

# Hydrogen Aviation & Airports

## *Adaptation & Impact Areas*

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*Hydrogen Aviation Lead*  
*NACO, Netherlands Airport Consultants*



A world-leading aviation consultancy



**NACO**

a company of Royal HaskoningDHV

Over  
**70 years'**  
experience

Projects at  
**700 airports**  
worldwide

Supported by 6000  
multi-disciplinary  
colleagues of group  
company - Royal  
HaskoningDHV

Over 150  
employees  
from 25+  
countries

## NACO is a world-leading aviation consultancy and airport engineering firm

### With comprehensive expertise in



Sustainable Aviation  
and Climate Resilience



Asset Optimisation,  
Airport Systems and Operations



Airport  
Infrastructure



Airport Master Planning  
and PPP



Customer  
Experience



Air Traffic Forecasting  
and Economics



Air Cargo and Intermodal  
Transport Hubs



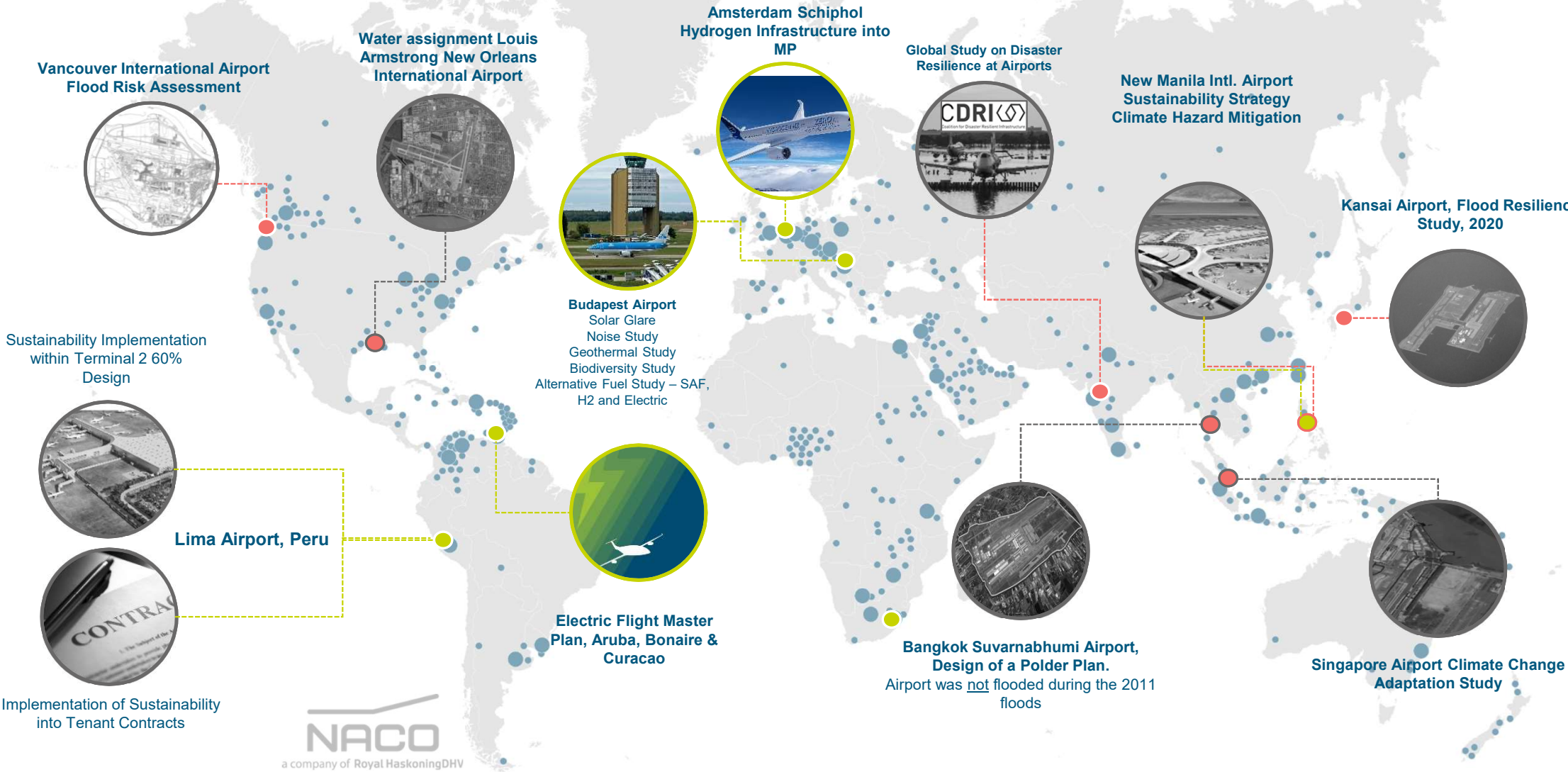
Airport Buildings  
and Terminal Design

### Contact

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# Alternative Fuel Advisory is a Key Driver of Sustainability in Aviation



### Slide 3

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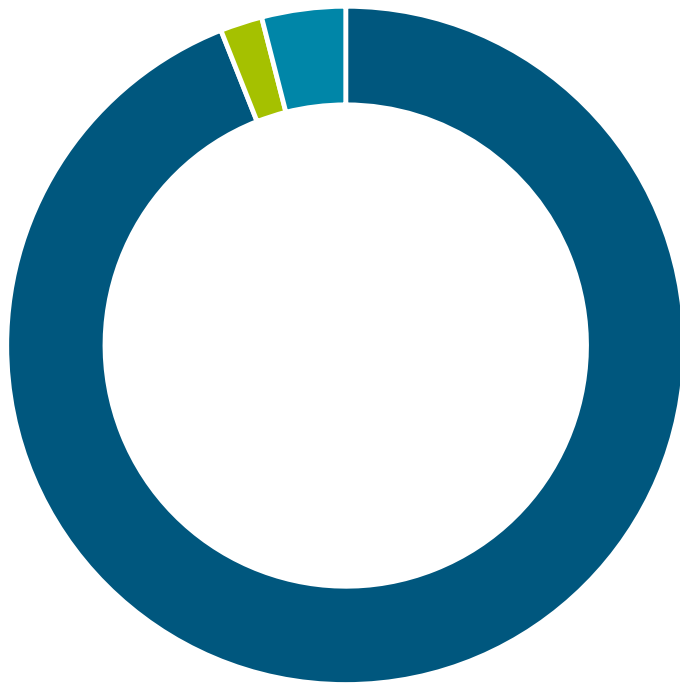
**EDO**

