SET AWARDS 2025

Sustainability Excellence

Date: 12 September 2025

Attended Executives

Mr. Bandhit Thamprajamchit

- Chief Executive Officer and President
- Acting Executive Vice President
  Corporate Governance and Affairs

Mr. Chatapong Wungtanagorn

Executive Vice President

Strategy

Mr. Jeerawat Pattanasomsit

Executive Vice President

Power, New Business and Digitalization

Mr. Nuttapon Meerit

Executive Vice President

Organization Effectiveness

Mrs. Wanida Boonpiraks

Executive Vice President

Finance and Accounting

Mr. Phuping Taweesarp

Vice President

Corporate Sustainability

Presentation Outline

1. กลยุทธ์และแนวทางการดำเนินงานภายใต้ภาวะเศรษฐกิจที่มีแนวโน้มชะลอตัว
2. กลยุทธ์และแนวทางการดำเนินงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศ
3. กลยุทธ์และแนวทางการนำเทคโนโลยีและปัญญาประดิษฐ์ (AI) มายกระดับขีดความสามารถในการแข่งขัน
4. กลยุทธ์และแนวทางการยกระดับขีดความสามารถของบุคลากรและองค์กรในการแข่งขันและเติบโตอย่างยั่งยืนในระยะยาว

1

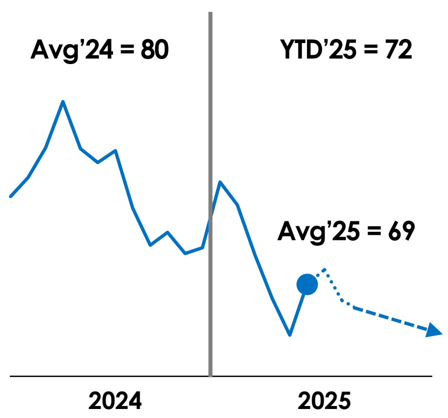
กลยุทธ์และแนวทางการดำเนินงานภายใต้ภาวะเศรษฐกิจที่มีแนวโน้มชะลอตัว

Key Strategic Challenges & Opportunities

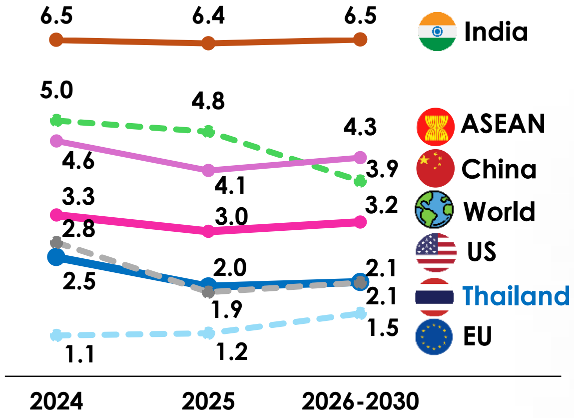
Thaioil

Challenges

Volatile Oil Price & Low Thai GDP Growth amid Geopolitical & Global Trade Tension

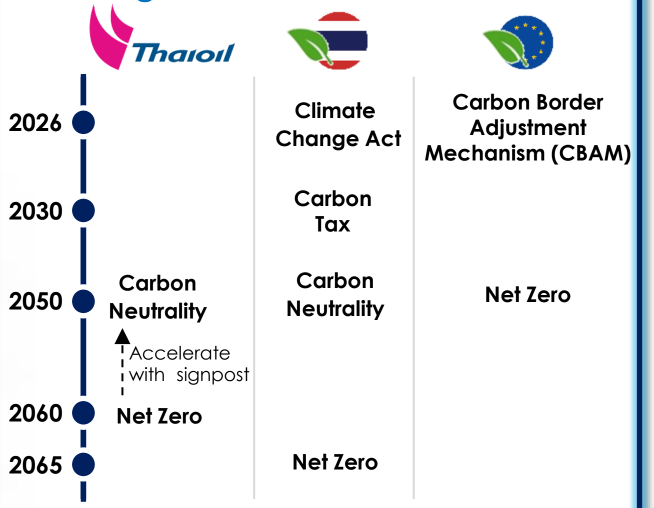


Latest Estimate (LE) as of Aug'25



Source: IMF World Economic Outlook (April & July 2025)
Remark : ASEAN composes of Indonesia, Malaysia Philippines, Singapore, and Thailand

Energy Transition & Regulation on Carbon Tax



Source : Draft Thailand NDC 3.0, Thailand Climate Change Act
Remark : Thailand's carbon tax ~ 30 USD/tCO2e in 2030, 50-65 USD/tCO2e in 2035

