

Challenges & Insights into Reducing the Cost of Renewable (Green) Hydrogen Projects

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Challenges of Green Hydrogen Projects



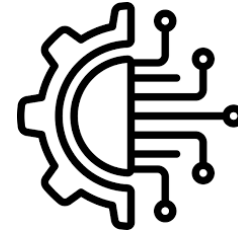
Regulation

- Clarity on government ambitions, H₂ codes & standards
- Qualification for subsidies requires mature cost and execution commitments
- Defined H₂ pipeline & grid specifications/connections



Market

- Multitude of LCOH expectations and definitions
- Illiquid Market



Technology

- Technology evolving quickly
- EPC & vendor relationships
- Competing and overlapping hydrogen vectors



Project

- Limited actual experience at scale
- Different approach to opportunity selection
- Resourcing alongside traditional projects



Hydrogen

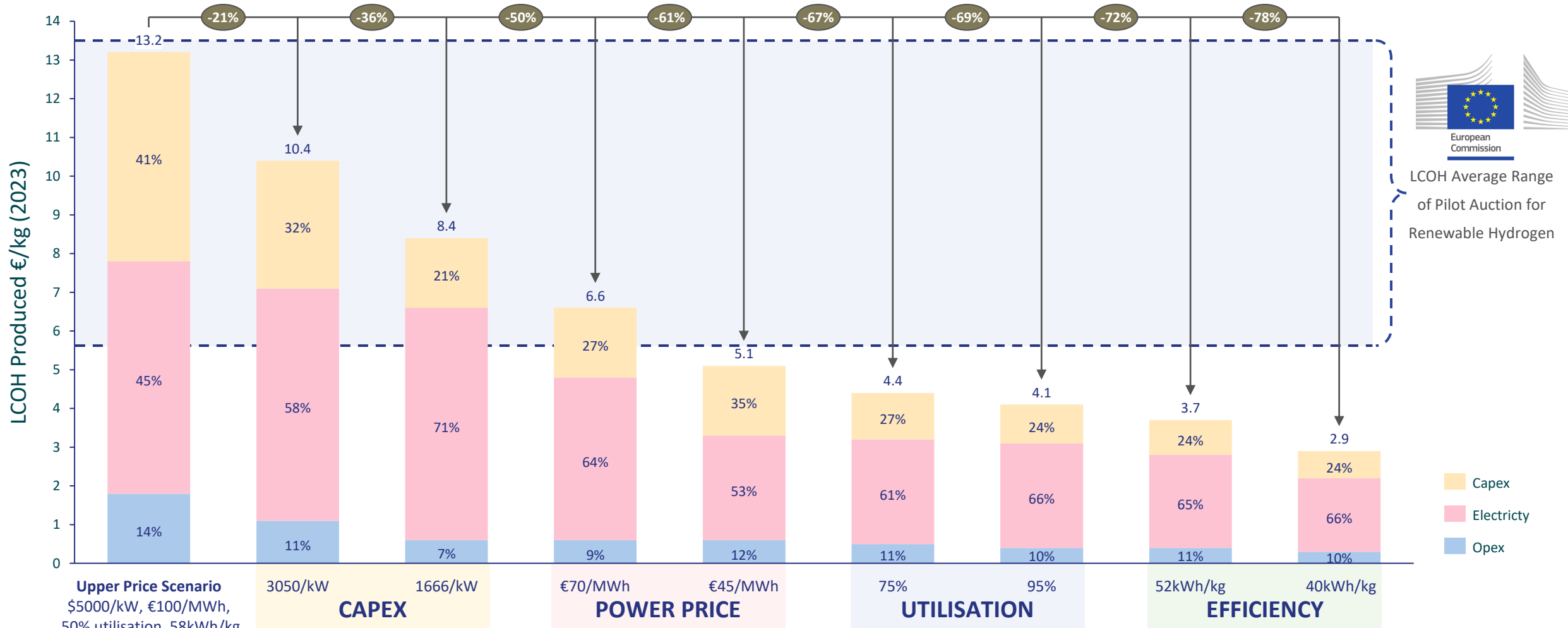


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LCOH Context – Key Drivers to Reduce the Cost



[Levelised Cost of Hydrogen Calculator](#) | [European Hydrogen Observatory \(europa.eu\)](#)

[Competitive bidding - European Commission \(europa.eu\)](#)



