

BUSINESS OPPORTUNITIES IN THE EASTERN ECONOMIC CORRIDOR

▪ THAILAND ▪

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Thailand and the connectivity among multi-regions



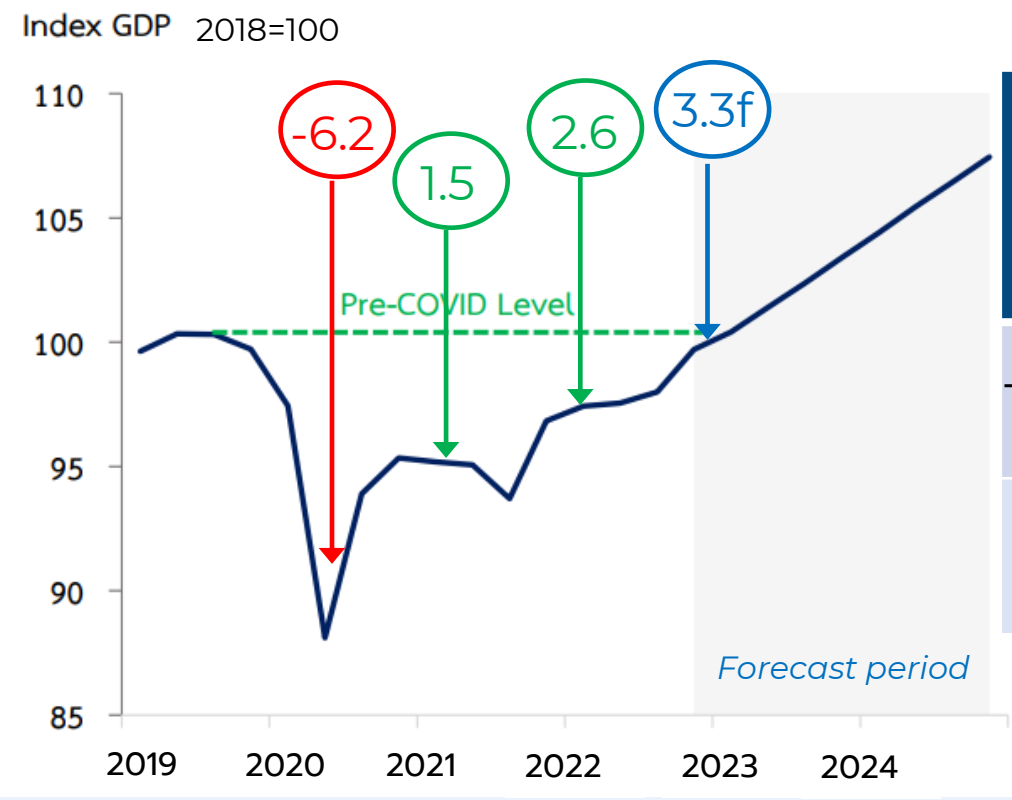
Strong Trade Partnerships with countries among Indo-Pacific

- 14 FTAs with 18 partners, 9 ASEAN countries, Australia, New Zealand, Japan, China, South Korea, India, Chile, Peru, and Hongkong
- Indo-Pacific Economic Framework (IPEF)
- Regional Comprehensive Economic Partnership (RCEP)

Thailand's GDP growth would be at the pre-Covid level by mid-2023

The Thai economy is expected to continue expanding in 2023 driven by the recovery in tourism and domestic demand

Projection of Thailand's GDP (% growth)



GDP %	2020	2021	2022	2023f*
Thailand	-6.2	1.5	2.6	3.3*
EEC	-7.1	3.3	3.9	4.5*

As of May 2023

IMF	3.4
NESDC	2.7 – 3.7
BOT	3.6
MOF	3.6

***EEC had a 2022 GPP of US\$ 74.2 bn (on a nominal basis), or about 15% of Thailand's GDP**

Source: Bank of Thailand, Ministry of Finance, NESDC and * represents EEC forecasting as of February 2023

Thailand moves up competitiveness ranking in 2023

		2023 Country 2022	04 (-1) Singapore  03
2023 Country 2022	27 (+5) Malaysia  32	2023 Country 2022	30 (+3) Thailand  33
2023 Country 2022	34 (+10) Indonesia  44	2023 Country 2022	52 (-4) Philippines  48

- Thailand's competitiveness ranking for 2023 has improved by three positions, placing it at **30th** of the 64 economies worldwide and **3rd** in ASEAN

- Thailand has improved across various aspects, including economic performance, government efficiency, business efficiency, and infrastructure

THE EASTERN ECONOMIC CORRIDOR (EEC)

lies at the heart of Thailand's 4.0 development strategy, aimed at restructuring and revitalising the Thai economy.

