



PTTEP Decarbonization Pathway

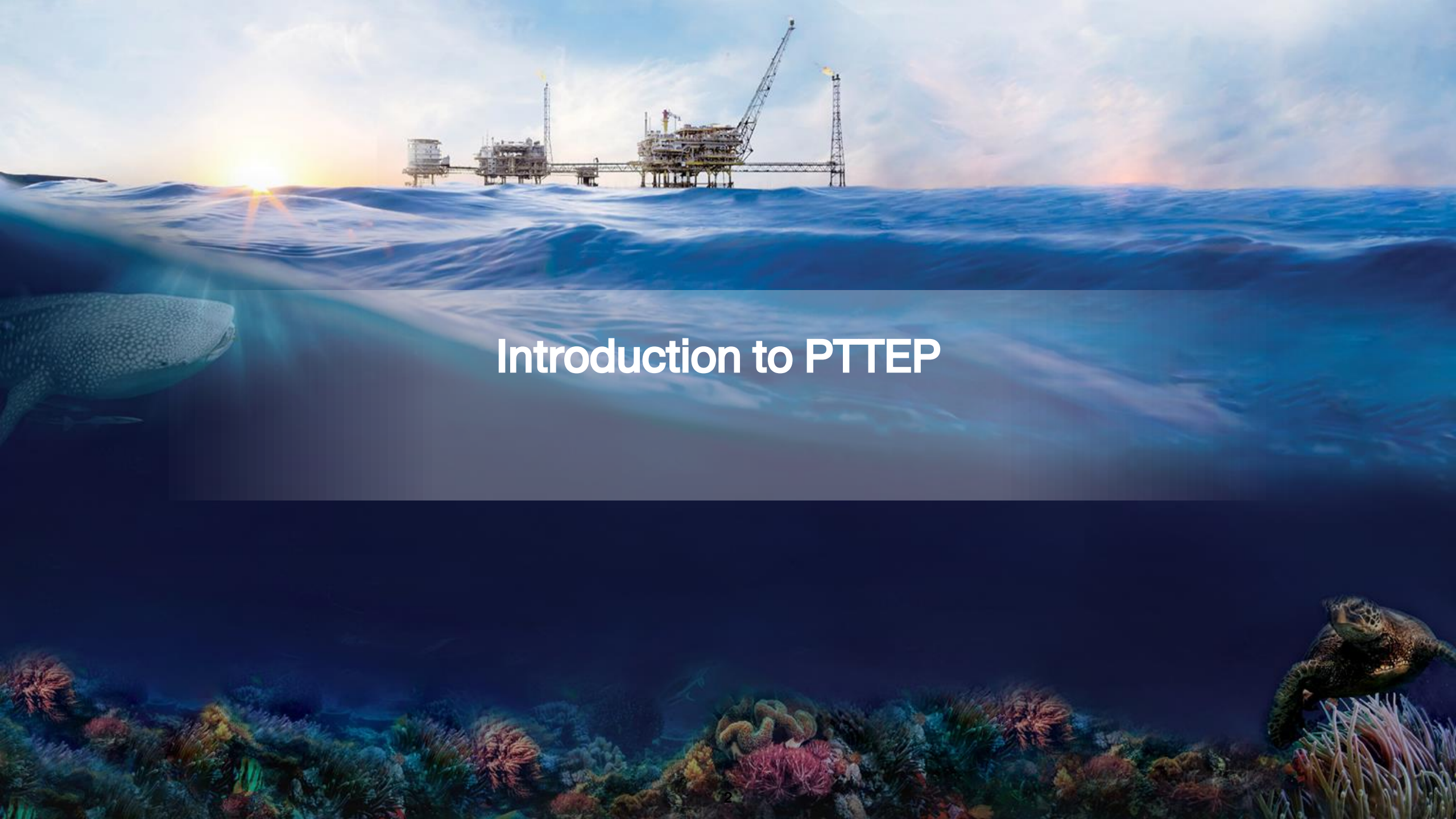
สุศมา ปิตากุลดิลก

รักษาการ ผู้ช่วยกรรมการผู้จัดการใหญ่

สายงานความยั่งยืนและบริหารผู้มีส่วนได้ส่วนเสีย

ปตท.สผ.

