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Sustainability Indices**
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SET AWARDS 2022

Sustainability Excellence

6 September 2022

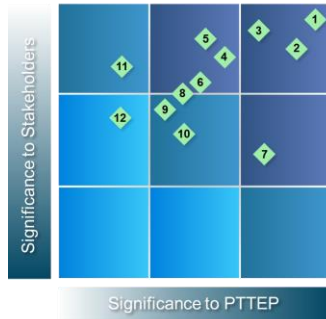
Mr. Montri Rawanchaikul
Chief Executive Officer

PTT Exploration and Production Public Company Limited

Agenda

SET AWARDS 2022: Sustainability Excellence

PTTEP Strategic Framework



Decarbonization



Positive Impact on Environment and Social



- ◆ Overview
- ◆ Materiality Issues
- ◆ Sustainability Strategy

- ◆ Driving Forces
- ◆ EP Net Zero 2050
- ◆ Risks and Opportunities

- ◆ Ocean for Life

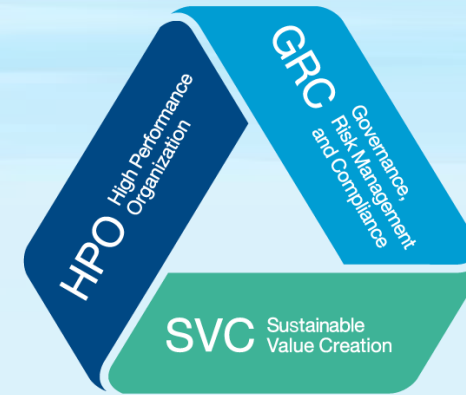
“Energy Partner of Choice”

through Competitive Performance and Innovation for Long-term Value Creation



To achieve our vision of becoming the “Energy Partner of Choice”, PTTEP has developed the Sustainability Framework comprising:

- High Performance Organization (HPO)
- Governance, Risk Management and Compliance (GRC)
- Sustainable Value Creation (SVC)