COMPLETE STRATEGIC LOCATION

Creating an Inclusive Environment

In 2017, the Royal Thai Government **initiated the Eastern Economic Corridor (EEC)** to be an area-based development initiative aiming to revitalise the well-known Eastern Seaboard where, for 30 years, numerous business developers have experienced a rewarding investment journey and exceptional achievements. The EEC project initially focused on the 3 Eastern provinces: Rayong, Chonburi, and Chachoengsao. The EEC development plan envisages a significant transformation of both physical and social development, uplifting the country's competitiveness



Location: Rayong, Chonburi, and Chachoengsao Provinces



Area: 13 Million Hectares (8.3 Million Rai)



The EEC collectively had a 2022 GPP of USD 74.2 bn (on a nominal basis), or about 15% of Thailand's GDP



Total Area
13,810 sq.km.



Population
3,261,751 pp



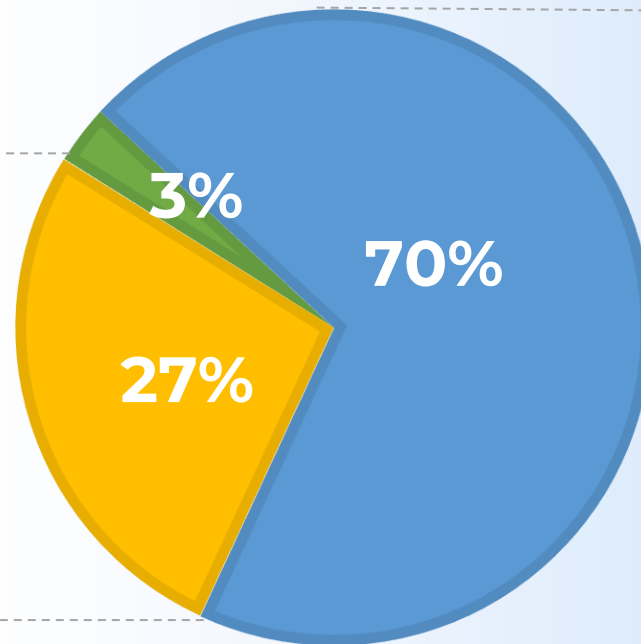
Total (%)
of Thailand's GDP
14.43%



EEC ECONOMIC STRUCTURE (% OF GPP)

- Agricultural sector
- Industry sector
- Services sector

Tourism and related services
17%



Chachoengsao
16%

Rayong
41%

Chonburi
43%

Note: GPP = Gross Provincial Product

There are 3 key development aspects of the EEC equipped with various mechanisms under the EEC Act



1. Dedicated Development Mechanism

- 12 Targeted Industries
- EEC Promotional Zones
- EEC Incentives
- Ease of Business Entry



2. Favorable Ecosystem

- EEC Demand-driven education & training
- EEC Fund for the local community



3. Supporting Infrastructure



- EEC PPP Fast Track



EEC Act

Exceptional Location
Exclusive Opportunities
Comprehensive Development

EEC Development Phase 1 & 2

Phase 1 EEC Investment target (2018-2022)

THB 1.7 Trillion THB (~ 50 billion USD)

Achieved

- 1 4 PPP Infrastructure projects** with a total investment value of approx. **USD 19 billion**
 - High-Speed Rail Linking 3 Airports
 - U-Tapao International Airport
 - Laem Chabang Port phase 3
 - Map Ta Phut Industrial port phase 3
- 2 Approved value for Investment promotion by BOI** approximately **USD 36.7 billion**
- 3 EEC Integrated budget USD 2.6 billion**

Phase 2 EEC Investment target (2023-2027)

THB 2.2 Trillion THB (~ 65 billion USD)

Ongoing

Focusing **investment promotion** on

1) 5 Clusters of Business Opportunities

Present: Promotional zones for specific industries

EECa, EECi, EECd, EECtp, EECg, EECmd, EECh, with customized incentives

Future: EEC Business Center & Livable Smart City

Promoted by BOI Investment Promotion Act

26 Industrial Estates

1. WHA Rayong Industrial Estate
2. Eastern Seaboard I.E. (Rayong)
3. WHA Eastern Industrial Estate (Map Ta Phut)
4. WHA Eastern Seaboard I.E.1
5. WHA Chonburi I.E.1
6. WHA Chonburi I.E.2
7. WHA Eastern Seaboard I.E.2
8. WHA Eastern Seaboard I.E.3
9. WHA Eastern Seaboard I.E.4
10. CPGC I.E. (Rayong)
11. Amata City Chonburi I.E.
12. Amata City Chonburi I.E. (2ndProject)
13. Amata City Rayong I.E.
14. Pinthong Industrial Estate
15. Pinthong Industrial Estate (Laem Chabang)
16. Pinthong Industrial Estate (3rdProject)
17. Pinthong Industrial Estate (4thProject)
18. Pinthong Industrial Estate (5thProject)
19. TFD I.E. (2ndProject)
20. Yamato industries I.E.
21. Smart Park I.E.
22. Asia Clean
23. Rojana Nongyai
24. Rojana Lamchabang
25. WHA Industrial Estate (Rayong)
26. EGCO Rayong Industrial Estate