22 ธันวาคม 2566



Introduction to PTTEP

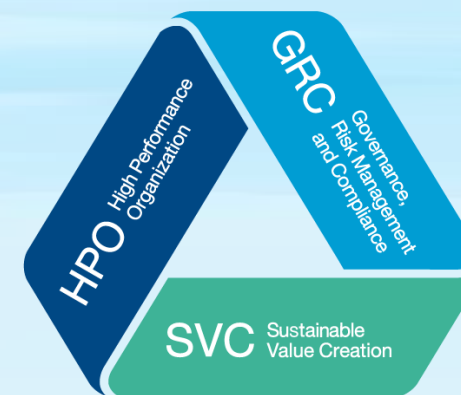
“Energy Partner of Choice”

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)

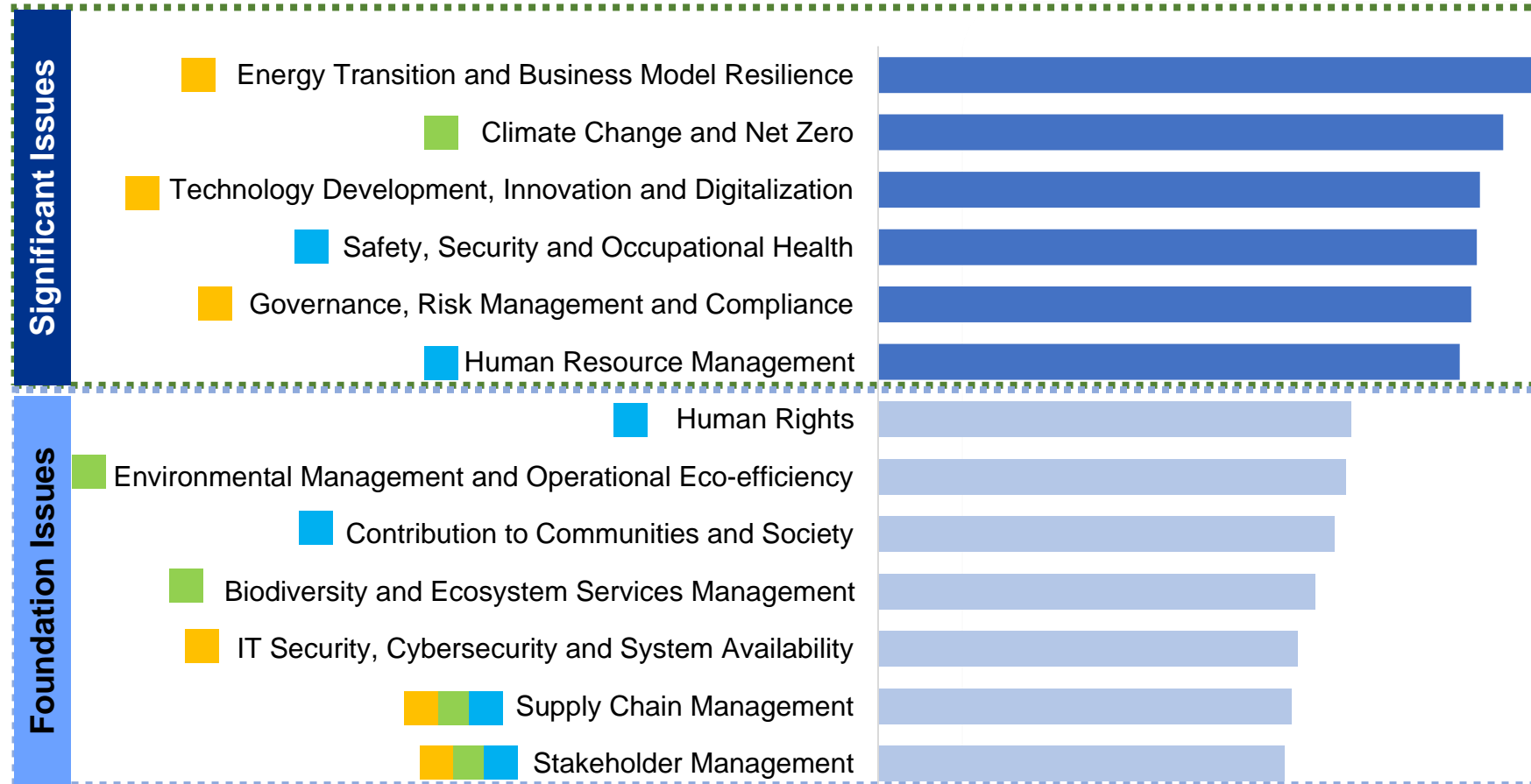


►► Sustainability



2023 PTTEP Materiality

PTTEP Significant sustainability issues



Legend: ■ Governance & Economic Dimension ■ Environmental Dimension ■ Social Dimension