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Projects in Execution

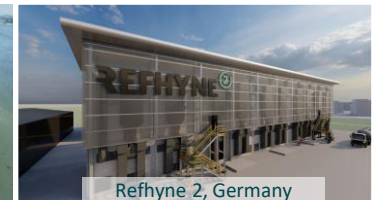
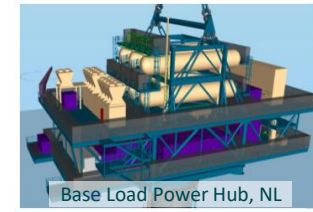
Multiple Projects

Variety of Scales

Geographic Spread

Different Technologies

Various Partners



Hydrogen



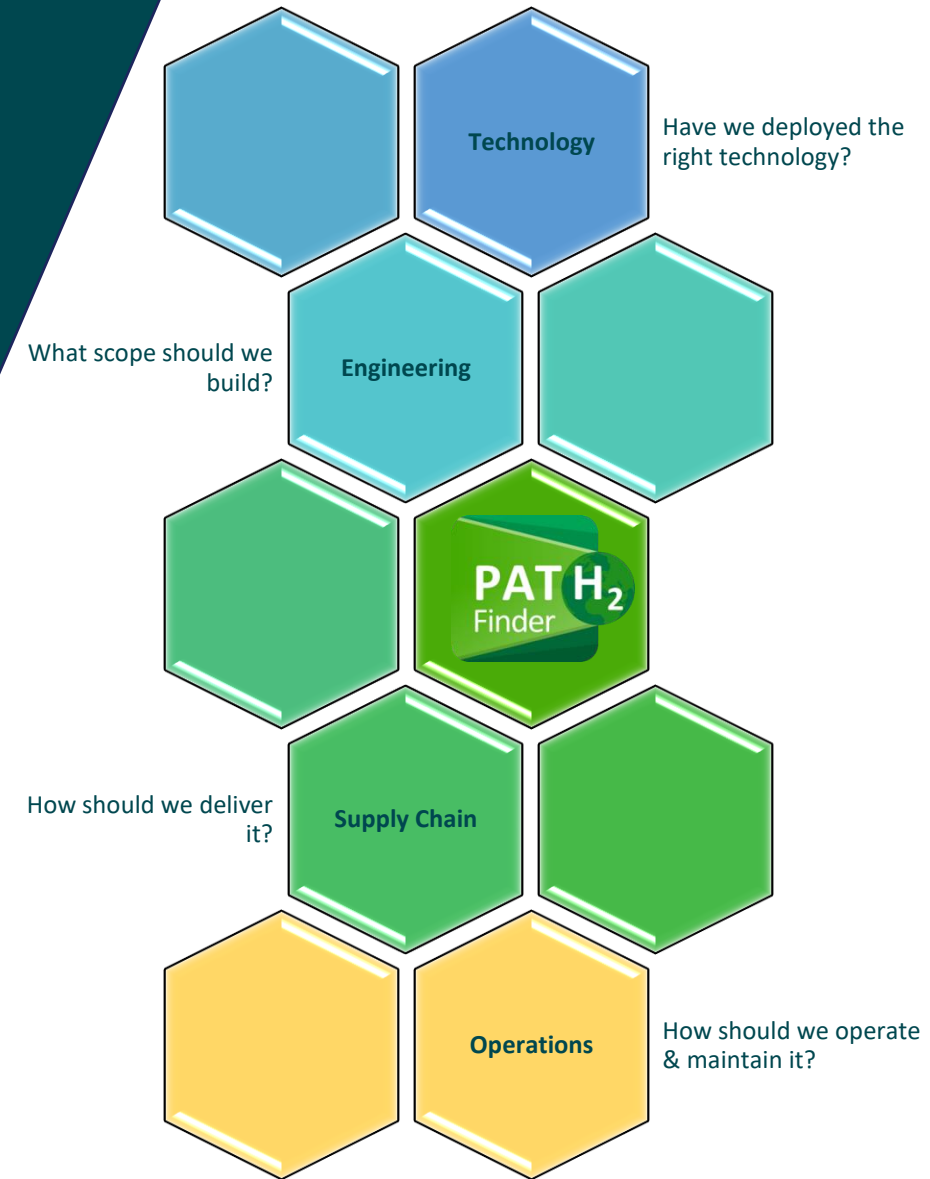
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PATH₂Finder Programme Overview

- Focused on Capex and Opex Reduction Opportunities
- Alignment with Project Portfolio
- Integrated Approach: Technology / Engineering / Supply Chain / Operations
- Collaboration with Key EPC Partners / Vendors
- Standardised Approach (Data & Definitions, Benchmarking)
- Incorporating Project Lessons and Insights



