



# Aviation H2 Business Summary



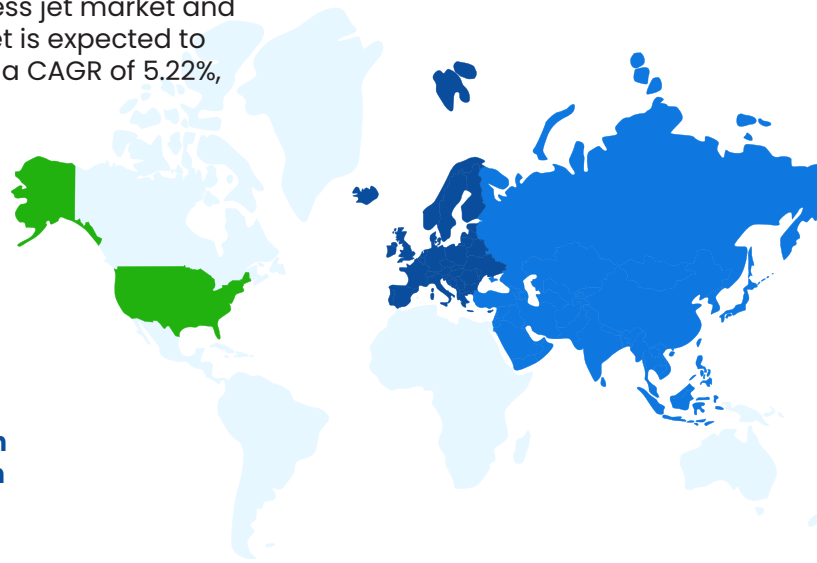
How Aviation H2 plans to successfully commercialise their state-of-the-art hydrogen conversion technology for jet engine planes.



# Revenue Model

Aviation H2 will insulate their business model by developing two revenue streams that will service both the business jet market and jet engine manufacturers (OEMs). The first market is expected to grow from **\$25.87b in 2021 to \$36.94b by 2028** at a CAGR of 5.22%, while the second is valued at almost US\$80b.

- 1 **Hydrogen conversion hangars strategically located in jet aircraft hubs across the world, which will allow Aviation H2 to target large fleet owners.**
- 2 **Form technology licencing agreements with major jet engine manufacturers so they can begin selling carbon-free products.**



The company will be working closely with relevant authorities to ensure the certification process is expedited and will patent their regulation approved technology, which will create a barrier to entry for potential competitors.

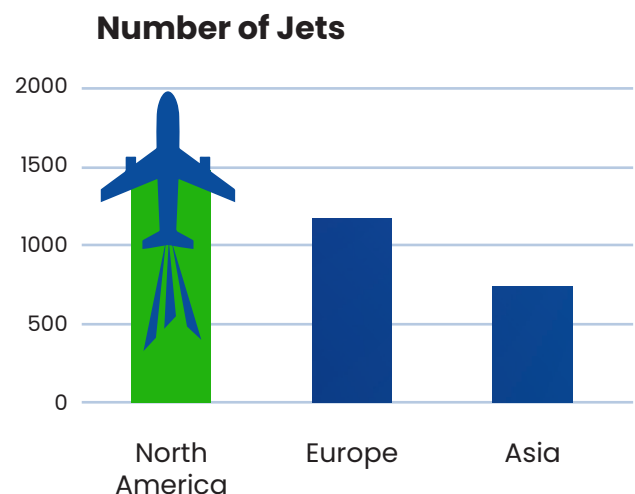
Once the test flight in 2023 is successful, the company will seek a listing on a major exchange in Q4 of 2023.



## Revenue Stream One *Conversion Hangars*

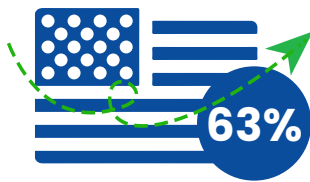
Initially, Aviation H2 will look to target North America, as it has the highest concentration of jets in the world, then branch out to Europe and Asia. This will be done by forming hydrogen conversion hangars in these locations. Potential customers will be able to fly their plane in and have it converted into one that operates on carbon-free fuel.

The Aviation H2 directors have already started reaching out to large fleet owners to form offtake agreements to modify their aircraft once the product is commercialised.

