



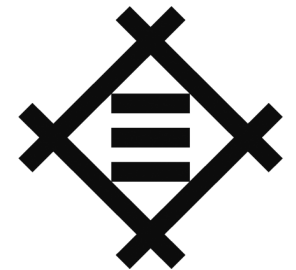
# CCS Business Perspective in Asia

## The 3rd Asia CCUS Network Forum

September 27, 2023

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# Mitsui's GX Commitment & Roadmap

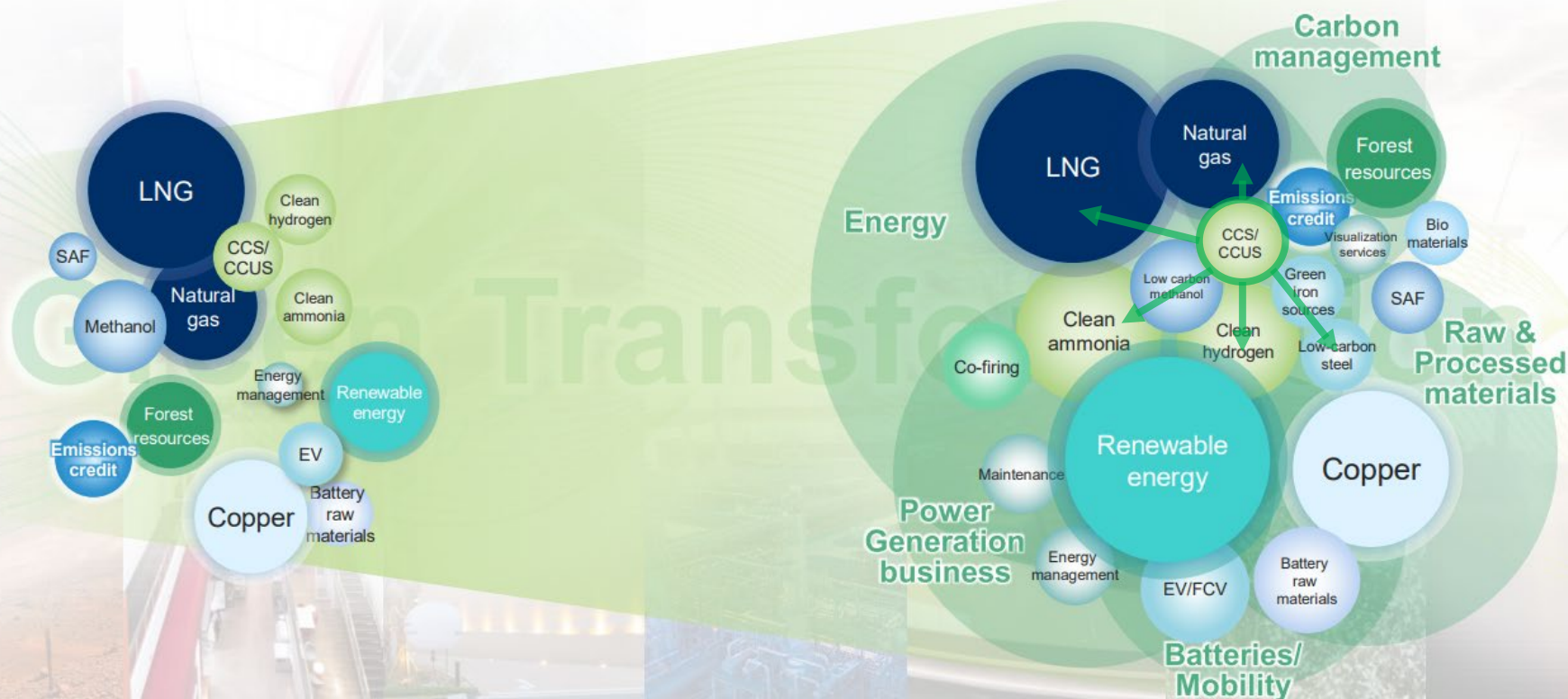


We are committed to achieving Net Zero by 2050.

CCS/CCUS will play an important role in our Green Transformation business portfolio to decarbonize its own position as well as contribute to society through promoting a “CCSaas” business and supplying low carbon fuels.

