

Toyota's Initiatives for Realizing a Hydrogen-based Society

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Rising Expectations for Hydrogen



- **Large-scale investment plans**
- **Use by industry** via existing pipelines
- **Plan to import renewable hydrogen** (CO₂-free hydrogen from Africa and Eastern Europe)
- Renewable hydrogen manufactured in 2030 equivalent to 40 nuclear plants

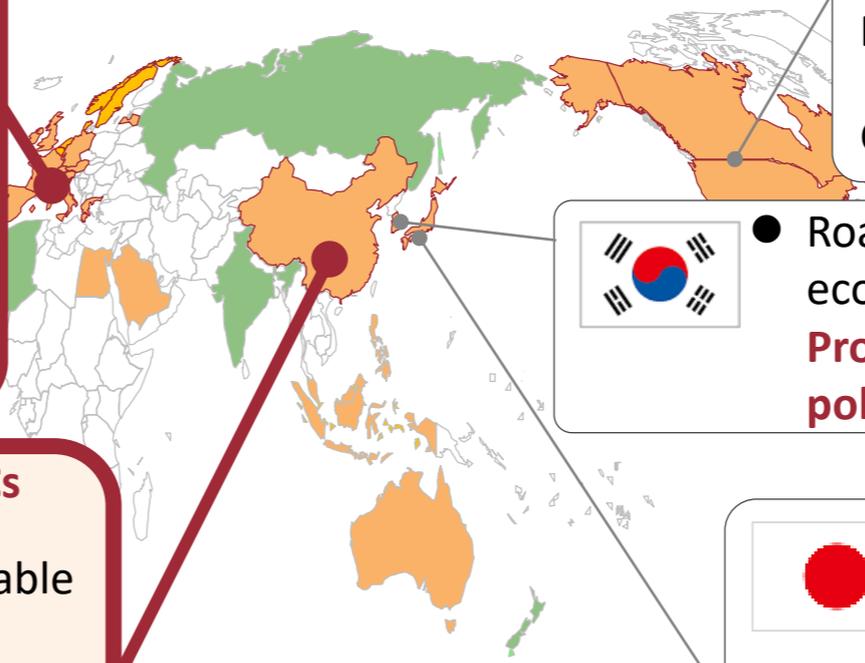
Investment amount (100 billion yen)

Germany	11.0
Portugal	8.5
Denmark	1.3
U.K.	1.2

■ Ongoing
■ Discussing




PVs: More states/provinces with ZEV regulations
CVs: New ZEV regulations




- Roadmap for hydrogen-driven economic revitalization, etc.
- **Promotion of hydrogen as a national policy**



- Industrial development and **CV shift to FCs**
- Currently verifying **the use of all kinds of hydrogen**, such as that made from renewable energy and reformed coal

Mobility	Other fields
 Approx. 6,000 units	 60 places  Railroads  Plants  Airports

