Christophe Arnold

Head of Hydrogen Infrastructure

Airbus

Session 8: Building Partnerships for a Sustainable Future


ZEROe
Towards the 1st hydrogen-powered commercial aircraft
AIRBUS

Airbus ambition

Pioneering Sustainable Aerospace for a Safe and United World

2030
Offer 100% SAF capability on our commercial aircraft

2035
Be the 1st major manufacturer to offer a decarbonized commercial aircraft

2050
Reach aviation* net-zero emission target

*A historical milestone was reached on 7 October 2022 at the 41st ICAO (International Civil Aviation Organization) Assembly: Net Zero Carbon emissions goal in 2050

AIRBUS

Airbus taking action on the hydrogen ecosystem

Airbus acts **as a catalyser, bringing together all major players** across the global Ecosystem


Airport Ecosystem


Energy Providers


Airlines


Funds & Investors

H2 Alliances


Non-aviation


Regulator Bodies


Governments


Research Institutes & Academics

2021
Launch of preliminary studies into airport infrastructures and energy production needs

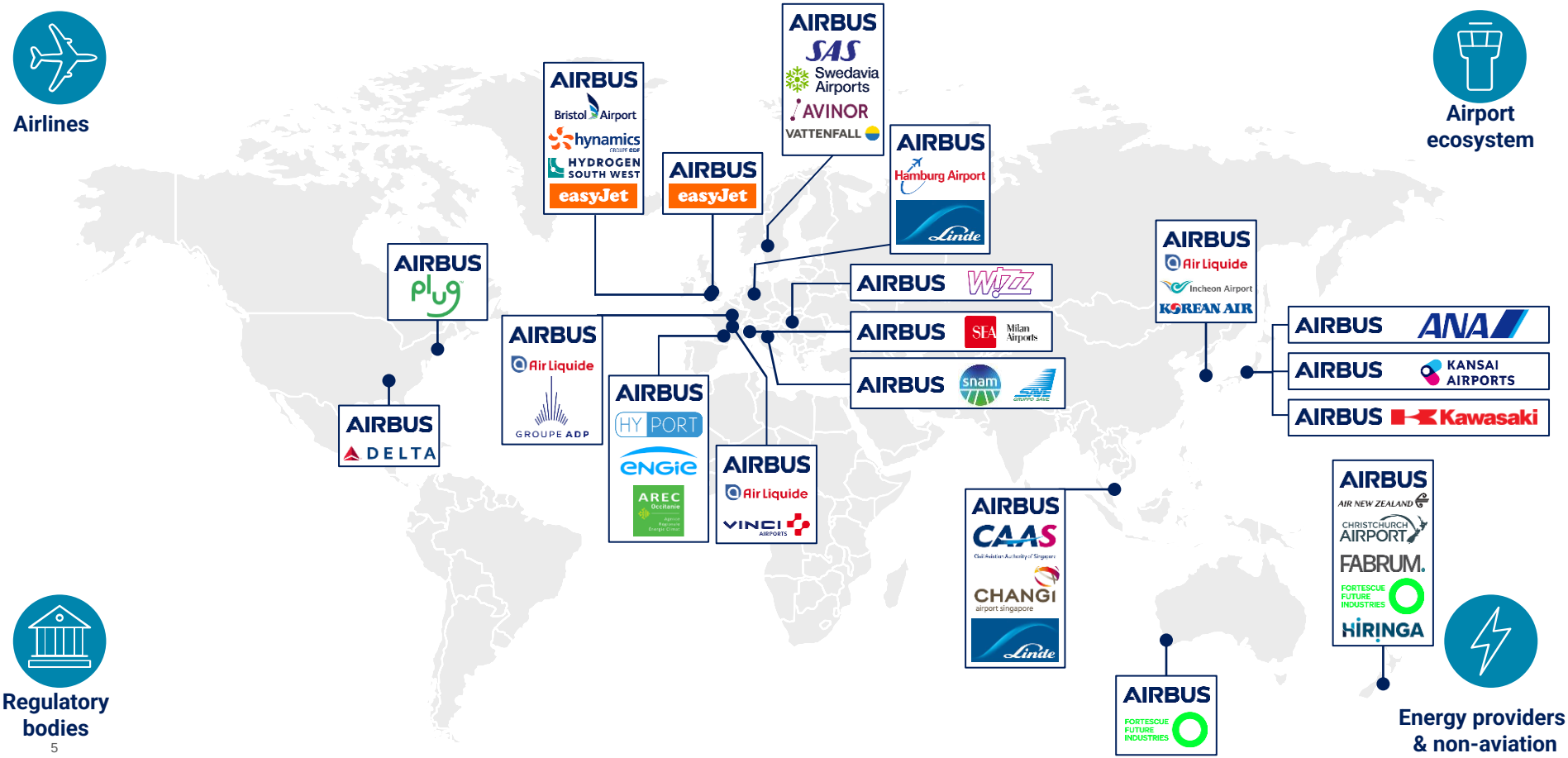
2023
Start of concept deployment at airports worldwide

