



# Why Thailand and Investment Supportive Measures for Medical and Biotechnology Industries

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A close-up photograph of a microscope's objective lens and eyepiece, set against a blurred blue background. The word "AGENDA" is overlaid in white, bold, sans-serif font.

# AGENDA

01

**Why Thailand**

02

Introduction to  
Board of Investment

03

Opportunities in Medical  
and Biotech Industry

# Location & Market Access



## Thailand Market

- Population: 69 Million<sup>1</sup>
- Middle Class Consumers: 52 Million<sup>2</sup>

## Cambodia, Laos, Myanmar, Vietnam, Thailand

- 242 Million Consumers<sup>3</sup>
- Within 1000 KM

## ASEAN Economic Community

- 645 Million Consumers<sup>4</sup>
- Within 3000 KM

## Greater Asia Region

- 4.6 Billion Consumers<sup>5</sup>
- Within 5000 KM

# Thailand Economic Statistics



## Thailand GDP<sup>1</sup>

USD 525.12 Billion (THB 16,879 Billion)

Greater than CLMV Combined



## GDP Growth 2019<sup>1</sup>

Annual Growth Rate 2.4%

GDP per capita 7,723.53 USD

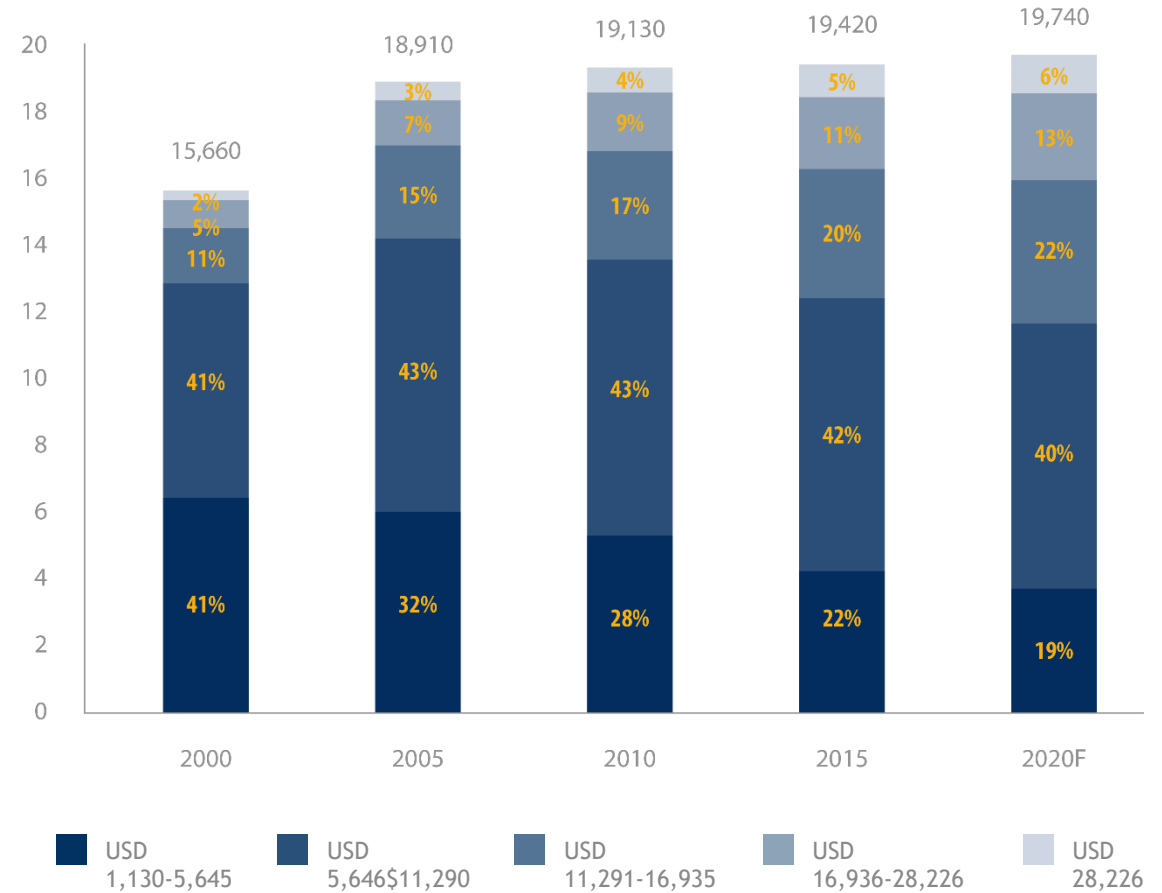


## 2<sup>nd</sup> Highest Household Consumption in ASEAN<sup>2</sup>

USD 246.11 Billion<sup>2</sup>

52 Million Middle Class Consumers<sup>3</sup>

## Number of Household<sup>4</sup>



Note: Exchange Rate 1 USD = 32.143 THB (As of 12 May 2020, Bank of Thailand)  
