



- Opportunities Overview
- Digital
- Advanced Manufacturing
- Medical Industry
- **BCG**

Thailand in Post-COVID Era: Silver Linings and Challenges

Strength in crisis



Kitchen of the world

Medical sector

Recovery performance

Adapting to the New Normal

Skills and digital literacy

- **Digital literacy:** enabling workers to remain productive while in lockdown
- **Upgrading / reskilling:** preparing workers for the new nature of production in the post-COVID economy

Selective industry prioritization

- Argo and food: focusing on agriculture value addition and processing in order to guarantee a level of supply sufficient for domestic consumption
- BCG industries: ensuring that extracted resources are most efficiently utilized, and in the most environmentally friendly manner

Regional connectivity

• Regional supply chain: enhancing connectedness between ASEAN countries

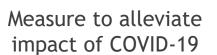
State efficiency improvement

• **Digital government:** optimizing government's efficiency and delivery of citizen services



Key Themes of Investment Policy in the Post-COVID Thailand







Measure to support the medical sector



Post-COVID industrial development



Measure to support SMEs and the grassroot economy



The Eastern Economic Corridor (EEC)

The Eastern Economic Corridor (EEC)

Special Economic Zone for Special Investment Opportunity

- Thailand's flagship Special Economic Zone (SEZ) to accelerate future growth of the regional business and advanced industry
- Strength of the current leading industries in EEC:
 Automobile & parts, Petro chemicals, Electrical Appliances
- Springboard location to ASEAN, China, and India: via multi-modal linkages and Free Trade Areas (FTAs)



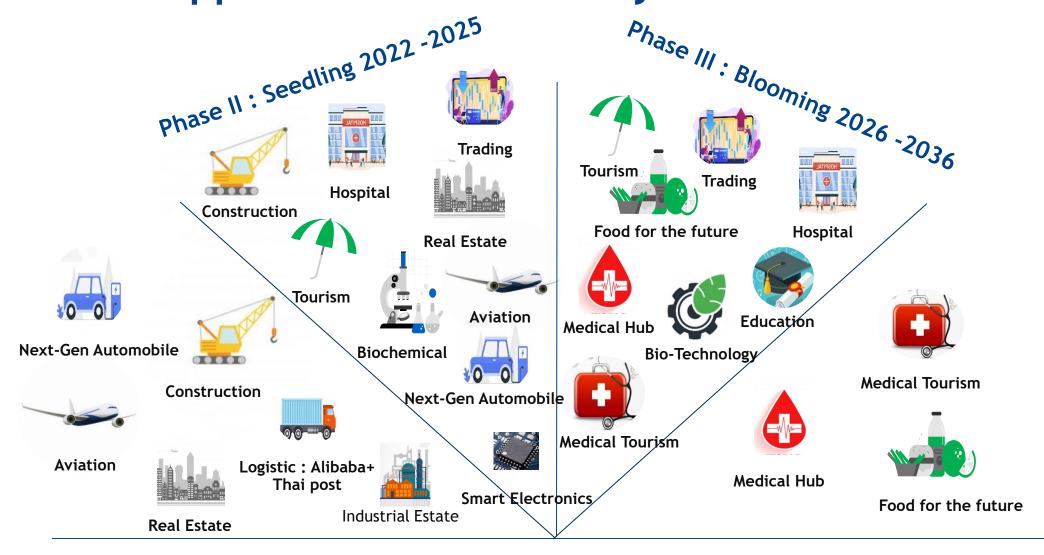




- Chachoengsao
- Chonburi
- Rayong



Business Opportunities offered by the EEC



Phase I: Planting 2017-2021

Phase IV: Harvesting 2037



Foreign Investors Confidence in Thailand (2020)

Confidence index by Sectors



Agriculture and agricultural products



E & E



Minerals, ceramics and basic metals



Chemicals, paper and plastics



Light industry i.e. textiles, jewelry and leather



Service and Utility activities



Metal products, machinery and transport equipment



Technology development and innovation

Top 3 reasons given by the companies for maintaining or expanding investment in Thailand include...



