

The UK Hydrogen Innovation Opportunity

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About me



Rolls-Royce / Imperial College



MTC – the Manufacturing Technology Centre



**MTC –
the National Centre for Additive Manufacturing**



Aerospace Technology Institute - FlyZero



**High Value Manufacturing Catapult /
Hydrogen Innovation Initiative**



Our **mission** is to accelerate critical technologies and supply chains in the UK for the fast-growing global hydrogen economy.

HII is working with >200 companies and 10 sector bodies in the UK, to coordinate innovation in 9 critical technology areas across:



Hydrogen Production



Hydrogen Distribution



Hydrogen Use

HII is working with industry to drive innovation and supply chain development, working across UK industry and with support from our Industrial Advisory Board:

bp, Airbus, Cummins, GKN Aerospace, Glass Futures, H2Go, Hydrogen Energy Association, Hydrogen UK, Johnson Matthey, National Gas, ZeroAvia

HII is generating **technology roadmaps**, forecasting **sector demand** and **markets**, and mapping **UK capability**.

HII partners:



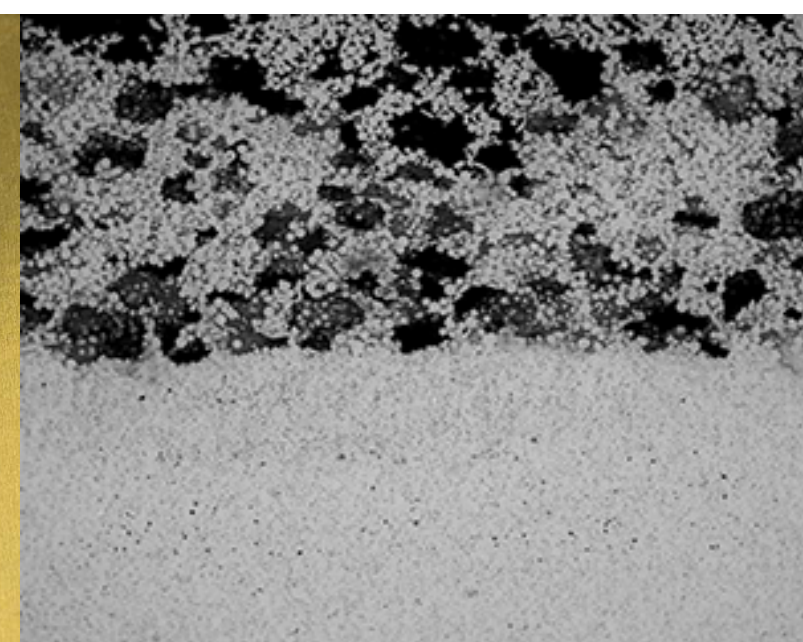
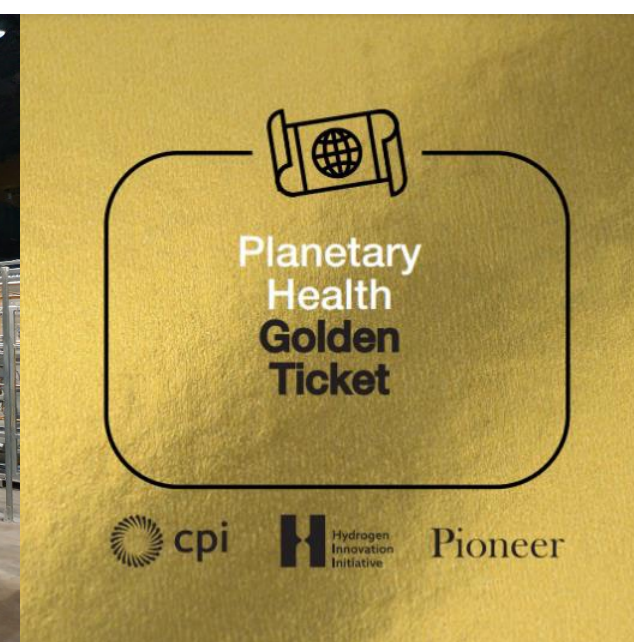
Supported by
Innovate UK



Our partners are collaborating with industry on hydrogen across multiple sectors....



Hydrogen Innovation Challenge



Unlocking the benefits Anchoring the value



The global hydrogen economy

Direct and indirect economic activity

\$8 trillion

3 x benefits: Decarbonisation – Economic – Influence

When both direct and indirect economic benefits are considered, the global hydrogen economy has the potential to be worth \$8 trillion by 2050.