Unhighlighted climate resilience  
Eoghan Davis, 2023-08-01T12:38:21.404

**GK0 0**

Thanks!  
Gopal Kandiyoor, 2023-08-01T15:33:29.695

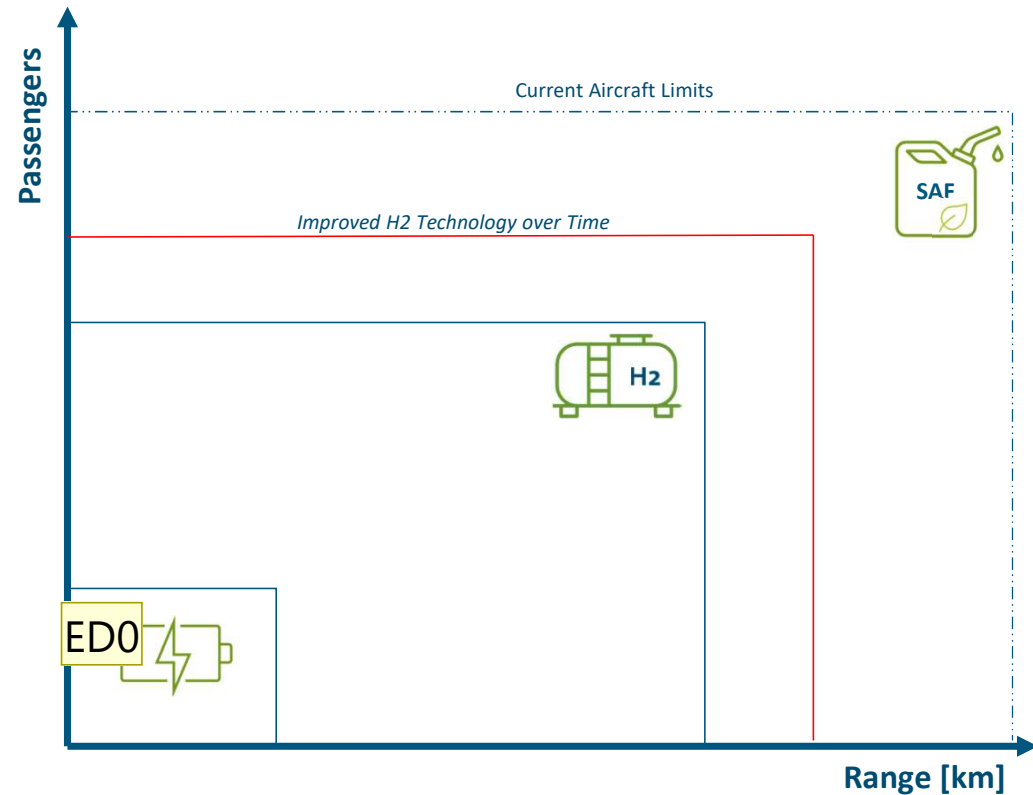
# Alternative Fuels as Decarbonisation Pathways



 Airlines – 94%

 Others – 4%

 Airports – 2%



## Slide 4

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**ED0**

Could be good to make this fill the slide more on the left

Eoghan Davis, 2023-08-01T12:39:57.853

**ED0 0**

Example shown here, feel free to keep or scrap depending on how it looks!