having supportive investment incentives



sufficient raw materials/parts



sufficient supporting industries in the supply chain

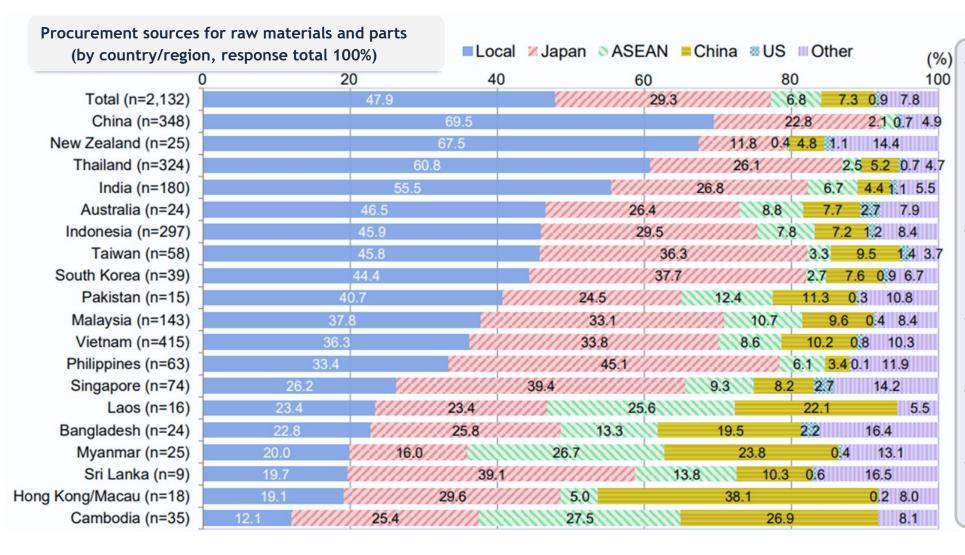
Out of the 600 questionnaire responses from 2020 survey, 460 firms, or 76.67%, said they would maintain the level of their investment, while 116 firms, or 19.33%, said they planned to expand their investment in Thailand. When the results are combined, the survey showed a positive outlook, with 96.00% of the surveyed firms indicating that they planned to expand or maintain investment in Thailand.







Procurement of Raw Material and Parts



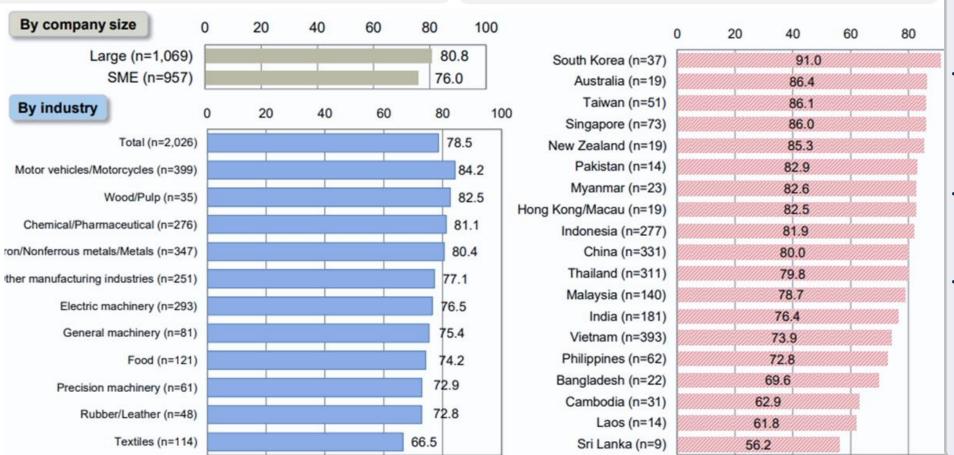
- The largest procurement source for raw materials and parts in the local production activities of Japanese-affiliated companies was "Local", increased from 46.9% in the 2018 survey by 1.0 pp to 47.9%. On the other hand, the rated of procurement from the US remained at the same level as the 2018 survey (0.9%), while procurement from ASEAN Z-1.3 pp), Japan (-0.8 pp) and China (-0.2 pp) decreased.
- By country/region, the local procurement rate was high in China, New Zealand, and Thailand, increasing from the 2018 survey by 3.2 pp, 2.5 pp, and 3.6 pp, respectively.
- The procurement rate from Japan was the highest in Philippines (45.1%), followed by Singapore (39.4%), Sri Lanka (39.1%), South Korea (37.7%), and Taiwan (36.3%).
- The procurement rate from China was the highest in Hong Kong/Macau (38.1%), followed by Cambodia (26.99%) and Myanmar (23.8%)
- The procurement rate from the US was the highest in Singapore (2.7%), and the rate less than 1.0% in South Korea, Vietnam, China, Thailand, and Sri Lanka.



