



PETRONAS

CCS Development Implementation

Nor A'in Md Salleh

3rd Asia CCS Network 2023

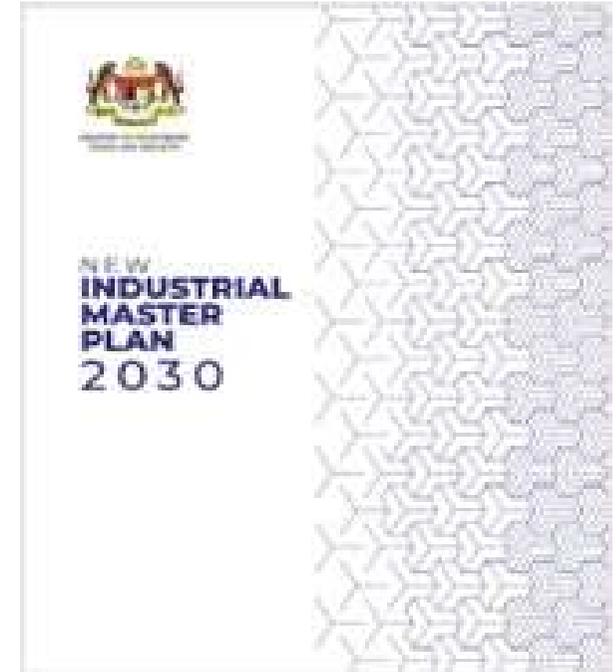
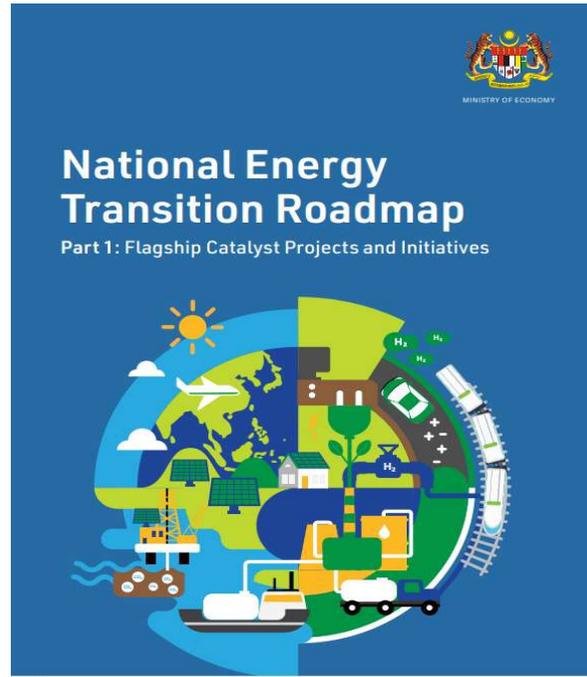
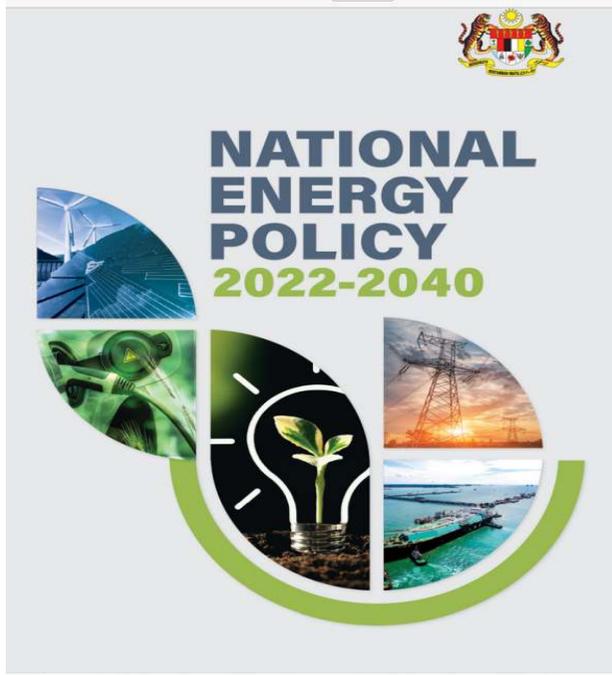
27 Sept 2023

The PETRONAS Group adopts zero tolerance against all forms of bribery and corruption. We abide by the PETRONAS Code of Conduct and Business Ethics (CoBE) & Anti-Bribery and Corruption (ABC) Manual, guided by our Shared Values and Statement of Purpose.

