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ENERGY RESEARCH

Hydrogen's role in driving Europe's green recovery

What are investable business models across the hydrogen supply chain?

Breakout Speakers

Hydrogen's role in driving Europe's green recovery

What are investable business models across the hydrogen supply chain?

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Spring Forum

London 2021

Big picture context – the key trends of the hydrogen economy

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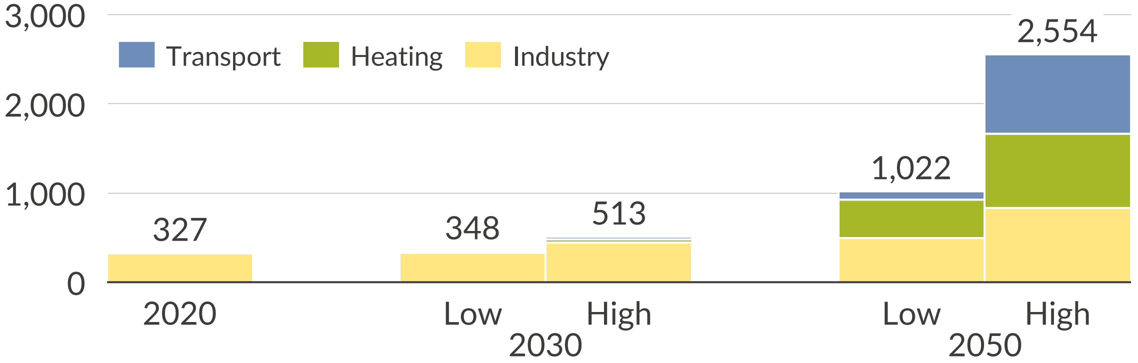
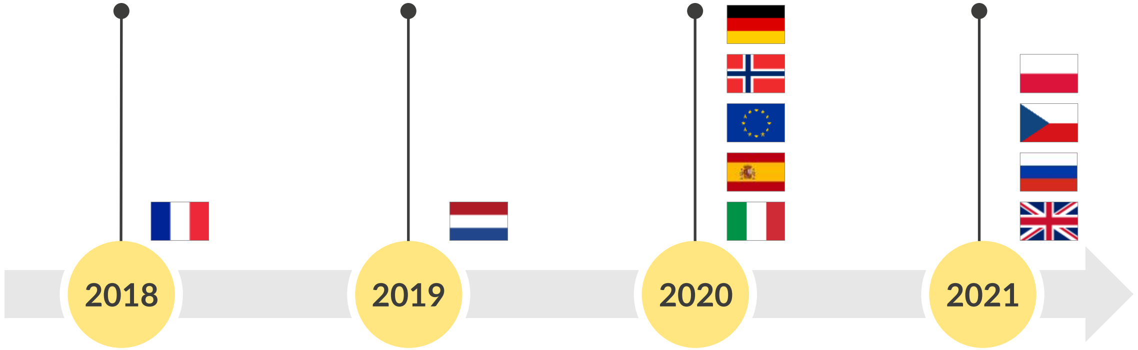
1 Europe's Hydrogen demand could grow seven-fold by 2050

H_2 demand by scenario in Europe, TWh H_2 (HHV) per year

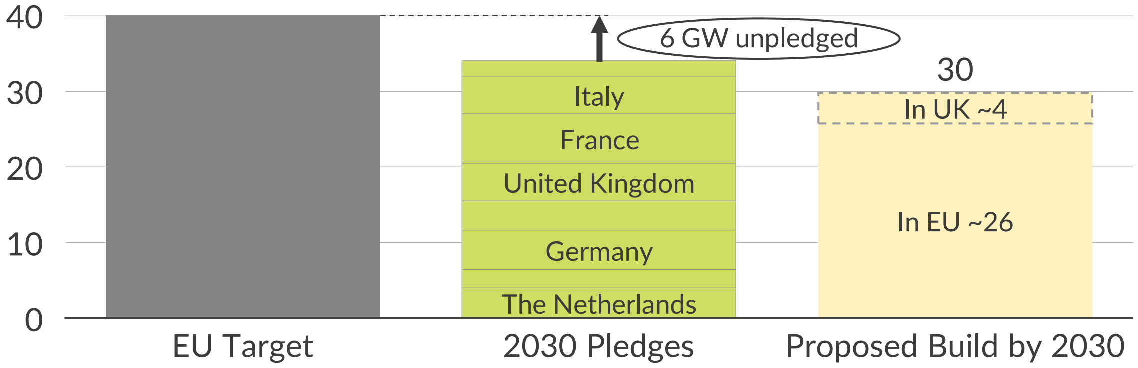


2 All large economies in Europe have published a hydrogen strategy within the last 4 years



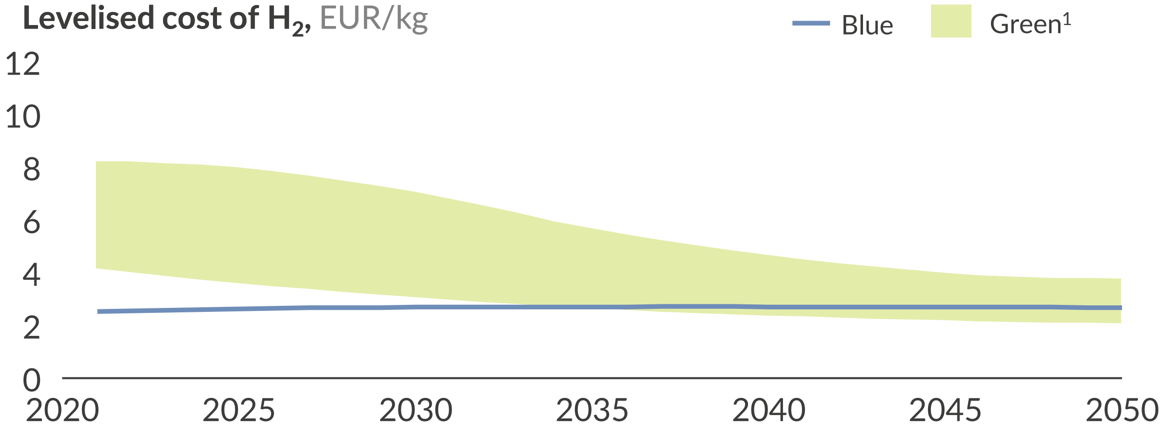
2 40 GW electrolysers are to be installed by 2030 – developers have already announced projects covering 3/4 of this

H_2 electrolysis capacity, GW



4 Blue hydrogen remains cheaper than green until the 2030s

Levelised cost of H_2, EUR/kg



1. Range of different electrolyser configurations and locations

Source: Aurora Energy Research

Today, we would like to discuss the uncertainties along demand, supply and transportation of hydrogen

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Key question: What are investable business models across the hydrogen supply chain?

Demand: hydrogen applications

- Which sectors provide early application of low carbon hydrogen today?
- What are sectors for growth in 2030s?
- Will hydrogen be competitive in electrifiable sectors, such as road transport and heat?
- How to preventing carbon leakage?
- How to design subsidy schemes for industry?
- What needs to come first - large demand or cheap supply?

Supply: hydrogen production

- Installation of electrolysis close to industrial demand or close to cheap green power?
- How to design exact subsidy schemes for electrolysers?
- How to de-risk electrolyser projects and make them financeable?
- What is the role of blue hydrogen?

Transport, storage & imports

- Private pipeline networks or under regulated asset base of gas TSOs?
- Will hydrogen storage be incentivised by seasonal price spreads or will it require specific policy support?
- Will intercontinental imports be required?

Sources: Aurora Energy Research

Any further questions?

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