Local Production Cost Comparison

Local production cost in comparison with production cost in Japan, which is taken as 100 (by company size and industry)

Local production cost in comparison with production cost in Japan, which is taken as 100 (by country/region)



- Compared with the production cost in Japan, which is taken as 100, the average local production cost decreased from 78.7 in the 2018 survey by 0.2 pp to 78.5.
- By industry, production costs are relatively high in Motor vehicles/Motorcycles, Wood/Pulp, Chemical/Pharmaceutical, Iron/Nonferrous metals/Metals and while the cost is lower in Textiles at 66.5.
- By company size, the costs of SMEs (76.0) were lower than those of large enterprises (80.8) by 4.8 pp. The gap increased by 3.4 pp from the 2018 survey (1.4pp).
- By country/region, production costs were higher in South Kore (91.0), (86.4), Taiwan Australia (86.1), Singapore (86.0), and New Zealand (85.3),but there was country/region where the costs were higher than those in Japan. On the other hand, the costs were less than 70% in Sri Lanka (56.2), Laos (61.8), Cambodia (62.9), and Bangladesh (69.6).

Note: "Production cost" includes the costs of all resources consumed in producing a product, such as materials, labor, and others.







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The Opportunity as ASEAN Digital Hub Project

As of 2020 Thailand has...

- 1. Increasing Thailand domestic network bandwidth
- 2. Upgrading existing international submarine cable systems
- 3. Constructing a new submarine cable system
- 4. Digital Park Thailand, a new economic cluster

<u>Domestics</u> <u>Bandwidth</u>

8,666.005 Gbps

<u>International</u> <u>Bandwidth</u>

12,317.648 Gbps



lines Submarine Cables



lines Landing Station



A complete digital startup ecosystem for the entrepreneurs and startups of Thailand

Thailand's Digital Industry at a Glance

The Digital Economy is expected contribute 25% to Thailand's GDP by 2027.



25%

91.6 Million Mobile Phone Number Subscription in 2018

Internet Users
50.1 Million,
75.3% of
Population in 2019

Rank **3**rd in Fixed Broadband Speed Test Global Index in April 2020 Social Media
Users **52** Million, **78.2%** of
Population



Total ICT
Professional
386,306
Persons in 2018



Number of ICT Graduates

14,698 Persons in 2019

Future Information and Communication Technology



Broadband



Big Data



Cloud



Data Center



IoT

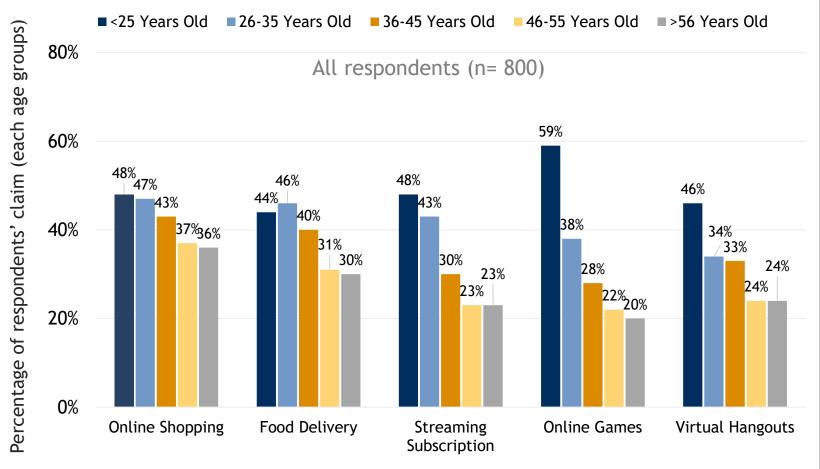


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COVID-19 Leads Thailand to Digitization of Demands

