

# Hydrogen: from promise to reality



Hydrogen plays a **key role** in Europe's efforts to decarbonise and mitigate climate change



It is central to reaching **net-zero emissions** as it can abate 80 gigatonnes of CO<sub>2</sub> by 2050<sup>1</sup>



Represents 4 times bigger savings than taking all **petrol-powered cars** in the world off the road

## Key success factors for large-scale deployment of hydrogen



**Technology for hydrogen deployment must be first-rate**

Since 1976, 208 hydrogen-related production, storage, handling and road accidents were recorded and analysed in the EIGA database. Of these, 21 occurred in the last decade.



**The highest standards of safety must be respected**

Tens of millions of hydrogen heavy duty vehicle-fills across the world thanks to proven safe protocols. New market entries shall also systematically apply and adhere to the highest safety standards.



**Legislation supports an ambitious roll-out of hydrogen**

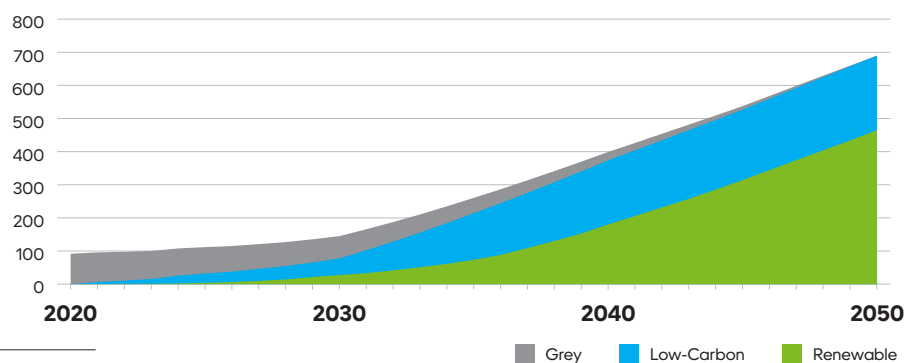
"In line with the policy scenarios that underpin the "Fit for 55" initiative, ..., renewable and low-carbon hydrogen... will gradually replace fossil natural gases and represent very significant shares of the gaseous fuels in the energy mix towards 2050."<sup>2</sup>

## Low-carbon hydrogen will be the most cost-competitive mid-term solution



**~30%** of grey hydrogen converted to clean hydrogen in 2030

Hydrogen supply by production method (indicative) MT hydrogen p.a.<sup>1</sup>



<sup>1</sup> Hydrogen Council Report: Hydrogen for Net-Zero, November 2021

<sup>2</sup> EU Commission 'Q&A on the Hydrogen and Decarbonisation Gas Package'