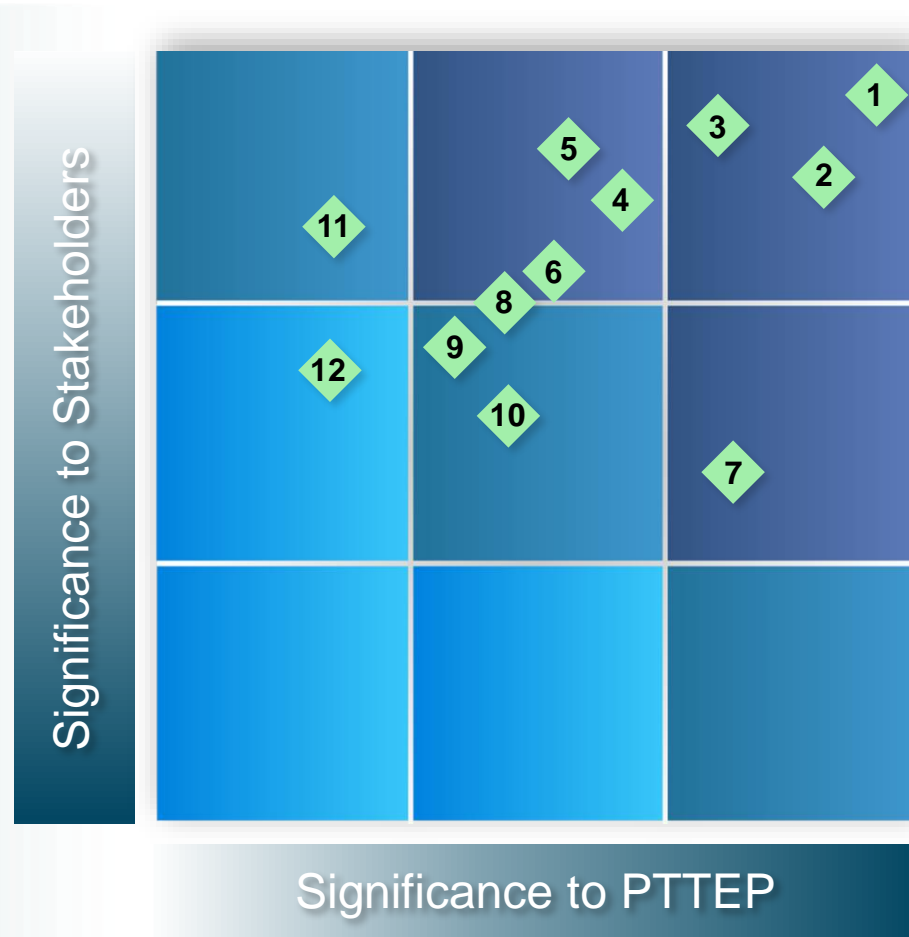


▶▶ Sustainability



2022 PTTEP Materiality Issues

Energy transition towards net zero is the highest significant for PTTEP and our stakeholders



- 1 Energy Transition towards Net Zero
- 2 Technology and Innovations
- 3 Governance, Risk Management & Compliance
- 4 Safety, Security, Health and Environment
- 5 Contribution to Communities & Society
- 6 Human Resource Preparation
- 7 Circular Economy
- 8 Biodiversity Impact Management
- 9 Supply Chain Management
- 10 Cybersecurity
- 11 Human Rights
- 12 Stakeholder Management

External Factors



Global Energy Crisis

Energy Transition

Climate Change



PTTEP Strategy

1 DRIVE VALUE

Strengthen E&P and ensure Thailand energy security

- Maximize production
- Expedite development
- Monetize discovery

Enhance competitiveness of unit cost

Expand gas-weighted portfolio and LNG business

2 DECARBONIZE

Manage E&P for lower carbon portfolio

Execute GHG emission reduction plan

Accelerate CCS projects

Maximize use of renewable and future energy in operation

Pursue emission offsetting and Ocean for life

3 DIVERSIFY

Scale-up AI & Robotic Ventures (ARV)

Capture gas-to-power and renewable energy opportunity

Explore CCUS, H₂ and future energy

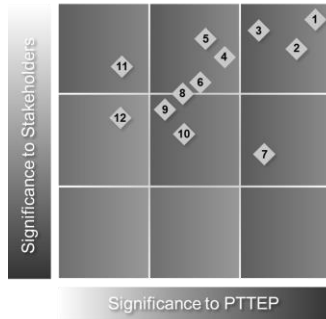
Commercialize in-house technology



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Driving Forces

Global Trends

Paris agreement



UN SDGs



Stakeholder Inputs



Thailand's Long-term GHG Reduction Strategy

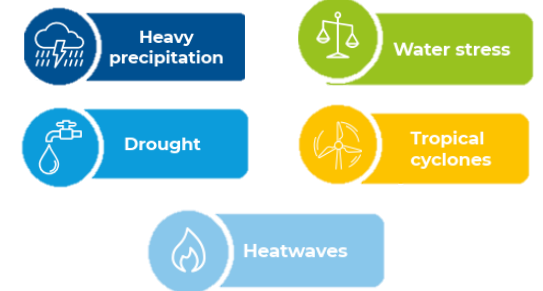
Thailand Commitment



Thailand NDC
 2030 : 40% GHG Reduction
 2050 : Carbon Neutrality
 2065 : Net Zero GHG emission