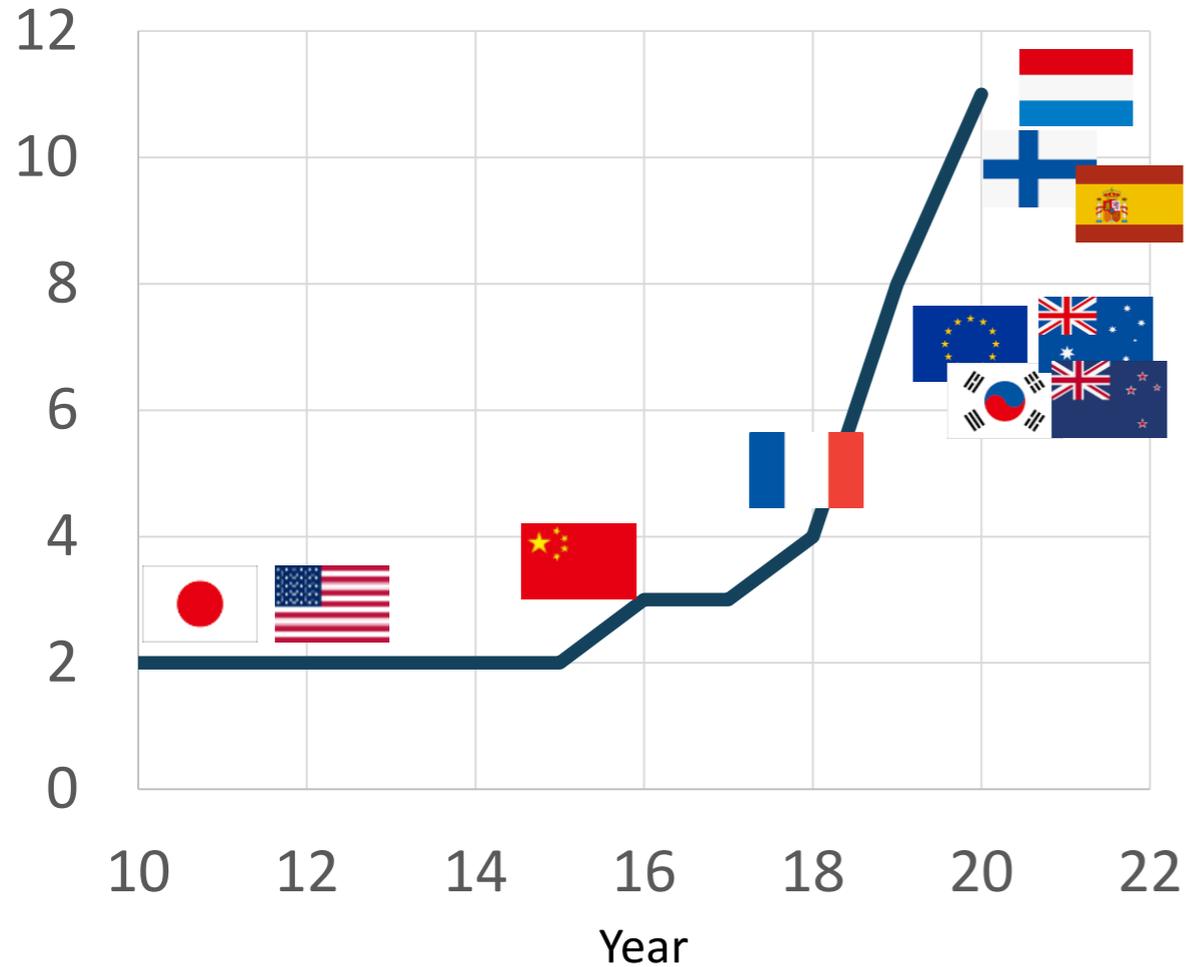



- Promotion of use of FCEVs and hydrogen stations
- Verification of **more use in power generation** and of **CO₂-free hydrogen**

Toward decarbonization, expectations for hydrogen are rising and societal implementation is advancing

