



The Mission

“ Prove and promote liquid hydrogen as an alternative to conventional fuels in aviation.”



Why?

- Aviation accounts for 2.5% of global greenhouse emissions
- Aviation is one of the fastest growing sources of greenhouse emissions

→ Needs to be reduced

IATA's goal: Achieve net zero CO₂ emissions in aviation by 2050

AeroDelft's goal: To fly on LH₂ powered electric aircraft in 2026

Table of Contents

- Introduction to AeroDelft
- Project FS Phoenix
- Milestones & Targets
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The Team

- Founded in 2018
- 50+ active students
 - ~50% full time students
 - ~50.000 work hours annually
 - Aerospace, mechanical and computer science engineers
- 350 Alumni
- 2021 European Citizenship Prize



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Project FS Phoenix



Project FS PHOENIX

Goals:

- To fly on gaseous hydrogen in 2025
- To fly on liquid hydrogen in 2026



The Aircraft



Sling 4



950 kg MTOW



Fuel cell electric vehicle



2.1 kg GH2



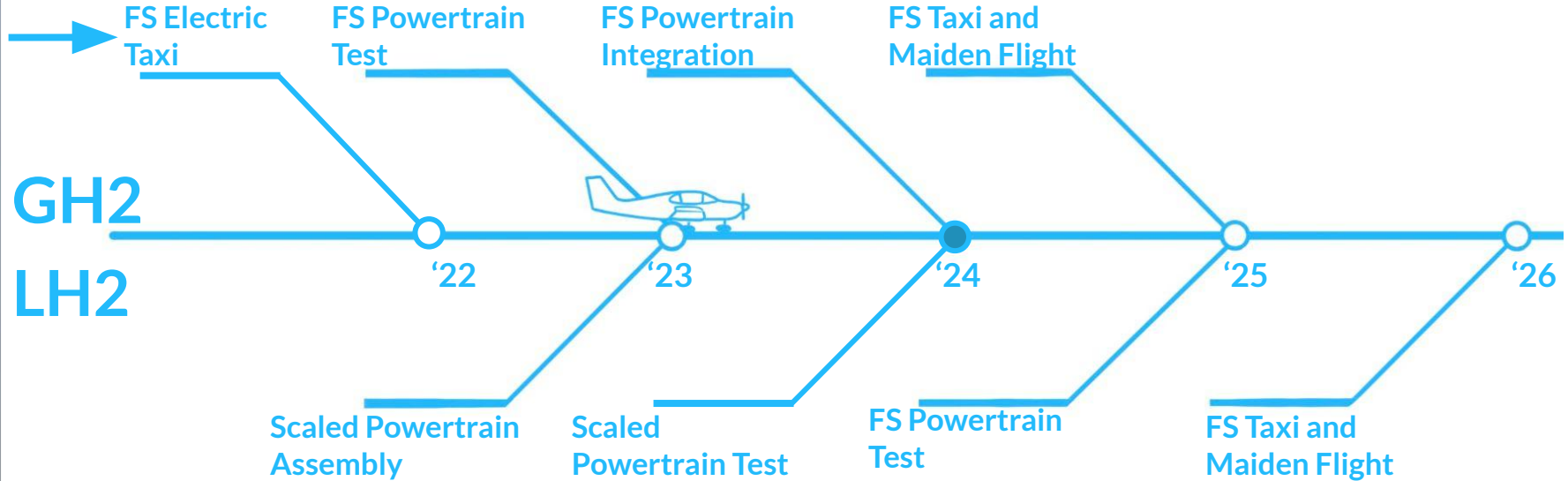
6.5 kg LH2 → 400 km range



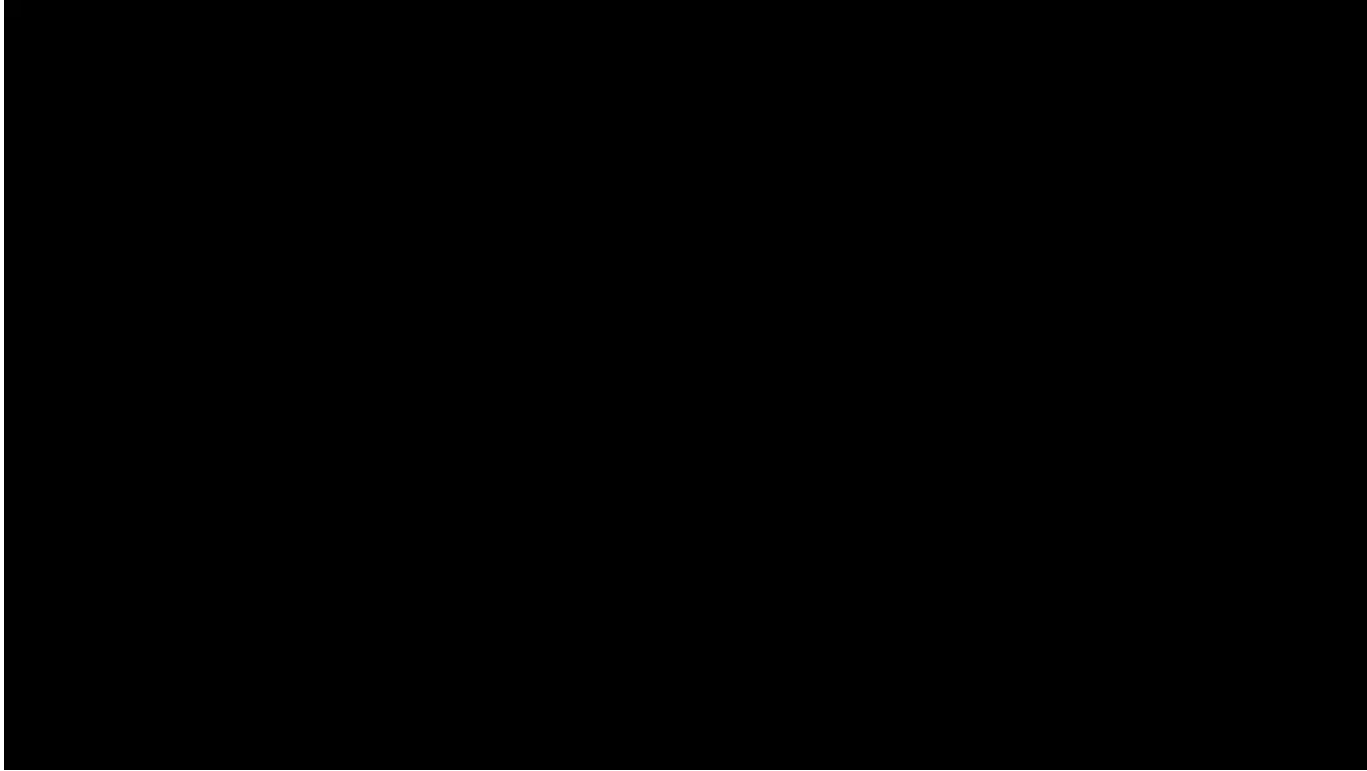
Permit to Fly – CS23 + Automobile/Own standards