Present

2030

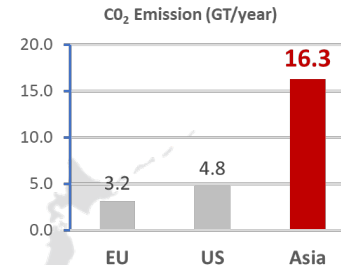


\*The size of each circle indicates the invested capital and enterprise value

# Realistic Solutions to Sustain Asian Growth

◆ Hard to abate emission **3.2 CO<sub>2</sub> GT/year**  
 >> Need to find a home

\*Assumed 20% of total emissions in Asia. Source: European Commission  
 "CO<sub>2</sub> emissions of all world countries 2022 report"



◆ Steady Economical Growth **4.9~3.2%** per year until 2050  
 >> Tight Energy Supply

\*Source: OECD "Southeast Asia Energy Outlook 2022"

◆ **90 GW** = Thermal Power Age < 10 years  
 >> Heavily dependent & need to live with

\*Source: IEA Electricity Information 2022

Electricity generation by coal

Korea	34%	208 TWh
Indonesia	62%	181 TWh
Japan	30%	307 TWh
Australia	53%	140 TWh
USA	23%	984 TWh

◆ Potential CO<sub>2</sub> Storage Resources **44~480** years' coverage  
 >> Malaysia, Australia, China, Indonesia...

\*Depleted oil/gas fields + saline aquifers. Source: OGCI March 2022

➡ Cross border CCS + blue fuels are the essential solution and crucial.

# APAC Hub & Cluster

## Where Mitsui is?



➡ Mitsui will support forming CCSaaS hub in Asia by leveraging its global experience.

- ◆ Start up commercial operation by 2030 (Target)
- ◆ Selected by JOGMEC as one of the seven “Advanced Japanese CCS project” for its first financial support.

To support energy transition of Asia, develop the entire cross boarder CCS value chain through close collaboration among emitters, offshore transporters, and storage developers with receiving a regulatory /funding support from governments.

### ○ Emitters Engagement:

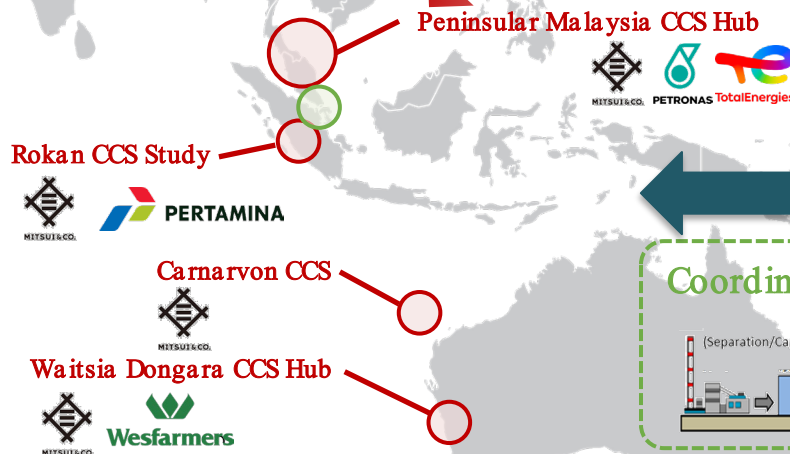
Engaging more than 11 emitters from Japan, Korea, Taiwan, and Singapore (Joint-study MOUs). Focusing on building up several anchor clusters (aggregation hub).  
**Potential: Over 30mil CO2 ton p.a.**

### ○ Storage Development:

Several sizeable prospective storages have been selected in Malaysia and Australia, in addition to there being a site selection study underway in Indonesia. Most advanced **Peninsular Malaysia CCS Hub** aims to start-up by 2030.  
**Combined Capacity: 12mil CO2 ton p.a.~**

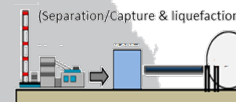
### ➡ CO2 Offshore Transportation:

Initial engineering and standardization study ongoing w/ stakeholders.