2 Industrial Clusters

- A. Next-Generation Automotive Banpho
- B. E-Commerce Bang Pakong



7 PROMOTIONAL ZONES

FOR SPECIFIC INDUSTRIES

Promoted by EEC Act

EECg

HEALTH & WELLBEING

Genomics Thailand

Location : Burapha University, Chonburi

Area : 0.6 Hectares (3.69 Rai)

EECg is the genomics testing hub in EEC built upon a collaborative research network, empowered by the Next-Generation Sequencing Technology.

EECd

DIGITAL

Digital Park

Location : Si Racha District, Chonburi

Area : 113.28 Hectares (708 Rai)

EECd is the future destination for digital global players and digital biz innovation to explore, develop and acquire original digital technology for thriving digital business. It consist of the world-class data center, digital innovation testbed and IoT institutes which are fully equipped with high-tech facilities.

EECmd

HEALTH & WELLBEING

Medical Hub

Location : Bang Lamung District, Chonburi

Area : 90.56 Hectares (566 Rai)

EECmd is aspired to become Thailand's first mental hub, where the area would offer complete health care and medical services. EECmd aims to elevate Thailand's health services and equip The country for the expansion of its aging population.

EECh

LOGISTICS

High-Speed Rail Ribbon Sprawl

Location : Along the high-speed rail track that crosses Don Mueang, Suvarnabhumi, and U-Tapao Airport

Distance : 220 Kilometers

EECh consists of a High-Speed Railway and the Transit-Oriented development area (TOD located at the Makkasan and Si Racha Station, measuring 22.4 Hectares (140 Rai) and 4 Hectares (25 Rai), respectively.

EECi

HEALTH & WELLBEING

DECARBONIZATION

Innovation

Location : Wangchan Valley, Rayong

Area : 480 Hectares (3,000 Rai)

EECi is a novel ecosystem designed to promote innovation and upgrade modern technology that will serve future business needs. A complete 'innovation ecosystem' will transform technological and innovation research into practical industrial applications.

EECTp

DIGITAL

Tech Park Ban Chang

Location : Ban Chang, Rayong Area : 83.4 Hectares

The development of the EEC Tech Park, Ban Chang will serve as the centerpiece of the EEC's audacious effort to be the ultimate frontier for centers of advance technology innovation.

EECa

LOGISTICS

Aerotropolis

Eastern Airport City

Location : U-Tapao International Airport, Rayong Area : 1,040 Hectares (6,500 Rai)

EECa consists of business and facilities in the U-Tapao International Airport, including a commercial gateway, cargo terminal, an aviation training center, an MRO center, and Free Trade Zone that will enhance business operations and provide a world-class experience for everyone.



EEC CUSTOMISED INCENTIVE PACKAGE

EEC Incentive for Investment Promotion

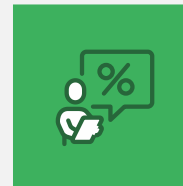
Promotional Zones for “Specific Industries” Area

- 1 Taxes and duties**
 - Tax exemption CIT
- 2 Non-tax**
 - Ownership of land and Condominium
 - Long-term Land Lease
 - Long-term Visa (LTR) 50+49 years
 - Work permit
 - Others e.g., professional license

Facilitation of Investment and Doing Business in EEC



Facilitating permit application process through Digital channels for 44 permits (EEC One Stop Service: EEC-OSS)



EEC Regulatory Guillotine

Designed in collaboration with investors aiming to create optimal rules and regulations, and procedures to best facilitate investment in targeted industries

EEC Model : Demand-driven approach for human capital & skills development to provide workforces that meet industry demands



EEC Model type **A**

Long term courses – Vocational levels

Work integrated learning [WiL] – a combination of academic and work-related activities

The Collaborative educational services between educational institutions and the industrial sector



EEC Model type **B** 2018-2022, ~16K ppl.

