

# AluAir: Empowering Tomorrow with Green Hydrogen

Primary Aluminum-Air Battery



# PROBLEMS



High H2 Production Cost



Grey H2 Domination



High Installation Cost & Space Requirement



High Liquefaction & Transfer Costs



Dependency on the Electricity Grid

# INNOVATIVE SOLUTION

1 Kg Aluminum provides

110g Hydrogen (99.99%)

200 Wh

~2 Kg Aluminum Hidroxide  
(for selling or recycling)

> 90%  
Recovery

## Stationary Station

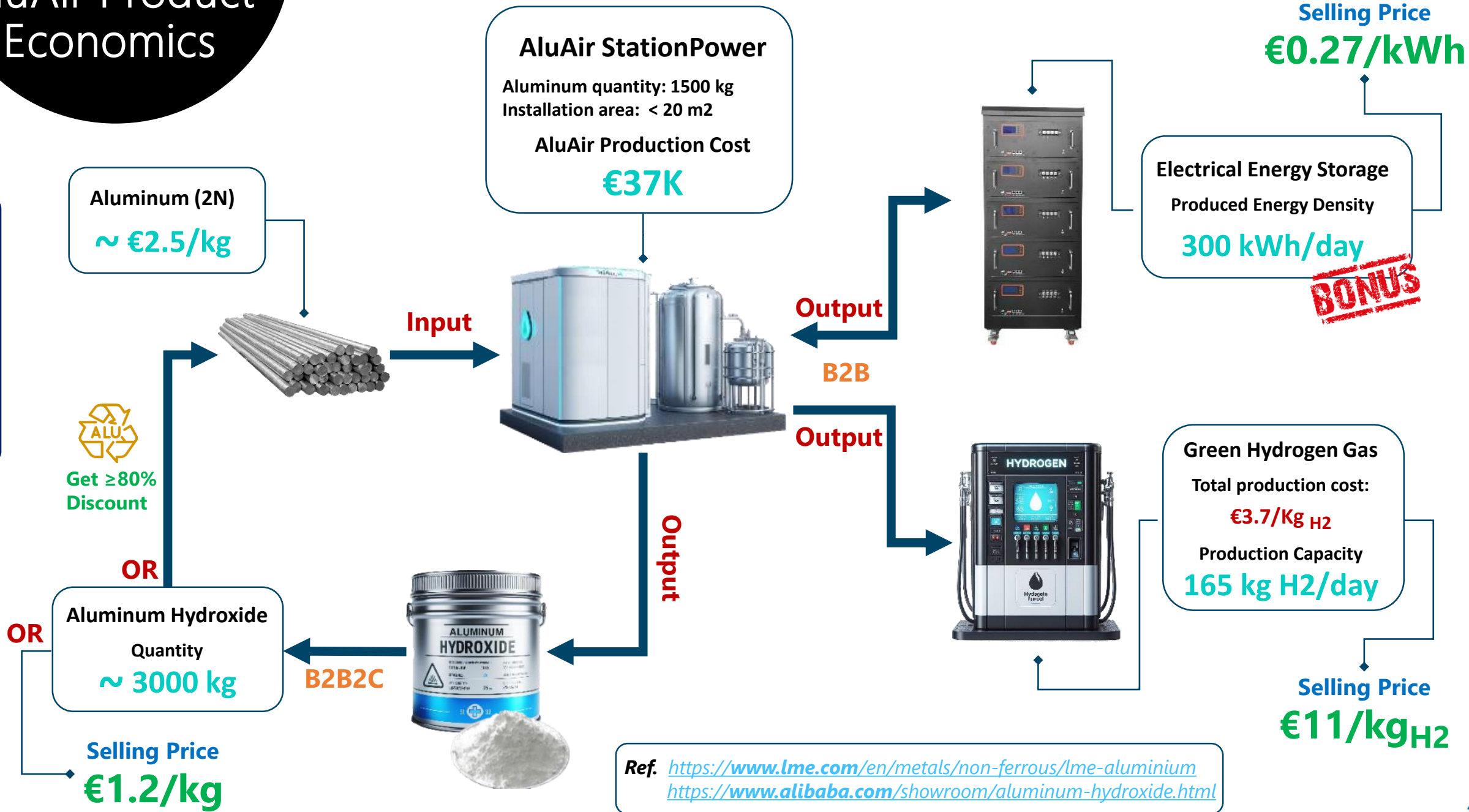


Provides On-Site  