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Malaysia Energy Transition Policies ,RoadMap and Incentives Support



Tax incentives



Incentives for carbon capture and storage

Malaysia has to ensure the achievement of Low Carbon Nation Aspiration by 2040 under the National Energy Policy 2022 - 2040. The Government has identified an initiative to curb the emission of carbon dioxide (CO₂) using Carbon Capture and Storage technology (CCS). The oil and gas as well as power generation industries are pioneer industries which use the CCS technology in Malaysia. This technology comprises the following 3 activities:

- carbon capture;
- transportation of captured CO₂; and
- underground or sea bed carbon storage.

PETRONAS' Net Zero Carbon Emission - Our Journey

Short-term



Cap for PETRONAS' Malaysia operations by 2024



Methane emissions reduction for PETRONAS Groupwide natural gas value chain operations by 2025

Mid-term



GHG emissions reduction for PETRONAS Groupwide by 2030



Methane emissions reduction for PETRONAS Groupwide natural gas value chain operations by 2030



Methane emissions reduction for Malaysia's natural gas value chain operations by 2030

Long-term



NET ZERO 2050

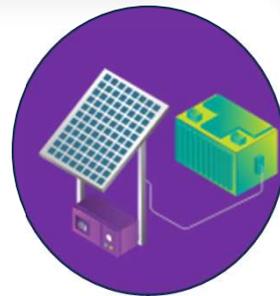
Net zero carbon emissions by 2050



Zero Routine Flaring and Venting



Electrification

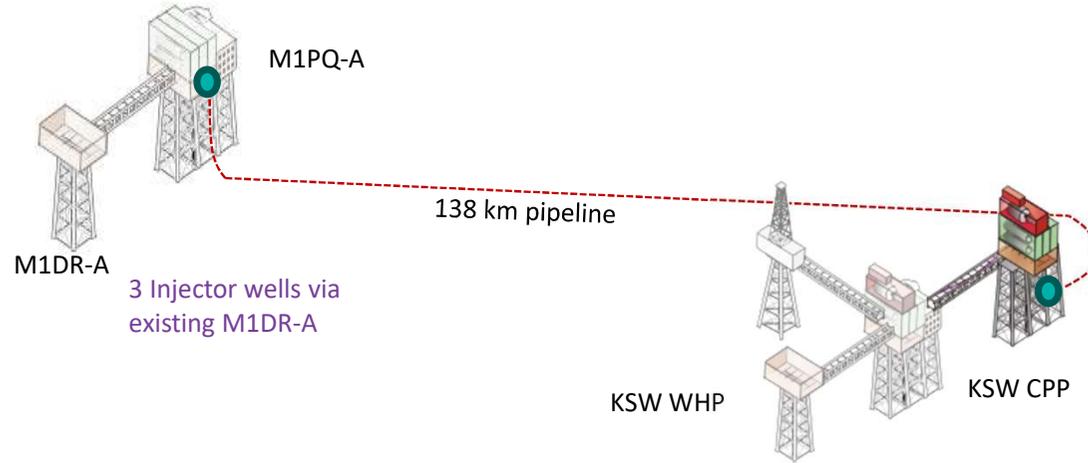


Energy Efficiency

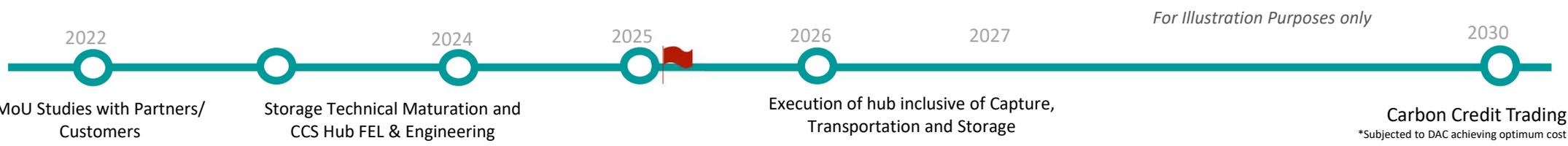
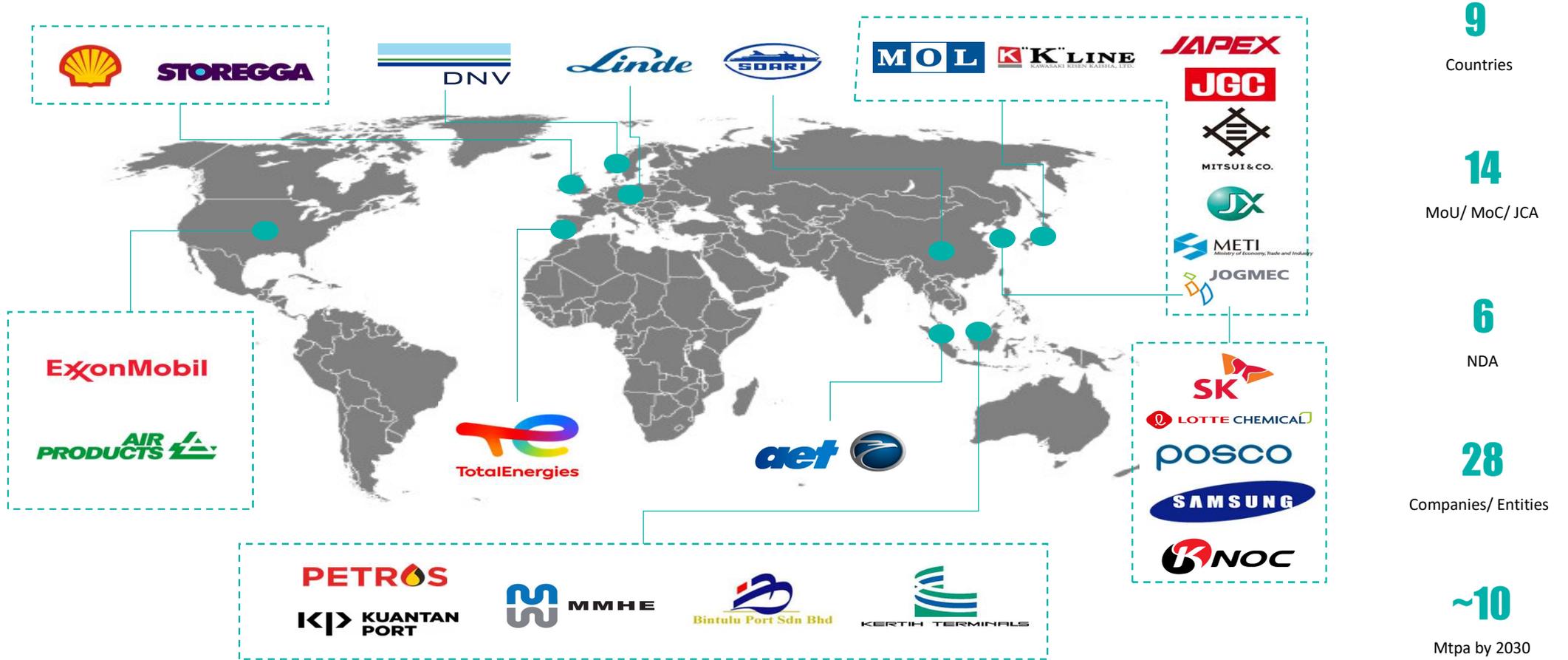