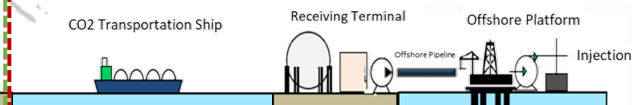
Mitsui as CCUS Value Chain Developer

### Coordination



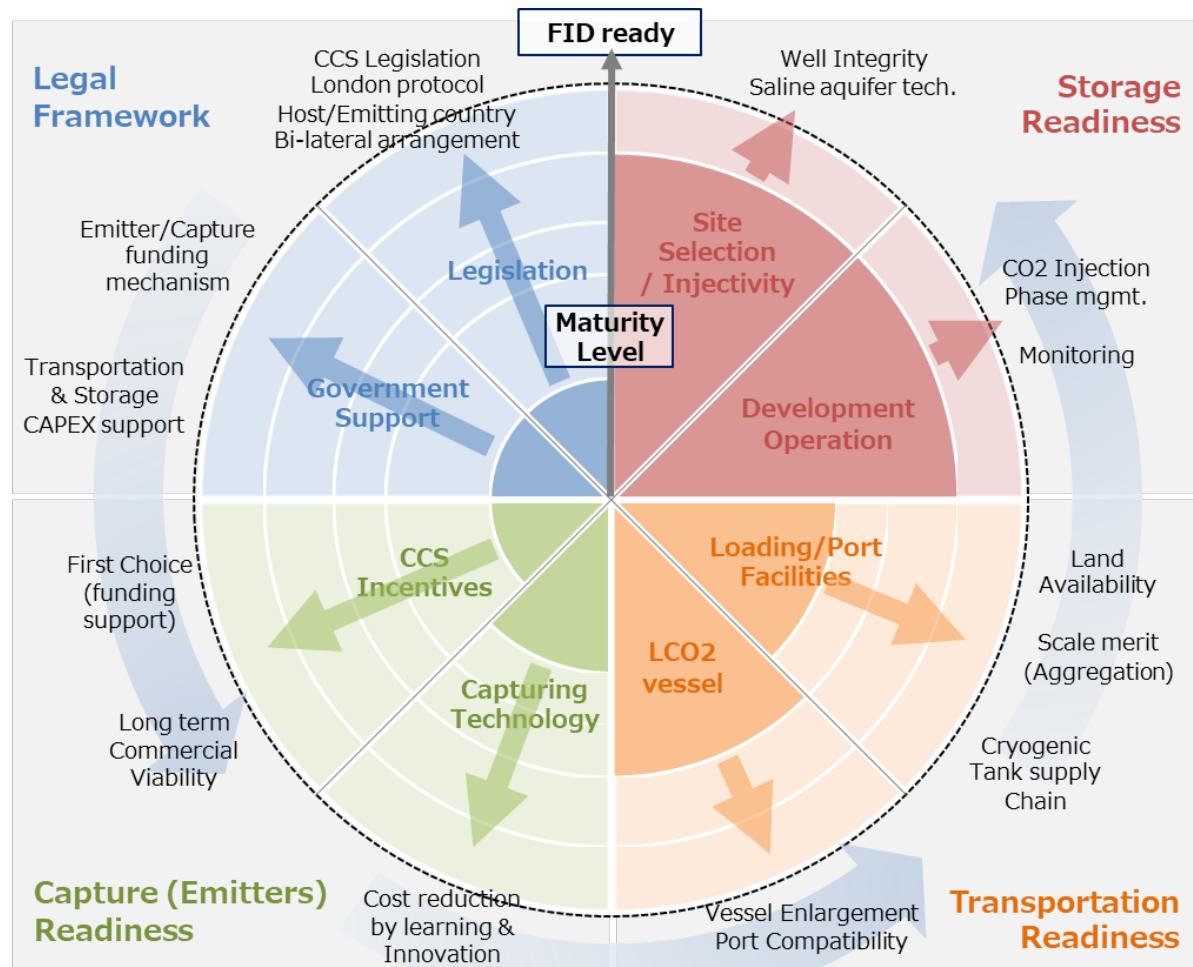
\*Step in, if necessary

### Main Scope/Investment



# Challenge towards 2030 Asian CCS Start-up

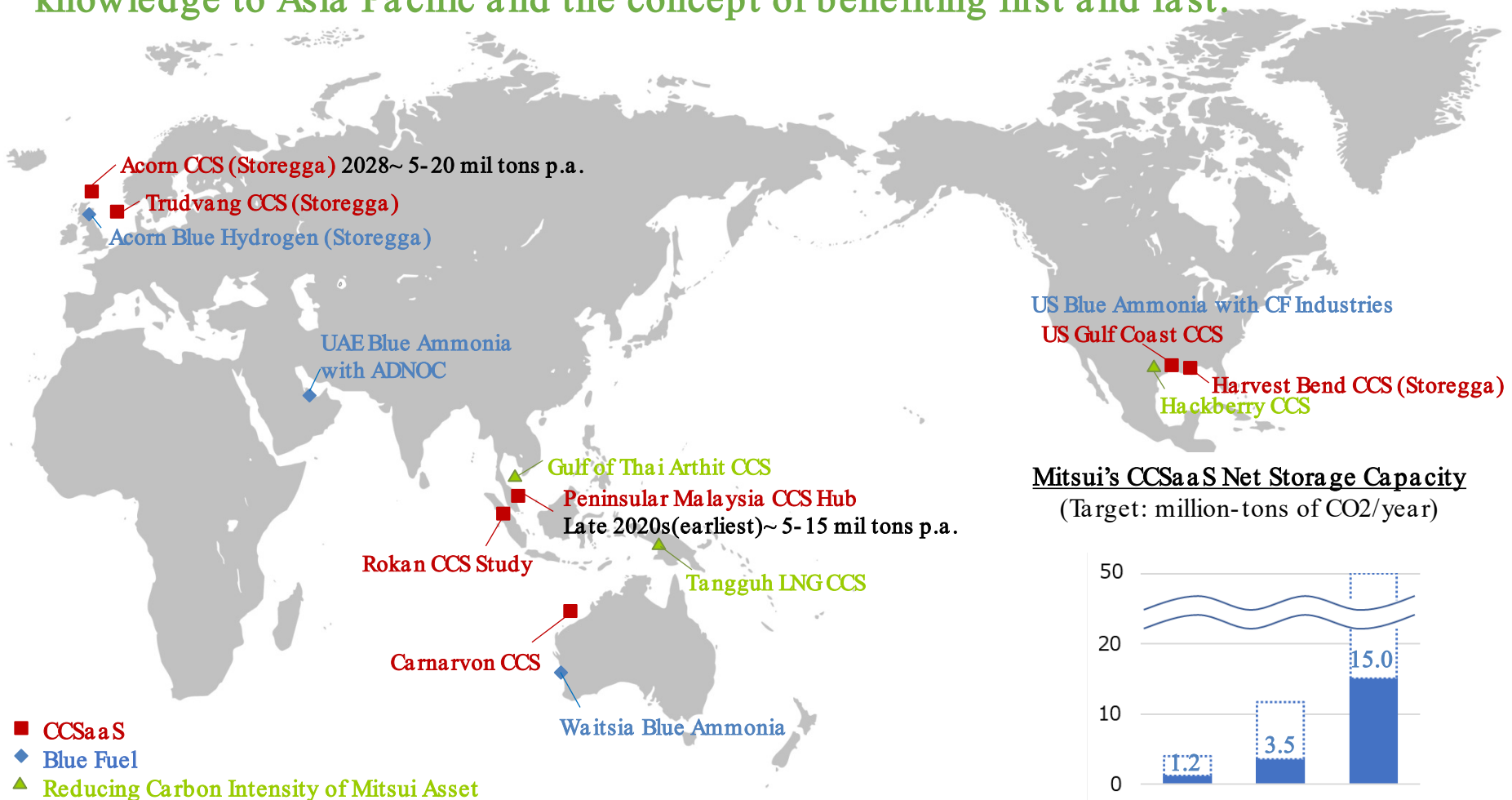
Storage side progressing on track. Key issues are when/how emitters will choose CCS as its solution. Govt. support/funds to launch cross-border CCS will be essential.



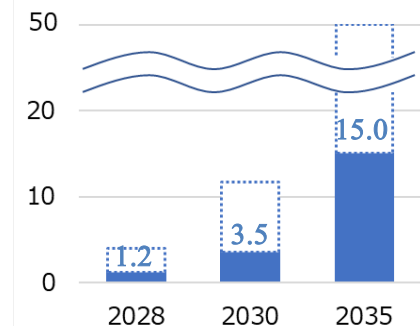
# Reference Mitsui's CCS Challenge Worldwide



Mitsui's pioneer flagship Acorn is the most ahead through selected by the UK govt. Originating several US CCS projects utilizing IRA benefit. Apply precedent knowledge to Asia Pacific and the concept of benefiting first and fast.



**Mitsui's CCSaaS Net Storage Capacity**  
(Target: million-tons of CO<sub>2</sub>/year)



360° business innovation.



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