Module Short Courses

Re Skill – Up Skill to Keep pace with the change of new technology

- 1 Collaboration on curriculum design**
 - Approved by Private Sector
 - Accredited by EEC
- 2 Contribution 50 : 50**
 - 250% tax deduction
 - 50% budget reduction
- 3 Hiring guarantee**
[6 months at minimum]

Cooperation for vocational education

E-commerce
Alibaba.com

China

Austria

4.0 Ecosystem
Mitsubishi Electric

Japan

5G + Network
CISCO + MAVENIR

United States

ICT + 5G
Huawei ASEAN Academy (Thailand) EEC Branch

China

HRD

Germany

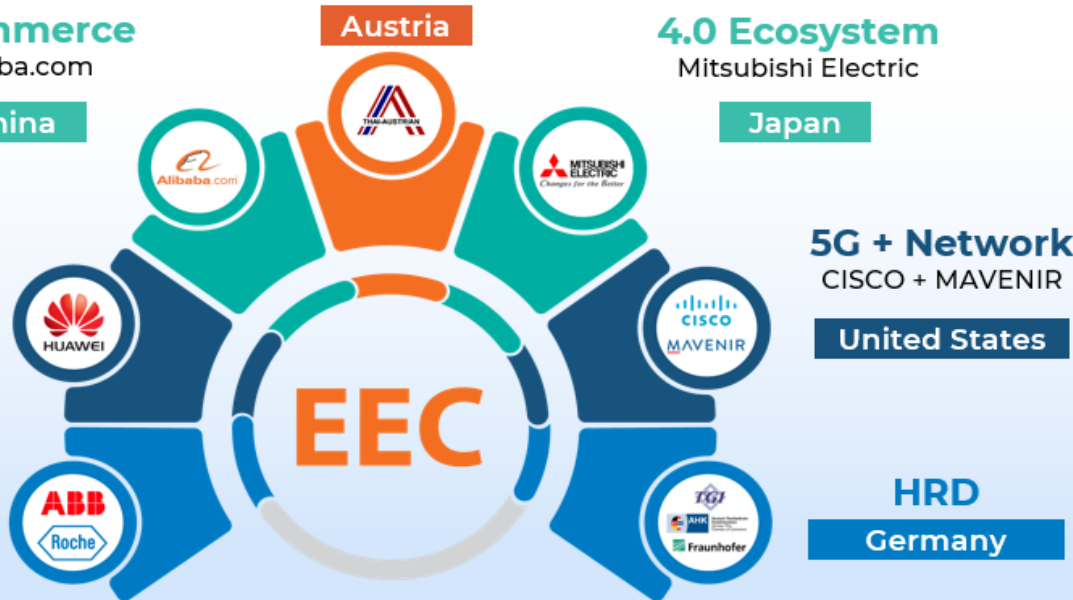
ABB

Industry 4.0
[5G and Digital]

Roche

Healthcare

Switzerland



Credit Bank for undergraduate and graduate levels

Private Sector



Education Institution

EEC HDC Coordinate/Course Accredited

EEC's Key Infrastructure Projects

LAEM CHABANG DEEP SEAPORT PHASE 3

Start Operation: **2028**

- Capacity : Increase container throughput to 18 million TEU/year
- Increase the capacity of roll-on / roll-off to 3 million cars/year
- Increase the ratio of goods shipment via trains to 30%
- Automatic Container Management System



U-TAPAO INTERNATIONAL AIRPORT

Start Operation: **2028**

- Capacity: 60 million passengers / year
- Facilities: Passenger Terminal/ Ground Transportation Center/ Cargo Terminal/ MRO/ Free Trade Zone/ Training Center for Aeronautical Personnel



HIGH-SPEED RAIL

Start Operation: **2028**

- Connectivity : 5 Provinces, 3 Airports with 9 stations
- Distance : 220 km
- Train Maximum Speed : 250 km/hour
- Travel Time : Within 60 minutes



MAP TA PHUT INDUSTRIAL PORT PHASE 3

Start Operation: **2027**

- Overall Port's Capacity: 31 million tons / year (After Development)
- Liquid Natural Gas port: 11 million tons / year
- Future Projects
 - Liquid Material Port: 4 million tons / year
 - Warehouse, Power plant & Related Business



ROAD

RAIL

AIR

SEA



Current Progress of EEC's Key Infrastructure Projects

Beneficial period

Construction period

2024 2025 2026 2027 **2028 onwards**

Major Infrastructure Developments

Map Ta Phut Industrial Port Phase 3	<i>Land reclamation</i>
Laem Chabang Deep seaport phase 3	<i>Land reclamation</i>
U-Tapao International Airport	<i>2nd runway & taxiway preparation</i>
High-Speed Rail	<i>Receive ARL</i>

Begin operation Gas port

Begin operation F1 port

Operate Aviation city phase 1

Begin operation



*As of June 2023
ARL = Airport Rail Link

The High-Speed Rail Linking 3 Airports



- Connectivity: 5 Provinces, 3 Airports with 9 stations
- Distance 220 km
- Train Max. Speed: 250 km/hr
- Travel Time: Within 60 min.
- Operation Year: **2028**



The High-Speed Rail Linking 3 Airports

Total Investment
THB 281,941 Million
(USD ~ 7.7 Billion)

*Estimated total infrastructure investment value throughout the project period (Nominal Value) as of January 2023
Note: Exchange rate THB 36.25 / USD