Strategic Implication

- Ensure safe, reliable & resilient operation to capture opportunity in volatile market
- Expedite Regional platform expansion to support current & future products of Thaioil Group
- Decarbonize operation through Energy Efficiency program

Business Opportunities from Key Global Trends

- Rising demand for **hygiene & cleaning products**
- Energy transition toward **renewable & cleaner fuel**
- **AI, quantum computing & blockchain transform business across sectors** ("Industries in the Intelligent Age")

- Emerging new business opportunities (high value, less carbon)
  - Disinfectants + Surfactants (D+S)
  - Specialty Polymers
  - Sustainable Aviation Fuel (SAF)
- AI adoption to enhance competitive advantage

ThaiOil Group's Strategy from "3V" to "2S1P"

Thaioil

WHY CHANGE?

1. **Clearly define** between **existing core business & new business** with **prioritized & specific focus areas**
2. **Clear linkage** to **target business portfolio contribution** with **effective monitoring** & organizational **management**

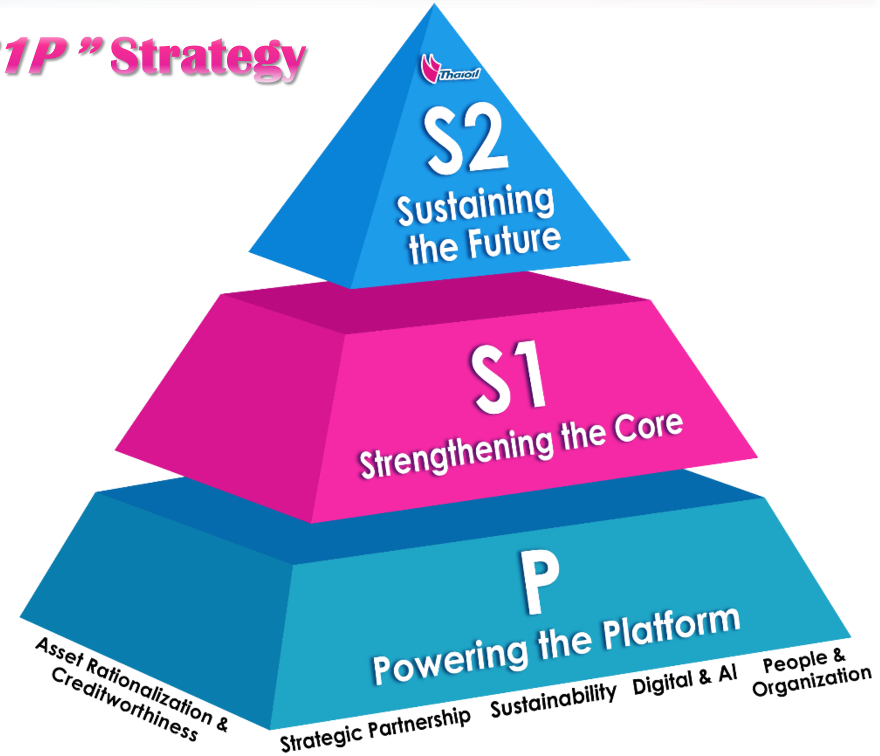
Existing "3V" Strategy

Value Maximization	Value Enhancement	Value Diversification
Strengthen Existing Platform & Extend to Downstream Derivatives/HVPs	Marketing Platform for Products & Services of Thaioil Group & PTT Group	Creating New Growth Platform with Resilient & Sustainable Portfolio

Empowering Strength for Powering Growth

สร้างรากฐานที่มั่นคง สู่การเติบโตอย่างยั่งยืน

New "2S1P" Strategy



"Strategic Focus"

S2 Growing High Margin with Less Carbon

- **Specialty Chemicals**
  - D+S
  - Specialty Polymers
- **Low Carbon & New Energy**
  - Sustainable Aviation Fuel
  - Hydrogen, Carbon Capture & Storage

S1 Leveraging Strength to Create Competitiveness

- **CFP Completion & Operation**
- **Safety & Reliability**
- **Margin Leadership**
- **Quick-Win High Value Products**
- **Decarbonization through Energy Efficiency**