GH<sub>2</sub> Fuel  
for

Hydrogen-Fuel Cell  
Vehicles

# AluAir Product Economics

INRES



# The Deal



**AluAir StationPower**  
(Kg H2 / Day)  
(kWh / Day)

**INRES**

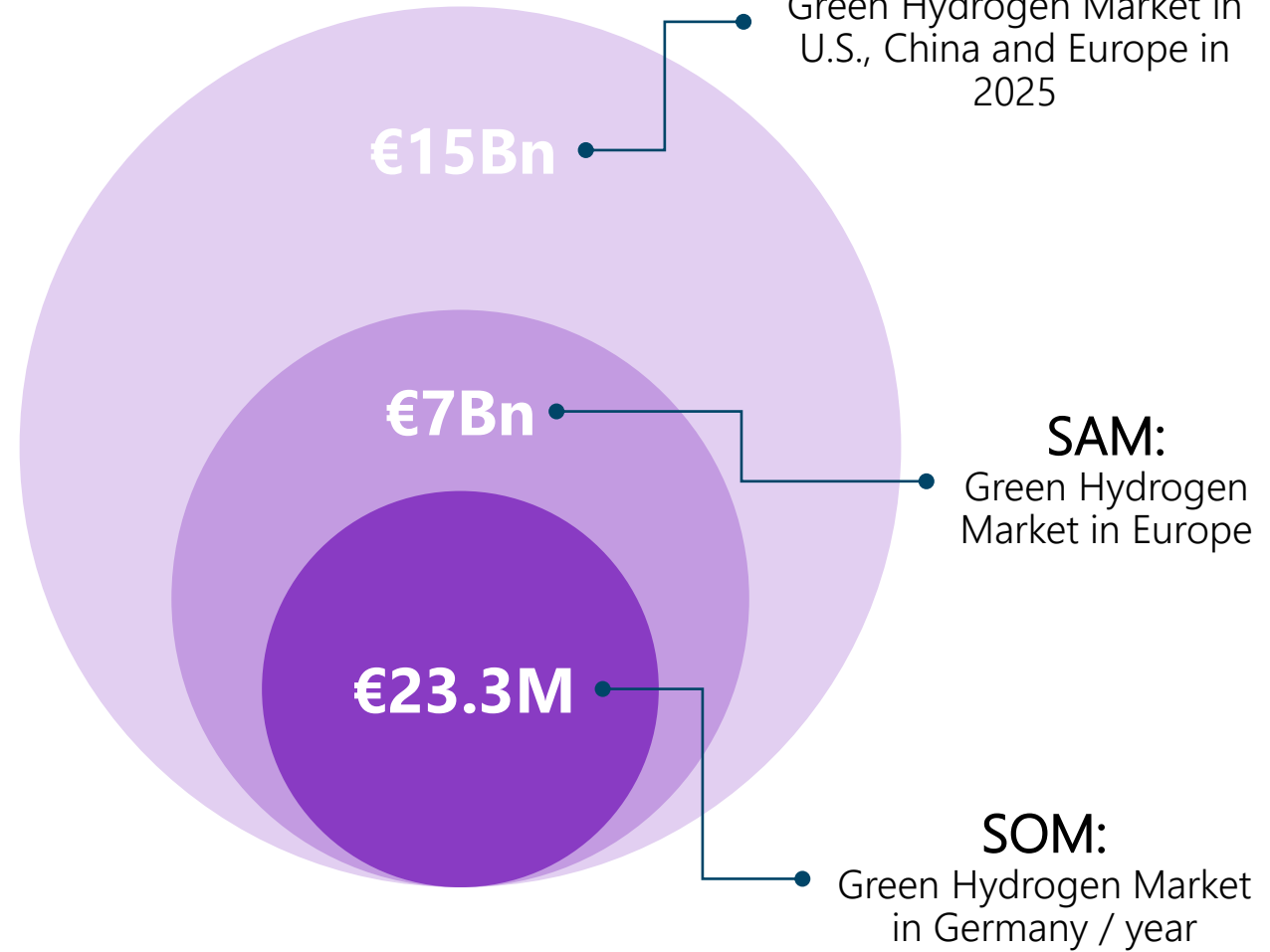
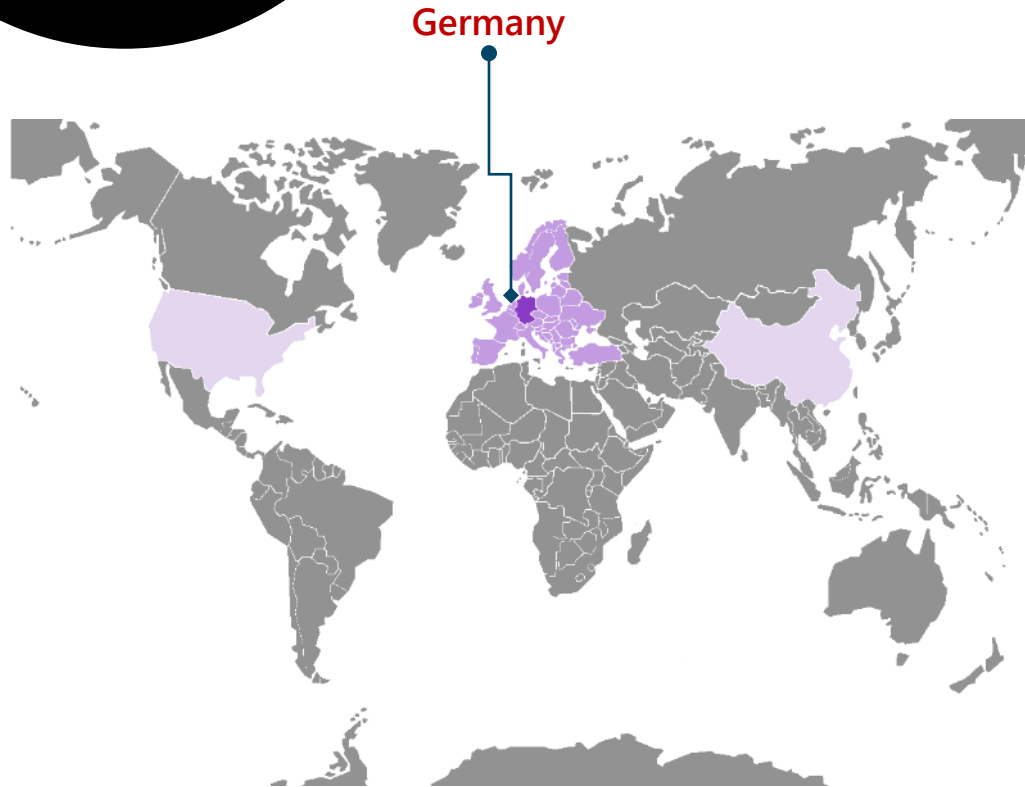