Thai Consumer Claims on Higher Consumption of Digital Products & Services



Activities respondents claim doing more often after the spread of Covid-19

E-Commerce Uses and Streaming
Subscription Increase
After the Covid-19



15.77
Million new paid subscribers

globally



122%
Increase in number of uses in Thailand



479%

Increase in number of uses in Thailand

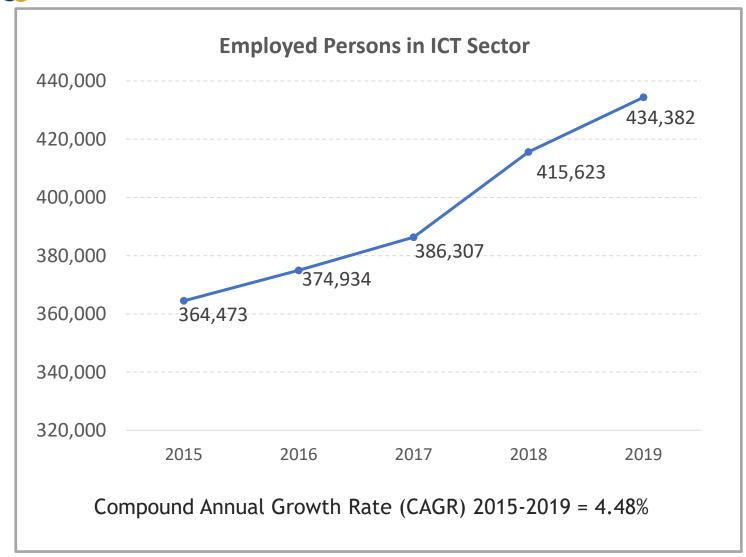


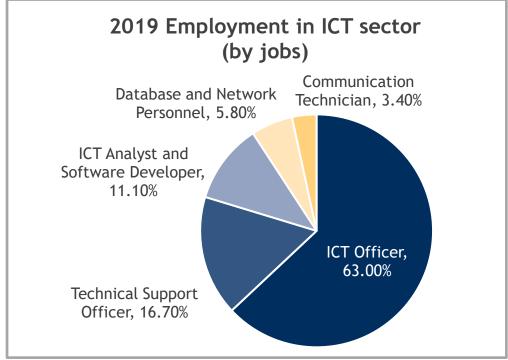
100%

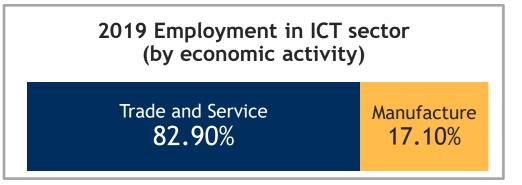
Increase in courier average income in Thailand



Thailand's employment in ICT sector has been continuously increasing











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Thailand Advanced Manufacturing Trends After Covid-19

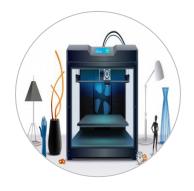
Covid-19 has changed the consumer behavior to the online society, which Thailand Government will lead Thai economy to enter the technological, which can be seen from these technologies into the industry.



IoT



Robotic Process Automation



3D Printing



Blockchain



Cloud



Automation of Knowledge



Source: Asian Insiders 2020

The Main Opportunities In Advanced Manufacturing in Thailand

1 Industrial 4.0

The Thai Government will lead the future of Thai manufacturing by using innovation driven Thai economy.

2 Educating the new skills for industry 4.0

Research & Development to improving skills, which include new graduated from collage, university.

3 <u>International co-operation on developing automation</u>

Thailand open for international co-operation to support Thailand to improving technology.

4 <u>Eastern Economic Corridor</u>

Thailand provides special economic area for businesses and manufacturing as government's planned on the location to be hub center.







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Opportunities in Medical Industry



Well-Established Supply Chain of Material Production (medical glove, syringes, masks)

Measures to drive Thailand to

a Medical Hub:

- Clinical Research
- Contract Research Organization (CRO)
- Clinical Research Center(CRC)
- Senior Hospital Services
- Senior/Dependent Care Centers
- International Procurement Office: IPO

Top 5 ASEAN Medical Device Trade Value the largest importer and exporter of medical devices (2020)



BOI pushed measures to accelerate investment in the medical industry with measures to mitigate the effects of the coronavirus outbreak

Thailand Has Measures That Effectively Controls the Spread of COVID-19, While Ensuring Business Continuity. A new method called 'Limited Quarantine'





Opportunities in Medical Industry

Well-Established Supply Chain of Material Production

- Rubber industry and rubber chemicals (for medical glove)
- Petrochemical (for syringes)
- Textile and fabric production (for masks)

Number of Manufacturers in each subsector



210



Durable Item







Single-use Item

146

Reagents & Test Kits 28

Software & Services 32

Other

131

Note:

The figure shown is collected by Medical Devices Intelligence Unit, The Office of Industrial Economics.