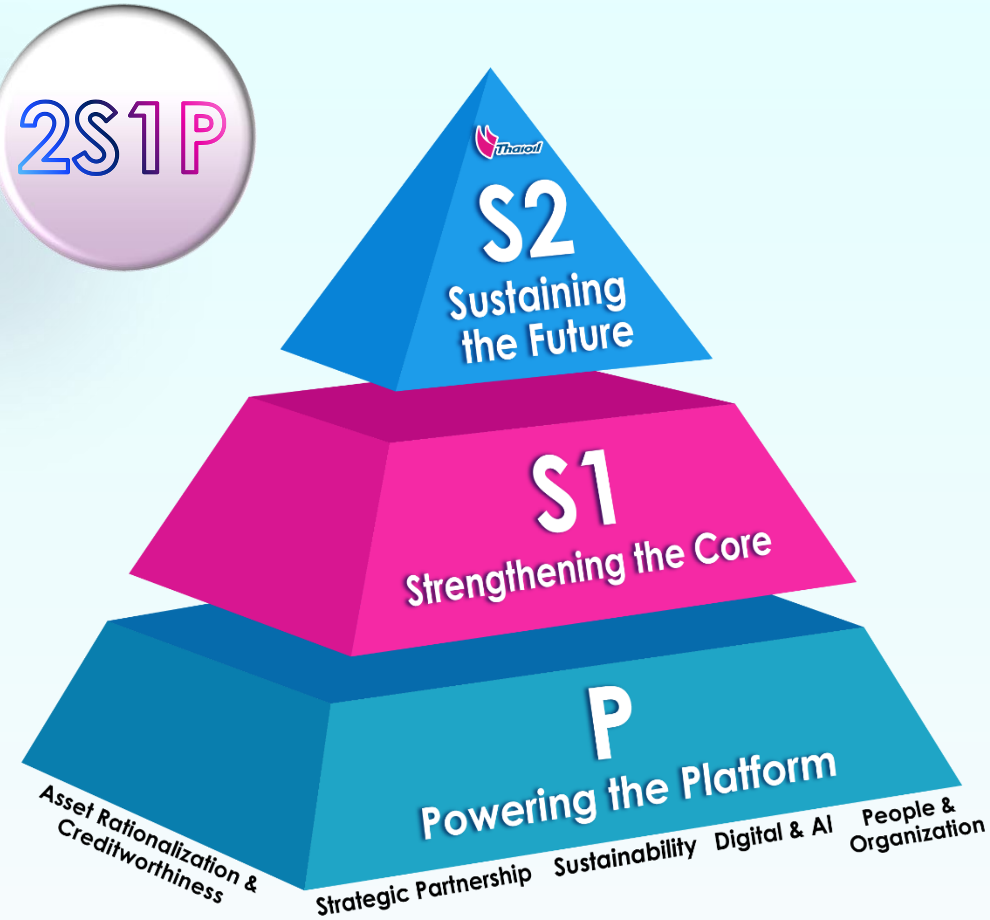
P Catalyzing Regional Distribution Platform

- **Product Portfolio Expansion towards Specialty Chemicals**
- **Regional Platform Coverage**

Strategic Framework 2025-2035

Empowering Strength for Powering Growth

สร้างรากฐานที่มั่นคง สู่การเติบโตอย่างยั่งยืน



" Short to Medium Term "	" Long Term "
Phase I (2025-2030) " Empowering Strength "	**Phase II (2031-2035)** " Powering Growth "

- Readiness through commercial collaboration, R&D
- Diversify portfolio to high margin & less carbon business
- CFP completion as planned
- Safety & Reliability
- Margin Leadership
- Quick-Win High Value Products
- Decarbonization through Energy Efficiency
- Expand regional platform & product portfolio to specialty chemicals
- Execute asset rationalization
- ESG, Net Zero, Big Data & AI, People & Organization Readiness

Balanced Strategic Target

2030 — *Short-Term to Medium-Term*

Financial Goal (Inside-Out)

Performance
Net Profit

Resilience
ROIC ≥ WACC

Non-Financial Goal (Outside-In)

Creditworthiness
AA+
Investment Grade Company

Sustainability
Leading in DJSI Rating

2035 — *Long-Term*

Financial Goal (Inside-Out)

Performance
Net Profit (with & without carbon tax)

Resilience
ROIC ≥ WACC

Non-Financial Goal (Outside-In)

Portfolio Diversification
% Net Profit from S2 & P (with & without carbon tax)