2030
Ramp up of hydrogen infrastructure deployment worldwide

2035
Entry-into-service of ZEROe hydrogen-powered aircraft at airports

AIRBUS

The ecosystem challenge | Multi-Parties Strategic Partnerships



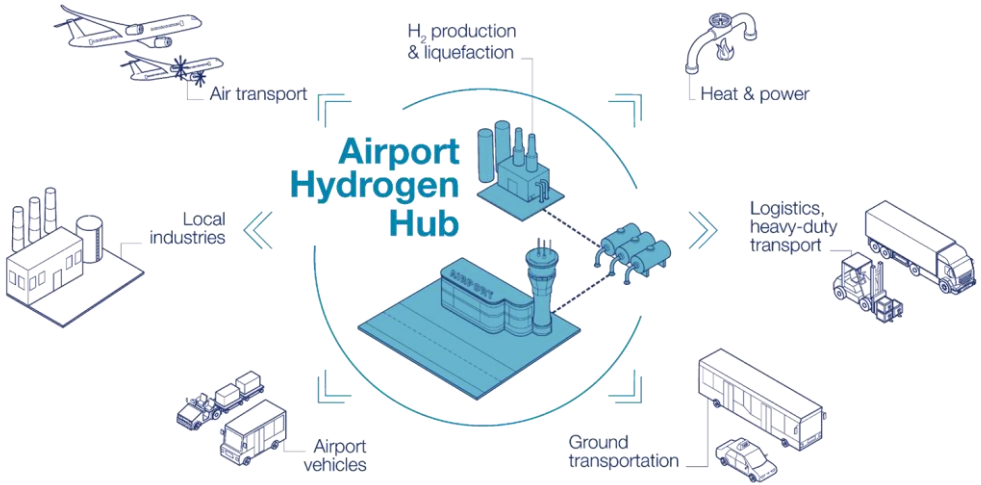
Hydrogen Hubs at airports

Hydrogen Hubs at airports will:

Prepare regulations and standards for the handling of H_2 at airports

Ensure that a large number of airports worldwide are supplied with liquid H_2 by 2035

Foster efficiency improvements and cost reductions in hydrogen liquefaction, storage and distribution



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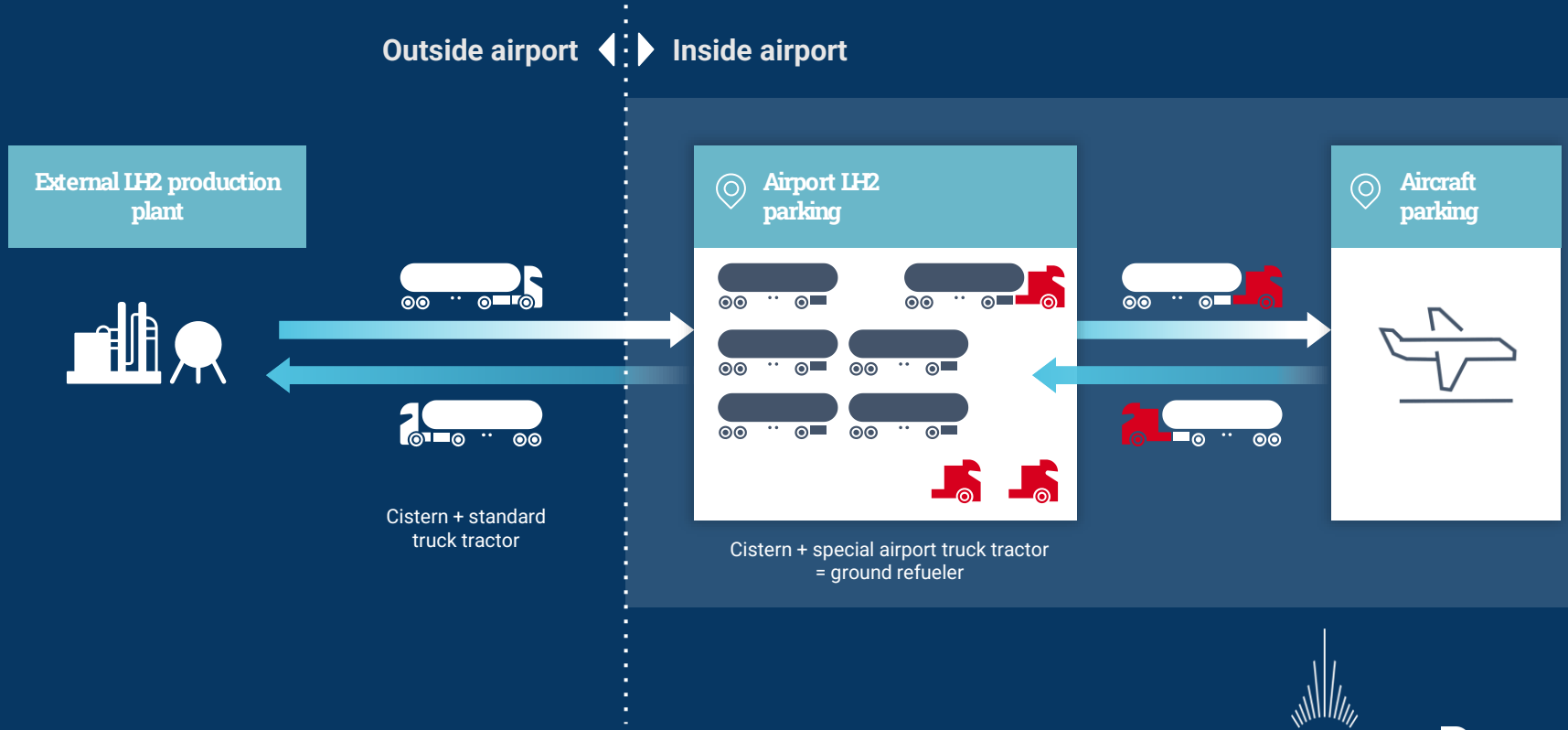
How to make your airport hydrogen ready?

