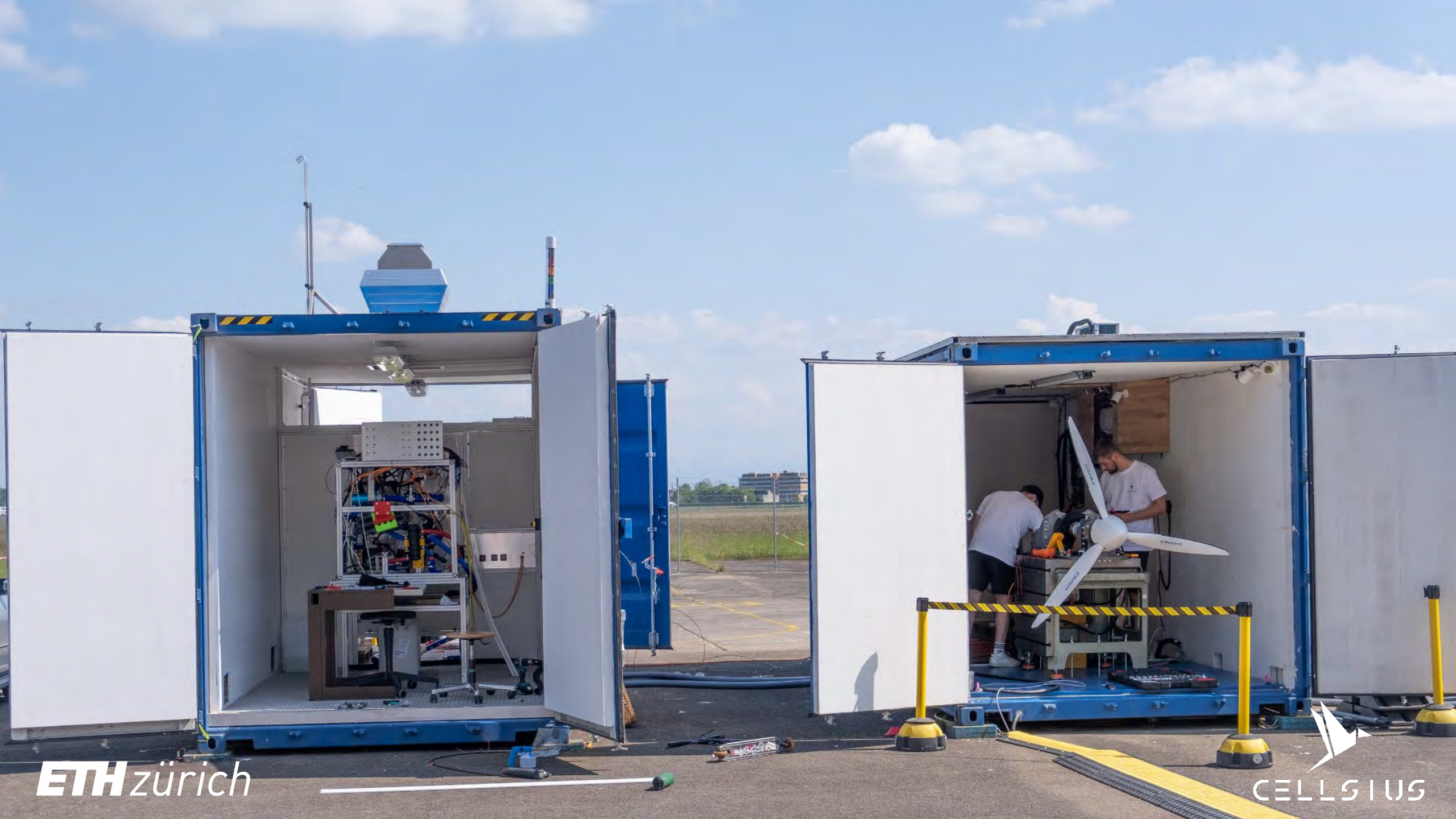
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P R O J E C T H 2







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**Thank you**

**MeteoSwiss**