Sustainability
Leading in 3 Global ESG Ratings
+
15% GHG Reduction

Key Progress of Strategic Execution

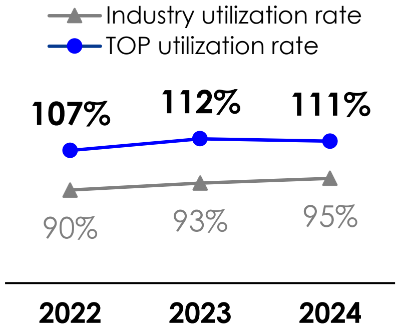
S1 STRENGTHENING THE CORE

CFP

- **HDS-4 commercialize** in Feb'24
- **EGM approval** 20 Feb'25
- **Terminated EPC contract** in Apr'25
- **Engage contractors** & **re-mobilizes worker** in Q3'25
- **COD Q3'28**

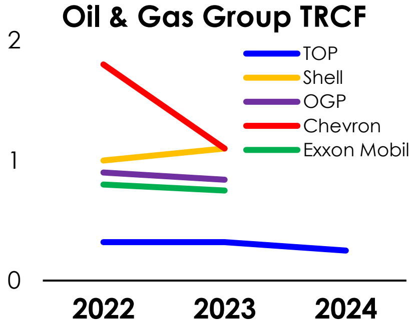
TOP Utilization Rate

Unit : %



Safety : TRCF[1]

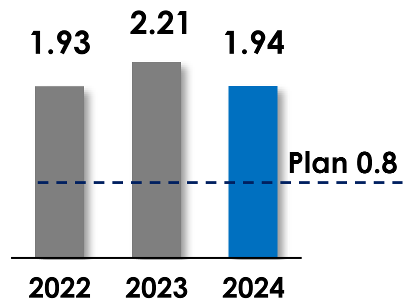
Unit : Cases/mil-hour



Remark : [1] Total Recordable Case Frequency

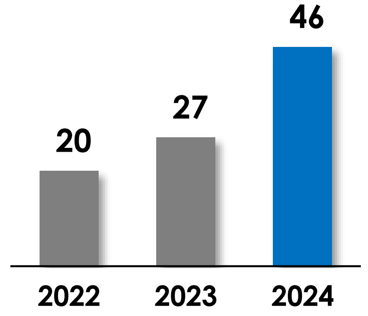
Productivity Improvement

Unit : $/bbl



Profit from High Value Products

Unit : MB



S2 SUSTAINING THE FUTURE

Disinfectants + Surfactants (D+S)

Commercial Development

- Commercialize **Easy Bath Body Wipes**
- Connected **10+ suppliers**
- Approached **160+ Customers**
- **> 32 potential products** in portfolio

Technical Service + Adaptive R&D

- Formulated **8 specialty ingredients** for personal care & pet care

R&D Intensity

- Developed **Degreasing & Degassing** for tank cleaning: DBTX 10 (BTX Tank), Dgasoline (Gasoline Tank)
- Certified & patented **Puresurf-mild**

P POWERING THE PLATFORM

TOPNXT International

Organic Growth

- **New specialty products sales** e.g., PEG 6000, TOPSol P200, DMAA
- Expanded **tanks & facilities (Haiphong 2 in Vietnam)** (COD Oct'24 & 1st cargo in Nov'24)

Inorganic Growth

- **JV/M&A Specialty chemical distributor :** Under study > 3 targets

ASSET RATIONALIZATION, CREDIT WORTHINESS & STRATEGIC PARTNERS

- **Execute asset rationalization** as a strategic & proactive funding instrument to enhance company's creditworthiness

2

กลยุทธ์และแนวทางการดำเนินงาน ด้านการเปลี่ยนแปลงสภาพภูมิอากาศ

Thaioil Group's Climate Change Management

Thaioil

Thaioil Group's approach to climate-related issue management is based on the international standards for assessing and reporting climate-related risks and opportunities.

Climate-related Issues	Challenges & Opportunities for Thaioil Group	Strategic Management

Climate-related Issues

Transition Risk

Mandatory Carbon Pricing
(e.g. ETS, Carbon Tax)

Physical Risk

Water Scarcity

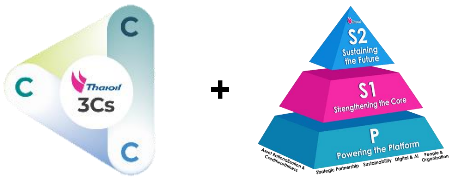
Challenges & Opportunities for Thaioil Group

- **Increase operational costs**
- **Shift of customer preference** towards lower-carbon products
- **Accelerate new business opportunities** i.e., D+S, Specialty Polymers & SAF
- **Adopt new decarbonization technology & knowhow** to lower GHG footprint and carbon cost of existing operations i.e., CCUS, Clean Energy & H2