PTTEP Climate Change Risk Assessment

Physical Risks



Transition Risks





EP NET ZERO
2050

Exploring for Lower Carbon E&P Portfolio

- 1 Lower Carbon E&P Portfolio Management

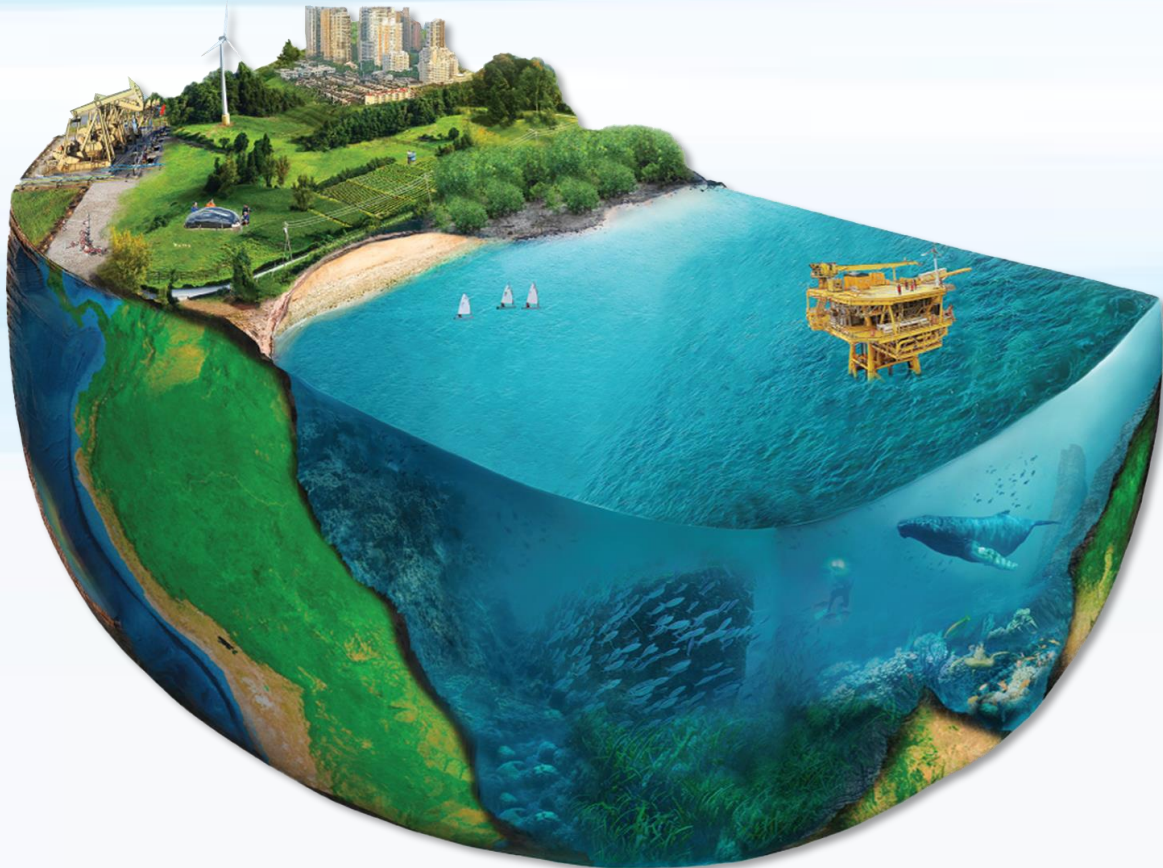
Production and Planet in Balance

Beyond Conventional Practice

- 1 Zero Routine Flare for New Assets
- 2 Carbon Capture Utilization and Storage (CCUS)
- 3 Maximization of Renewable Energy in Operations
- 4 Full Application of Circular Economy Concept
- 5 Methane Emission Reduction via Technology