U-Tapao International Airport



- Capacity: 60 million Passengers per year
- Facilities: Passenger Terminal/ Ground Transportation Center/ Cargo Terminal/MRO/ Free Trade Zone/ Training Center for Aeronautical Personnel
- Operation Year: **2028**



U-Tapao International Airport



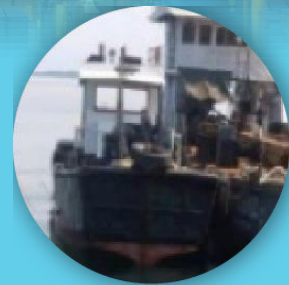
Total Investment
THB 204,051 Million
(USD ~ 5.6 Billion)

*Estimated total infrastructure investment value throughout the project period (Nominal Value) as of January 2023
Note: Exchange rate THB 36.25 / USD

Laem Chabang Port Phase 3



Laem Chabang Port Phase 3



- Increase container through put to 18 million TEU / Year
- Increase the capacity of roll-on /roll-off to 3 million cars/ year
- Increase the ratio of goods shipment via trains to 30%
- Automatic Container Management System
- Operation Year: **2028**

Total Investment
THB 110,115 Million
(USD ~ 3.0 Billion)

*Estimated total infrastructure investment value throughout the project period (Nominal Value) as of January 2023
Note: Exchange rate THB 36.25 / USD

Map Tu Phut Industrial Port Phase 3



- Overall Port's Capacity: 31 million tons / year (After Development)
- Liquid Natural Gas Port: 11 million tons / year
- Future Projects
 - Liquid Material Port 4 million tons / Year
 - Warehouse, Power plant & Related Business
- Operation Year: **2027**



Map Tu Phut Industrial Port Phase 3



Total Investment
THB 64,905 Million
(USD ~ 1.8 Billion)

*Estimated total infrastructure investment value throughout the project period (Nominal Value) as of January 2023
Note: Exchange rate THB 36.25 / USD

5 Clusters

Support the 12 Targeted Industries



MEDICAL AND COMPREHENSIVE HEALTHCARE

Medical & Health



AUTOMATION AND ROBOTICS



INTELLIGENT ELECTRONICS



DIGITAL



DEFENSE

Digital



NEXT-GENERATION AUTOMOTIVE

Next-Generation Automotive



GREEN AND CIRCULAR



BIOFUEL AND BIOCHEMICAL



ADVANCED AGRICULTURE AND BIOTECHNOLOGY



FOOD FOR THE FUTURE

BCG



HIGH-VALUE AND MEDICAL TOURISM



AEROSPACE & LOGISTICS



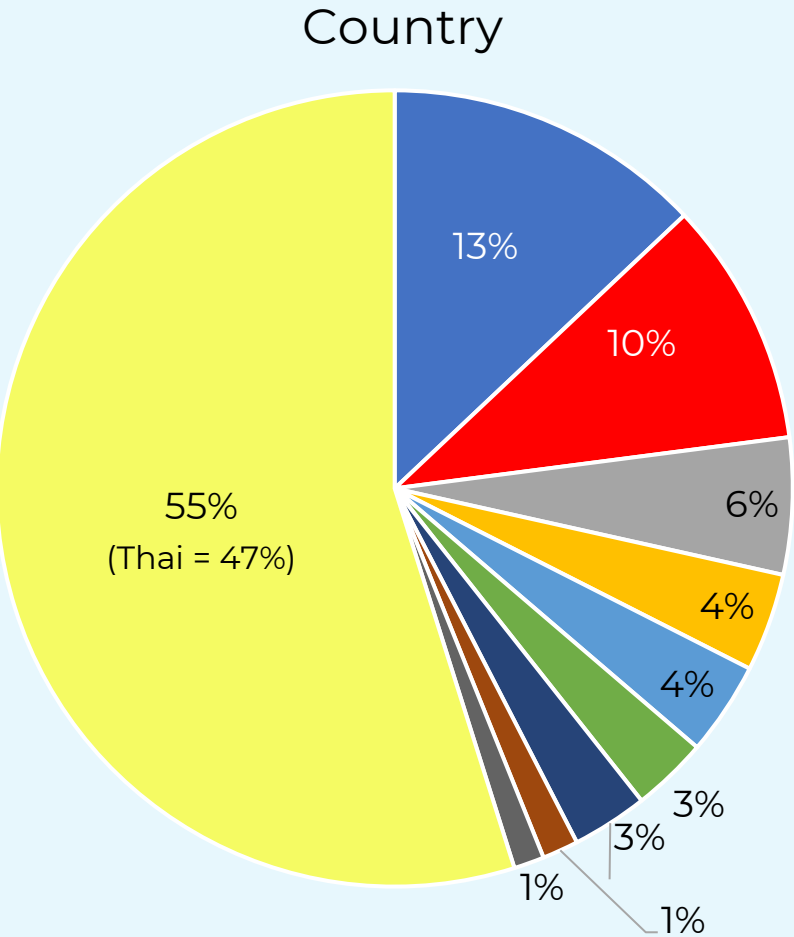
EDUCATION AND HUMAN RESOURCE DEVELOPMENT