**Product: €3k/kgH2**  
**Services: €2.8/kgH2**  
Filtering system Replac.(4/Year)  
Cathode Replac.



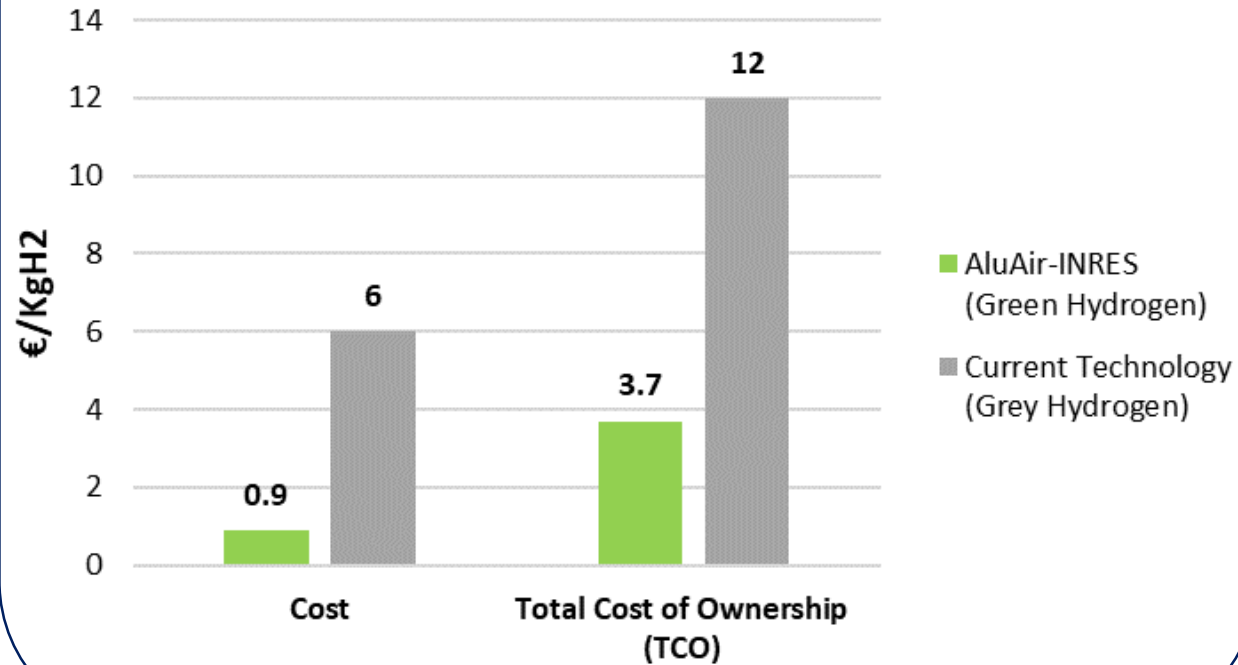
**Gas Stations**

# Beachhead Market

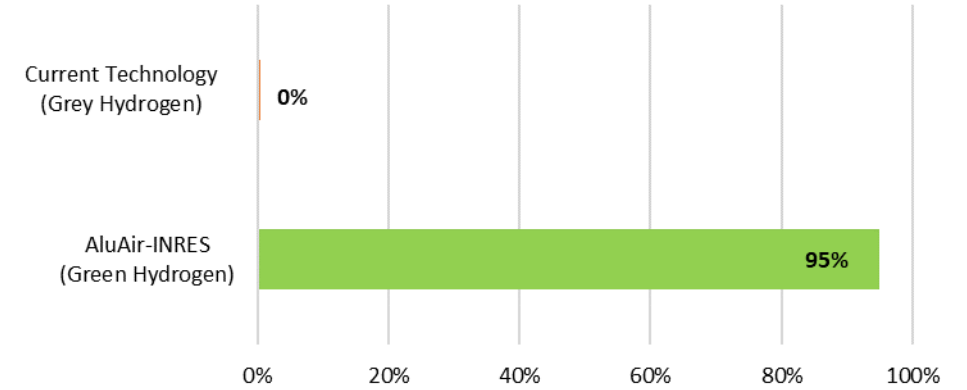


# Customer Value Proposition

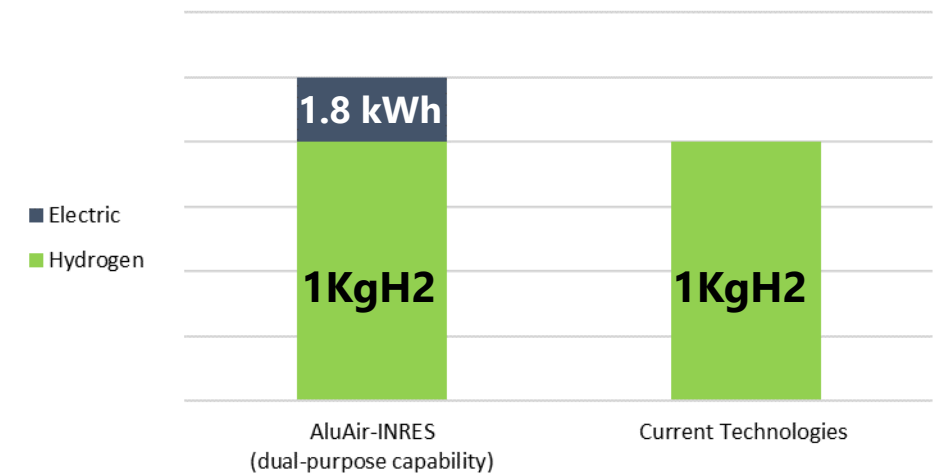
## Hydrogen Cost Analysis



## Sustainability and Recyclability



## Dual-Energy Capability

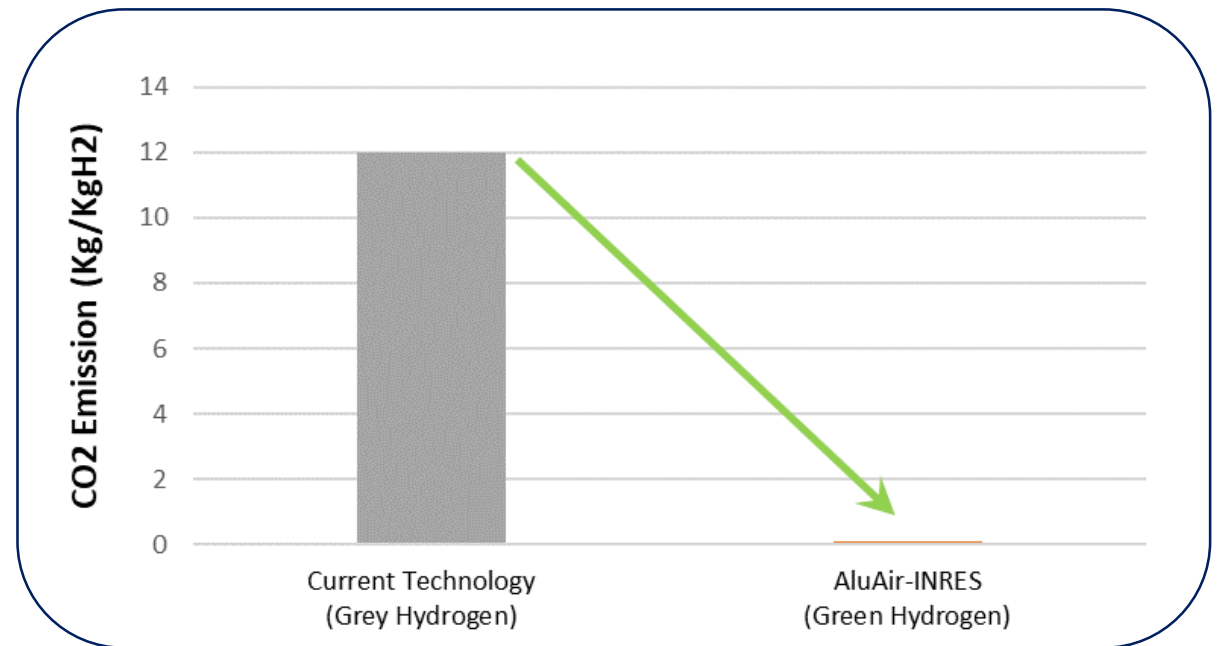




## Circular Economy



AluAir	Aligning with Initiatives
Türkiye	Türkiye Ulusal Enerji Planı
Global	Paris Agreement
Europe	The European Clean Hydrogen Alliance
	The Important Project of Common European Interest (IPCEI) on Hydrogen
	The Green Deal Hydrogen Action Plan
	The Hydrogen Roadmap





# Competitive Advantage

Criteria	AluAir	Current Technology (H2 from Fossil Fuels)
Green Hydrogen Production	✓	×
Installation Cost	Low	High
Need to liquefy and transport H2	×	✓
Quick Deployment and Scalability	✓	×
Dependency on Grid Infrastructure	×	✓
Suitable for Maritime and Aerospace Applications	✓	×