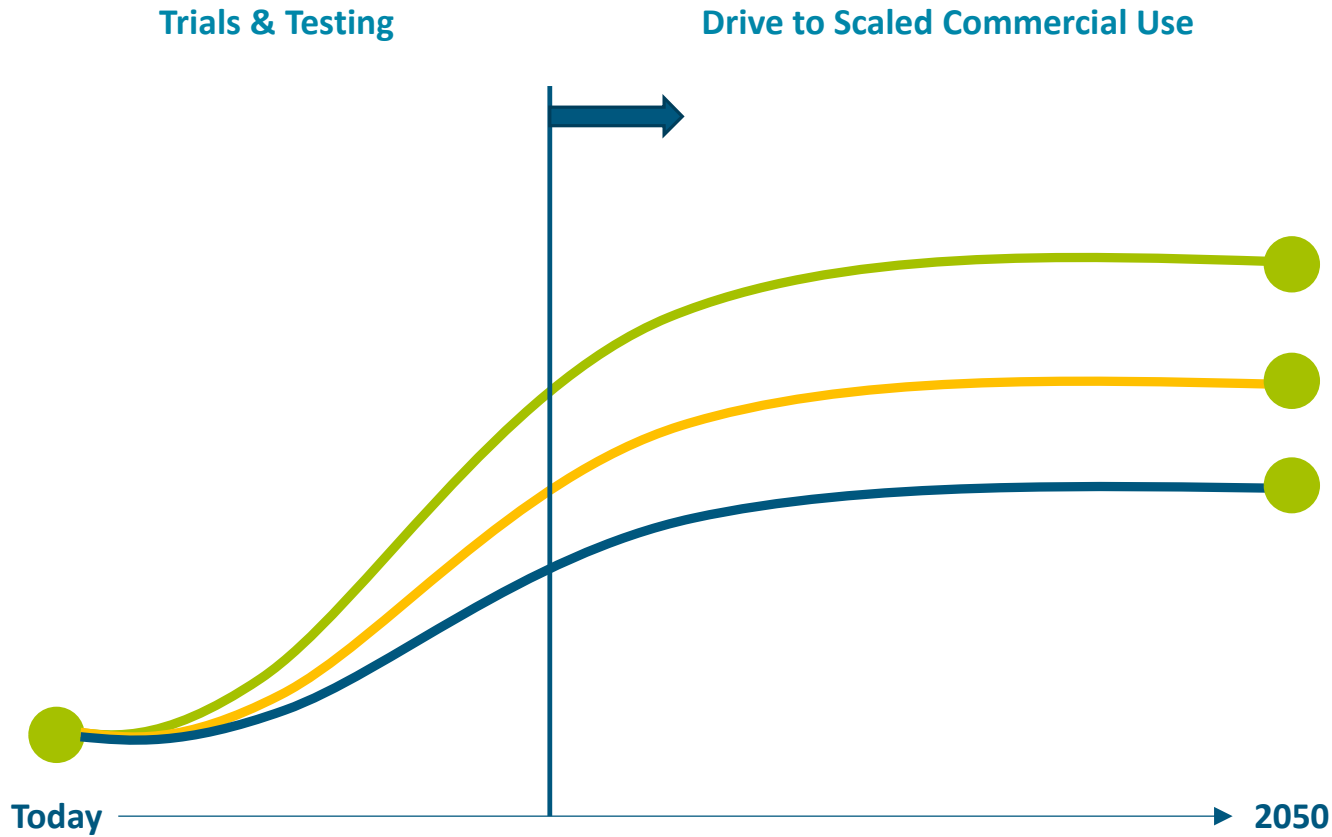
Eoghan Davis, 2023-08-01T12:49:21.503

**GK0 1**

Looks Great!