- **Operational disruption** due to water shortage for the production process
- **New technology adoption & knowhow** to minimize water consumption in the production process

Strategic Management

Climate Mitigation



Decarbonization Pathway & 2S1P

Climate Adaptation

- **Water Consumption Mitigation Plan**
- **Water Crisis Management Plan**
- **Long-term Water Management Strategy**

Thaioil Group's Climate Mitigation: Strategic Management

Thaioil

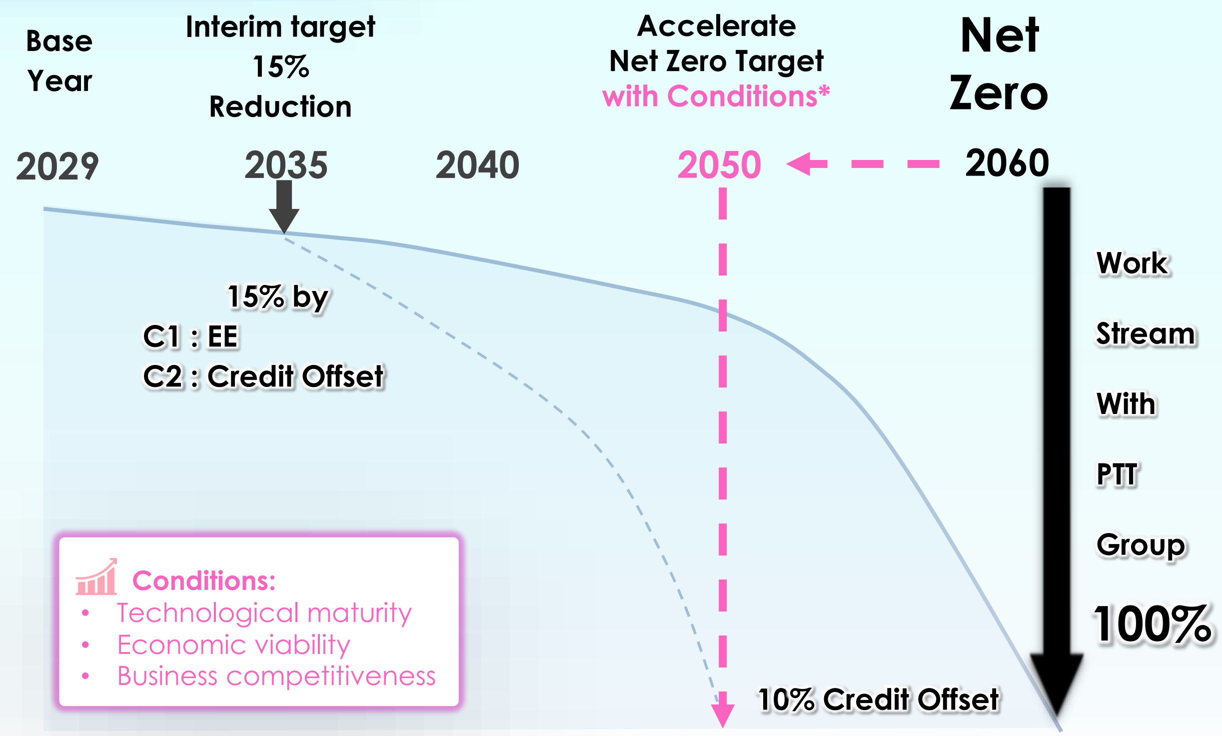
Climate Mitigation for Mandatory Carbon Pricing

Net Zero "3C" Strategy

C1 Cut Down Existing Emission
- 2030 — Energy Efficiency (EE) with Internal Carbon Price
- 2035 — CCS and Clean Energy

C2 Compensate Residual Emission
- 2030 — Build Up New Carbon Credit; Bring and Utilize Carbon Credit; Buy Carbon Credit

C3 Control Future Emission
- S2 — Low Carbon & New Energy



Enabler
- Advocacy and Stakeholder Engagement
- Green Financing Framework

Workstream with PTT Group
- Asset Efficiency Improvement
- Clean Energy
- CCUS
- Hydrogen
- Carbon Credits
- Group Portfolio