 Source: <sup>1</sup>NESDC (2020), <sup>2</sup>World Bank (2018), <sup>3</sup>Deloitte (2016) and <sup>4</sup>The Economist Intelligence Unit (2016)

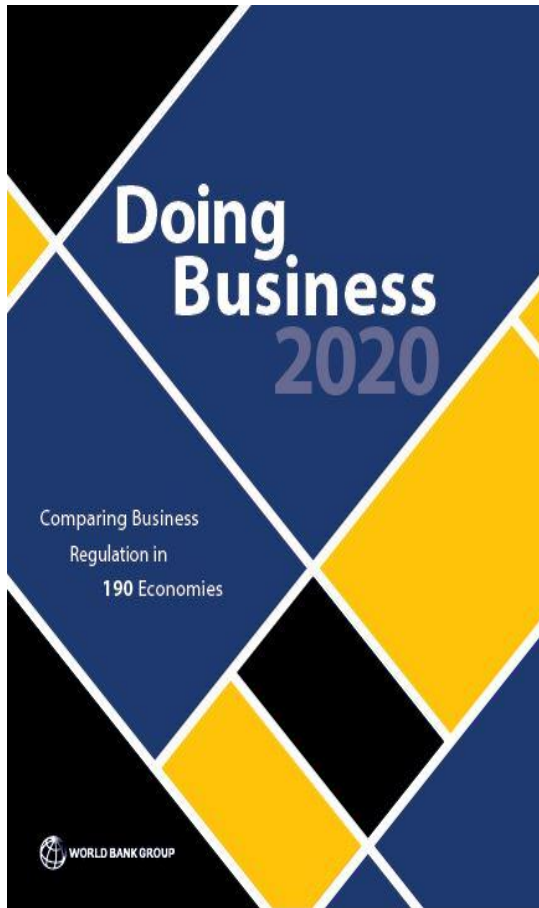
# Top countries to Start Business and Ease of Doing Business Ranking

**TOP 10 BEST COUNTRIES TO START A BUSINESS IN 2020**

-  Thailand
-  Malaysia
-  China
-  Singapore
-  India
-  Philippines
-  Mexico
-  Switzerland
-  Indonesia
-  Canada



Sources: US News & World Report



**Doing Business 2020**  
Comparing Business Regulation in 190 Economies

WORLD BANK GROUP

THE WORLD BANK

Sources: The World Bank, Doing Business (2020)

## World Bank Ease of Doing Business 2020

- **Ranked 3<sup>rd</sup> in ASEAN**
- **Ranked 21<sup>st</sup> Globally\***

\* Up 6 places since 2019 and 25 places since 2017

Key Improvement Areas by Year				
Study Indicator	2017	2018	2019	2020
Starting a Business	•	•	•	•
Construction Permits				•
Getting Electricity		•	•	•
Registering Property		•		
Getting Credit	•	•		
Protecting Minority Investors		•		
Paying Taxes		•	•	
Trading Across Borders			•	
Enforcing Contracts		•		
Resolving Insolvency	•	•		•

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# Introducing BOI



THAILAND  
BOARD OF  
INVESTMENT

BOI is a government agency under  
the Office of the Prime Minister.