Hydrogen

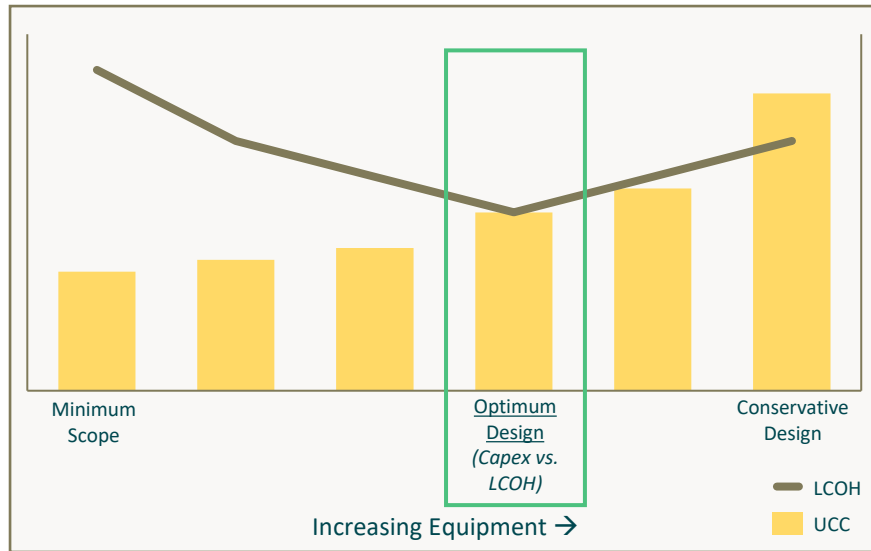


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Insights into Reducing the Cost of Green Hydrogen Projects



Significant (30-50%) cost reductions have been identified across the following areas:

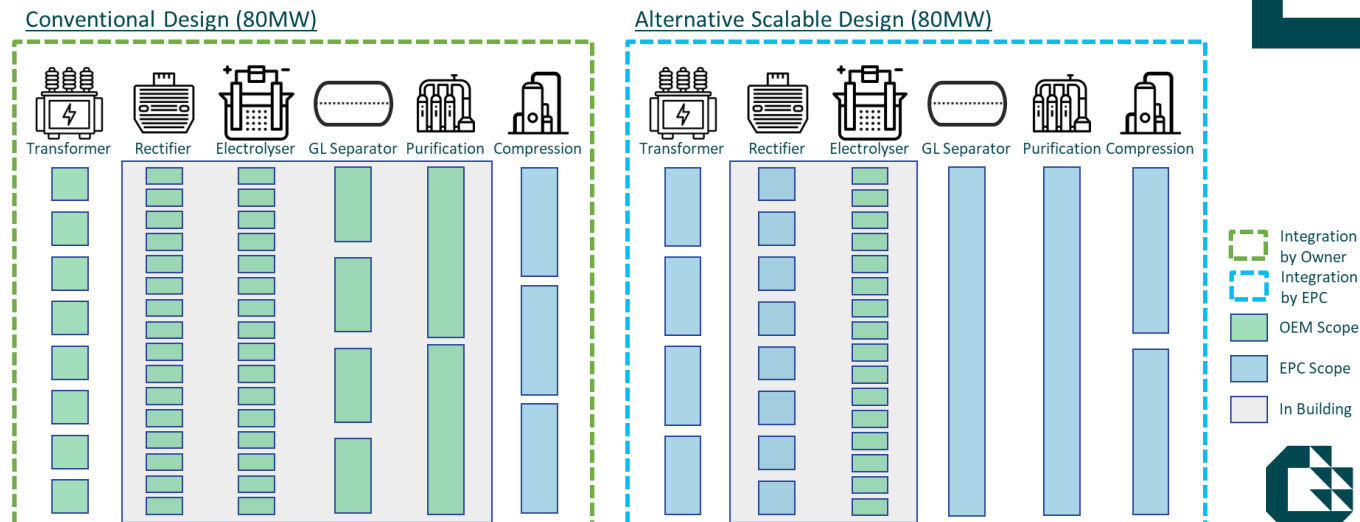
Scope and Equipment Count Optimisation

Streamlining the Scope of Supply

Economies of Scale

Leveraging Supplier Relationships

Strategic Site Selection



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Joint Action Needed