Carbon Capture & Storage

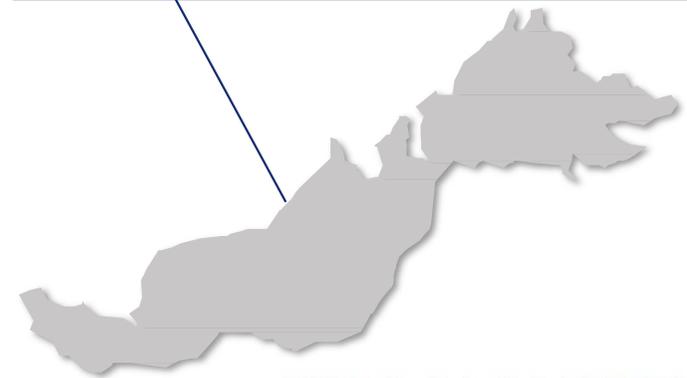
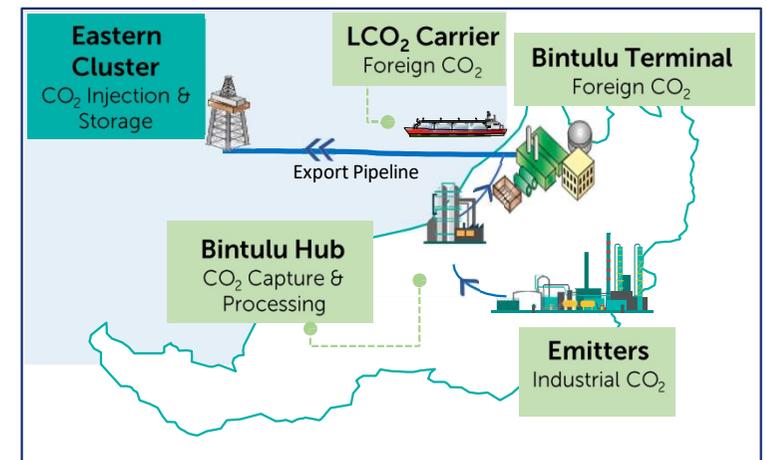
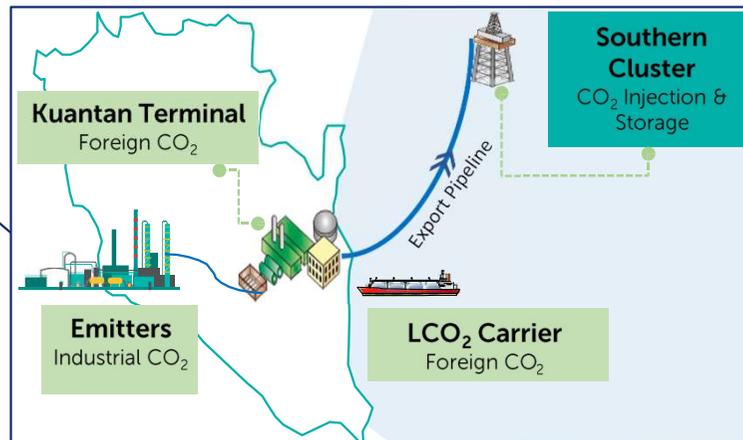
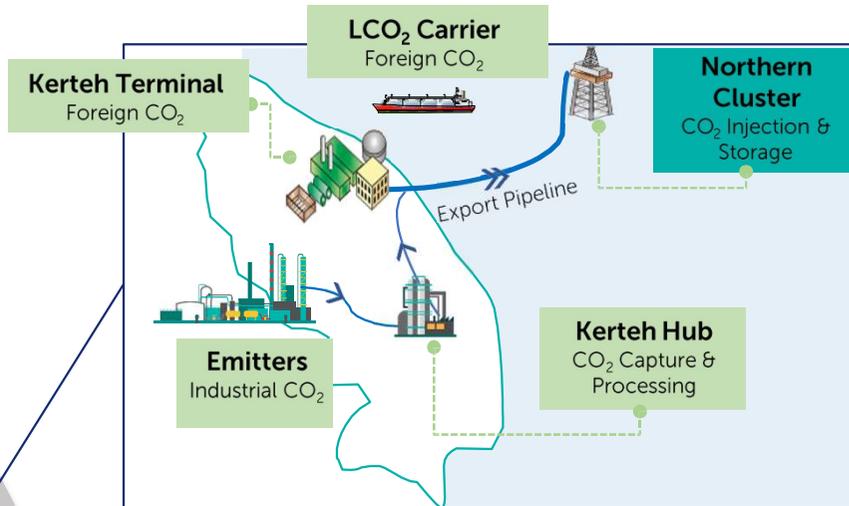
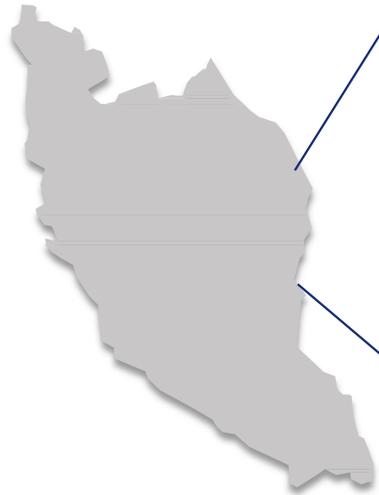
Flagship Offshore CCS Project – Kasawari (CC) & M1 (S). CCS is critical enabler for offshore Malaysia gas field development.



