






“Powerfuels Technology and Components from MHI – Supported by Japan Hydrogen Strategy”

19 June 2021

Research & Innovation Centre		
Energy Systems	Plants and Infrastructure	Integrated Defense and Space Systems
		
<p>Jet Engines (Mitsubishi Heavy Industries Aero Engines, Ltd.)</p> <p>Compressors (Mitsubishi Heavy Industries Compressor Corp.)</p> 	<p>Iron Making  Ammonia & Methanol Co-Production Plants CO₂ Capture Plants (Mitsubishi Heavy Industries Engineering, Ltd.)</p> <p>Gas Carriers (Mitsubishi Shipbuilding Co., Ltd.)</p>	<p>Aircraft (Mitsubishi Aircraft Corporation)</p> <p>H-IIA Rocket</p>

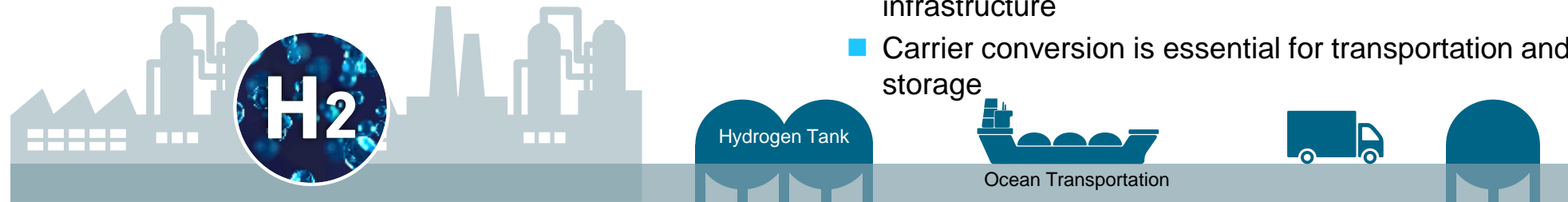
* This table is not exhaustive. It lists only companies and products related to hydrogen business

1. Cost Reduction



- Large amount of primary energy is required for hydrogen production
- Low energy density requires heavy transportation and storage

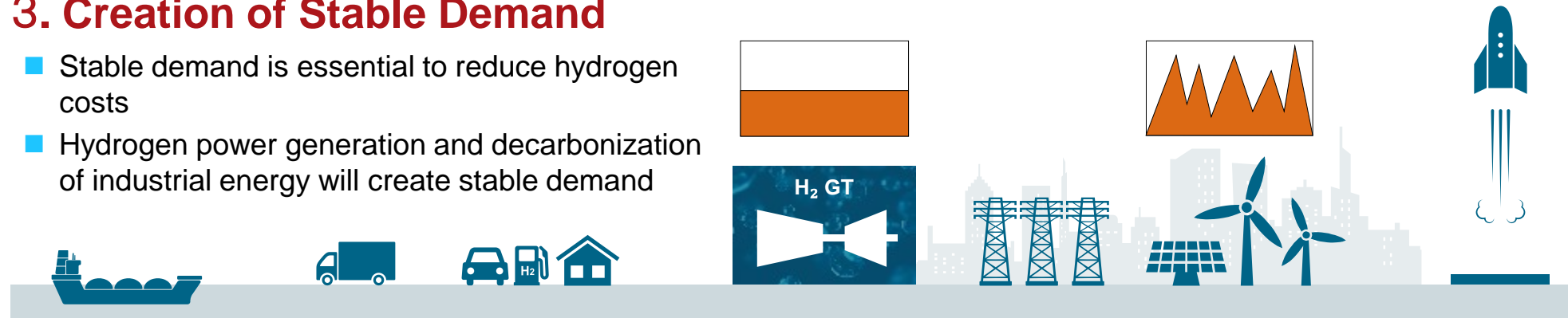
2. Manufacturing, Transportation and Storage



- Massive and long-distance transport requires new infrastructure
- Carrier conversion is essential for transportation and storage