Services

Investment Promotion Certificate Issuance from 2018 – Present

(Q1/2023)

- Japan
- China
- Singapore
- United States
- Hong Kong
- Taiwan
- Netherlands
- Switzerland
- France
- Others



Total value of **USD 38 Billion**

Top 5 by Nationalities*



Japan
Automotive,
Electrical
appliances



China
Automotive,
Electrical
appliances



Singapore
Electrical
appliances
and
Chemical



United States
Digital
Agricultural
and Food



China (Hong Kong)
Automotive,
Electrical
appliances

Note: *Nationality data only counts for foreigners (Non-Joint Venture + Joint Venture)
Exchange rate THB 34.04 /USD (Avr. April 2023)
Source: BOI as of 31 March 2023



BCG Economy in EEC

Goal of **Carbon Neutrality** by 2050

G : Green Economy

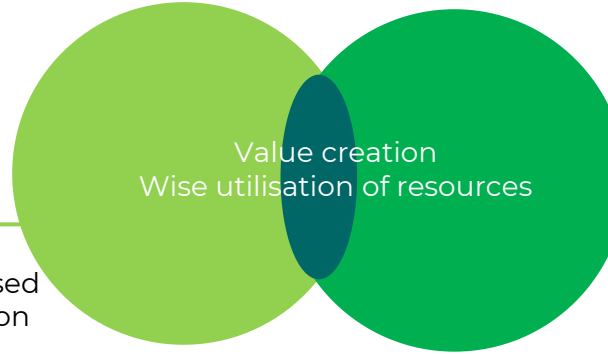
determines to keep the economy, society and the environment, in balance, leading to sustainable development

Create economic, social and environmental sustainability

B : Bioeconomy

involves the production of renewable biological resources and the conversion of these resources into value added products

- Increase productivity
- Transform from agri-based into bio-based production



C : Circular Economy

aims at reusing and recycling resources

- Reduce the use of limited resources
- Recycle resources
- Reduce waste

Reduce the use of natural resources
Reduce environment impact

Exclusive Opportunities under BCG Economy

Thailand's 20-Year National Strategy

Sustainable Development Goals



Food & Agriculture

- Smart/precision farming
- Breed/seed improvement
- Fertigation system
- Plant factory
- Functional food
- Alternative protein: plant-based, insect-based & cell-based
- Food loss management



Health & Medicine

- Biosimilars
- Vaccine
- Gene therapy
- Advanced therapy
- Antibody drug
- Cosmeceuticals
- Medical equipment
- Herbal drugs and products
- Clinical research



Material & Energy

- Renewable energy
- Biorefinery
- Biofuel
- Biomass to power
- Bioplastics
- Biochemical
- Bioingredient
- Green reagent
- Green solvent



Waste Management & Recycling

- Reduce waste
- Waste sorting at source
- Waste to energy
- Recycle of plastic waste to food-grade plastic
- Reuse plastics



EEC: the targeted area for BCG economy (Execution Plan 2021-2025)



Emission Reduction

- **↓10% GHG emission in industrial sector** (base year 2021)
- **40% of new investment** in EEC will apply Green & Circular Economy principle

Investment promotion on Renewable Energy and EV

- Energy Efficiency
- Resource and Waste Management



Energy Transition

- Phase 1: Solar 500 MW+
- Phase 2: Green Energy - 30% of total electricity demand



Recycling Business

- Total Waste Management Project in Rayong (Rayong Model)
- Waste-to-energy Plant Project in Pattaya City



Carbon Management

- Carbon Credit Trading Platform, in a collaboration with EEC Office, Federal of Thai Industries and Thailand Greenhouse Gas Organization (Q3 2022)
- Greenhouse Gas Mitigation Information Platform and waste exchange & trading System

Strong EV policy to build on EV business strengths



2030
30% of all new cars produced to be ZEV

2035
All new car sales to be ZEV



ZEV Production Target 2030

- **Pick up and Passenger car**
: 725,000 units
- **Motorcycle** : 675,000 units
- **Bus and Truck** : 34,000 units

Charging Station Target 2030

- **DC Fast Chargers**
: 12,000 stations
- **Battery Swap Station**
: 1,450 stations



EV Investments in EEC

- EEC has comprehensive ecosystem for EV production.
- Major EV car manufacturers including Japan, China, Europe has already invested in the EEC
- EEC will be the largest battery production base in ASEAN
- The first and world-class Automotive and Tyre Testing, Research and Innovation Center (ATTRIC) in ASEAN located in the EEC

