



MTJA RESEARCH CESS FUND ROADSHOW

Research Building, Chulalongkorn University, Thailand
19 January 2023



"BROTHERS DRINKING FROM THE SAME WELL"

PRESENTATION OUTLINE

MTJDA Overview

- MTJDA Overview
- MTJA Historical Background

MTJA Research Fund

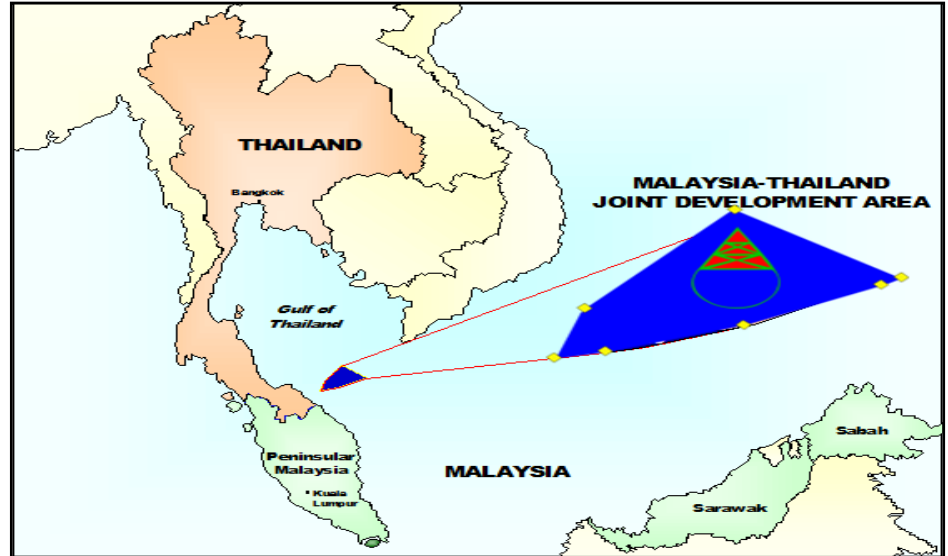
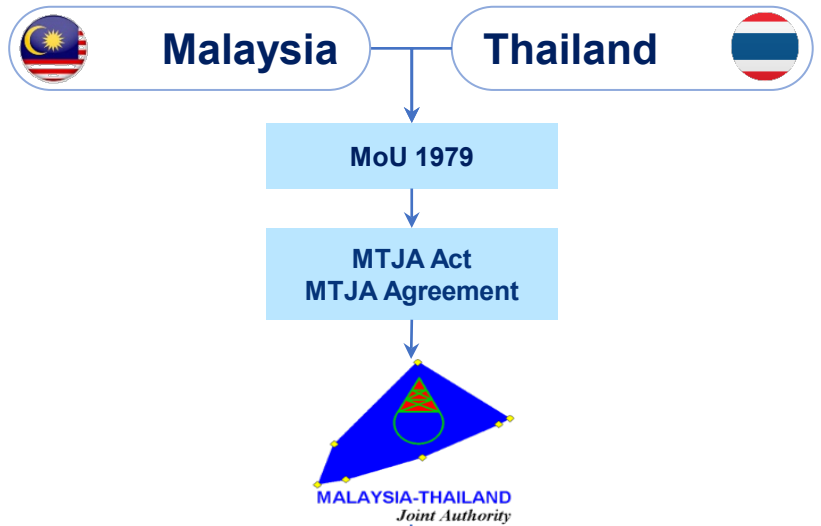
- Research Cess Fund
- Research Cess Project Council
- Proposal Selection & Approval Process
- Research Project Focus Areas
- MTJA's RCF Projects

- **Q&A**



MTJA ESTABLISHMENT AND JDA LOCATION

MTJA is govern by the MTJA Act 1990 and MTJA Agreement and JDA is located in the lower part of the Gulf of Thailand and the northern part of the Malay Basin (JDA Area: ~7,250km²)



Block A-18

Shareholders (Contractors)

PCJDA 50% & HESS 50%

Operator

CARIGALI HESS

Carigali-Hess Operating Company (CHOC)