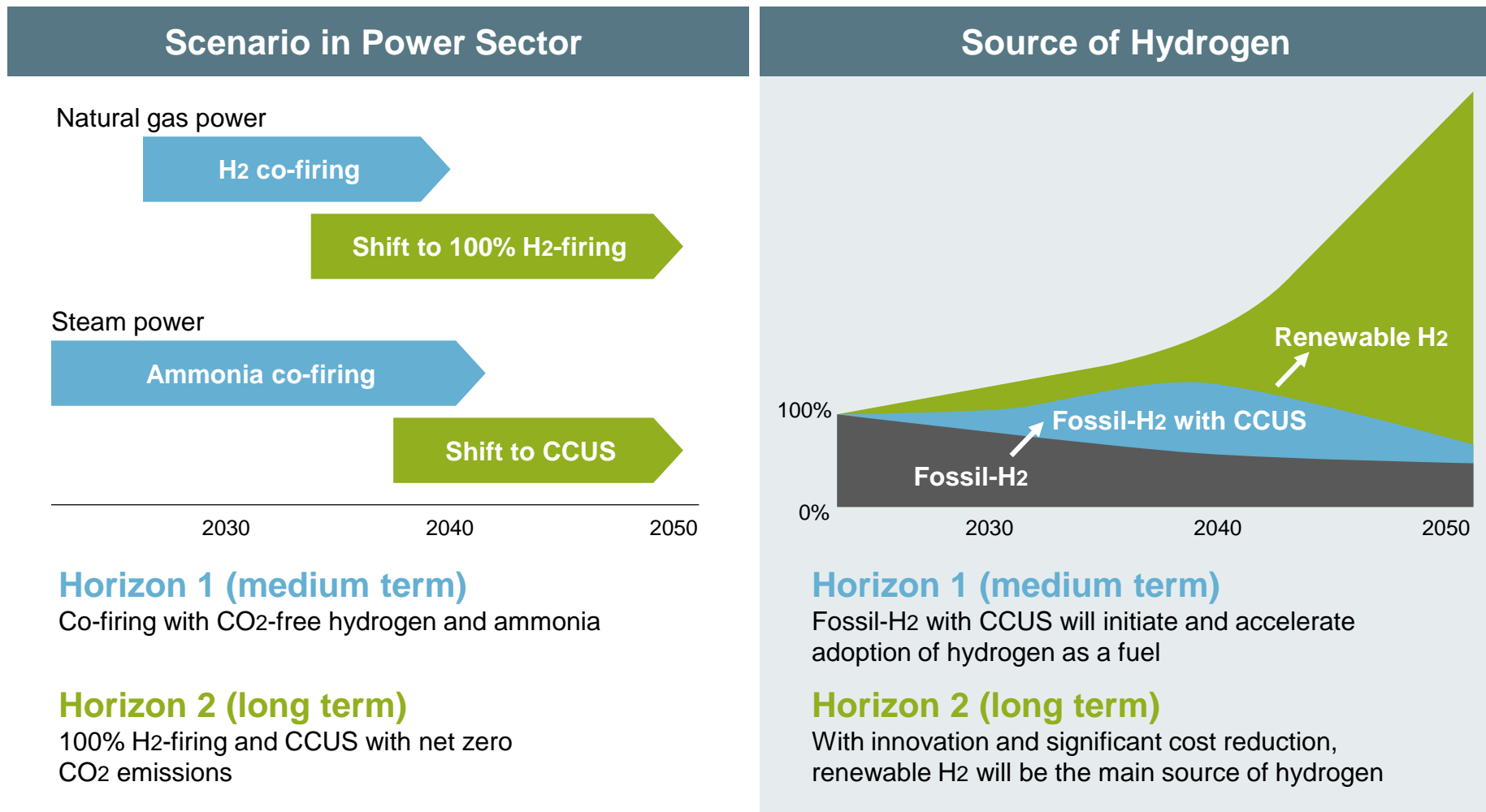
3. Creation of Stable Demand

- Stable demand is essential to reduce hydrogen costs
- Hydrogen power generation and decarbonization of industrial energy will create stable demand