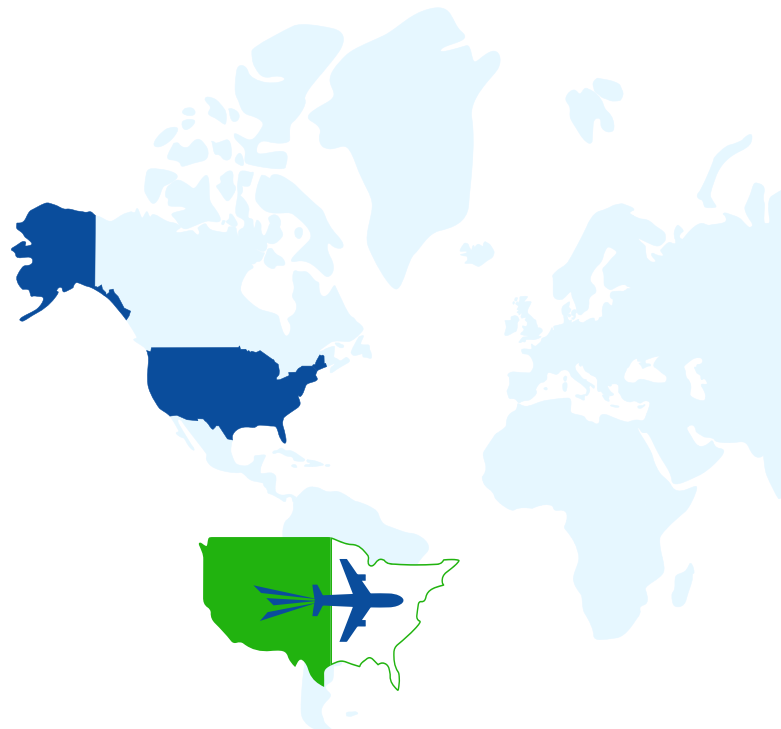


# Conversion Site in North America

In 2019, the United States had the biggest business aviation fleet of over 21,800 registered aircraft worldwide. The fleet comprised 13,700 private jet aircraft, 8,001 turboprops, and 90 executive aircraft.



Owing to the high demand, the United States accounts for almost **63% of the world's private aviation jets**.



Fleet reports show that private jet aircraft make up **more than half** of the country's business aviation fleet.



KTEB in Teterboro, New Jersey, was the busiest private jet airport in 2020, with **36,508 flights**. KDAL airport in Dallas, Texas, came second at 29,809 flights, and KPBI in Palm Beach, Florida, ranked third at 27,781.



The market size of private jet aircraft and other charter flights in the United States was \$24.4 billion in 2019. During the 2020 pandemic, the number slightly fell to \$23.1 billion. For the first quarter of 2021, the charter flight industry grew with a market share of **\$23.6 billion**.



The region is currently in process of developing a **tax credit system** for sustainable aviation fuels.



The United States is targeting 20% lower aviation emissions by 2030 and plans to be carbon-free by 2050.

# Potential Conversion Site in Europe

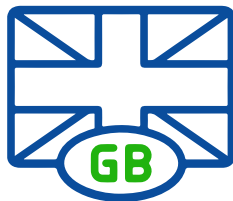
Europe had a total of 2,760 business jets by the end of 2019. Germany was the highest contributor at 495 private aircraft, and the UK was the second-highest at 341. France comes at a fairly close third with 272 registered luxury business aircraft.



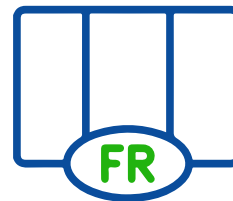
Data from 2019 shows Europe hosted about 13% of all the business aircraft in the world.



Germany had the highest registered business aircraft, which accounted for almost 18% of the continent's fleet.



The UK's business aircraft came second at 12%.



France's private jet industry came third, at roughly 9%.



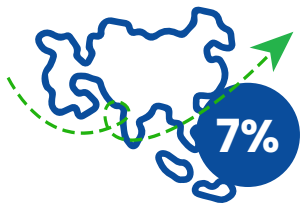
The European Commission put forward an EU-wide minimum tax rate for polluting aviation fuels, especially kerosene, on 14 July, as part of its proposed initiatives to reduce CO<sub>2</sub> emissions by at least 55% by 2030.



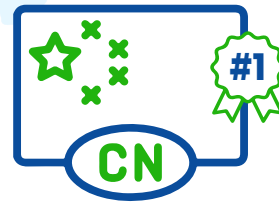
All EU countries have joined Carbon Offsetting and Reduction Scheme for International Aviation, which will see companies offset around 80% of the emissions above 2020 levels.

# Potential Conversion Site in Asia

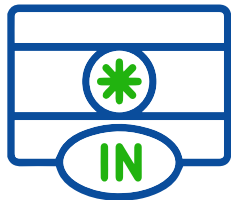
In 2019, Asia hosted the third-biggest business aviation fleet in the world, with 1,570 registered jets from various countries on the continent. China contributes the highest amount, making up about 18% of the region's fleet. India ranks second at 9%, and Saudi Arabia comes in at a close third with 7.6%.