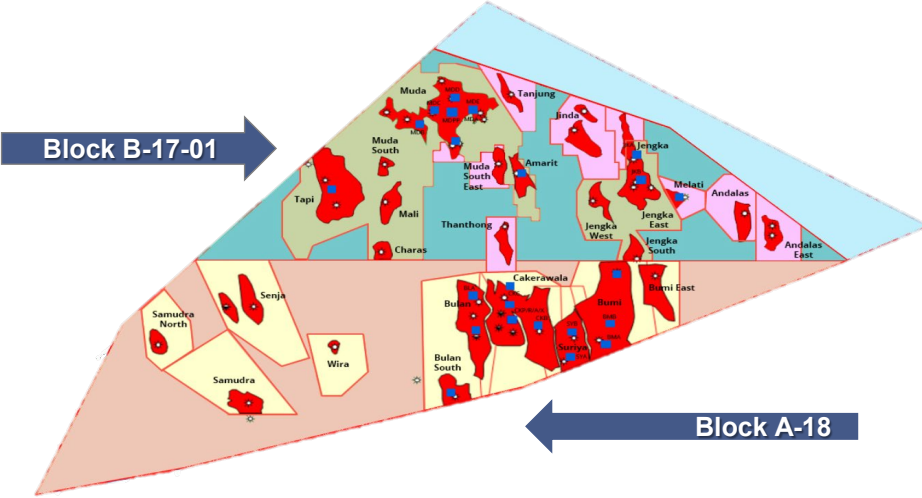
Block B-17-01

Shareholders (Contractors)

PCJDA 50% & PTTEPI 50%

Operator

Carigali-PTTEPI Operating Company (CPOC)



HISTORICAL BACKGROUND AND JDA MILESTONES

1968 | Thailand designed offshore block boundary

1971 | EPMI discovered Pilong-1 Gas Discovery

1974 | EPMI signed PSC with Petronas

1972-1979 | Offshore Thai Petroleum Concession

1976 | Thailand drilled 17-B-1, 18-C-1

1976-1978 | Both Governments discussed the overlapping area

1979 | Memorandum of Understanding (MOU) signed in Chiang Mai, Thailand MTJA establishment - JDA defined



1990 | Signing of MTJA Agreement

1991 | MTJA Act 1990 gazette

1992 | First MTJA meeting held in Bangkok

1994 | Set-up of MTJA Head Office in KL



1994 | PSC signed for Block A-18, Blocks B17& C19

Aug'95 : Gas discovered of Block A-18

Nov'95 : Gas Discovered of Block B-17

2004 - B17-01 PSC Signed
2005 – Cakerawala Block A-18 First Gas



1968
Disputed Area

1979
MoU Signing

1990
MTJA Establishment

1994 - 2005
Exploration

2005
First Gas



2009 - Block B-17&C-19 Muda first gas

2010 - Block A-18 Cakerawala Field reached 1 TCF gas and 10 MMBBL condensate

2011 - Bumi-Bumi South Unitization Agreement

2012 - Suriya and Suriya Selatan Unitization Agreement

2016 - Bulan South – Bunga Bakawali Unitization Agreement

2019 - MTJA record accumulation of USD10 Billion remittance to both Governments (USD5B each)

2019 - MTJA celebrated 40th Anniversary of MoU at Bangkok and contributed USD2mil to both government for research purpose to commemorate the event.

2020 – Embark exercise on techno commercial evaluation to manage expiring PSC in 2029.

2022 – Annexation of Block B-17&C-19 and open area to PSC B-17-01. Additional gas delivery commitment through SAGSA-3



2005

2010

2015

2022

Development & Production

SOURCES OF MTJA RESEARCH CESS FUND

Research Cess Fund is contributed by
"0.5% of Cost Oil/Gas and Contractor's
portion of profit Oil/Gas"



RESEARCH CESS PROJECT COUNCIL

Representatives from Malaysia

Dr. Afiza binti Idris
Deputy Director 1,
Environmental and Natural Resources Division,
Ministry of Economic

Dr. Nasir bin Darman
Chief Technology Officer,
Group Research and Technology
PETRONAS Research Sdn. Bhd

Dr. Nor Azlina binti Ariffin
Under Secretary,
Transfer of Technology and R&D Commercialization,
MOSTI

Co-Chairperson



Datuk Joseph Podtung
CEO MTJA



Mr. Supat Napanoparatkaew
DCEO MTJA

Representatives from Thailand

Dr Chanida Kaewkor
Geologist, Senior Professional Level
(Leader of MTJDA Group),
Department of Mineral Fuels

Ms. Jomkwan Polak
Plan and Policy Analyst (Professional Level)
Ministry of Energy