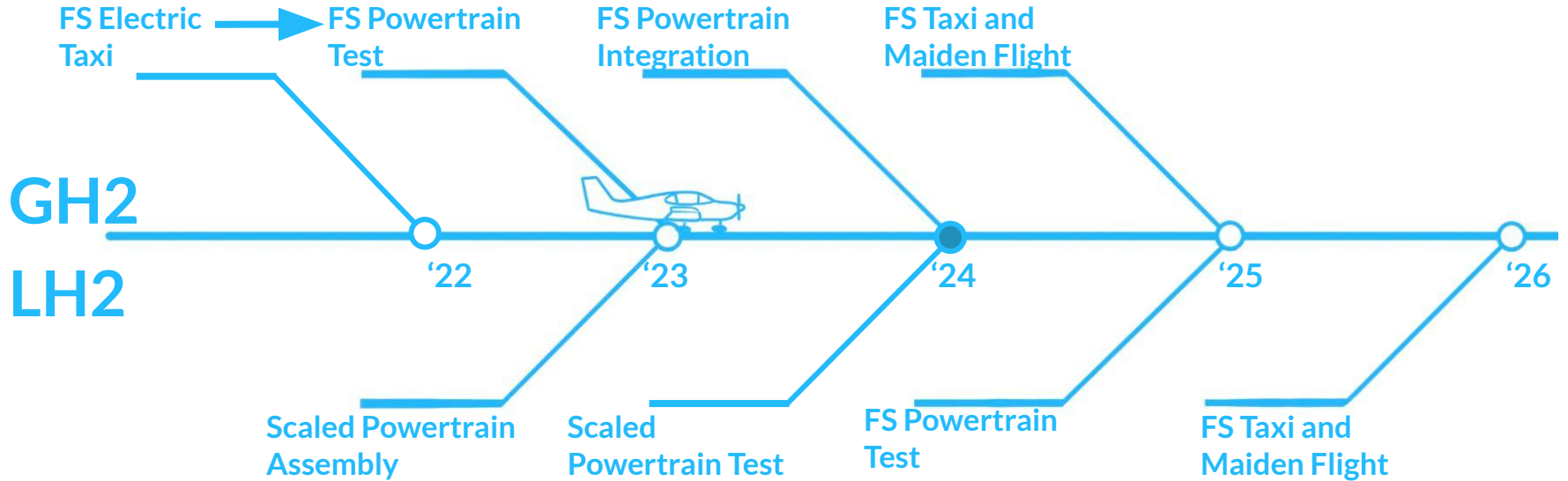
Timeline Goals



FS Electric Taxi Test



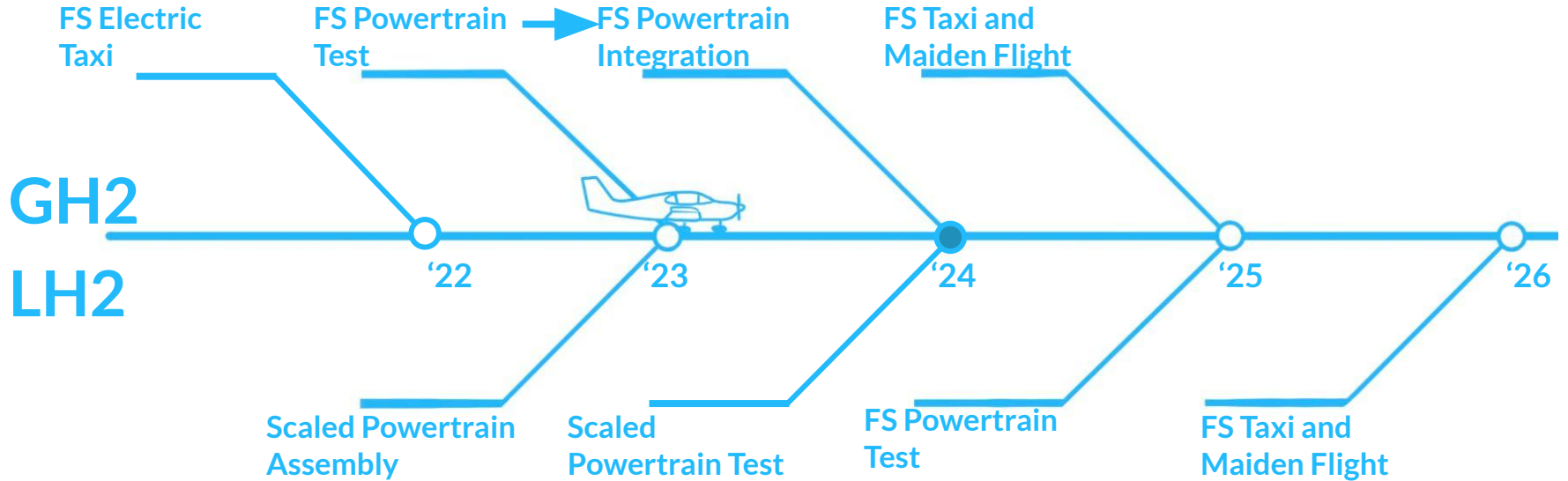
Timeline Goals



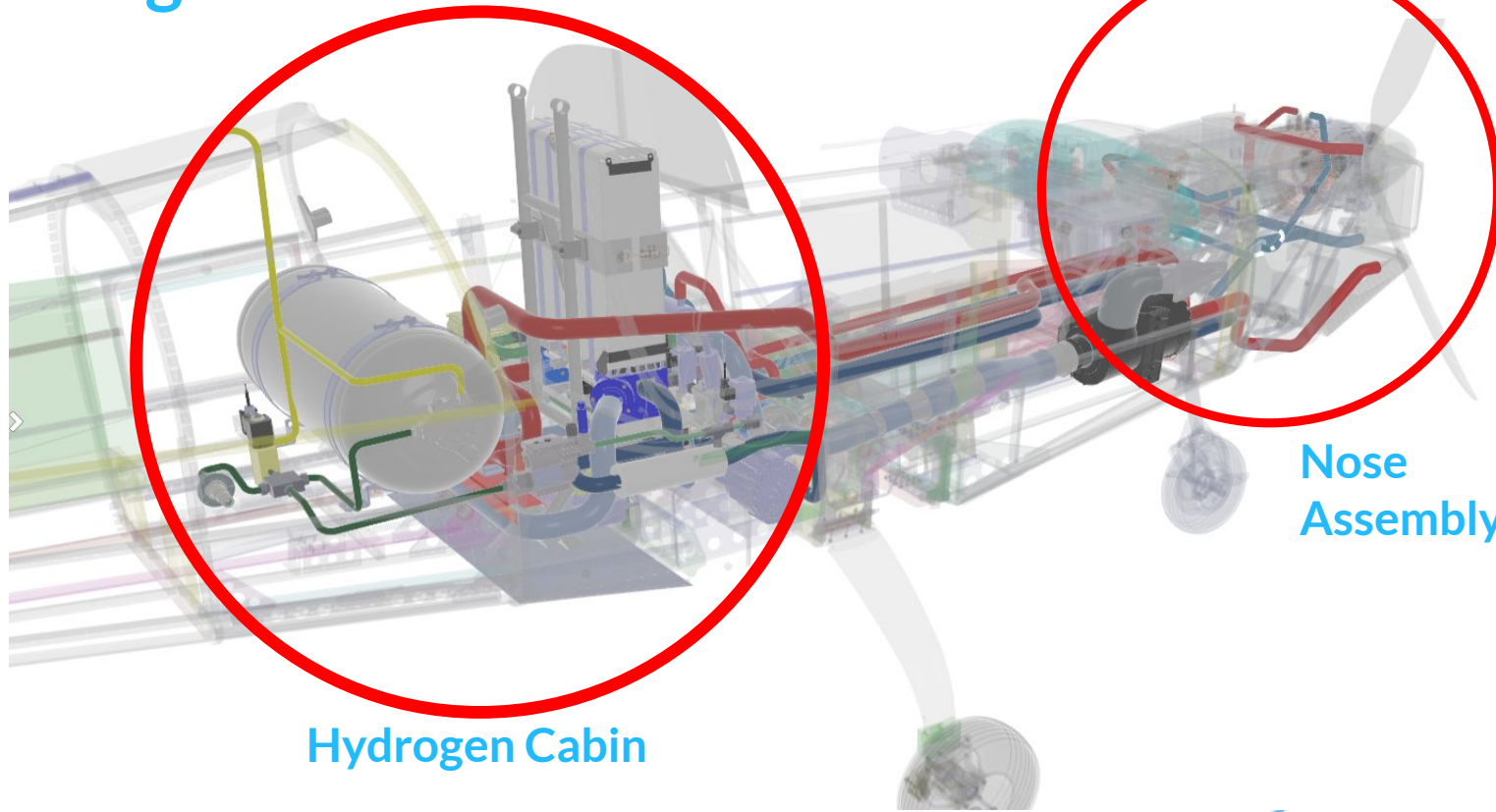
GH2: FS Powertrain Test



Timeline Goals



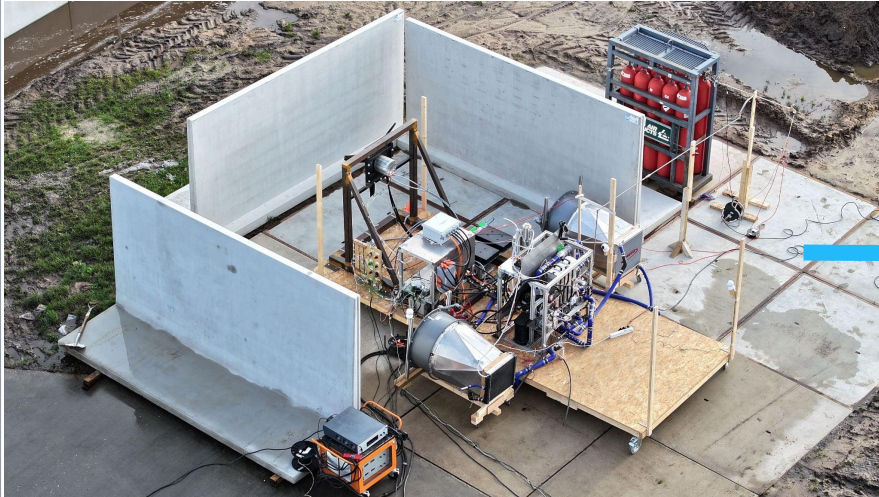
Integration into Full-Scale