The aspiration to build the CCS value chain has led PETRONAS towards taking collaborative approach with key industries players in 2022

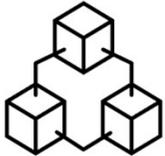


Collaborative studies have progressed into CCS projects to cater for Petronas and Malaysia NZCE as well as Regional decarbonization effort





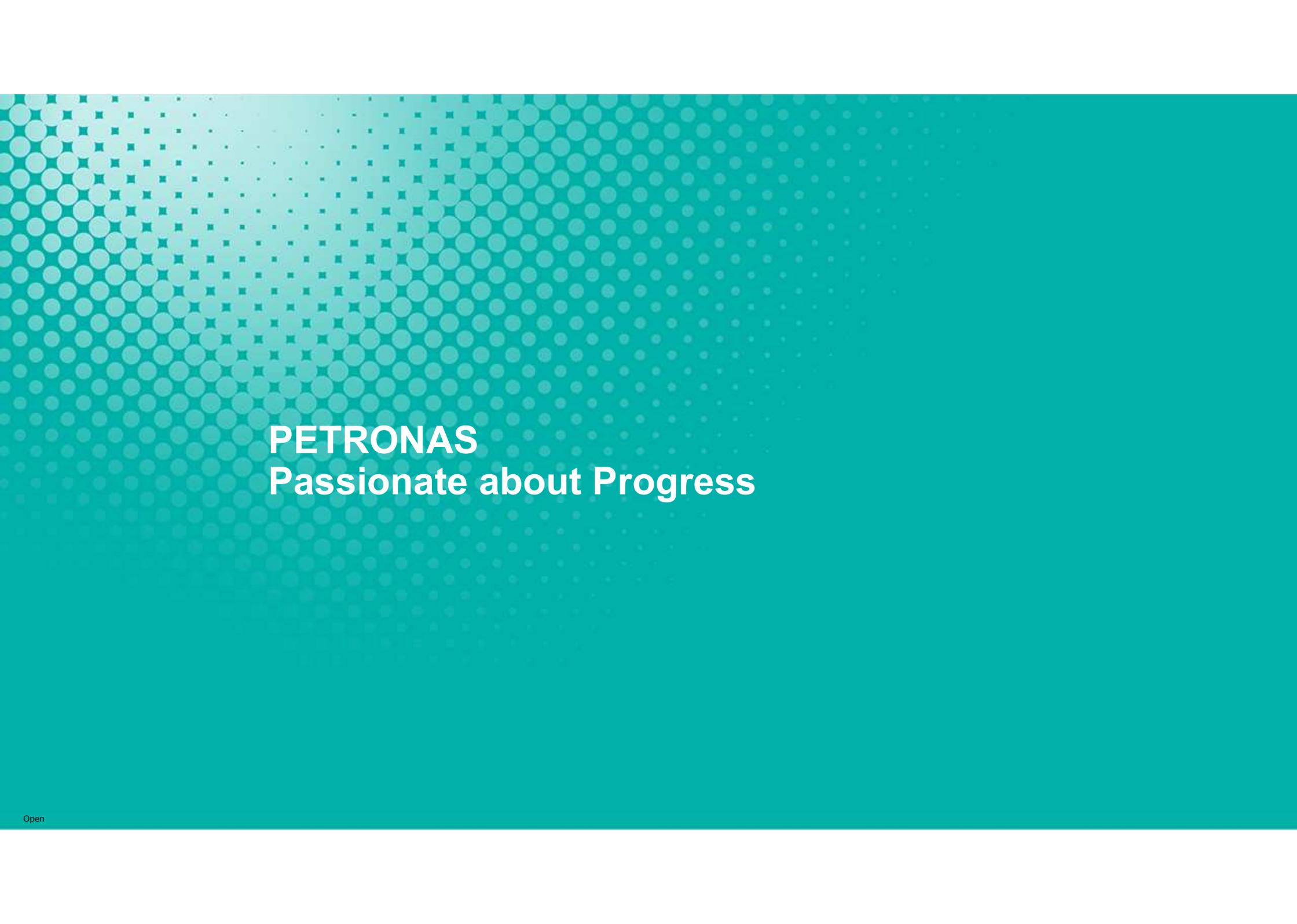
PETRONAS is progressing with NZCE maturity in supporting Malaysia NDC.



The approach for CCS at scale in Malaysia will be through hub concept - onshore terminal at concentrated industries areas, storage cluster.



The supportive ecosystems are critical for CCS implementation at large scale and right in meeting our decarbonization effort for the 1.5degree target.



PETRONAS
Passionate about Progress