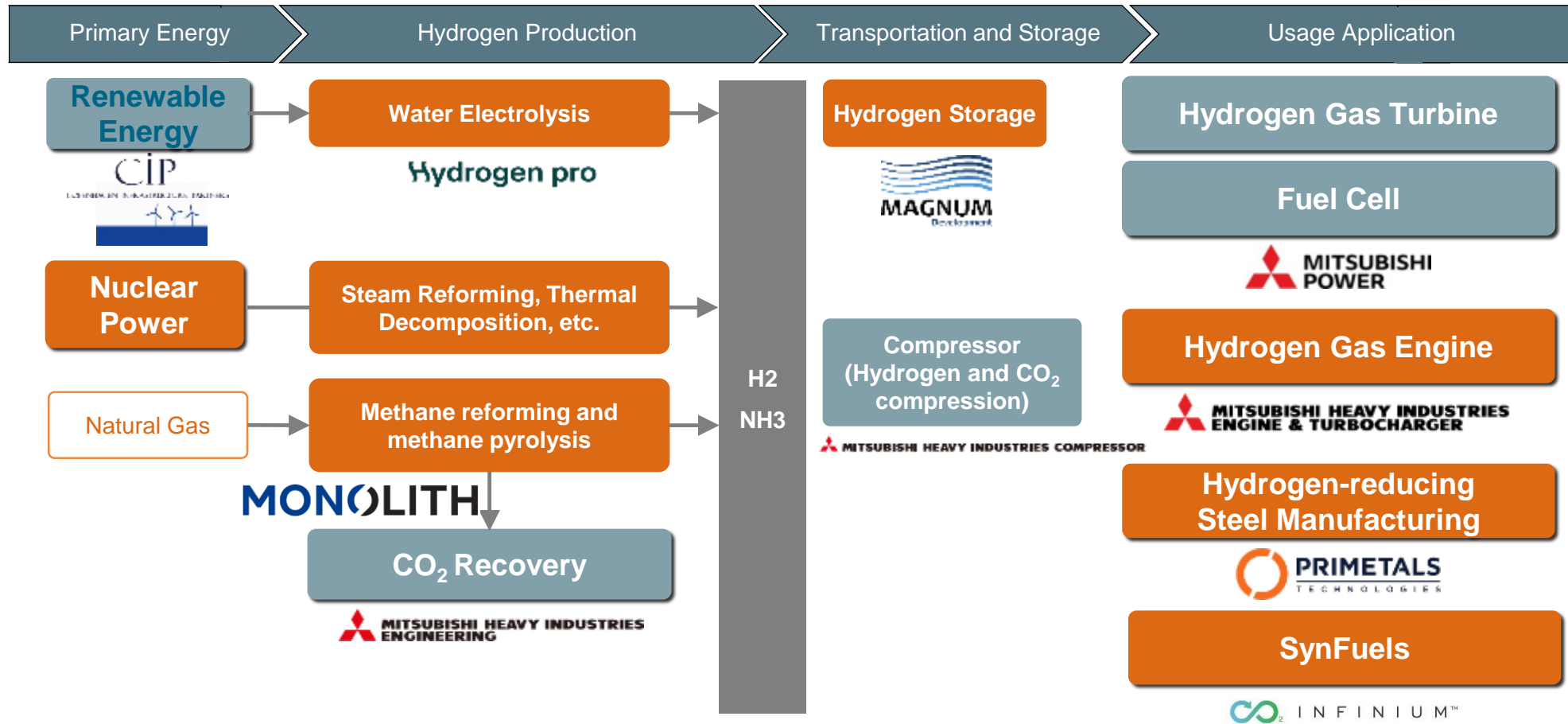


The Role of Gas Turbines in Energy Transition

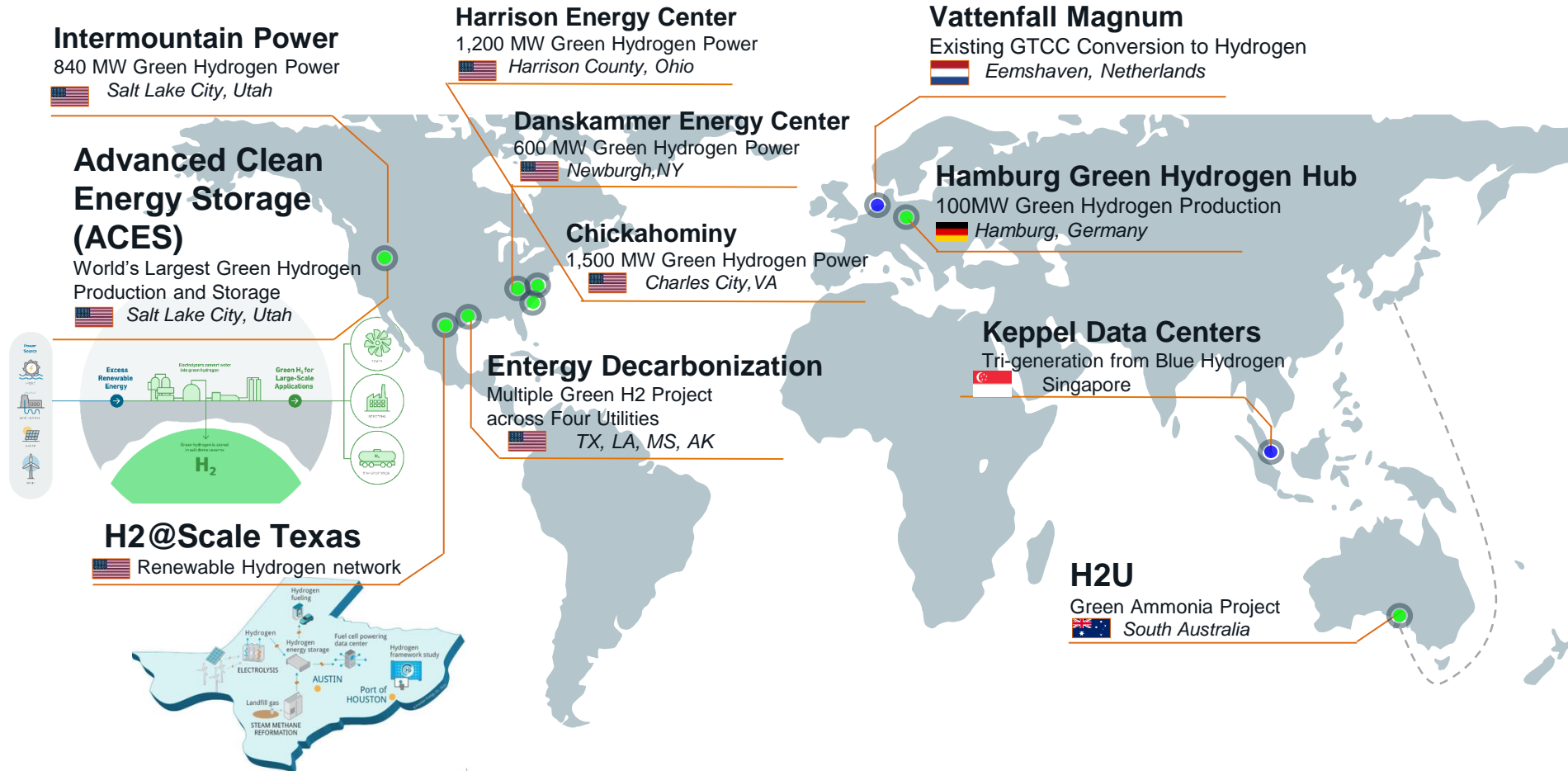
Power sector will gradually increase the proportion of clean fuel following the global trend of decarbonization, and growth of the supply chain.



Capabilities across the Hydrogen Value Chain



CIP: Development of Offshore Wind Turbines in Hokkaido
 Hydrogen Pro: Investing in Hydrogen Production Plant Supply
 Magnum : Green Hydrogen Production, Storage and Supply Business Development in Utah, USA



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