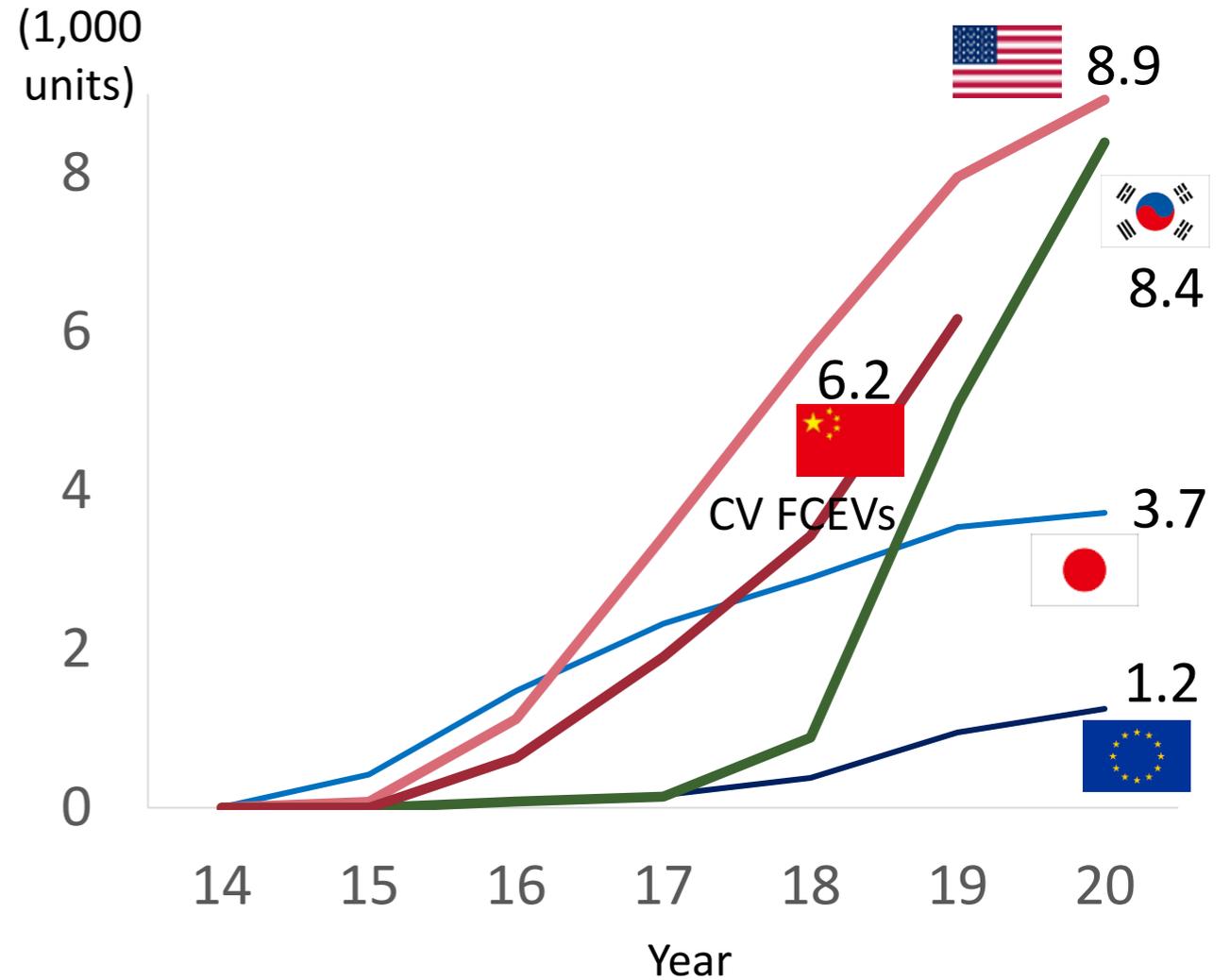
Rising Expectations for Hydrogen

Number of countries with national hydrogen strategies



Countries eyeing hydrogen since 2019

Cumulative sales of PV FCEVs



Rapid increases in China and South Korea

Steering members



Supporting members



A CEO-led initiative started in 2017 for promoting a hydrogen society, and now with 92 members