Sustainability Benchmarking

S&P Global

MSCI

Moody's ESG

SUSTAINALYTICS

a Morningstar company



FTSE4Good



SET AWARDS 2022

Sustainability Awards of Honor



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 and Robotics Ventures (ARV)

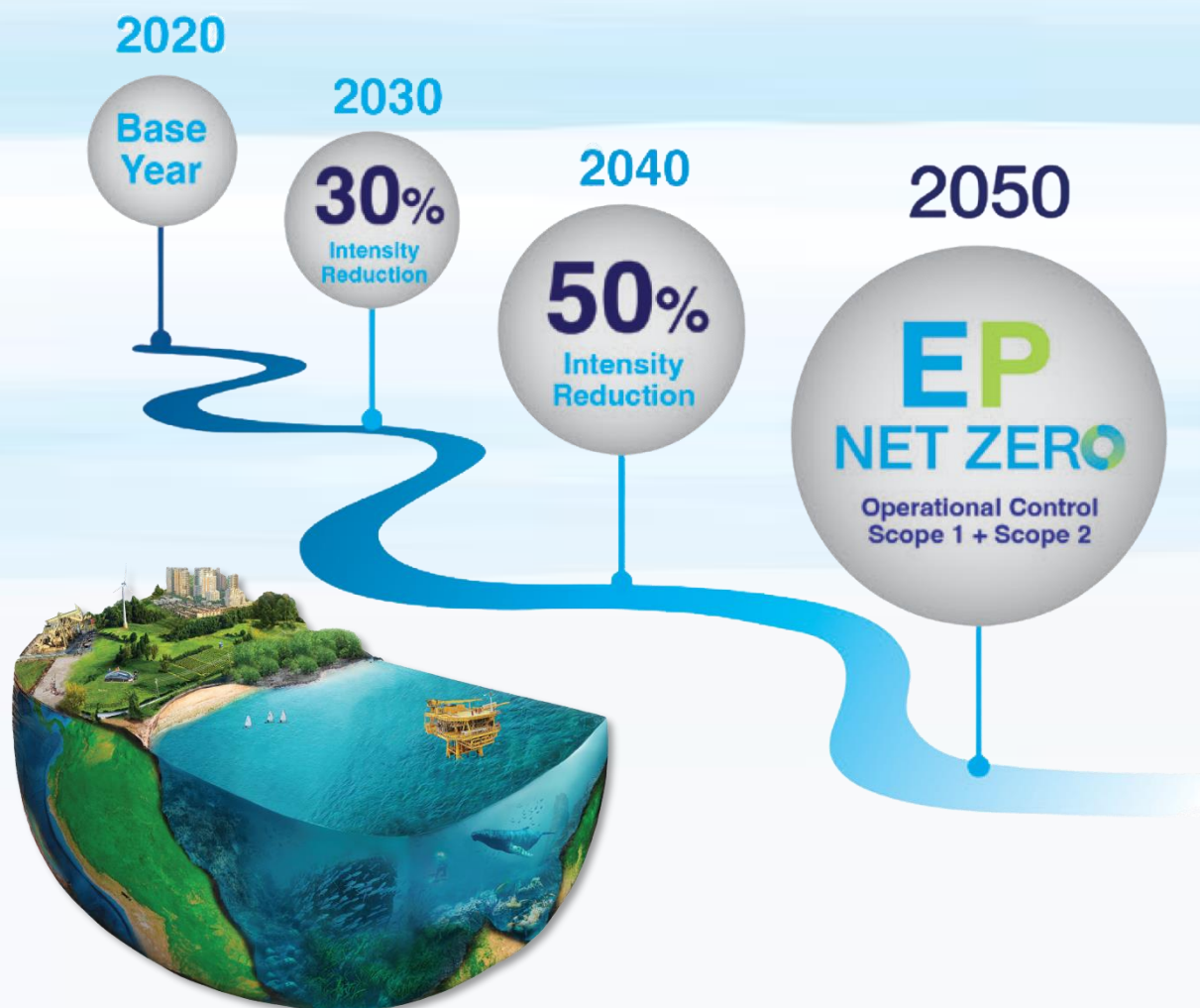
Develop Carbon Capture and Storage (CCS) as a Service