# Team



**Soheil Malekghasemi**

Co-Founder, Ph.D./ R&D, P&D,  
Innovation



**Asker Sebati**

Co-Founder, EEE/ Business  
Development & Planning



**Seyfettin Vadi**

Co-Founder, PhD@EEE/ R&D,  
Product Development



**Medine Sinem Çetin**

Chemist / R&D, Production



**Dilara Kale**

Chemistry Technician /  
R&D, Production



**Ahmet Aktaş**

Advisory Member -Electr.  
Electron. Eng./ Assoc. Dr.



**Mahmut Sadık Akkuş**

Advisory Member / Hardware  
design engineer

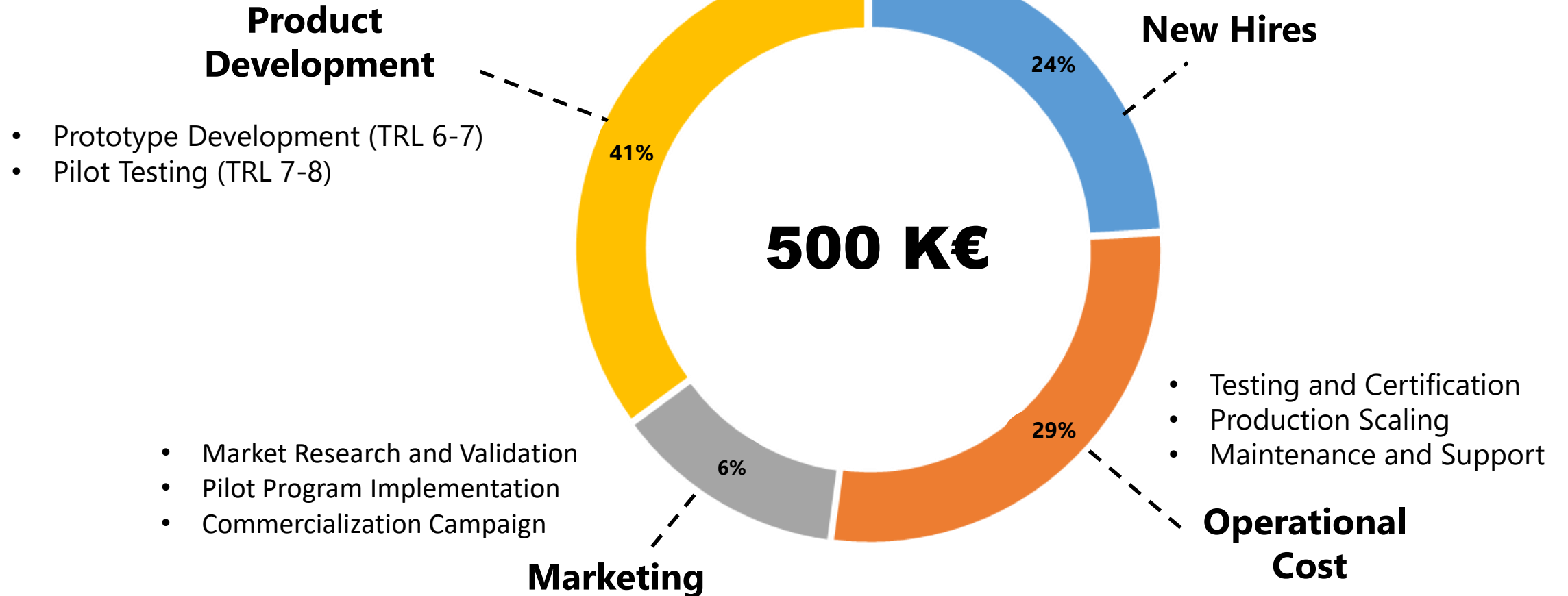


**Kemal Maşalı**

Advisory Member /  
Mechanical design engineer

# Funding needs

- R&D Specialists
- Production & Operations Managers
- Regulatory Affairs Experts
- Commercialization & Business Development Team



## Overall System Architecture