FCEV Mirai

Introduced in 2014



Approx.
10,800 units
in Japan, U.S.,
and Europe

FC forklifts



Toyota Industries Corporation

236 units

FCEV bus Sora



88 units

Next-generation Mirai

TOYOTA

Sales start:
End of 2020



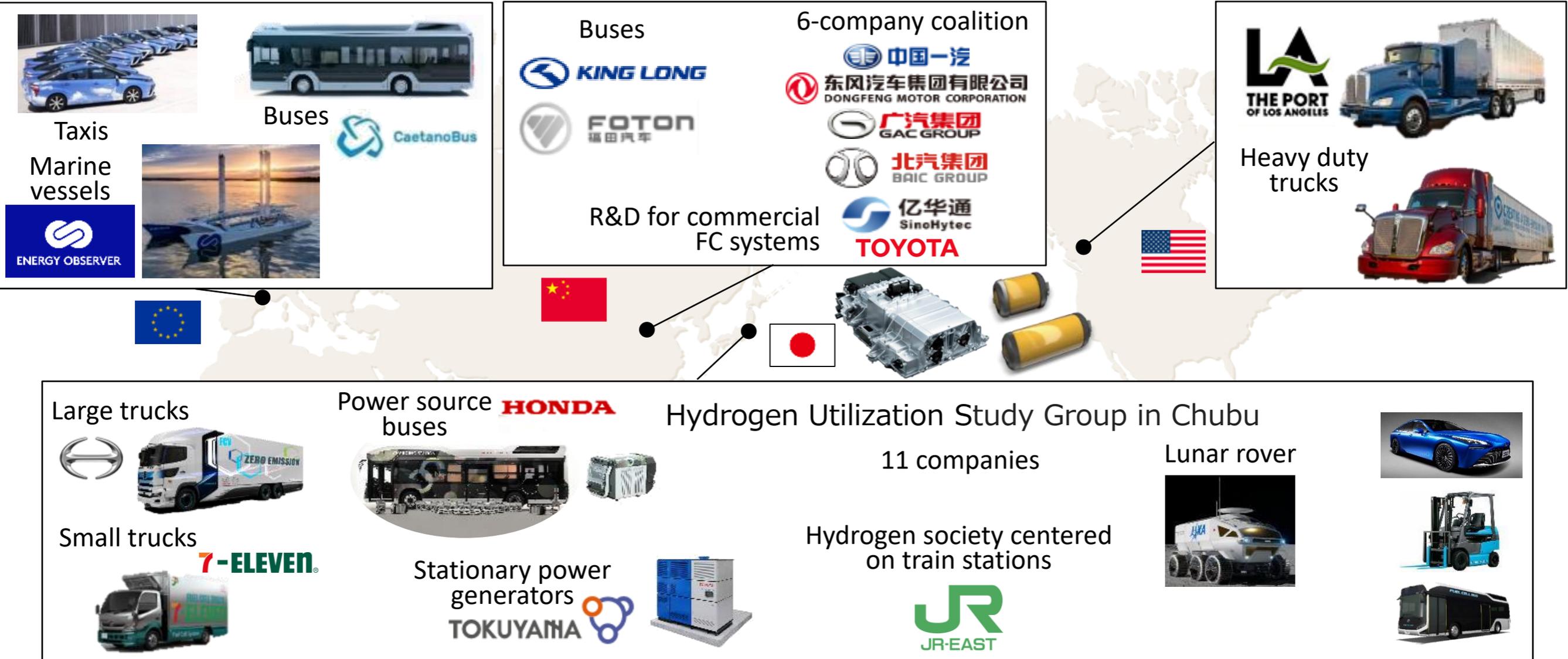
FCEVs, FCEV buses, and FC forklifts

Aim: Global annual sales of 30,000-plus units from around 2020



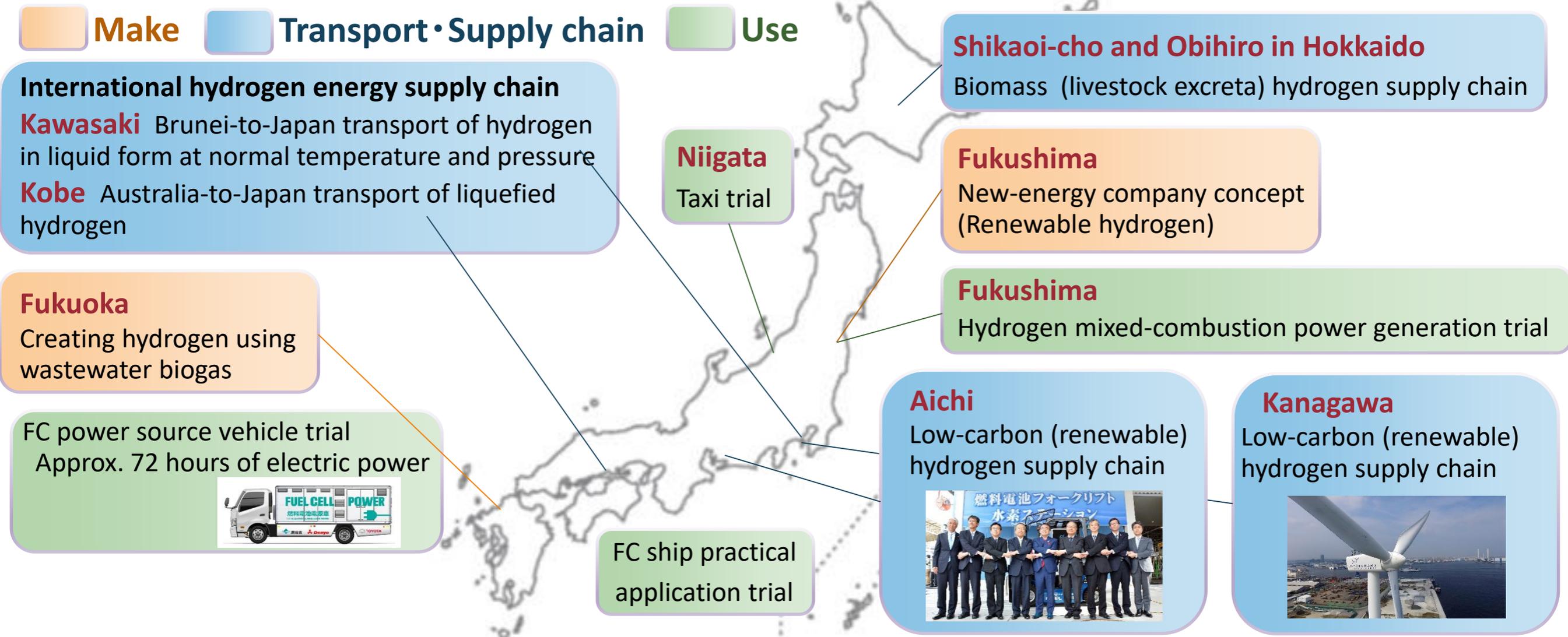