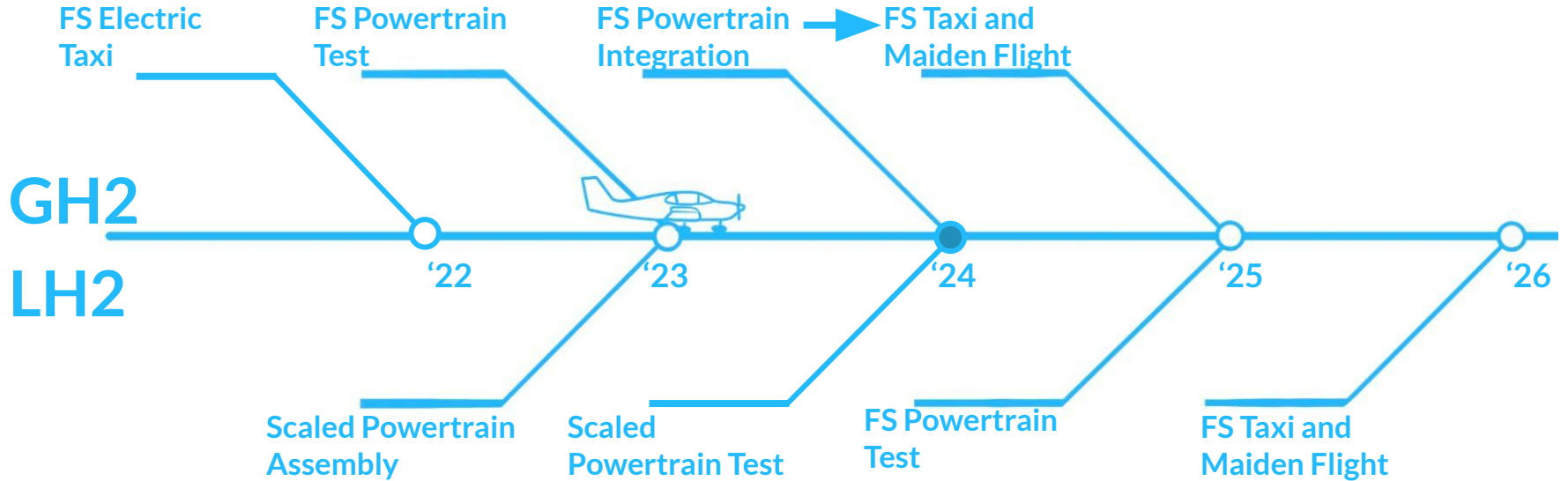
Hydrogen Cabin

Nose
Assembly

Upgraded Testbed



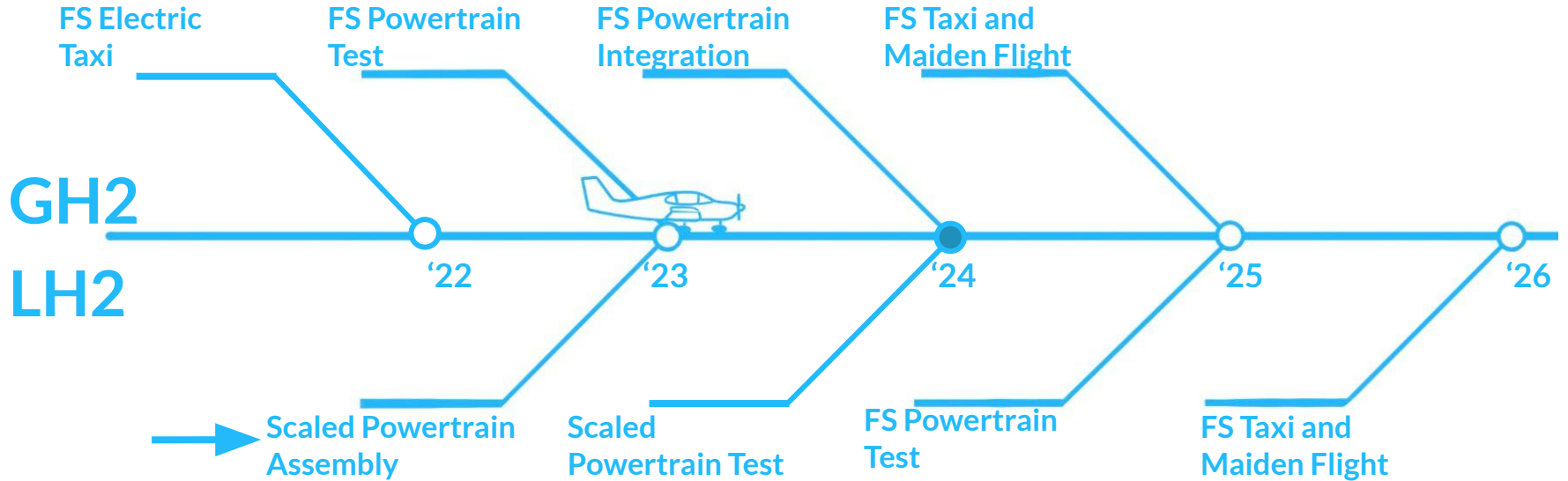
Timeline Goals



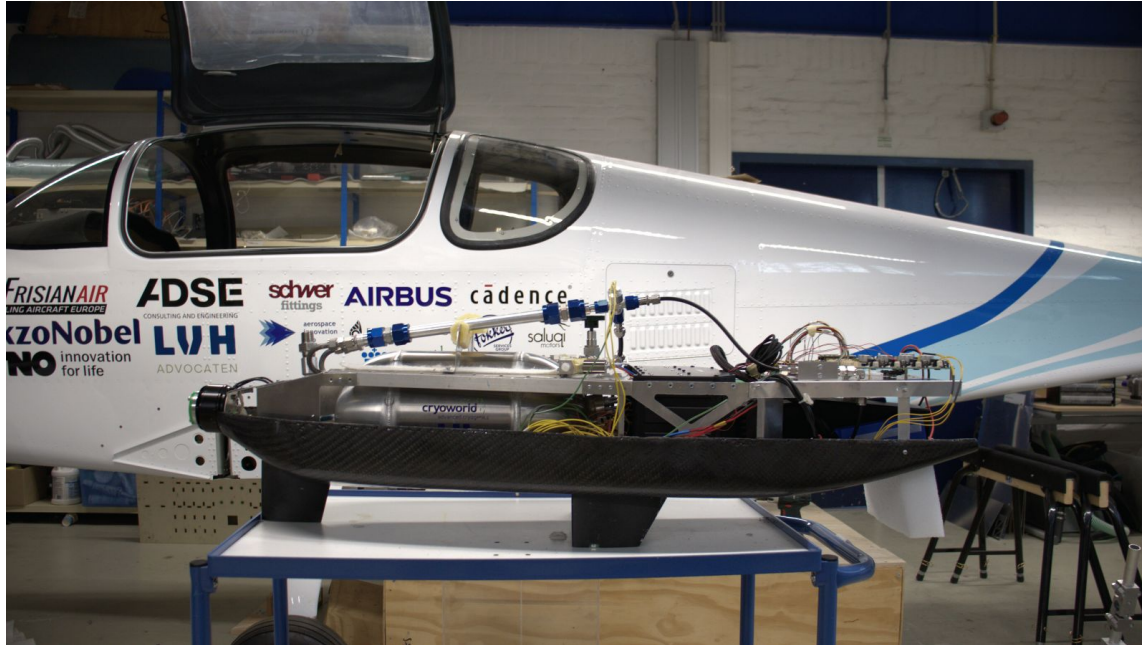
FS GH2 Taxi Test



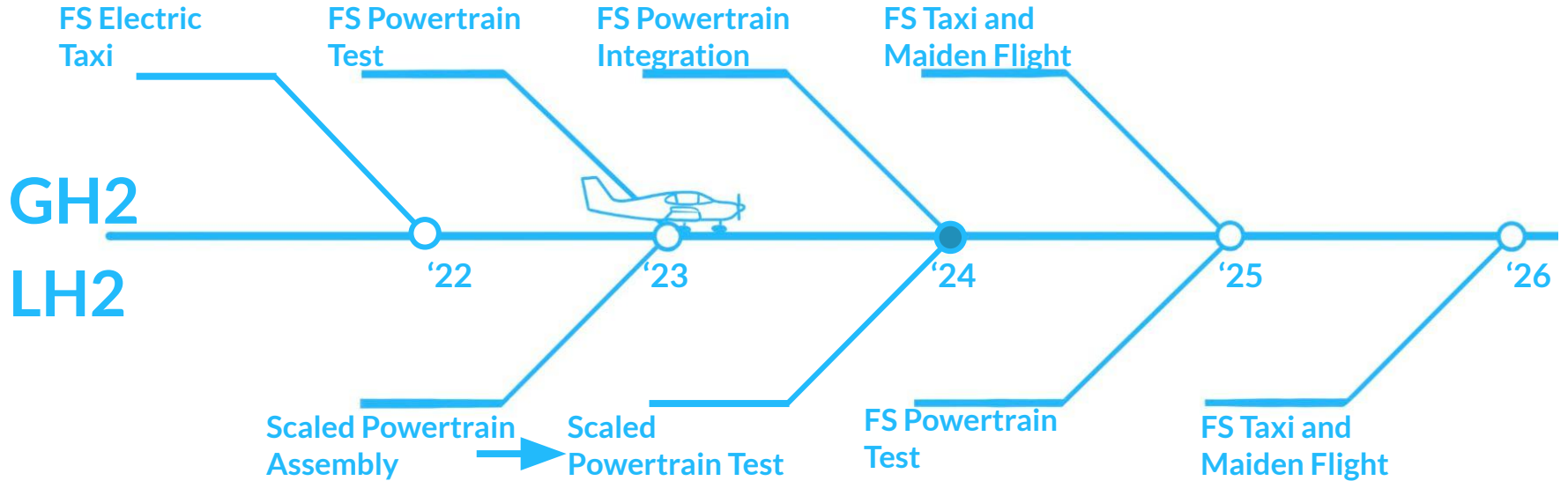
Timeline Goals



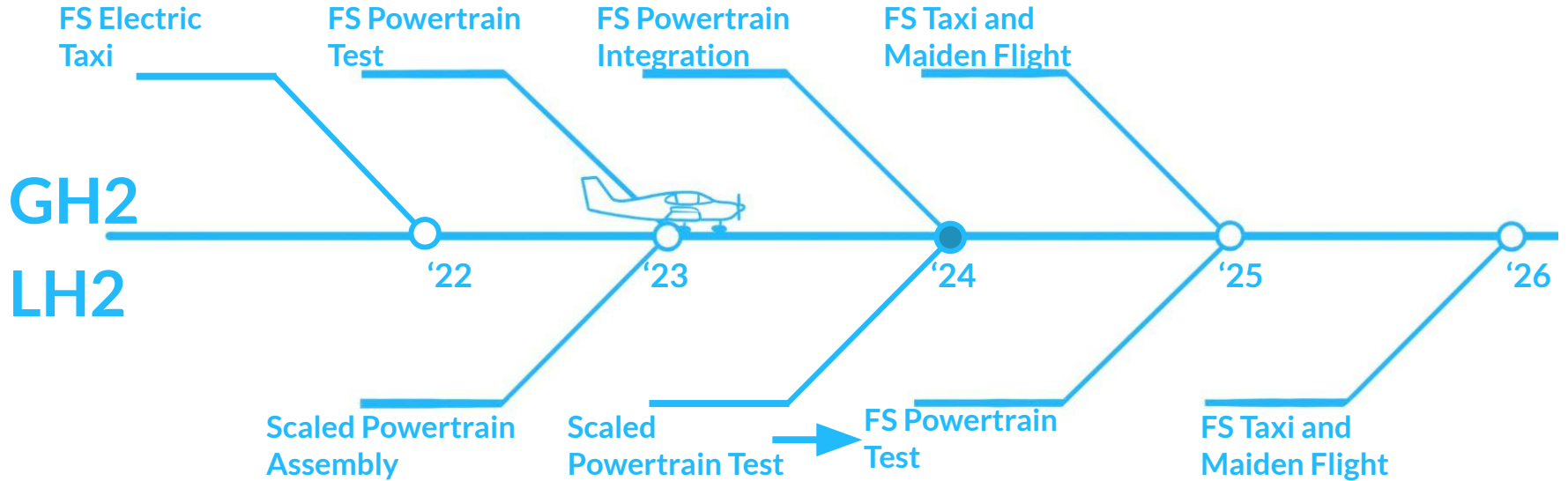