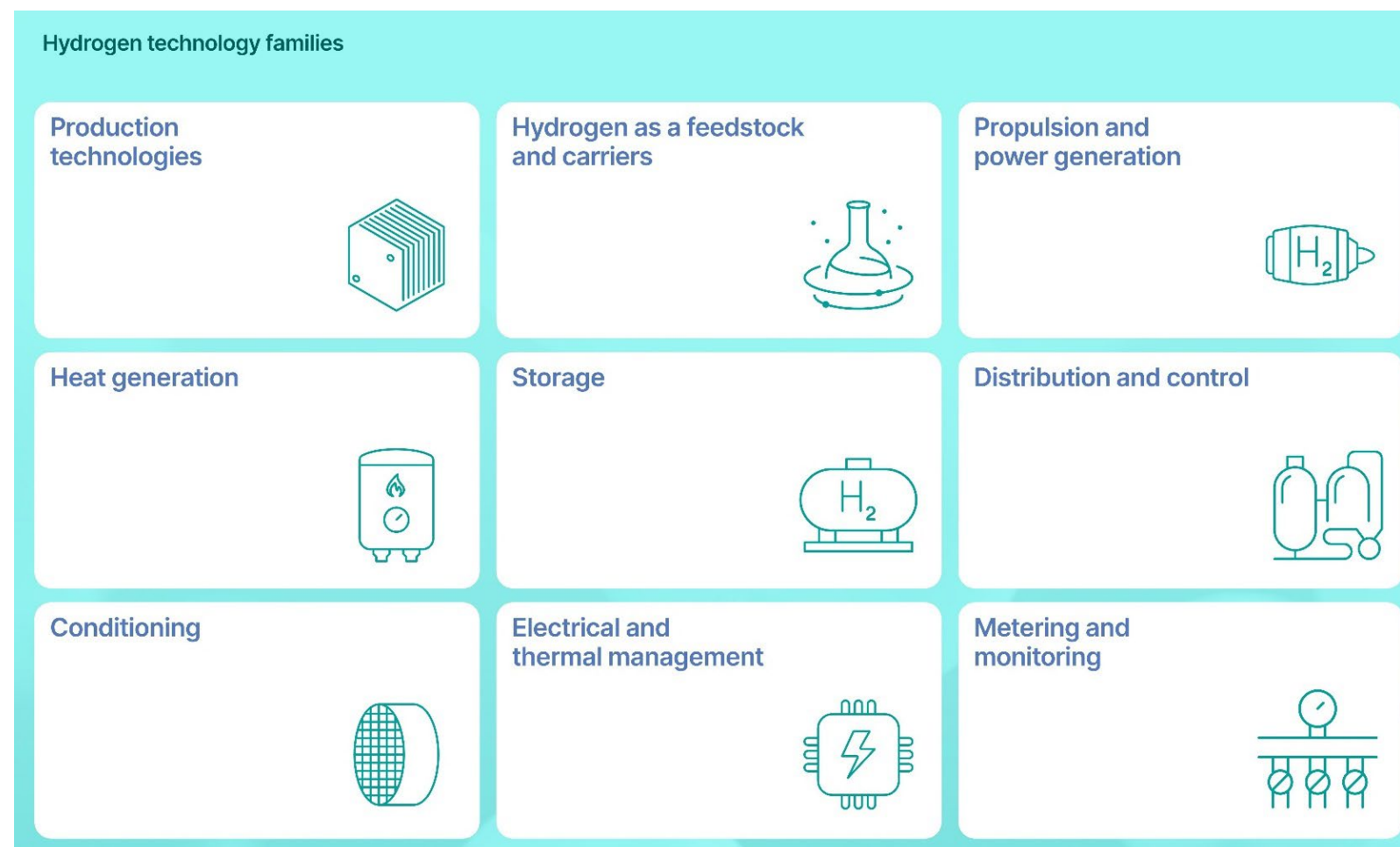


Hydrogen technology market

\$ 1 trillion

9 cross-cutting hydrogen technology families

Target a 10% market share of the global market



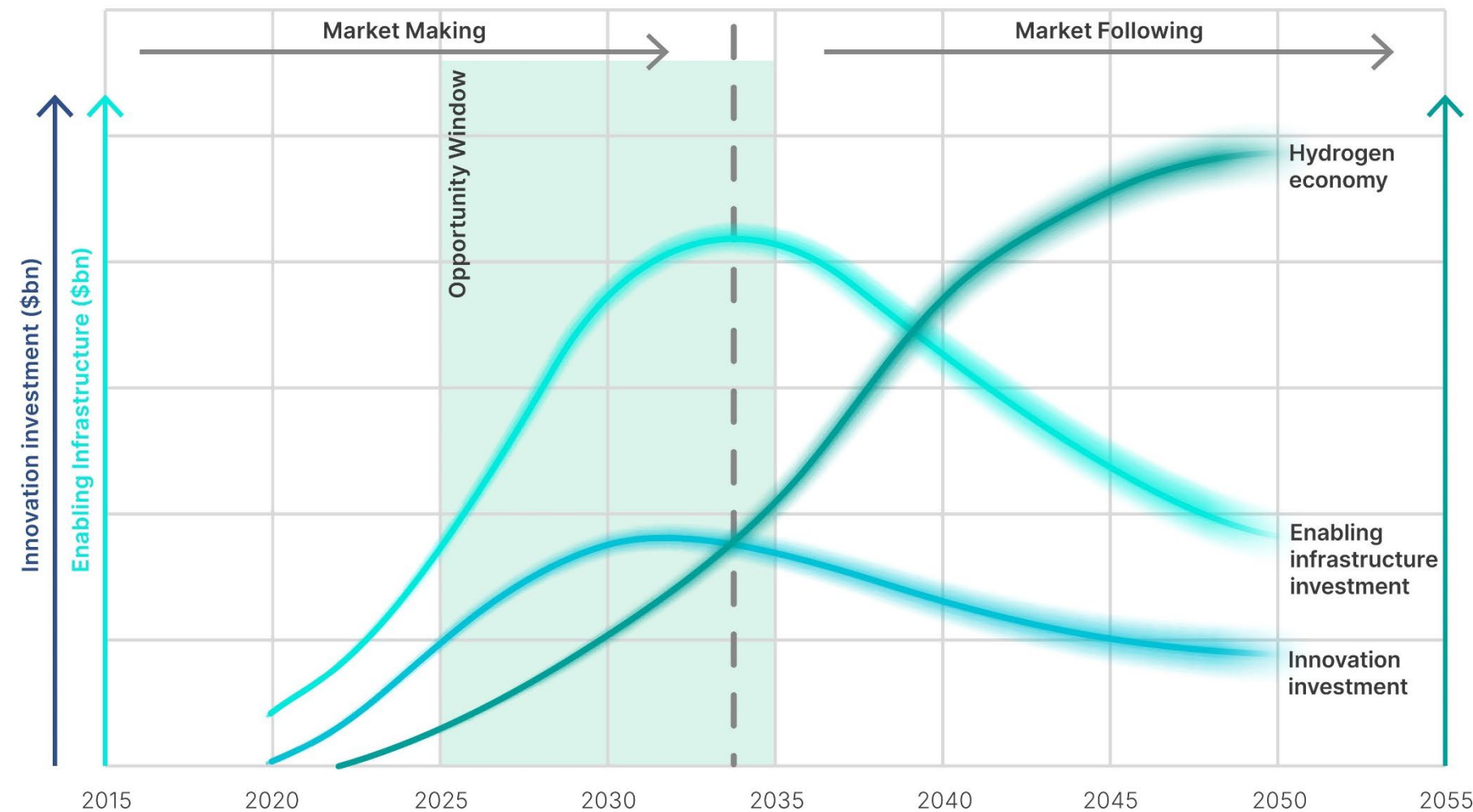
The UK is starting from a strong base of industrial capability with an established innovation ecosystem. Under the right conditions and with the right strategic investments, this can be catalysed for growth.

Window of opportunity

To secure a market leading position

Capturing the expected peaks for innovation and infrastructure investment, along with highest growth phase of the global hydrogen economy

