

PIPISTREL  
VERTICAL  
SOLUTIONS



POLITECNICO  
MILANO 1863

TU Delft

Delft University of Technology



This project has received funding from the Clean Sky 2 Joint Undertaking (JU) under grant agreement No 864901.

The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Clean Sky 2 JU members other than the Union.

## MAIN SPECIFICATIONS

Payload	19 pax (2280 kg)
Powertrain	fuel-cell hybrid
Fuel	liquid hydrogen
Emissions	zero
Runway type	grass, tarmac
Runway length	800 m
Take-off noise	more than 3 times lower than a turboprop aircraft at equal performance
Climb angle	7 degrees
Cruise speed	150 kts
Typical trip	350 km
Total range	over 2000 km

Imagine a new way to travel,...  
no noise,...  
no emissions,...  
**just flying.**

Turn hours of car drive into a short hop flight from a

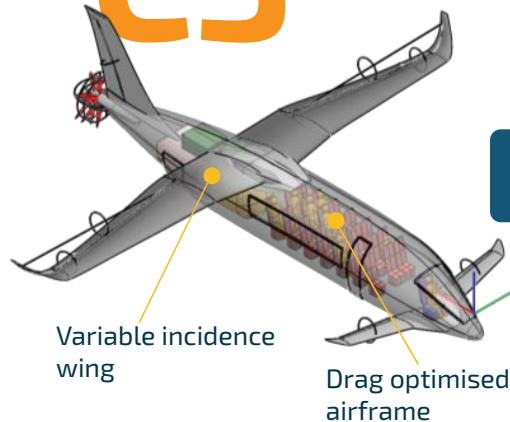


**...as easy as taking a bus.**



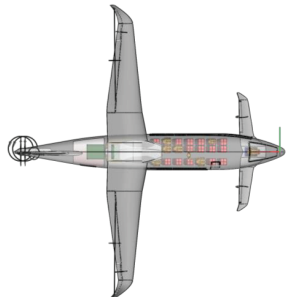
Four competing candidates have been downselected for the final UNIFIER19 configuration

CONCEPT C3



Variable incidence wing

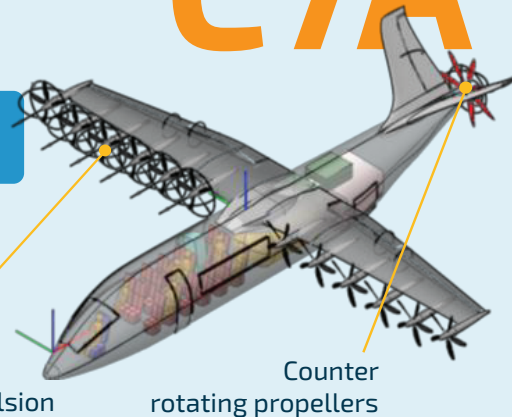
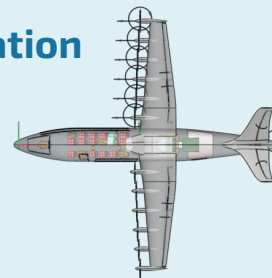
Drag optimised airframe



Innovative configuration space exploration

High efficiency fuel cell technology

CONCEPT C7A

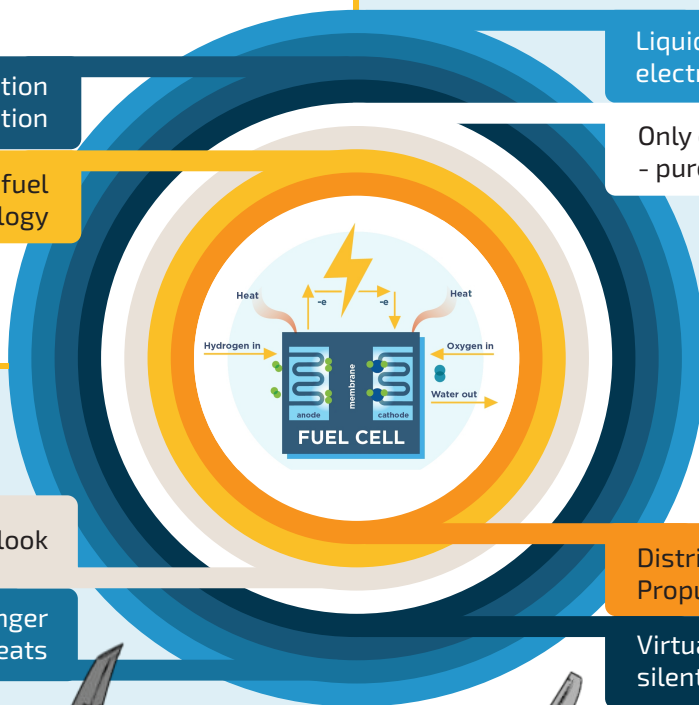


Liquid hydrogen electric power system

Only emission - pure water

Distributed electric propulsion

Counter rotating propellers

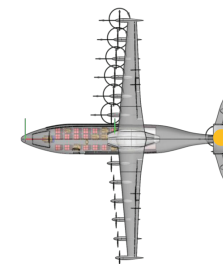


Futuristic look

Passenger capacity 19 seats

Distributed Electric Propulsion

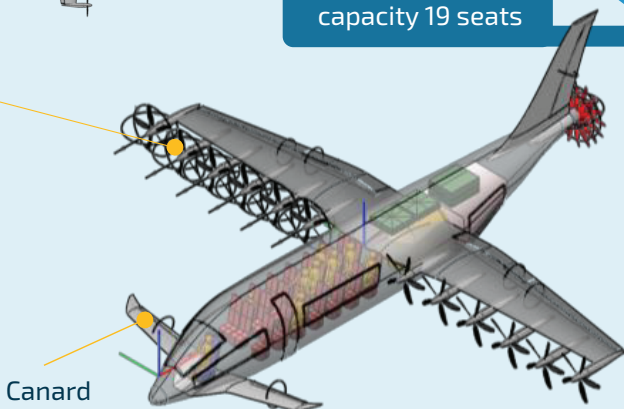
Virtually silent flight



Ducted fan propulsion

Distributed electric propulsion

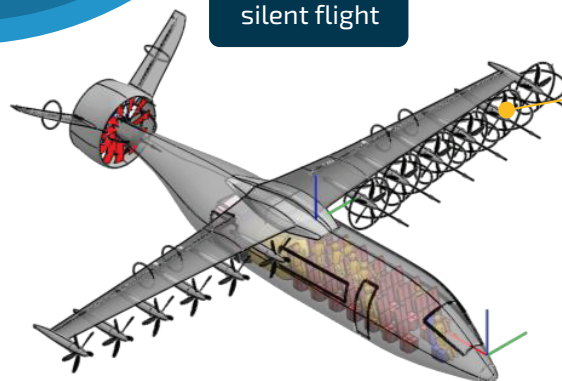
CONCEPT C2



Distributed electric propulsion

Canard

CONCEPT PVS1



Distributed electric propulsion