International Medical Device Companies













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Adopting BCG Model for Sustainable Development of Thailand

Thailand going to developed country along with environment concern

BCG Economy Model







Adding USD 135 billion to Thailand GDP within 5 years on regarding environmental sustainability

"To become a developed country with security, prosperity and sustainability in accordance with the Sufficiency Economy Philosophy"

Thailand's 20-Year **National Strategy**

Strategy 2: National Competitiveness, **Economic Growth and Income Distribution** Strategy 5: Sustainability of National Biodiversity, **Environmental Quality and Natural resources**

Sustainable **Development Goals**











Key Enablers for BCG Economy in Thailand



Top Products:

- Cassava
- Sugarcane
- Palm Oil

the raw materials for a wide range of products for bio-economy sector.



Thailand hosts several facilities that are instrumental in developing the Thai bioeconomy.

- Thailand Science Park
- Biopolis in EECi
- Universities' Research Units



Plan for being Bio-hub

- **Chonburi:** Palm Biocomplex
- Chachoengsao: Bio Hub Asia & the Blue Olio Tech City industrial estate
- Nakhon Sawan: Biocomplex
- Khon Kaen: Bioeconomy Industrial **Estate**
- Surat Thani: Center of Bio Excellence (CoBE)



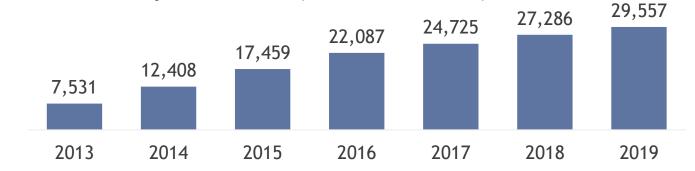
Thailand Moving Towards Green Economy

27th

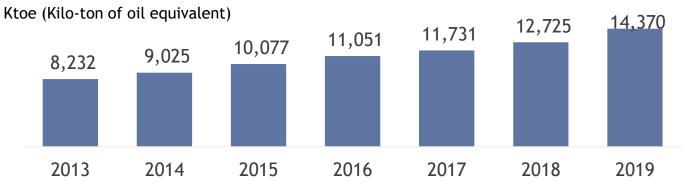
On the Global Green Economy Index (GGEI)

2nd ranked in ASEAN following Singapore

Green Industry Certificate (Number of firms)



Alternative Energy Consumption (Ktoe)



Vision towards Green Growth



- Low carbon society
- Stability of economic growth without environmental damage
- High income & reducing disparity



Thailand's Circular Plastic Economy

Roadmap on Plastic Waste Management 2018-2030

Objective: To reduce at least 50% of Thailand plastic marine debris by 2027 with Circular Economy

Integrated waste collection & segregation infrastructure and system development

Responsible consumers for waste management

Development of recycle & upcycle business to create market demand and add value to plastic waste

Clean Plastic Waste

Contaminated Plastic Waste

Responsible plastic industry, brand owners and retailers to manage plastic waste at source









Waste Collecting

- Municipality
- Local Community



Waste Segregation

- Municipality
- · New Community Model

Plastic Recycle Business



Rayong Provincial **Waste Segregation** Center and Landfill



Potential Investors in BCG Industries

Thai Investors

























Thailand's Strategic Location Makes it an Investors' Gateway to Asia.

8th Largest Economy Globally

(USD 2.7 Trillion)

13 FTAs/RTAs with 18 nations have already Entered Into Force

i.e.



ASEAN Free Trade Area



Thailand-India Free Trade Area





ASEAN-China Free Trade Area

2nd Largest Economy Globally
(USD 13.4 Trillion)

5th Largest Economy Globally
(USD 3.0 Trillion)



RCEP had been signed and waiting for entering into force within 2021: 1/3 of world consumers

The Thai Market

- Population: 69 Million¹
- Middle Class Consumers:
 52 Million²

CLMVT

- 242 Million Consumers³
- Within 1,000 KM

ASEAN Economic Community

- 645 Million Consumers⁴
- 5th Largest Economy Globally (USD 3.0 Trillion)
- ASEAN FTA / ASEAN Connectivity

Greater Asia Region

- 4.6 Billion Consumers⁵
- Within 5,000 KM

Source: 1,3World Bank (2019), 2Deloitte (2016), 4ASEAN (2018), 5World Meters (2019), ASEAN Key Figures 2019