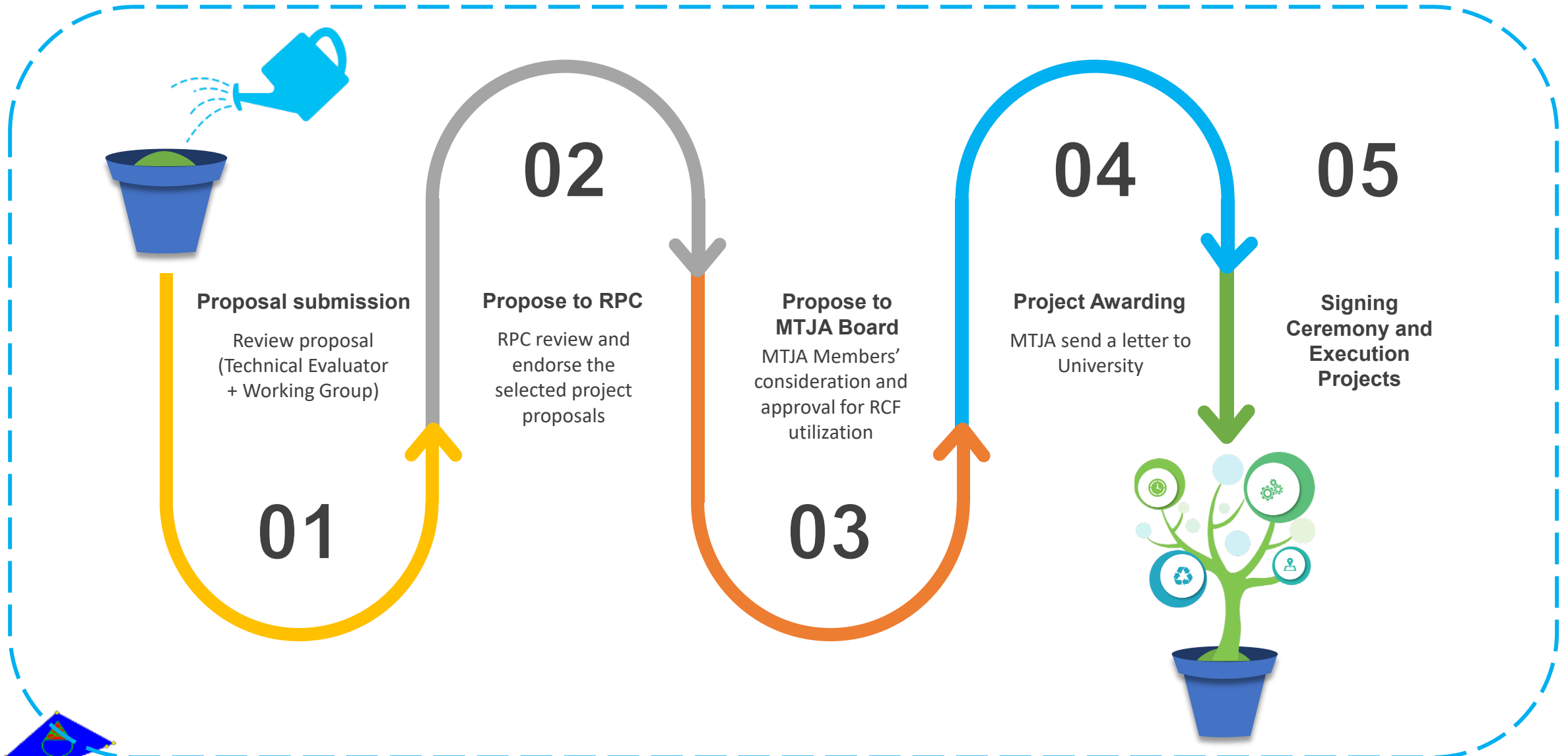
Ms Dusadee Chareonchitswad
Deputy Executive Director of Petroleum
Institution of Thailand (PTIT)

Operators

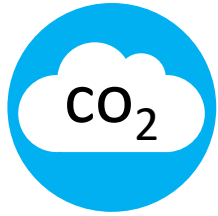
CARIGALI HESS



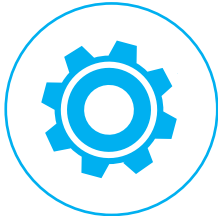
PROPOSAL SELECTION AND APPROVAL PROCESS



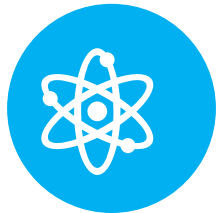
RESEARCH PROJECT FOCUS AREAS



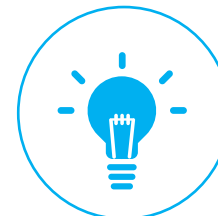
- New technology of carbon capture or storage
- Monetize the CO₂
- Separation of CO₂ from Natural Gas



- Prolong aging facilities
- Asset Integrity Monitoring
- Corrosion/Erosion Study



- Drilling innovation
- Cost saving for drilling activities



- Reservoir management
- Water/Sand Production Handling
- Subsurface study



- Alternative Energy
- Green Energy for platform



- Decommissioning
- Decommissioning Cost Estimation
- Environmental impact of Decommissioning process