Thaioil Group's Climate Mitigation: Performance 2024

C1 Cut Down Existing Emission

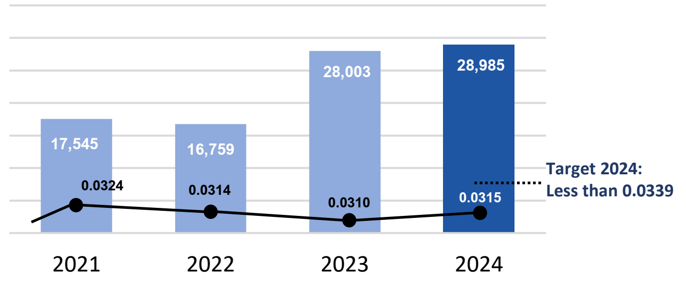
Focus on Energy Efficiency to lower GHG Emissions

Energy Efficiency Improvement

2012 - 2024
- **246** projects
- GHG Reduction **~ 427,483 tCO2e**
- Cost saving ~ **2,406** MTHB

GHG Reduction from Energy Efficiency Improvement vs GHG Emission Intensity

In 2024, Thaioil Group reduced **~ 28,985 tCO2e** through Energy efficiency improvement project e.g.,
- Process Optimization at HCU 1
- Fuel Consumption Optimization at HDS 2



C2 Compensate Residual Emission

Strengthen Carbon Credit foundation while creating co-benefit

I. Reforestation for Carbon Credit with Co-Benefit

Acquired Land Forest **8,300 rais** in Phrae

Acquired Mangrove **300 rais** in Trang

These projects expect to capture **78,000 tCO2e** over the 10-year project period

Create Co-benefit to **5 local communities** or about 500 members through reforestation project

Existing Co-benefit
- Forest tree nursery
- **43 MTHB** for 1st year

Future Co-benefit
- Circular economy
- Solar roofs
- Mushroom cultivation
- **130 MTHB** 10-year for project

II. Carbon reduction/avoided credit

Acquired **certified carbon credits**
- **0.364 MtCO2e** from T-VER projects in 2024
- **1.675 MtCO2e** from T-VER projects in 2019-2024

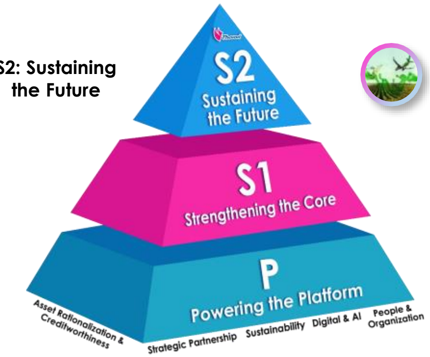
C3 Control Future Emission

Integrate sustainability into business strategy to focus on lower carbon & new energy business

Low Carbon & New Energy Investment

S2: Sustaining the Future

Low Carbon & New Energy



Green Hydrogen Technology
Anion Exchange Membrane (AEM) Electrolyzers

SAF Technology
Study HEFA, Co-Processing, and ATJ technologies with strategic partner

Green Products

Biodiesel/Gasohol | Bio Ethanol
TDAE etc. | LAB/HAB | Keen

Green Product Certification
Study and expand product scope to align with ISCC guideline

Thaioil Group's Climate Adaptation: Strategic Management & Performance 2024

Climate Adaptation for Water Scarcity

Water Consumption Mitigation Plan

- Water Management: 3Rs in process (Save 103 m^3/Hr)
- Sustainable water management: Desalination Unit
- Water Dashboard

Water Crisis Management Plan

- Internal water storage
- Ramp up Desalination units from 4 to 6 units (Not less than 2 million m^3 /Y)
- Alternative source e.g., Rental mobile sea water RO package

Long-term Water Management Strategy

- Adopt new technologies to minimize water consumption
- Collaborative Water Management Network with Government and Non-Government Agencies & PTT Group
- Zero discharge

No disruption in production process caused by water scarcity

100% of risk mitigation plan in place

3

กลยุทธ์และแนวทางการนำเทคโนโลยีและปัญญาประดิษฐ์ (AI) มายกระดับขีดความสามารถในการแข่งขัน

House of Digital Strategy : A.B.C.D

Thaioil

Thaioil

END

Advancing Thaioil's Competitive Edge
through AI Innovation and Secure, User & Customer-Centric, Cost-Efficient Digital Transformation

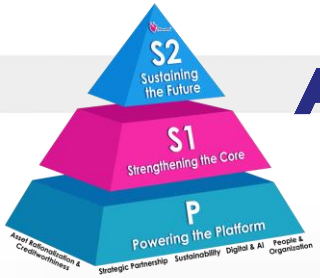
Way

Potential Benefit >= 1,000 mb (Target Y2026-2030)		Zero Big Hit & PDPA Impact	Customer Satisfaction >= 80%
A	**B**	**C**	**D**
Agile Domain Digital Platforms	Big Data & AI	Cyber Resilience	Digital Workplace
			