LH2: Scaled Powertrain Assembly



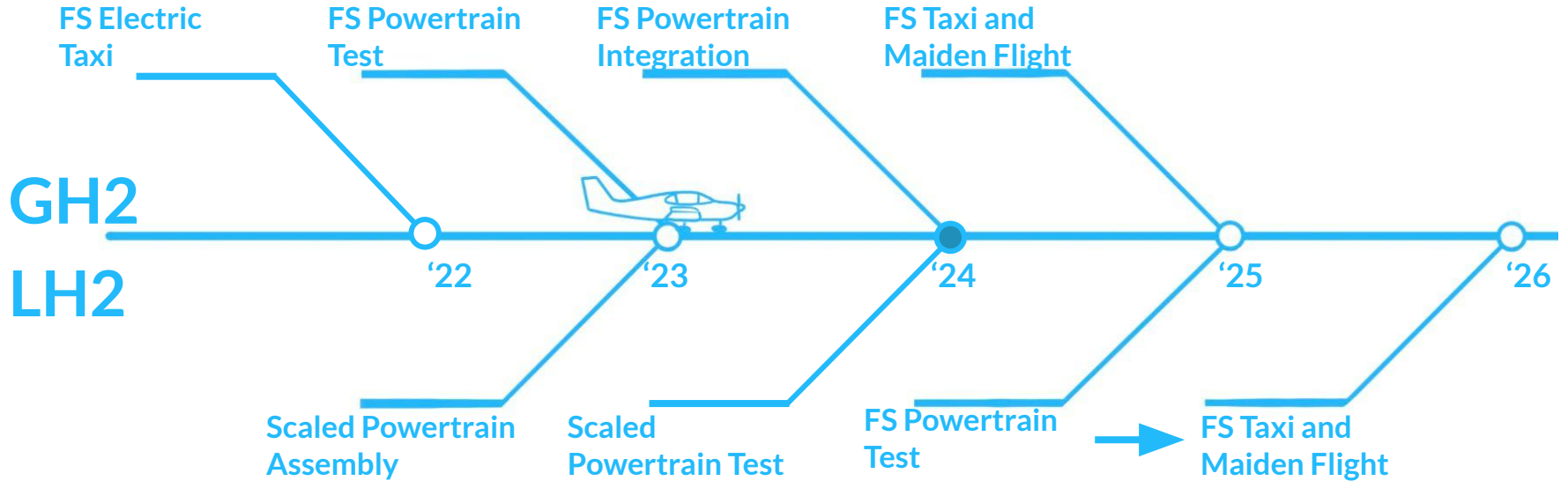
Timeline Goals



Timeline Goals



Timeline Goals



FS LH2 Taxi Test



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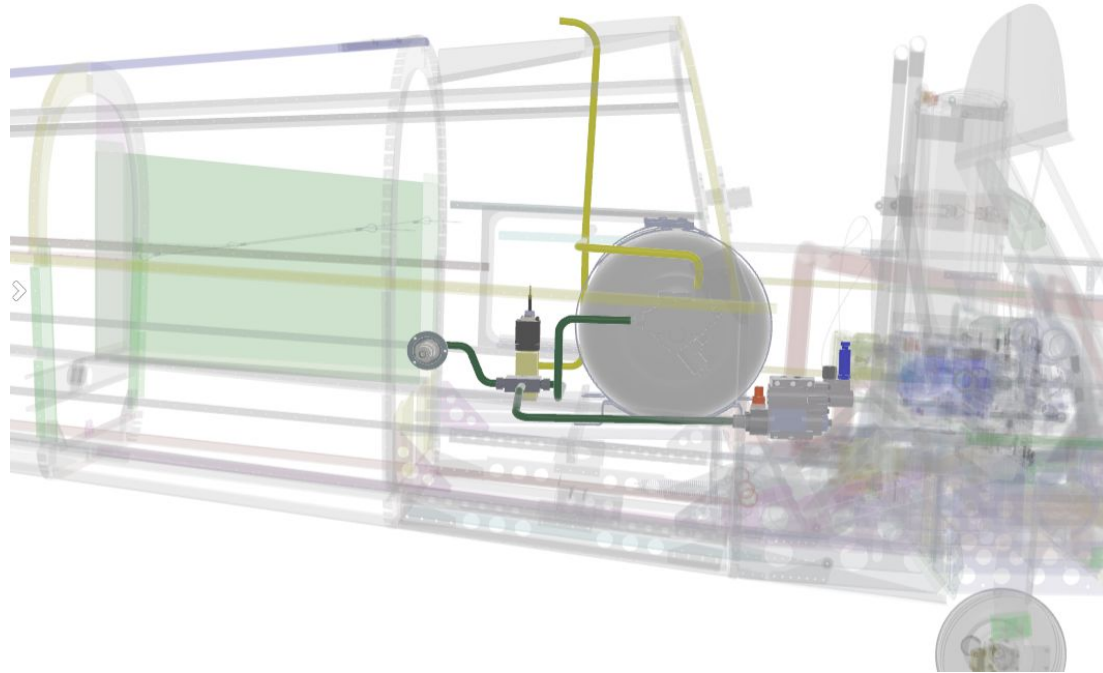
Challenges



Permit to Fly



Fire Protection



Final Thoughts

Hydrogen aviation is a growing trend!

Flying in Cleaner Skies!



Vishwajeetsinh Jadhavrao

AeroDelft.nl



Platinum Partners

TU Delft nlr COMMIT Aviation Systems Department for active response

Gold Partners

cryoworld advanced cryogenics LVH ADVOCATEN CONSULTING AND ENGINEERING ADSE ARENA AVIATION CAPITAL

TNO innovation for life FRISIAN AIR BEIJING AIRCRAFT ENGINEERING AkzoNobel

Silver Partners

aerospace innovation hub earth by experience travel KLM Royal Dutch Airlines saluqi KLM AIRBUS PRODUCTS AIR POWERCELL GROUP schwer fittings Fokker

Bronze Partners

Rotterdam The Hague Airport Bronkhorst Flow Technology X1 SKYFINITY BrightLoop H² Dynamics Vopak Indhex PRODUCT TALES cadence BOSCH ARCHITECT Sling RELIANCE PRECISION H2FLIGHT DAMEN femto engineering AERONEWS regreener holland HOLLAND AIRCRAFT ENGINEERING MSR JOMEC

AeroDelft our future flies in clean skies



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