Extensive Investment Incentives

- **CIT Exemption** – up to 13 years
- **Cash Subsidy** – up to USD 4,350 (34.5 THB:USD)
- **Import Duty Reduction for CBU** – up to 40%
- **Import Duty Exemption for EV's Core Technology Parts**
- **Excise Tax Reduction** – From 8% to 2%



1. Electric Vehicle: EV



2. EV Battery



3. EV Charging Infra.



4. EV Conversion



5. EV Related parts and business



Remarks: Mercedes-Benz Manufacturing Thailand is located in Samut Prakan province

In 2018-Feb 2023, EV Investment in EEC had a total value of USD 2.7 Billion

(~90% share of the country's EV investment)

Thailand Health System

3rd

Biggest Medical Travel Destination by Value ¹

Thailand Medical Hub is worth USD 17 Billion

4th

World's most JCI-Accredited hospitals (66 Hospitals) ²

5th

is the ranking of Thailand on **the 2021 Global Health Security Index** ³

13th

is the ranking of Thailand on **the World's best Healthcare by CEO world** ⁴

- Thailand's domestic health expenditure has risen from USD 11.56 billion in 2010 to USD 21.79 billion in 2020
- 30% of healthcare spending is pharmaceutical products and mostly imported
- Total Pharma sales in 2021 worth USD 5.62 billion



¹ Malaysia Medical Tourism Authority

² MeDIU, Krungsri Research, 2021

³ <https://www.thaipbsworld.com/thailand-ranked-5th-in-2021-global-health-security-index/>

⁴ <https://ceoworld.biz/2021/04/27/revealed-countries-with-the-best-health-care-systems-2021/>

New Eco-systems for Health and Wellbeing



EECg

Genome Sequencing Center in EEC

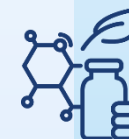
- Starts operation in 2022 to provide data analytics and interpretation
- The first large-scale genome sequencing centre in Thailand
- Capable of performing **350 human genomes** sequencing per week
- Responsible for **50,000 human genome sequencing of Genomics Thailand**
- Plan to finish the **first 50K genomes within 2025**



EECi

Infrastructures to Support Innovative Herbal Medicine Products

- **Phenomic Greenhouse** - Large-scale facility to study plant physiology & biochemistry
- **Plant Factory and Greenhouse** - Closed system, controlled environment for high-value plant production
- **Biorefinery Pilot Plant with Non-GMP and GMP facility** for scale-up production of functional ingredients, an application testbed for nutraceutical, cosmeceutical, and pharmaceutical industries
- **Tissue culture and Wet lab** - Disease-free plant production and phytochemical analysis



Thailand/EEC's Proposed Areas of Collaboration

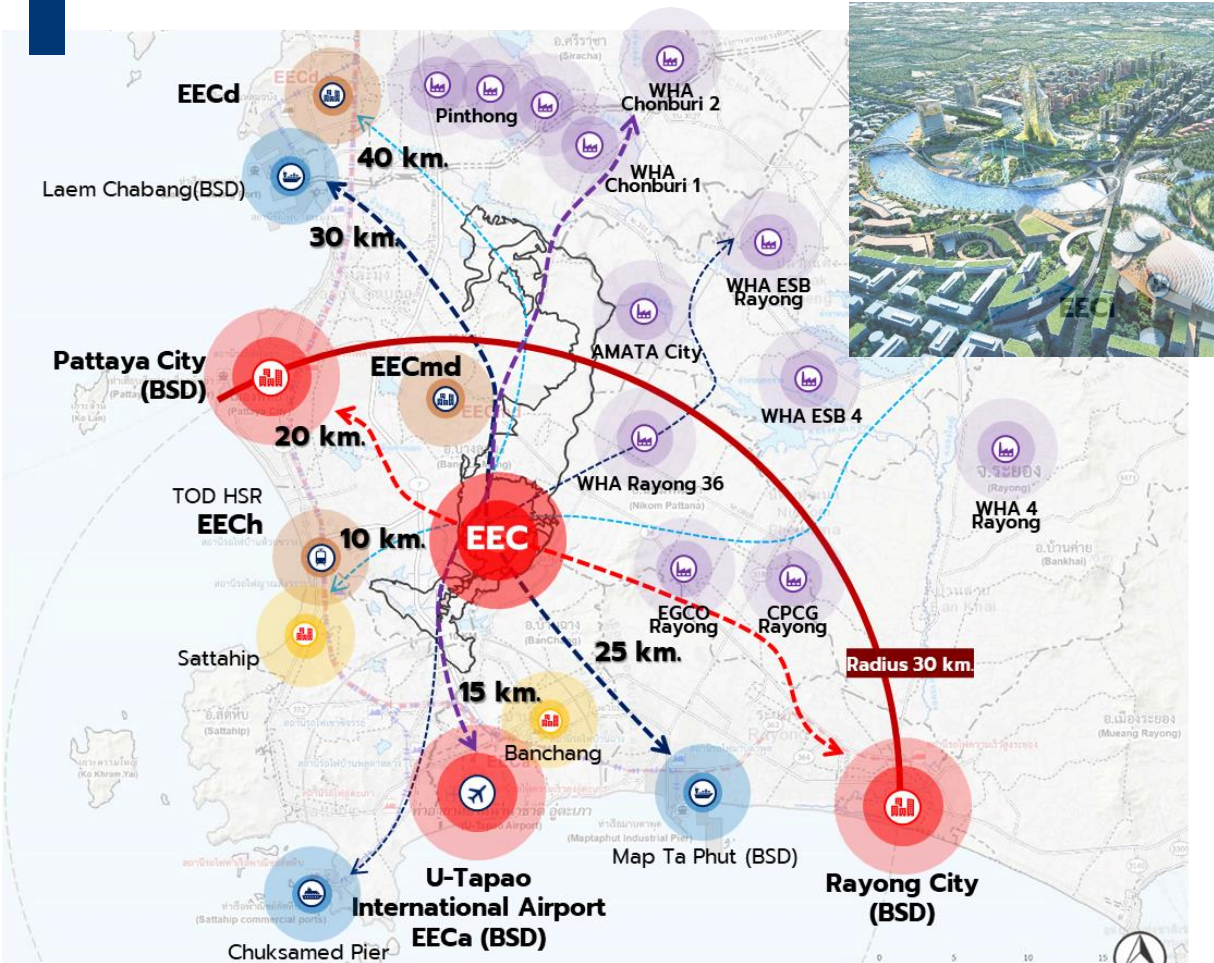
- 1) mRNA vaccine and therapeutic production
- 2) Biologic and biosimilar production
- 3) API research and production
- 4) Advanced therapy medicinal products
- 5) Herbal medicines and herbal cosmeceuticals
- 6) Genomic Medicine; Diagnostics and Services
- 7) Advanced Medical Devices