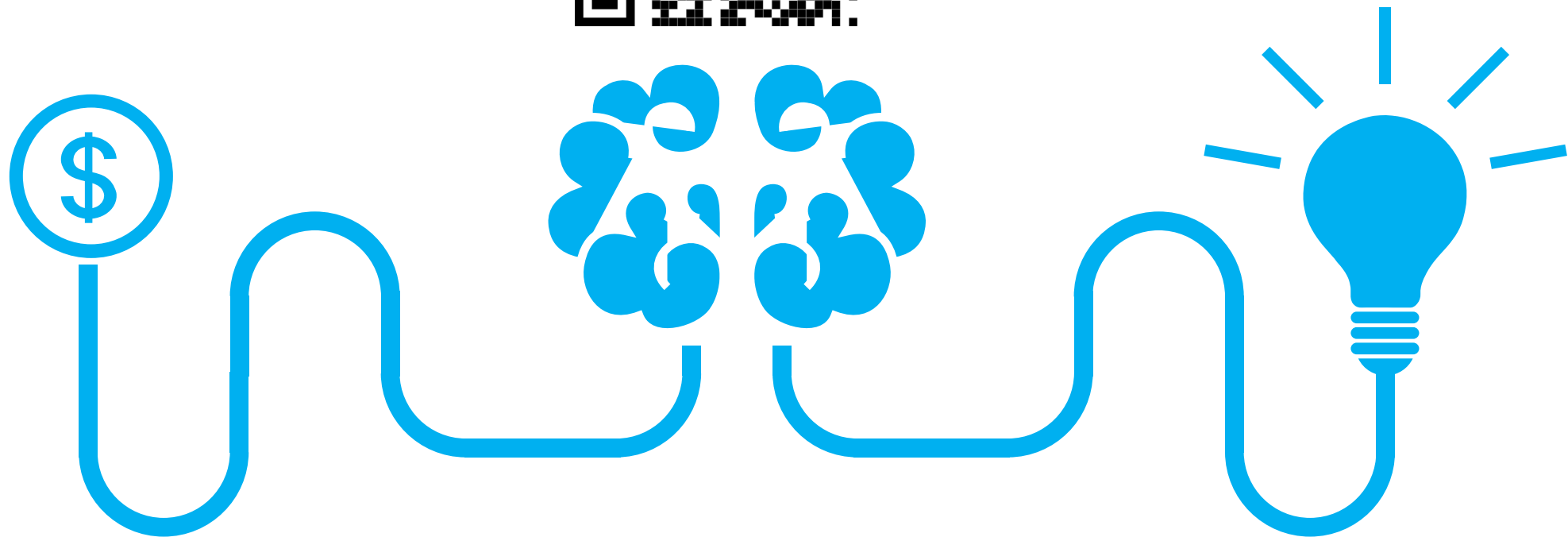
- Process Safety Management
- Hazardous Waste Handling

MTJA'S RCF PROJECT

- Carbon Dioxide (CO₂) Conversion to Higher Value Products
- Trace Quantity Removal of Hazardous Arsenic and Mercury from Produced Water Generating in Malay and Pattani Basin Via Hollow Fiber Supported Liquid Membrane (HFSLM)
- Investigating The Purification of Natural Gas by Selective Adsorption and Diffusion Processes Using Nano-Materials
- Solvent Development and Column Design for Carbon Dioxide Capture from Natural Gas and LNG Processing
- Development of High Performance Benzoxazine Resin-Coated Proppants for Hydraulic Fracturing Technology
- Possible Consequences of Leave-in-Place Decommissioned Structures: Subsea Pipelines Corrosion and Impacts of Heavy Metals on Marine Ecosystem
- Scale -up of low-temperature alcohol-assisted methanol synthesis from CO₂ and H₂

- Palm Oil Derivatives and Oleo-Chemical for Drilling Application
- Mechanism Of Sand Production and Its Control in Oil & Gas Abstraction
- Enrichment Of Methane Concentration from CO₂ Mixture Obtained from Oil & Gas Well
- Characterization, Extraction and Application of Graphene from Unwanted Industrial Waste in Water Based Mud (WBM) And Ester Based Mud (EBM) Drilling Fluids
- CO₂ Separation from High Pressure Natural Gas Stream Using New Fibrous Adsorbent
- Energy Recovery in Petroleum Processing Via Intergrated High Performance Technology
- Compositional Kinetic and Genetic Hydrocarbon Analyses in The North Malay Basin Of JDA
- Experimental investigation of erosional effect on geotextile and metal foam embedded with sand screen for subsurface oil sand exclusion technique in MTJA field
- Development of Diver-less FRP-based Epoxy Sleeve Systems for Offshore Conductor Protection Systems with Integrated Integrity Monitoring System

COME & JOIN





Q&A