Asia accounted for about 7% of the world's private jet aircraft in 2019.



China had 287 business aviation jets by the end of 2019, the biggest fleet on the continent.



India had the second-biggest fleet with 147 private aviation jets.



Saudi Arabia had the third most business aviation jets at 119.



# Revenue Stream Two

## Technology Licencing

Following COP26, 100 national governments, cities, states and major businesses signed the Glasgow Declaration on Zero-Emission Cars and Vans to end the sale of internal combustion engines by 2035. Once the technology improves, ending the production of fossil fuel planes is a natural progression from the shift seen in the vehicle market.

This creates an enormous opportunity for Aviation H2 to work with jet engine manufacturers (OEMs) so they can offer their clients, like Boeing or Gulf Stream, a carbon-free product. Aviation companies

are already looking for a solution to protect their business and want to be ahead of their competitors.

By being one of the first to market, Aviation H2 will help the jet engine manufacturing industry transition to carbon-free products and overcome this imminent change before it becomes urgent.

The Aviation H2 directors will start reaching out to large jet engine manufacturers to form offtakes for listening agreements once the technology is commercialised.



The global aircraft engine market size was valued at \$79.93 Bn in 2019 & is projected to reach \$85.44 Bn by 2027, at a CAGR of 11.27%.



North America holds the largest market share and was valued at US\$31b in 2019.

### USA Potential customers

**Honeywell**

(North Carolina)



GE Aviation

(Ohio)



International Aero Engines

(Connecticut)

**TEXTRON**

(Rhode Island)



United Technologies

(Connecticut)



Williams INTERNATIONAL

(Michigan)

### Europe Potential customers



(Munich, Germany)



(Paris, France)



(London, U.K.)



(Paris, France)



# Working With Aviation Authorities & Regulators In Preparation For IPO

A key part of Aviation H2's strategy toward commercialising their technology and accelerating their planned listing on a major exchange will be working closely with aviation authorities and regulators to ensure the certification process is quick.

### Certification strategy:

- Bench testing to document and prove the performance of the modified Honeywell TFE 731-3 model engine running on liquid ammonia fuel.
- A Falcon 50 aircraft with the central engine

modified for use with carbon-free fuel and a fuel tank sized to suffice for one hour of flying in the experimental category.

- A Falcon 50 aircraft with all three engines modified for flight using liquid ammonia fuel in the experimental category.
- An Aviation H2 and CASA approved certification plan for the first engine and aircraft certification to be used for conversion and licensing agreements.
- A modification methodology for the first engine and aircraft certification models.



## Strategic Partnership With Falcon Air

Aviation H2 has an agreement with FalconAir, giving them access to their hangar, facilities and operating licenses in Bankstown Airport, so they can begin building Australia's first hydrogen-powered plane.

- FalconAir has a long history in the maintenance, operation and management of Falcon Aircraft.
- Will provide specialist and licensed aircraft maintenance engineering, piloting and hangarage.
- FalconAir will leverage its global network of relationships to acquire the test engines and aircraft that will be used to deliver the project.
- FalconAir will use their proven expertise to help communicate with aviation authorities and accelerate the certification process.

## Exit Strategy

### Aviation Will Have CASA Aligned IP Ready To Commence Certification Prior To An IPO

Once phase two is complete and the test flight is proved successful, Aviation H2 will seek a listing on a major exchange to fund the commercialisation of its technology in Q4 of 2023.



The company will have a proprietary method for converting existing kerosene-based gas turbines to operate on a carbon-free fuel, liquid ammonia.



The certification plan will be specific to the particular engine and plane Aviation H2 is modifying. However, since the approval process is performance-based, certifications for additional engines and aircraft will be a lot simpler.



During the process of testing and building the hydrogen-powered plane, Aviation H2 will simultaneously work with CASA and/or FAA to ensure there is a certification plan in accordance with the new performance-based wording of FAA33 (engine certification).



Once this is achieved, Aviation H2 will be ready to go to market and begin helping the Aviation industry transition to carbon-free flight.

#### References

1. [Fortune Business Insights: Business Jet Market Size](#)
2. [United Nations: Era free of fossil-fuel powered vehicles comes into focus at COP26; draft outcome is met with calls for more ambition](#)
3. [Bart International 2019 Fleet Report](#)
4. [Fortune Business Insights: Aircraft Engine Market Size](#)