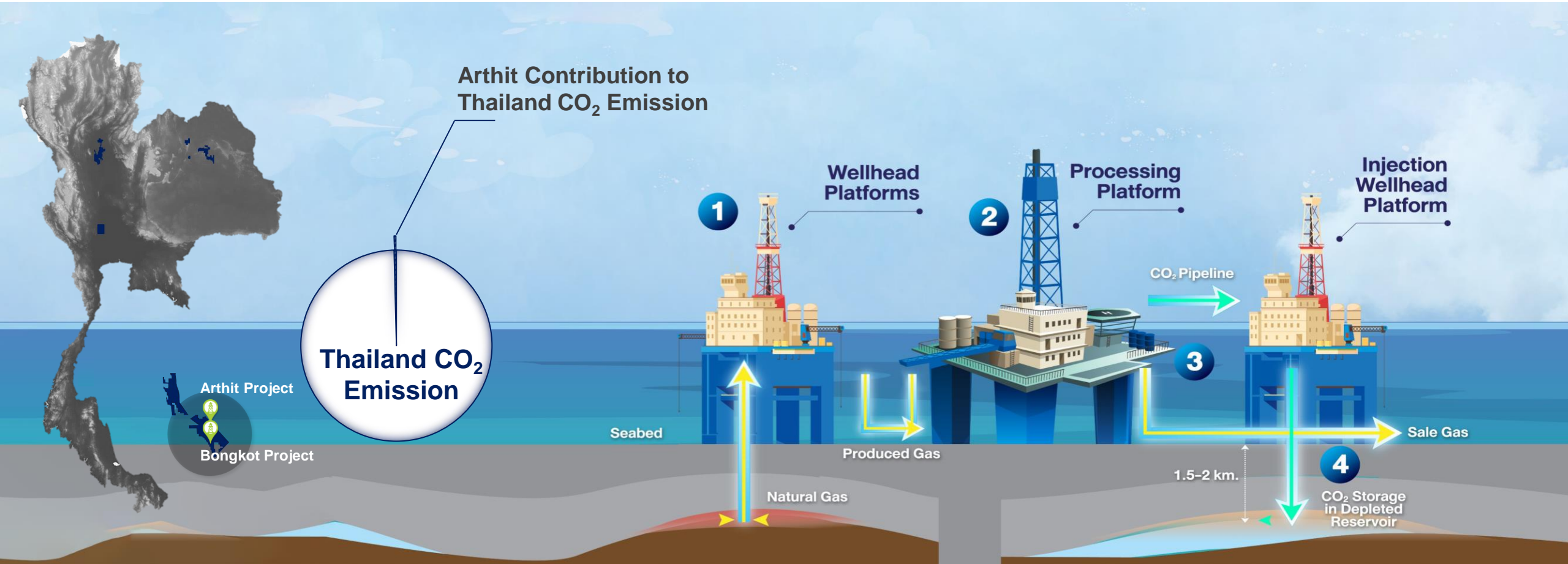
Beyond Operation

- 1 Carbon Removal Project (Blue Carbon and Land Forestation)
- 2 Advanced Carbon Removal Technology



