

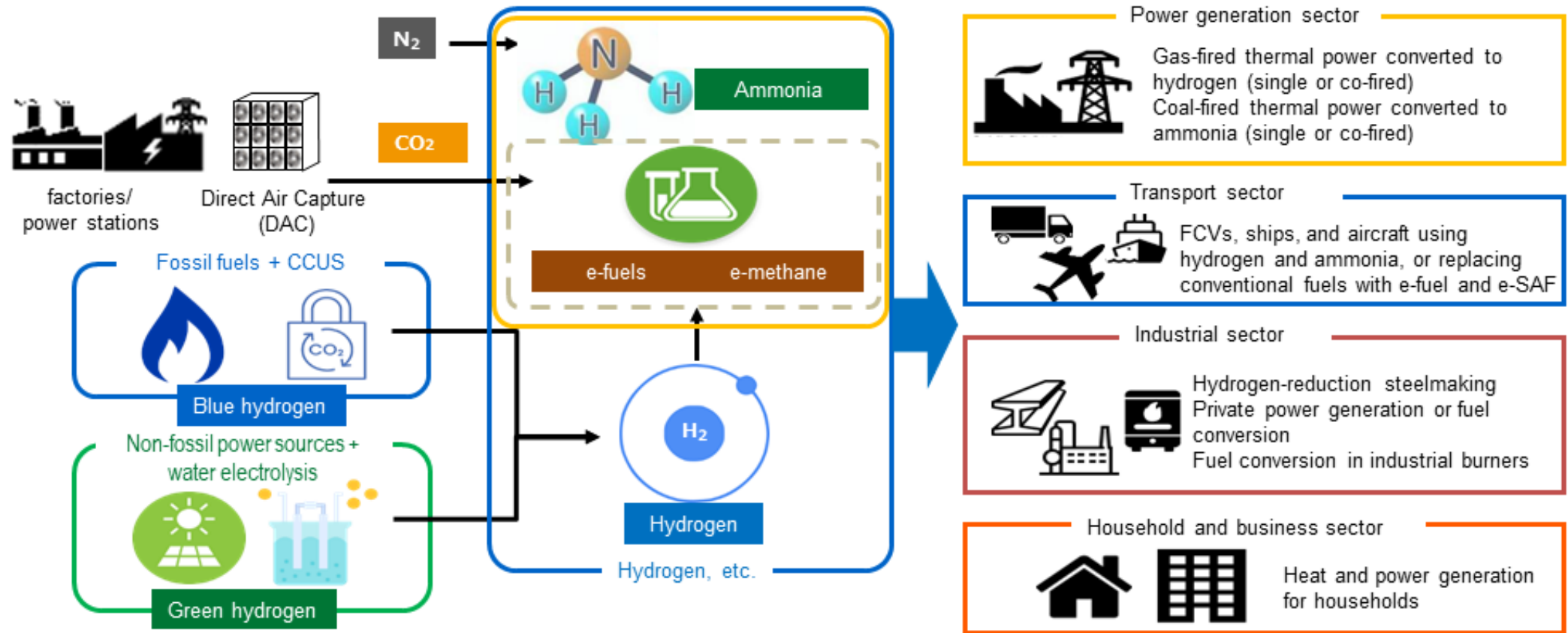
# HYDROGEN SUPPLY CHAIN IN JAPAN



**JAPAN**  
**HYDROGEN**  
**ASSOCIATION**

# Toward a Hydrogen Society

Realizing a hydrogen society requires building demand, securing supply, and developing the full supply chain. In Japan, technology and demonstrations are progressing, driving wider adoption



# About JH2A



Established in April 2022, the membership consists of over 500 companies/organizations.