Explore hydrogen, and offshore renewables





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 and Carbon Credit Acquisition
- 2 Advanced Carbon Removal Technology



PTTEP Collaboration

PTTEP Collaborations in Climate Management

Ecosystem Build-up



Networking



Partnership/
Membership



MOU



International Organization

Value Chain



and many
More...



Government Bodies

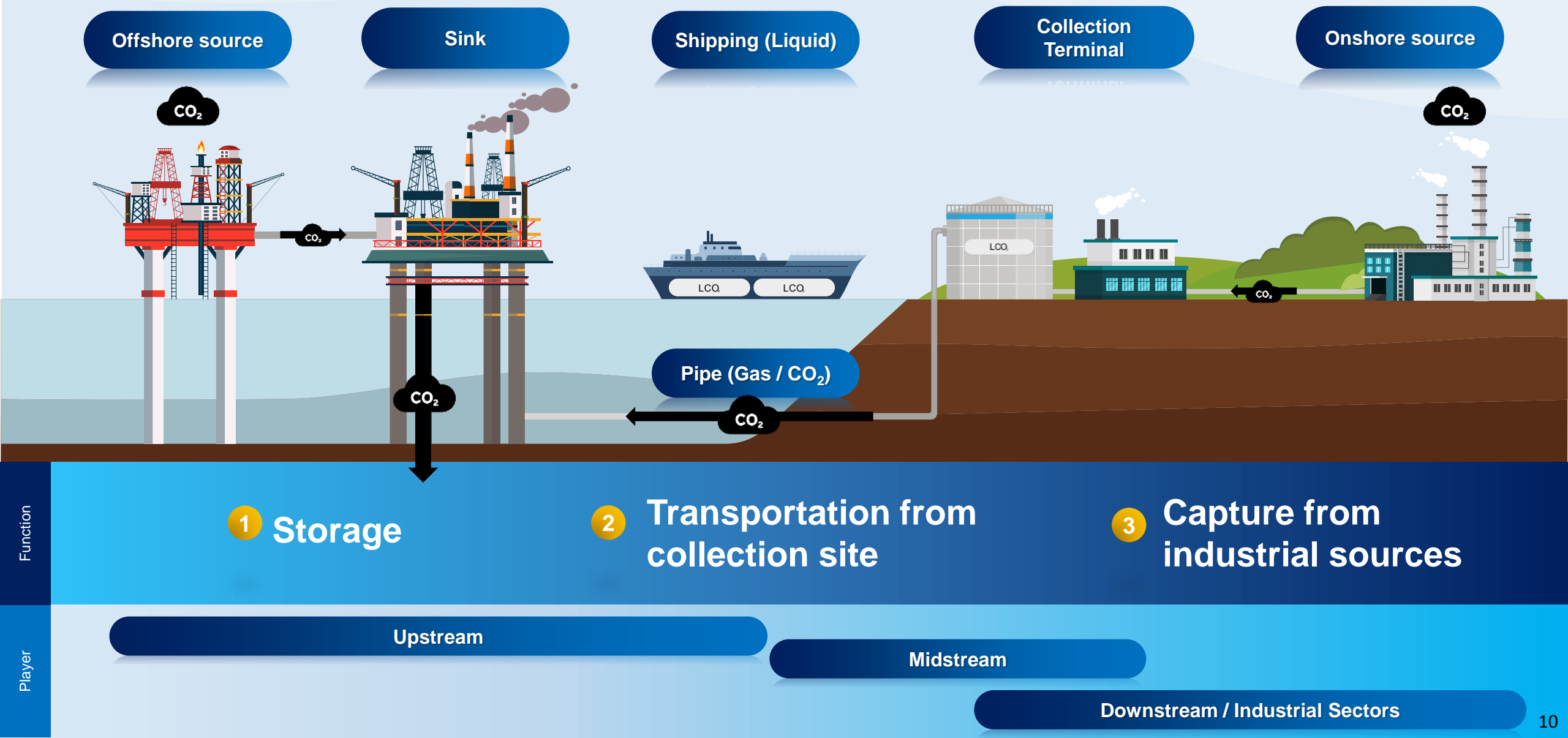
Academies/Institutes





PTTEP Technology & Innovation

Eastern Thailand CCS Hub model



VARUNA NATURE-BASED SOLUTIONS

Seeding the sustainable future

WE OFFER DECARBONIZATION THROUGH NATURE BASED SOLUTIONS WITH MEANINGFUL IMPACT

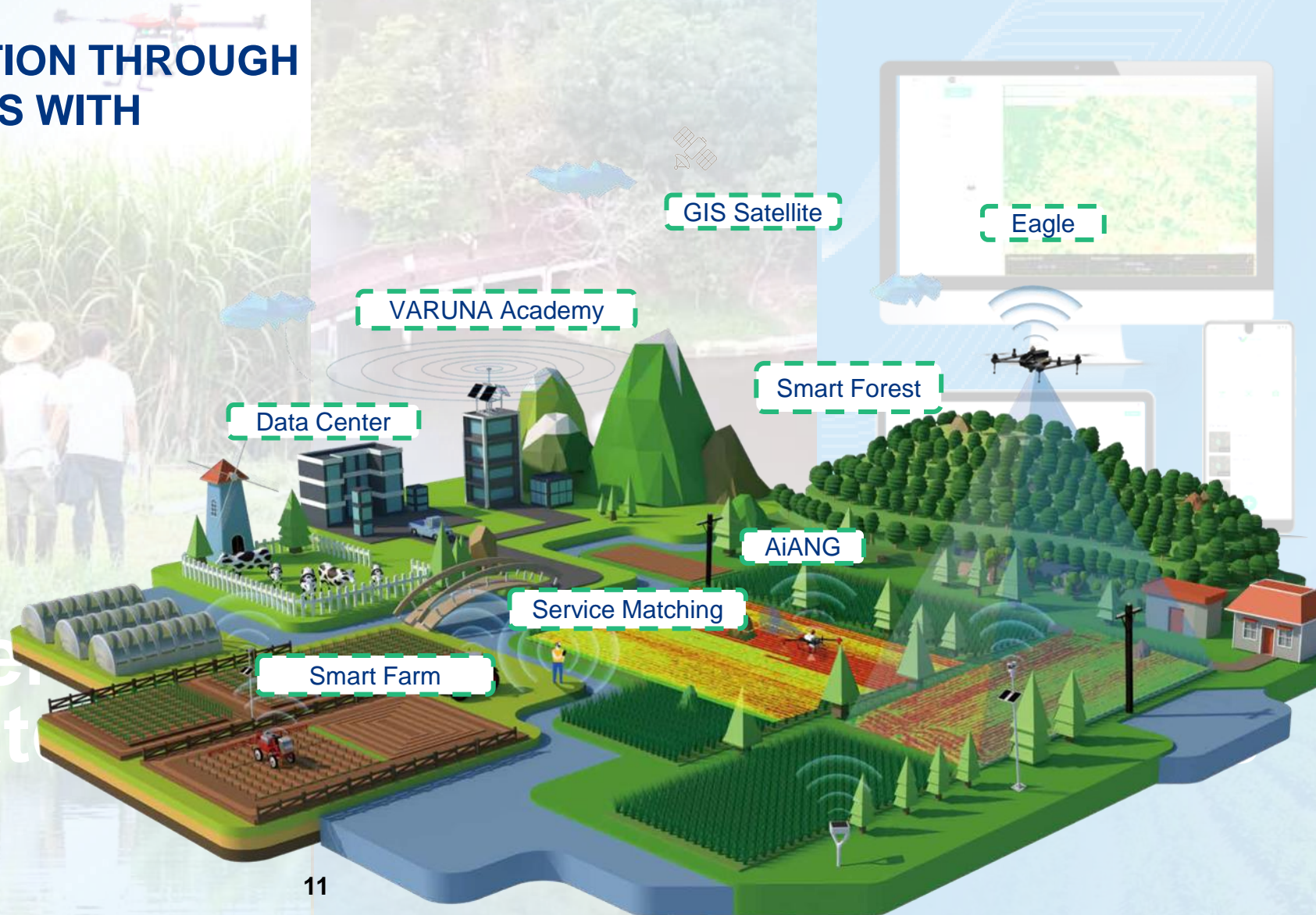