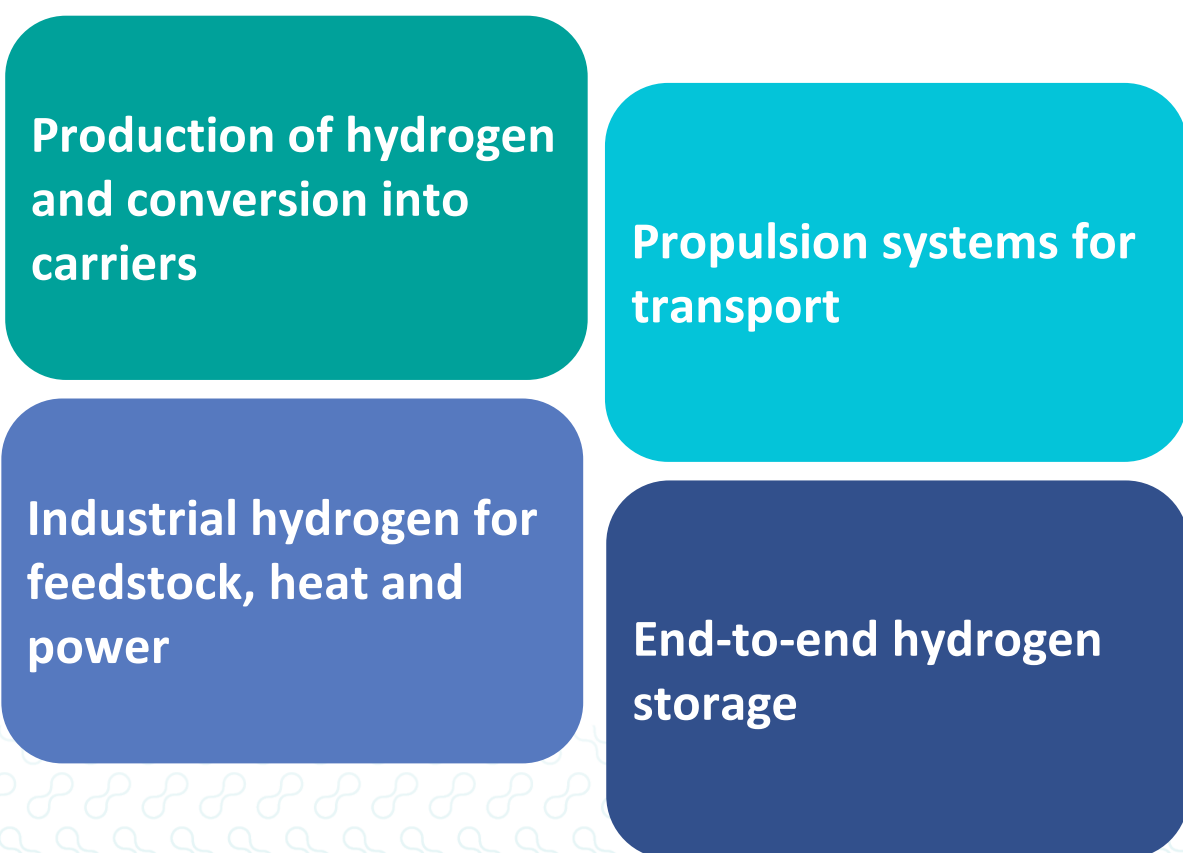
10 years



If the UK is to stay ahead of international competition a strategic approach to investment in hydrogen innovation must be developed and delivered at pace.

Strategic intervention

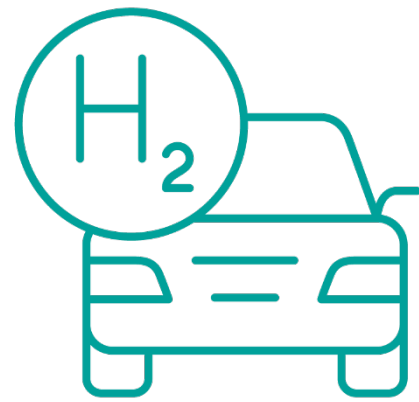
Representing biggest potential for the UK



4 focus areas

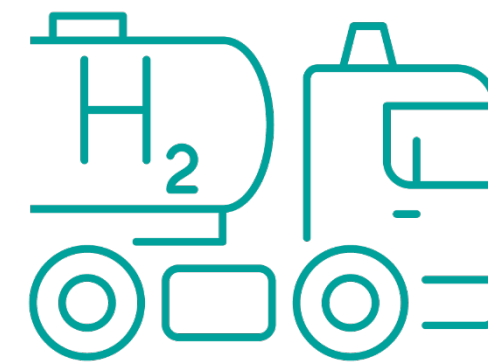
Innovation creating a space for us to become truly world leading...