## Mission

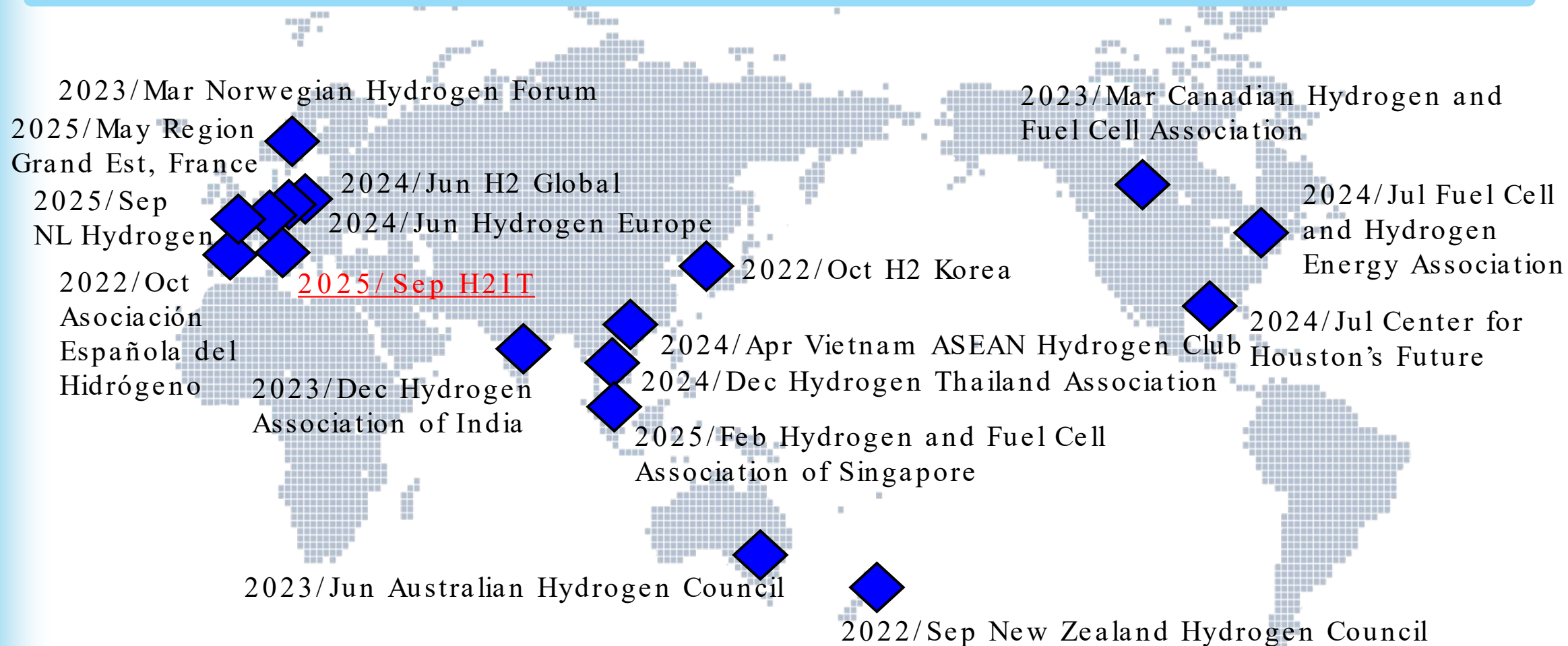
To accelerate the building of a hydrogen society

- 1 Create Hydrogen Demand**  
Implement projects, obtain policy supports and solve regulatory issues related to safety
- Cost Reduction through Technical Innovation**  
Collect information on technology development trends and encourage business matching
- Financing for Business**  
Create financing option and enlighten way forward

**These 3 missions are the aim of establishment for cross-sectoral organizations.**

# Global Partnerships in Motion

Since its establishment, JH2A has advanced cross-border collaboration by signing strategic MOUs with organizations and entities worldwide.



# Japan Hydrogen Policy Moves

- Historically Japan started hydrogen/fuel cells R&D back in **1973** (before the oil shock started).
- **The first country to have formulated a national hydrogen strategy (2017).**
- The Prime Minister set **“2050 carbon neutral” declaration (2020).** **JPY 2 trillion\* Green Innovation Fund.**
- Positioned **hydrogen as one of the priority areas** in the Green Growth Strategy.
- **Key part of achieving green transformation economy plan (2023).** \*¥2 trillion = \$14.3billion (USD/JPY =140)