Cooperation between:

AIRBUS GROUPE ADP Air Liquide

HOW TO INITIATE THE LH2 SUPPLY WITH TRUCKS?



AIRBUS GROUPE ADP Air Liquide

3 POSSIBLE SCENARIOS OF
LH2 SUPPLY TO THE AIRCRAFT

Outside airport | Inside airport

LH2 import by trucks from external plant

GH2 import by pipeline

Low carbon electricity import

2 ways
to organize the process within airport:
centralized or decentralized

2 technologies
to distribute LH2 at airport:
LH2 trucks and/or cryogenic pipelines

AIRBUS GROUPE ADP Air Liquide

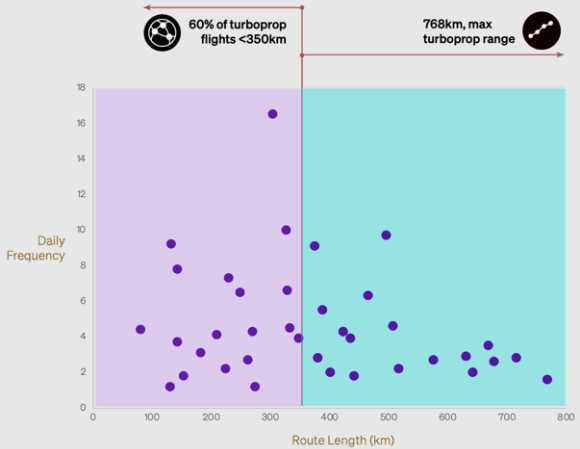
Launching Green Hydrogen Powered Aviation in Aotearoa New Zealand

The New Zealand Hydrogen Aviation Consortium

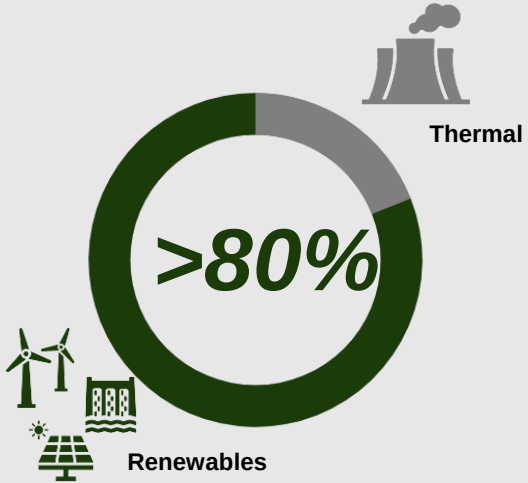
AIRBUS · AIR NEW ZEALAND · CHRISTCHURCH AIRPORT · FABRUM. · Fortescue. · HIRINGA

Aotearoa New Zealand is well positioned to support a decarbonised Aviation sector