We need to do more to stay on Net Zero pathway

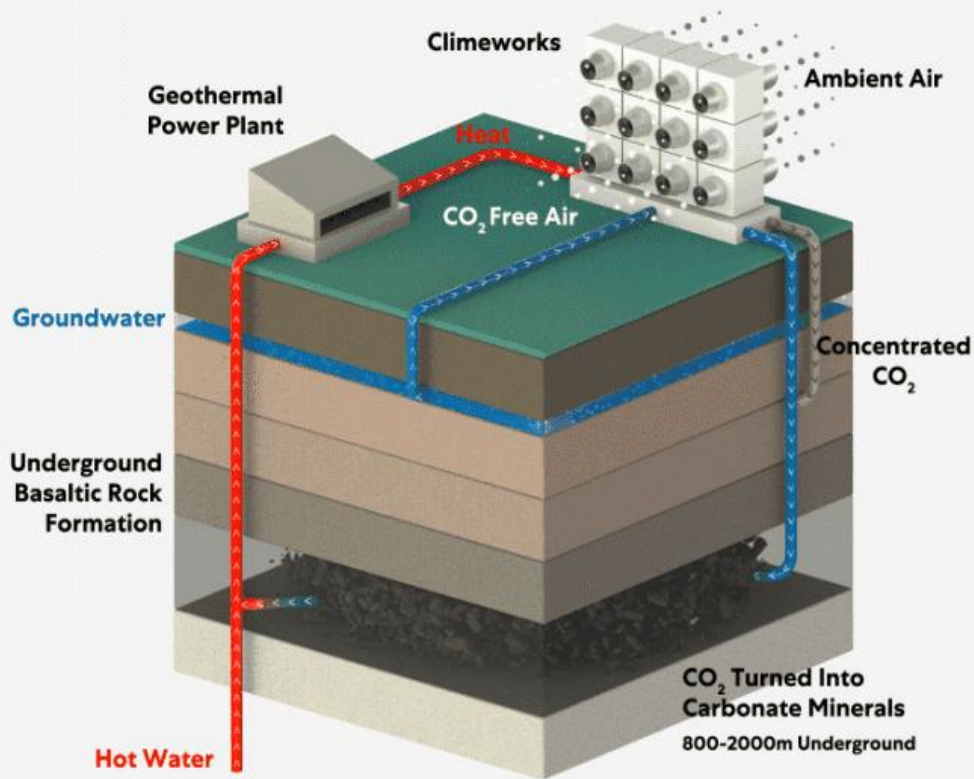
Arthit Carbon Capture Storage (CCS) Project



- Reducing emissions from upstream activities at Arthit
- “Pilot” project to initiate dialogue with Gov. & other stakeholders

Advanced technology: Direct Air Capture [DAC]

Method to capture CO₂ directly from air



Thailand's decarbonization goal

Strong commitment that requires serious efforts from relevant parties



COP26

2030

Mid-term goal

2050

Carbon Neutrality

2065

Net-zero



Thailand emission
Total 350 Mt CO₂e
(250 Mt CO₂)

Optimization, EV, etc.
90 Mt CO₂

Forestation
120 Mt CO₂

2050

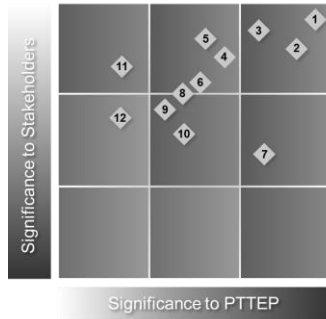
CCUS
~40 Mt CO₂



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Ocean for Life Strategy

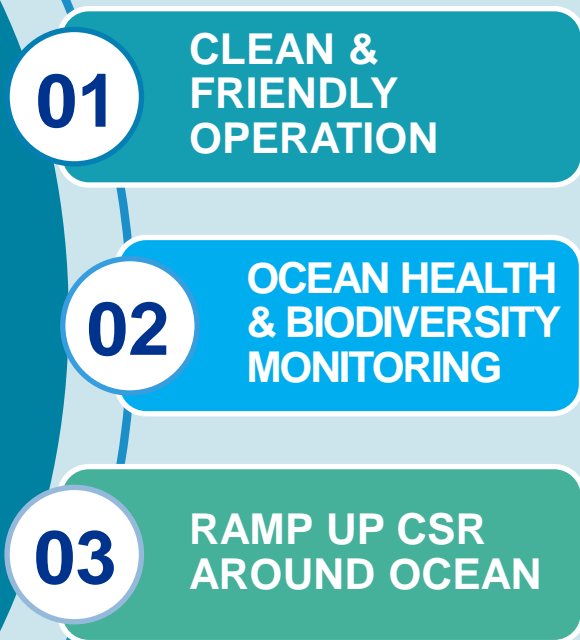
Using our Strengths to support Social and Environment