## Milestones

## Japan's Policy Moves

**2017**  
Basic Hydrogen Strategy

**2020**  
PM's 2050 CN Declaration Green Growth Strategy

**2021**  
-Green Innovation Fund  
-Revised Strategic Energy Plan

**2023**  
-GX Promotion Act  
**-Basic Hydrogen Strategy updated**

**2024**  
**-Hydrogen Society Promotion Act**

## Targets (Set in the Basic Hydrogen Strategy on Dec. 26, 2017 – updated in 2023)

### □ Supply & Demand volume:

Current (Approx. 2Mt) → 2030 (**Approx. 3Mt**) → 2040 (**Approx. 12Mt**) → 2050 (**Approx. 20Mt**)

### □ Hydrogen cost (@Port)

2030 (**JPY30/Nm3**) → 2050 (**Less than JPY20/Nm3**)

□ Electrolyzers (global share that involve Japanese elements) → 2030 (15GW)

# Hydrogen Products Deployment

Items	Japan's Target (in 2030)	Current status
<b>Stationary Fuel Cell</b>		
Residential Fuel Cells (EneFarm)	3 million	549,575 (Mar. 2025)
<b>Mobility</b>		
Passenger Vehicles	800,000	8,857 (Mar. 2025)
Buses	1,200	180 (Feb. 2025)
Forklifts	N/A	446 (Feb. 2025)
<b>Hydrogen Refueling Station</b>		
700 bar Refueling Stations	1,000	159 (Apr. 2025)

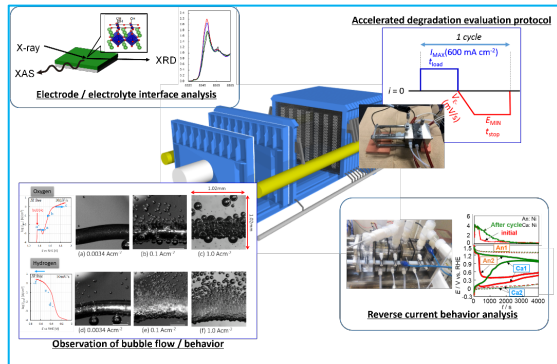


# Research, Development and Demonstration

Production

Storage / Transport

Utilization



# J-CfD Selected Projects

Business operator	Products	Annual Production	Outline of Project
Toyota Tsusho Eurus Energy Iwatani Aichi Steel	Hydrogen	1,600t-H <sub>2</sub>	<ul style="list-style-type: none"> <li>✓ Onshore Wind + Electrolysis Hydrogen Production (15MW PEM Electrolysis)</li> <li>✓ Utilizing hydrogen at Aichi Steel Corporation's Chita Plant to manufacture specialty steel</li> </ul>
Resonac Nippon Shokubai	Ammonia	20,815t-NH <sub>3</sub> (= 3,234t-H <sub>2</sub> )	<ul style="list-style-type: none"> <li>✓ Ammonia production using hydrogen produced by gasifying waste plastics and clothing</li> <li>✓ Resonac will sell ammonia and its derivatives</li> </ul>
JERA Toyota Industries AGC, NGK Aisin Fukui Chubu Electric Power Miraiz	Ammonia	492,144t-NH <sub>3</sub> (= 76,452t-H <sub>2</sub> )	<ul style="list-style-type: none"> <li>✓ Producing Ammonia in Louisiana, US, from natural gas + CCS and export to Japan</li> <li>✓ Mainly utilizing for co-firing with coal in thermal power plants</li> <li>✓ Some is also utilized as fuel in industrial furnaces</li> </ul>
Mitsui Hokkaido Electric Power Mitsubishi UBE Cement Tosoh	Ammonia	280,000t-NH <sub>3</sub> (43,807t-H <sub>2</sub> )	<ul style="list-style-type: none"> <li>✓ Producing Ammonia in Louisiana, US, from natural gas + CCS and export to Japan</li> <li>✓ Mainly utilizing for co-firing with coal in thermal power plants</li> <li>✓ Some is also utilized as fuel in industrial furnaces and raw materials</li> </ul>



Image of Blue Point Complex  
Ammonia production facility in Louisiana, US

Source: Mitsui Co. Website

Import from US



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