Changes in Food Demand



Climate Change

Se.
Mat



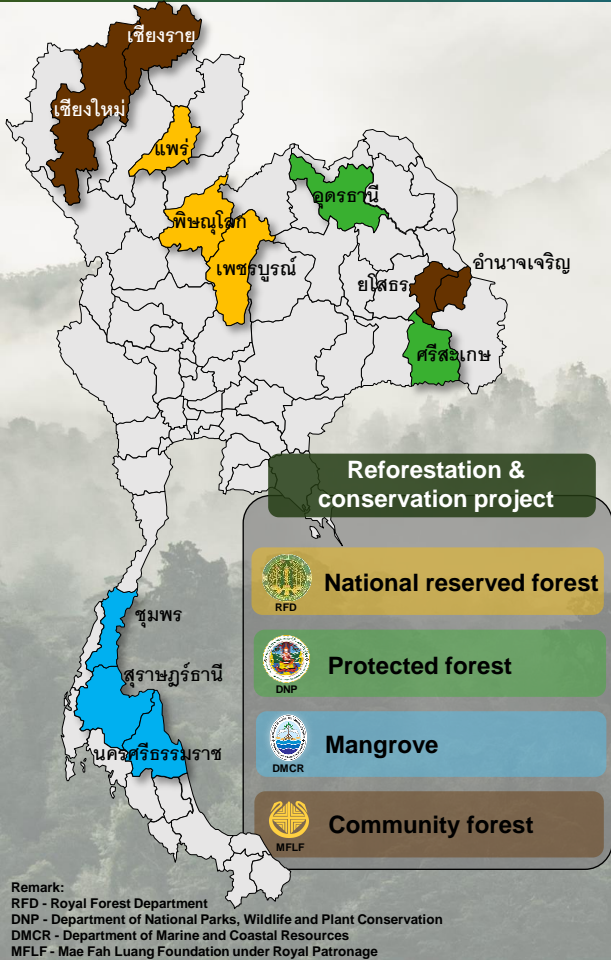


Carbon Sequestration Projects



CO₂ Sequestration and Biodiversity Preservation

Onshore



Nearshore



EP Net-zero target

Biodiversity target

2050

Net zero emissions of operational control scope 1 and scope 2

Net Positive Impact (2030)