Mean

People, Partnership, Technology & Platform

Digital Maturity Index (DAI) : Target at Strong Performer by 2030



AI-powered Strategic Direction

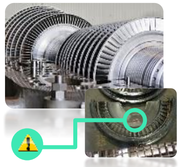
Thaioil invest in AI with purpose - continuously and only in relevant use cases that deliver clear economic return (Payback <= 3 yrs)

Invested ~100 mb (2021–2025), generating ~75 mb annual return

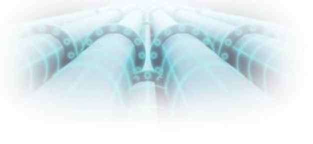
(S1) Strengthen the Core with AI

Domain Expert AI Agent

Crude Flex



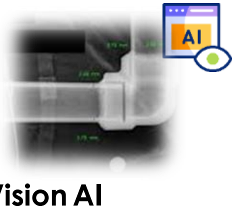
Predictive Maintenance



Corrosion Analytics

Valve Analytics

Contest 2025
OpEx Award



Weld Vision AI

(S2) Power the Future with AI

R&D Assisted by AI

AlphaFold

Biology AI

Salt-Tolerant bacteria for
Wastewater Treatment (ETP)

Venture Building & Investment

AI helps **Venture Building** on **D&S* strategy** easier than before

*D&S : Disinfectant and Surfactant

(P) Understand Customer Insight

Customer Due Diligence with AI

Reduce business risk by uncovering counterparties background, revealing potential legal, financial, or reputational issues before engagement.

Customers 360°

Put **complete customer data** in our salesperson's hands to boost sales expansion and customer satisfaction.

Roots of AI Success

AI is the tip of the iceberg. DATA & PEOPLE are the foundation of success.

Build Data Foundation

Data Governance

Implement data governance as the foundation for reliable data that enables AI.

Gen AI Policy

Implement TOP Gen AI policy as a guardrail for AI development and usage.

Data Hub

A single source of truth to simplify usage across applications **at your fingertip.**

23 Data Marts
e.g., commercial, HR, Finance, etc.

Boost Literacy and Culture

Turn DATA into Dashboards by Anyone (No IT needed)

500+ people trained
For **Power BI**

Grow Data Scientists from Employees

VISTEC
VIDYASIRIMEDHI
INSTITUTE OF SCIENCE AND TECHNOLOGY

Year	Basic (DS1)	Advance (DS2)
Y19	9	-
Y20	-	2
Y21	3	-
Y22	7	-
Y23	4	
Y24	9	2
	32	**5**

Thaioil Leadership, powered by M365 AI Copilot

300 Licenses for
All Mgmt. (VP up) + Pilot Group

AI Bootcamp & Hackathon

2024

2025

Datathon Competition

Grow a DATA culture: build your dashboard, win rewards

2025 PTT Group OPEX Award

Award Winning "WELD VISION AI"

4

กลยุทธ์และแนวทางการยกระดับขีดความสามารถของบุคลากรและองค์กรในการแข่งขันและเติบโตอย่างยั่งยืนในระยะยาว

People & Organization Strategy

Thaioil

EMPOWER EMPLOYEE TO BE A VALUABLE DRIVING FORCE FOR THE ORGANIZATION SUCCESS

PEOPLE & ORGANIZATION STRATEGIC ROADMAP

Strengthening the core and Sustaining the future

2025-2030 "Strengthen"
Enhance P&O systems to enable core business performance and future expansion readiness

Target 2030

2031-2035 "Sustaining"
Deliver business benefits and enable sustainable success by leveraging data-driven insights

Target 2035

Focus Areas

PEOPLE CAPACITY

2025-2030: **REVIEW and DEVELOP** organization structure model, strategic manpower planning and P&O systems

Target 2030: 1st Quartile employee productivity

2031-2035:

Target 2035: 1st Quartile employee productivity

PEOPLE CAPABILITY

2025-2030: **SPECIFY and ACCELERATE** employee capability based on specific knowledge

Target 2030: 1st Quartile human capital index

2031-2035:

Target 2035: 1st Rank human capital index

PEOPLE EXPERIENCE

2025-2030: **LISTEN and CRAFT** inclusive employee experience to strengthen employee engagement value

Target 2030: Organization sustainability Index (DJSI) (1st Quartile of human capital)

2031-2035:

Target 2035: Organization sustainability Index (DJSI) (Lead of human capital)