Gopal Kandiyoor, 2023-08-01T15:33:53.482

# Scaling the use of Hydrogen at Airports



## Key Impact Areas



Spatial Planning



Ground Operations



Safety & Risk Mitigation

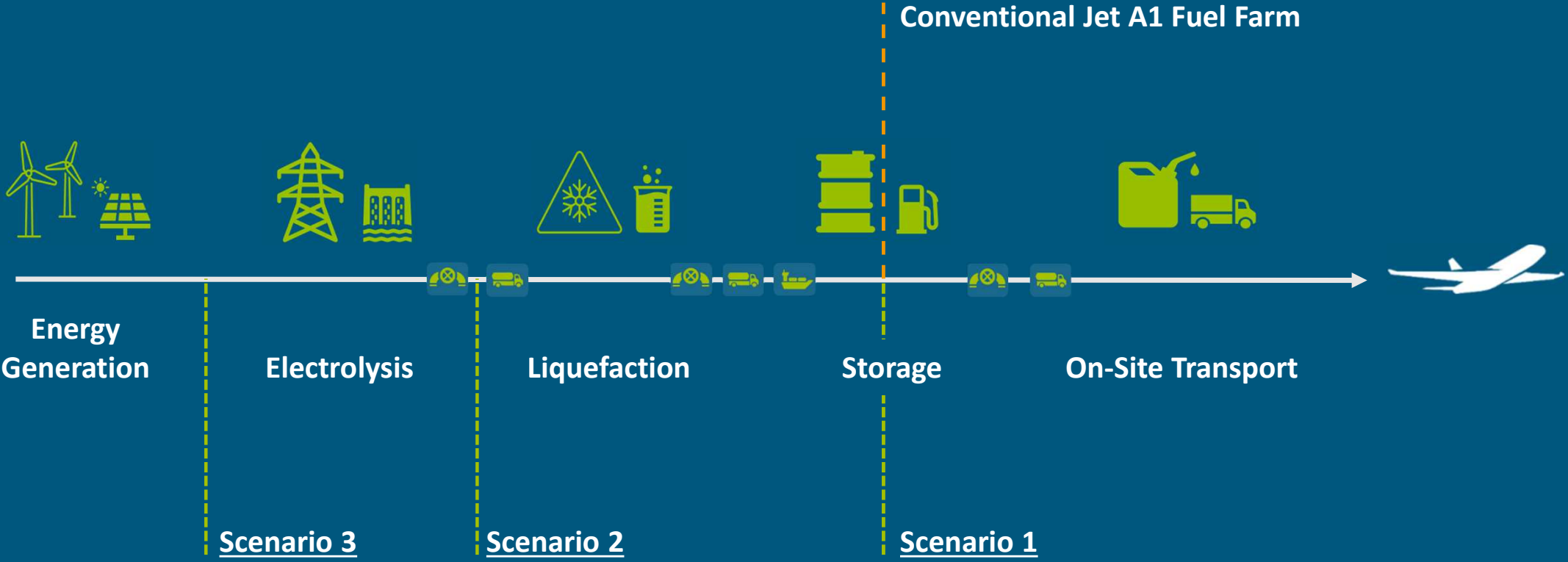


Stakeholder Engagement



Sustainable Finance

# Hydrogen Supply Chains



# Supply Chain Decision Drivers



## Decision Drivers



Spatial Footprint



Hydrogen Requirements



Risk Profiles

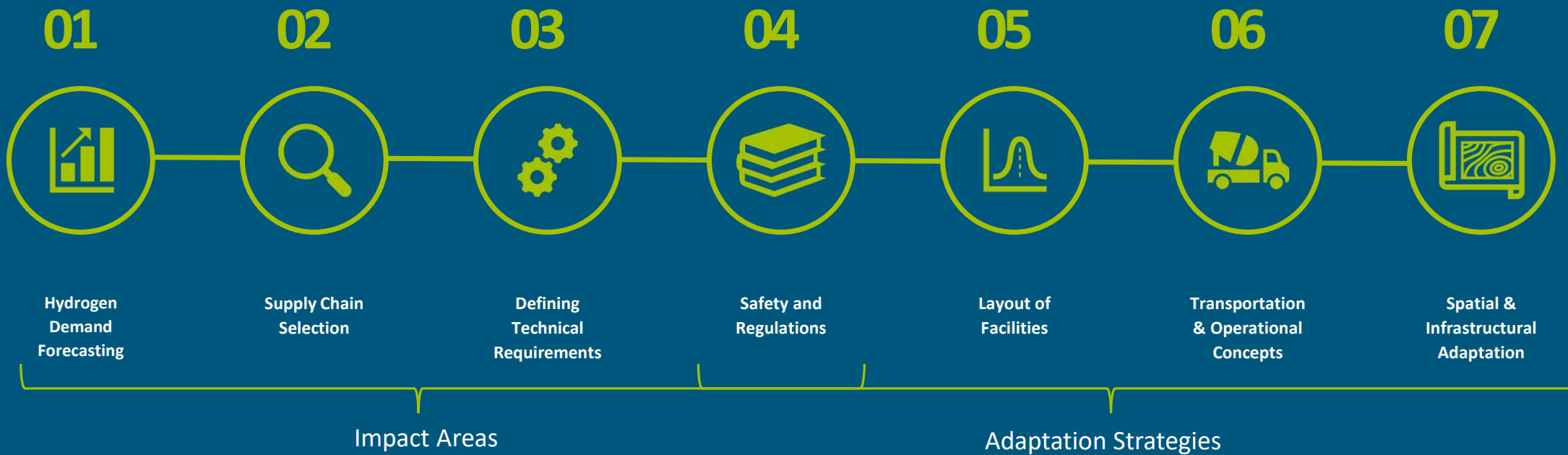


Operational Feasibility

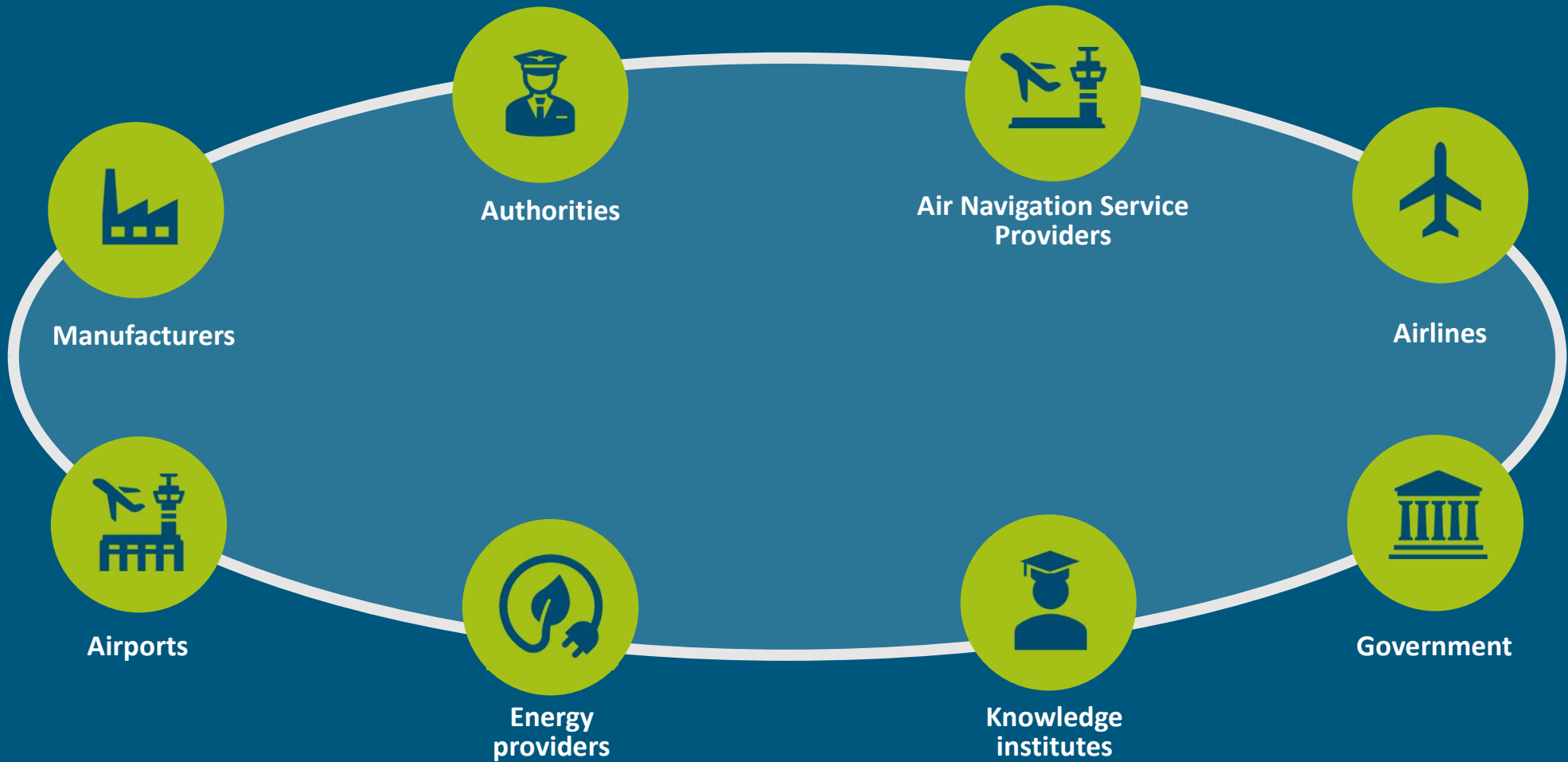


CAPEX & OPEX

# Hydrogen & Airports – Impact & Adaptation Strategies



# Planning for Hydrogen Aviation requires close collaboration



# Summary



**Aircraft Driven Demand**



**Concept of Operations**



**Space Constraints**



**Scale Up Limits**



**Risk Profile**



**Commercial Feasibility**



a company of Royal HaskoningDHV

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## Slide 11

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**EDO**

[@Gopal Kandiyoor] added different end slide  
Eoghan Davis, 2023-08-01T12:33:44.061