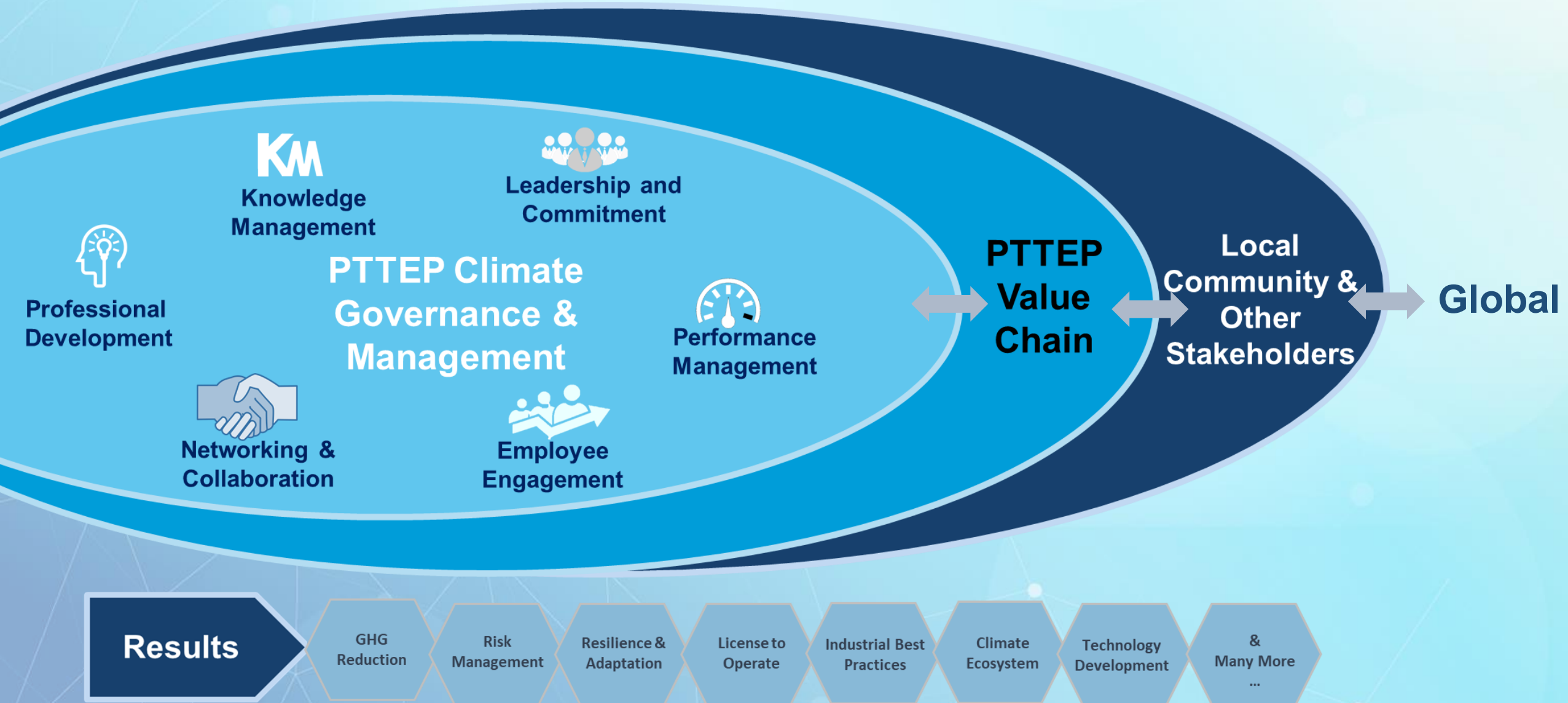
of Biodiversity & Ecosystem Services (BES)
Value in Offshore Operations (2019 Baseline)

2050



Competency Build Up

Climate Competency Build Up





CSR

Social Development



> **140** Projects
(Thailand & International)

3 WORKSTREAMS OF OCEAN FOR LIFE

- 1. Sustainable Ocean-Friendly Operations
- 2. Sustainable Ocean Health and Blue Carbon Solutions
- 3. Sustainable Community around the Ocean

Ocean for Life

Sustainable Community around the Ocean

Well-being for Life

Domestic and International Assets

Beneficiaries **870,933** Persons
(accumulated number until 2022)

2023 Social Investment **15** MMUSD

SROI **3.55 : 1**

CSR Awards since 2014 **76** awards

Achievement of CSR Projects



2030 Target



Achieve net positive impact



Increase 50% of community income



Achieve 16,000 conservation networks

Achievement (2020 - 2023)



27.42 MMUSD accumulative BES value



≥ 27.5% community income increase



5,259 conservation networks

PROTECT



Ocean Waste Mgmt.



Collected waste

187
Tons



Waste product development

4
Products



Learning center

2
Centers

PROVIDE



Sea Product Development



Sea Product Group

11
Groups



FDA Certificate for New recipes

9
Recipes



FDA Certificate for Sea Product Development Center

1
Center

PRESERVE



Mangrove Forestation



Planted

5,007
Rai



Survival rates

87 %



Benthic species increased

15 %



Aquatic Animal Hatchery Learning Centers



New center

12
Centers



Aquatic animal released

>25,000
MM Larvae



Visitors

4,121
People



Coastal Conservation Area & Fish Home



Conservation areas

14.8
KM²



Conservation groups

29
Groups



Sea Turtle Conservation



Survival rates

83 %



Sea turtles released

>11,000
Turtles



Thank You