Enablers : People - Partner – Digital Positive

People & Organization Strategic Initiatives

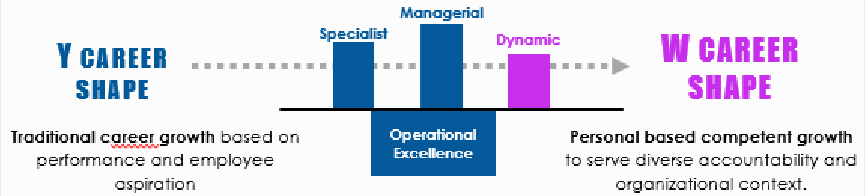
2024

"P&O Strategy in Actions"

PEOPLE CAPACITY

FUTURE DYNAMIC CAREER PATH

To **create a new future path** in order to **motivate and retain competent people** for business growth track.



PEOPLE CAPABILITY

EXTENSIVE BUSINESS GROWTH DEVELOPMENT

To **accelerate strategic driven capability** to support international and domestics business growth in action

3V Strategies	Capability Pillar	Development Approach
Value Maximization	Pillar 1 **Growth Engines**	Real Case
Value Enhancement	Pillar 2 **Market Expansion**	Champion Sponsor
Value Diversification	Pillar 3 **Model for Speed & Scale**	Selective Expert Coach
	Pillar 4 **Competitive Biz & Organization**	

Action by Project Team → Business in Action

PEOPLE EXPERIENCE

WORKFORCE WELL-BEING

To **foster sustainable well-being** to become **happy employee and happy company** in the long term.

JOYFINITY AN ENDLESSLY JOYFUL WORKPLACE — **Employee Hackathon**

Create greater happiness and **foster value in working together.**

สุขใจ+ Sook-Jai+ — **Mental Rejuvenation**

Thrive mental health to **unleash power of people** for driving growth.

"Qualitatives and Quantitatives Results"

- **Identified position** and **established related P&O system** to drive a new future path.

10 POSITION GROUPS

〉 **Designed P&O System**: Recruit & Hiring; Performance mgt.; Career Development

〉 **Position groups and P&O system have been approved**

〉 **Implemented** *(Recruited 2 positions)*

- **Developed people's capabilities** to drive growth in businesses, serving 3Vs strategies.




Learning Workshop	Learning Method	Participant	People Readiness
Level 2 Essential Business Growth Masterclass	Workshop & External Coaching	44 Persons from 9 Dep.	**109 COMPETENT STAFF** For driving business growth (2021-2024)
Level 3 Project-specific Program	Project Based Learning & External Coaching	32 Persons from 10 Dep.	

- **Provided opportunities for employees** to participate in creating happiness.

JOYFINITY **53 TEAMS 200 STAFF**

1st Product will be launched in Q4

- **Promoted mental health** awareness and management.

สุขใจ+ **4 PROGRAMS**

For all employees, targeted group & line mgr.

- **Achieved "Best Places to Work" Award,** conducted by Work Venture.

PEOPLE EXPERIENCE SURVEY

Engagement survey and certification

People & Organization Performance Index

		2022	2023	2024
PEOPLE CAPACITY	**WORKFORCE PRODUCTIVITY** 1st Quartile Workforce Productivity Competitiveness (EBITA/Staff)	**1st Quartile**	**1st Quartile**	**1st Quartile**
PEOPLE CAPABILITY	**WORKFORCE CAPABILITY** 1st Quartile Workforce Human Capital Index: HCI	**80**	**83**	**85**
PEOPLE EXPERIENCE	**SUSTAINBLE ORGANIZATION** DJSI Leader in Human Capital (Percentile)	**1st Quartile**	**1st Quartile**	**1st Quartile**
PEOPLE MANAGEMENT	**EMPLOYEE ENGAGEMENT** (Score)	**57**	**62**	**74**
	PEOPLE MANAGEMENT BEST IN CLASS (People and Organization Award)	Thailand **ATD : Excellence in Practice Award** **“DYNAMIC CAREER MANAGEMENT PROGRAM** International **PMAT : People Management Award** **“THE BEST TALENT MANAGEMENT”**	Thailand **PMAT : HR Innovation Award** **“WELL-BEING AT TOP : 5 HAPPINESS”**	Thailand **Work Venture :** **“BEST PLACES TO WORK CERTIFICATION” and “TOP50 EMPLOYER BRANDING IN THAILAND”*** International **ATD : Excellence in Practice Award** **“5 HAPPINESS : HOLISTIC AND FULLY ONLINE WELL-BEING PROGRAM”***

* Receive the award in 2025