Supporting R&D Network for Ecosystem



EEC Business Center & Livable Smart City

Data as of June 2023



Vision :

“Becoming a Center of Regional Businesses & Financial Services”

Prime area for future living where nature, people, and technology come together. Moving toward BCG economy. A place of innovation and international life quality. A Top 10 Livable Smart City in the World

Location :	Bang Lamung District, Chonburi Province, Thailand								
Area :	≈ 15,000 rai (24 km ²), ≈ 5,000 rai (8 km ²) for the initial phase								
Distance :	≈ 15 km. from U-Tapao airport								
Key Locations	≈ 10 km. from Pattaya - Jomtien) ≈ 160 km. from Bangkok								
Development :	2022-2032 (1 year for the project’s preparation &								
Duration	10 years for development)								
Population :	350,000 people								
Job Creation :	200,000 positions								
Development Cost :	≈ 1.34 trillion THB (≈ 40 billion USD)								
7 Smart Concept :	<table border="0"> <tr> <td>1) Smart Economy</td> <td>5) Smart Energy</td> </tr> <tr> <td>2) Smart Living</td> <td>6) Smart Environment</td> </tr> <tr> <td>3) Smart People</td> <td>7) Smart Mobility</td> </tr> <tr> <td>4) Smart Governance</td> <td></td> </tr> </table>	1) Smart Economy	5) Smart Energy	2) Smart Living	6) Smart Environment	3) Smart People	7) Smart Mobility	4) Smart Governance	
1) Smart Economy	5) Smart Energy								
2) Smart Living	6) Smart Environment								
3) Smart People	7) Smart Mobility								
4) Smart Governance									
Business Clusters :	<ol style="list-style-type: none"> 1) Regional HQs & Gov. Complex 2) Financial Center 3) Precision Medicine Center 4) Education-R&D Center 5) Future Businesses Center, e.g., Clean Energy, Digitalization, Logistics, Sport Sciences <p>There will also be High-Quality Residences & Smart Affordable Housing</p>								
Land Use Ratio :	Commercial & Residential Areas ≈ 70% Green Area ≈ 30%								

CONTACT EEC

We Make Entry Easier

EEC's dedicated team will guide you towards successful development of investment projects. Our team can advise and accompany you throughout the journey.


Who we are

The Eastern Economic Corridor Office of Thailand (EECO) is a vital public agency that aims to encourage investment, uplift innovation, and advanced technology in Thailand for the future generation. We are the business facilitator that adds value across the entire project lifecycle and coordinates closely and proactively with other public authorities and private sectors to ensure the success of the projects.

How to get in touch

We welcome any inquiries. Please feel free to contact us at

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 EEC WE CAN



EEC Website



EEC
Fact Sheet