New facility for producing FC stacks

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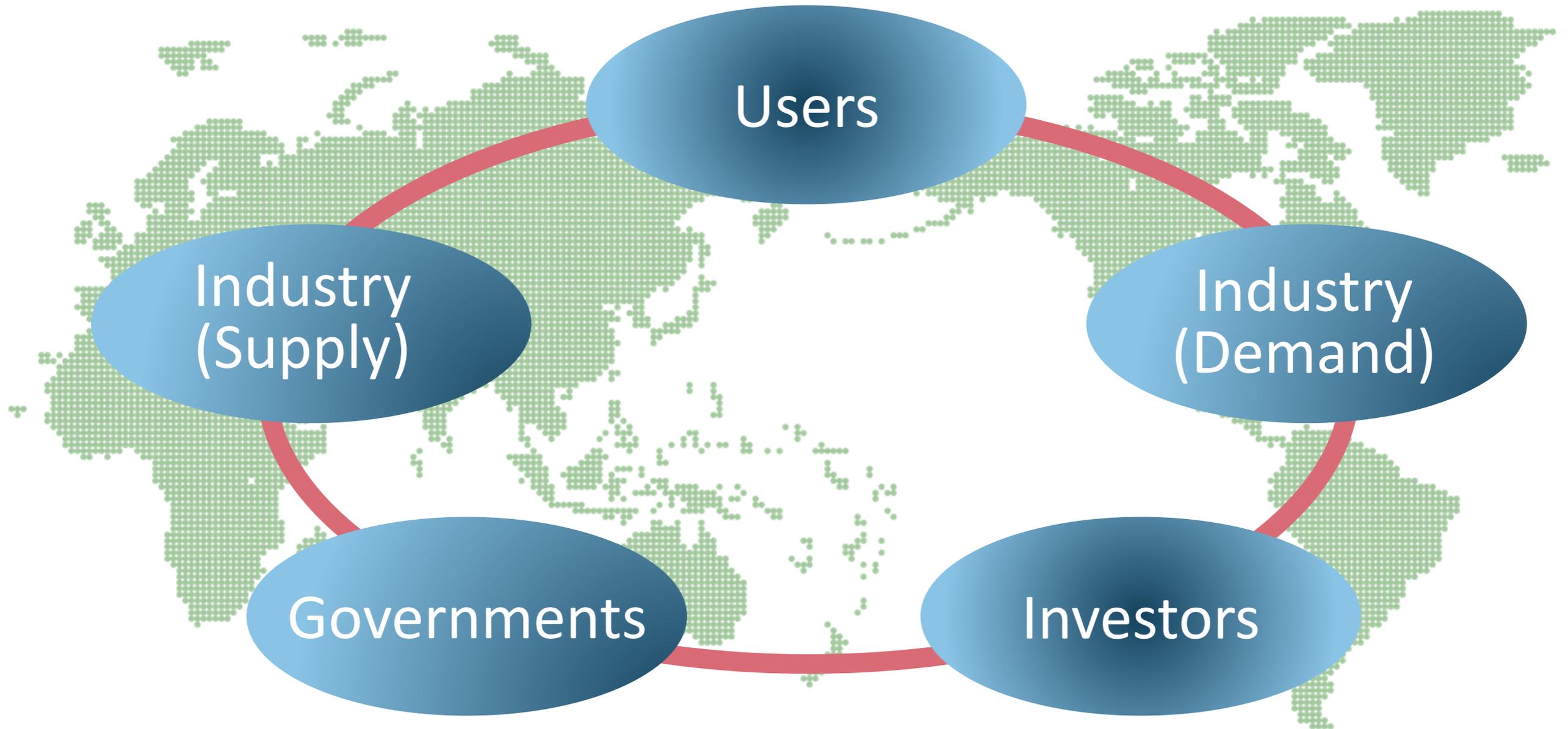


Provide Toyota FC systems for PV/CV FCEVs, to other industries, and in various situations

Examples of Various Initiatives in Japan (Including concluded activities)



Companies and organizations with various technologies in various industries participate, centered on verification trials



TOYOTA