Ideally Suited Domestic Network



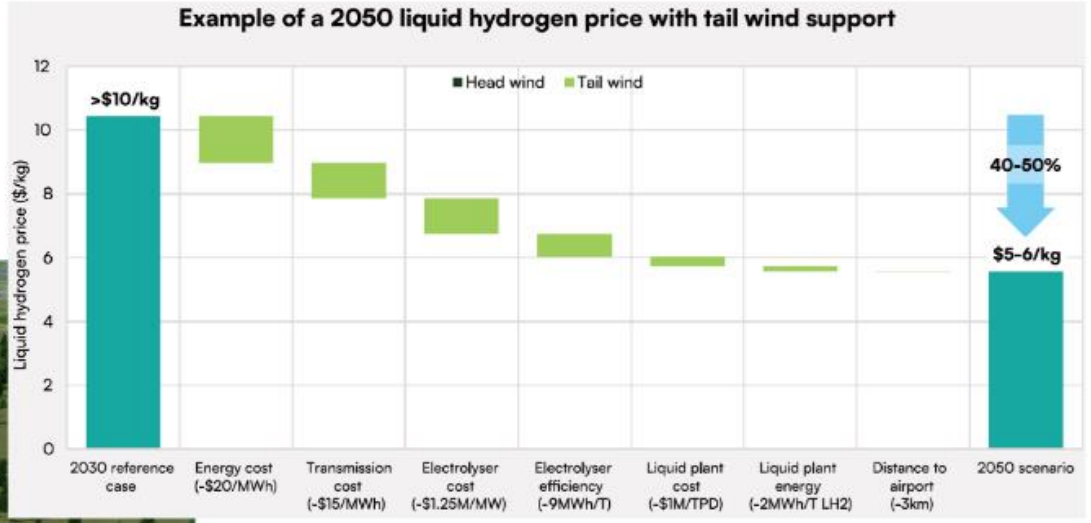
Access to Renewable Energy



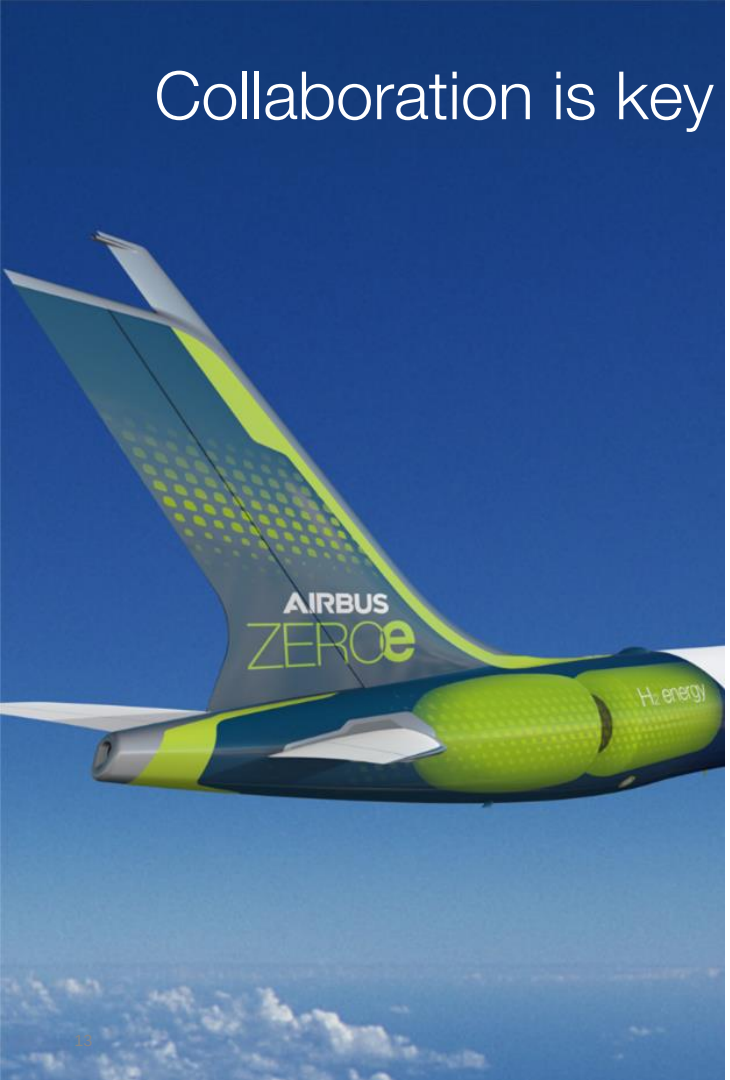
Challenging long term mobility substitutes

Enabled by aligned stakeholders across the private and public sector

Commercialising H_2 for Aviation – at scale



Collaboration is key to activating H2



Collaboration of private and public sectors across the supply chain

Required standards and recommended practices development in ADOP

Education, advocacy and dissemination of learnings from studies with airports

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Thank You

ICAO