The UK Hydrogen Innovation Opportunity in figures



\$8 trillion

The global hydrogen economy in 2050, considering direct and indirect economic activity

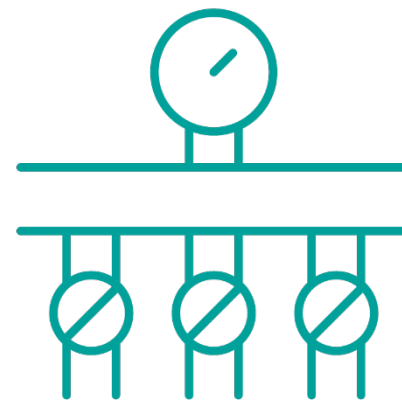


4 areas of focus

Representing the biggest areas of potential for the UK

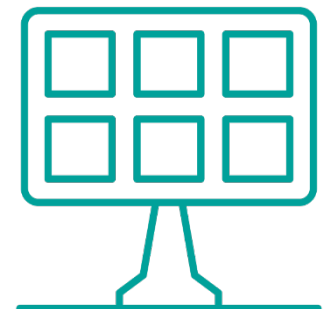
\$1 trillion

Global hydrogen technology market by 2050
Delivered by 9 cross-cutting technology families



10 year window

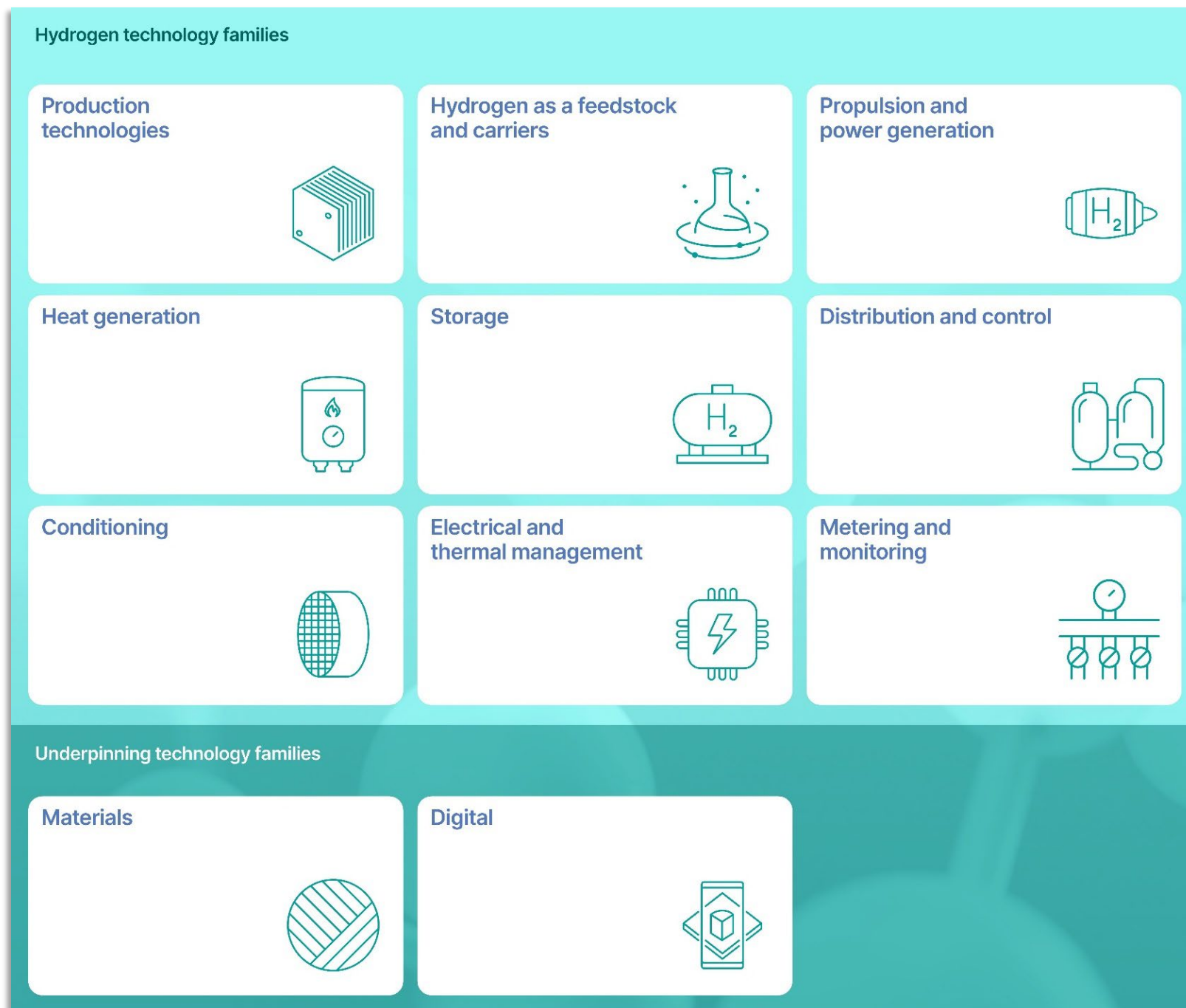
To secure our position as market maker



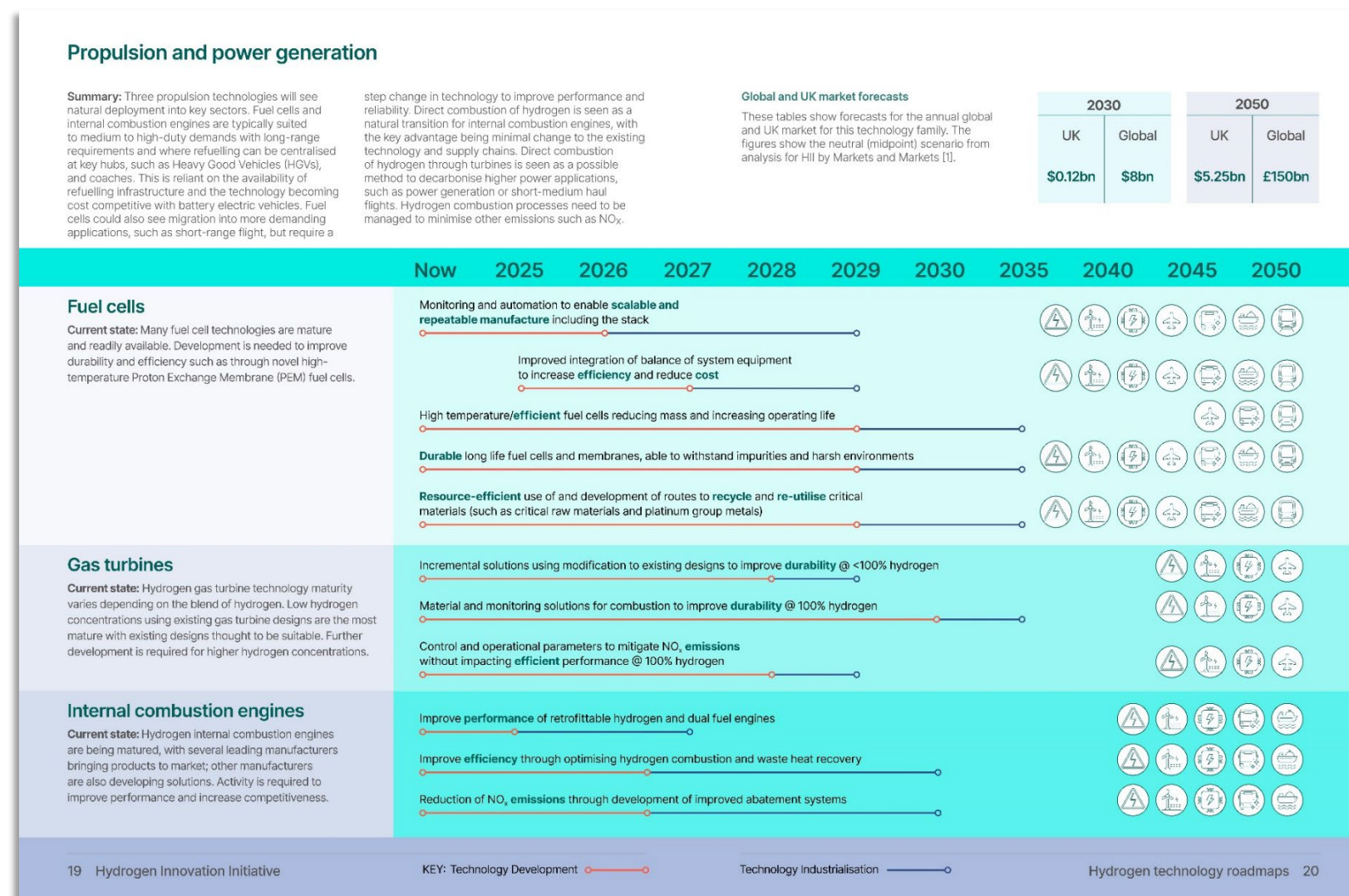
The UK Hydrogen Innovation Opportunity and supporting reports



The UK Hydrogen Innovation Opportunity – Hydrogen technology roadmaps



x9 technology roadmaps



The UK Hydrogen Innovation Opportunity – UK capabilities



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The routes to success are now clear but the window of opportunity is fast reducing.

Now is the time to unlock the UK hydrogen innovation opportunity.

Get in touch:

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HII partners



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