Targets

Net Positive Impact of BES value

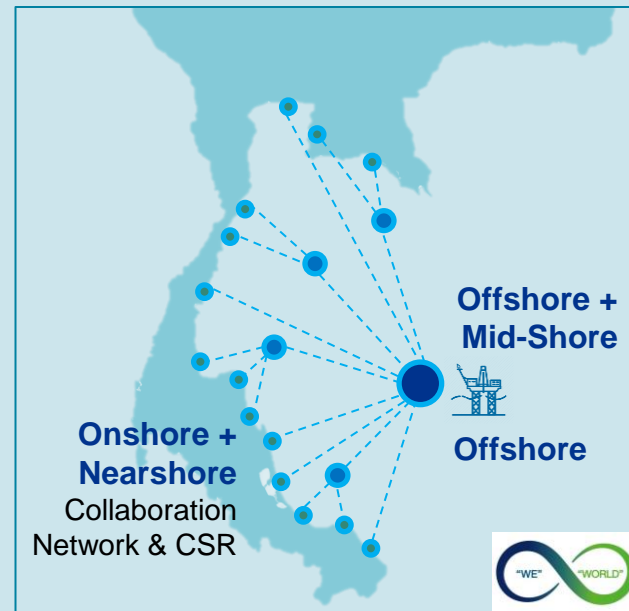
>50% increase of local community income

Support Thailand OHI



PTTEP Strengths

- Location Advantage
- Strong & Advanced Technology and Innovation



PTTEP

HOME OCEANOGRAPHIC DATA OCEAN FOR LIFE INITIATIVES NEWS & EVENT CONTACT US

OCEAN DATA PLATFORM

...The majority of our operations lie offshore which means the sea has become our home and so we are conscious of our responsibilities...

PTTEP

OCEANOGRAPHIC DATA

Koh Mannai

North Bongkot Project (GBN) South Bongkot Project (GBS)

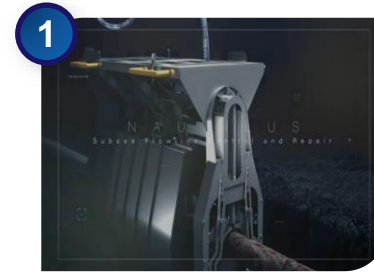
Arthit Project (ART) Koh Mannai

GBN ART GBS

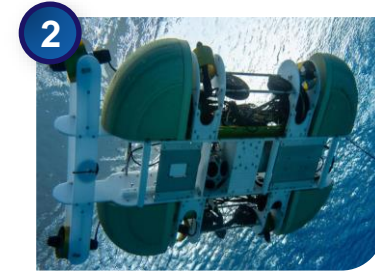
Ocean for Life Initiative

Highlight

1. Clean & Friendly Operation: Autonomous robots for offshore inspection



Nautilus

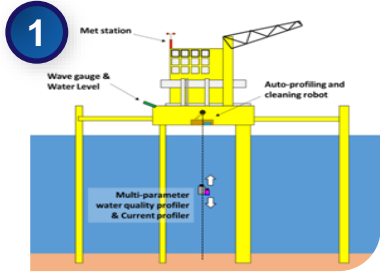


XPlorer



ROV

2. Ocean Health & Biodiversity Monitoring: Using our advantage in location and technology



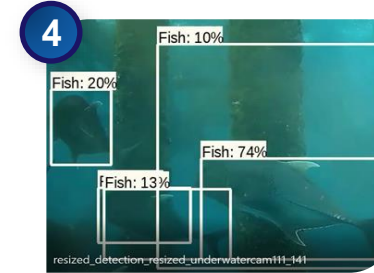
Met-Ocean Station



1st Microplastic Baseline Study in GoT



Current Mapper



Aquatic Animal Motion Detection



Coral Bleaching Baseline Study & Monitoring



Blue Carbon

3. Ramp Up CSR around Ocean: 17 provinces around GoT



Ocean Waste Management



Mangrove Forestation



Aquatic Animal Hatchery Learning Center



Sea Turtle Conservation



Coastal Conservation Area & Fish Home



Seafood Product Value Enhancement



H.T.M.S. Underwater Learning Site Project



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Thank you