Provides comprehensive information and advice  
on establishing operations in Thailand

Coordinates between the foreign business  
community  
and other public agencies

Grants "Tax-based incentives" and "Non-Tax  
incentives"

Provides Business Support Services for Investors



## Tax Incentives

- Exemptions / Reductions of Corporate Income Tax
- Exemptions / Reductions of Import Duties on Machinery
- Reduction of Import Duties on Raw Materials
- Exemption of Import Duties on R&D Materials
- Double Deduction on Cost of Transportation, Electricity and Water
- 25% Deduction on Installation or Construction of Facilities
- Exemption of Import Duty on Raw Materials Used in Production for Export



## Non-Tax Incentives

- Permit for Foreign National to Enter Kingdom to Study Investment Opportunities
- Permit to bring in Skilled Workers and Experts to Work in Investment Promoted Activities
- Permission to Own Land
- Permit to Remit Money Abroad in Foreign Currency
- No Local Content Requirement
- No Export Requirements
- No Restriction on Foreign Currency
- Visa Facilitation

# BOI Investment Incentive Scheme

## Standard Incentives

### Activity-Based



**≤ 8 years CIT exemption**

### Technology-Based

- Targeted Core Technologies -



Bio-Technology      Digital Technology      Nano-Technology      Advanced Material Technology

**10 years CIT exemption**



## Additional Incentives

### Merit-Based

- Research & Development (R&D)
- Support academic / research institutes, or technology and human resource development fund
- IP licensing fee
- Advanced technology training
- Development of local suppliers
- Product and packaging design

### Area-Based

- EEC 3 provinces
- SEZ 10 provinces
- Southern border provinces
- 20 provinces with lowest income
- Industrial Estates/Zones
- Science and Technology Parks (TSP, Food Innopolis, Space Krenovation Park)



# Standard Product-Based Incentive Packages

		Exemption CIT	Exemption Import duties on machinery	Exemption Import duties on raw materials	Non-tax incentives	
<b>8</b> years  <b>CIT exemption</b>  <b>0</b> year	<b>A1</b>	Knowledge-based activities focusing on R&D and design to enhance the country's competitiveness	<b>8+ Merit</b> years no cap	✓	✓	✓
	<b>A2</b>	Infrastructure activities for the country's development, activities using technology to create value-added, with no or very existing investments in Thailand	<b>8+ Merit</b> years	✓	✓	✓
	<b>A3</b>	High technology activities which are important to the development of the country, with a few investments already existing in Thailand	<b>5+ Merit</b> years	✓	✓	✓
	<b>A4</b>	Activities with lower technology than A1-A3 but which add value to domestic resources and strengthen the supply chain	<b>3+ Merit</b> years	✓	✓	✓
	<b>B1</b>	Supporting industry that does not use high technology, but is still important to the value chain	<b>- + Merit</b> years	✓	✓	✓
	<b>B2</b>	Supporting industry that does not use high technology, but is still important to the value chain	<b>-</b> years	-	✓	✓

Incentives are based on several key factors including level of technology, role in supply chain, and location.

# New Tax Incentives Scheme under New EEC Packages

Targeted Activities (Basic Incentive)	1 HRD Criteria *	2 Location Criteria	
	All EEC Areas	EECi / EECa EECd / EECmd	Industrial Estates or BOI Promoted Industrial Parks
A1 / A2 CIT Exemption 8 years	+ Reduction of CIT 50% for 3 years	+ Reduction of CIT 50% for 2 years	-
A3 CIT Exemption 5 years	+ Reduction of CIT 50% for 3 years	+ Reduction of CIT 50% for 2 years	+ Exemption of CIT for 1 year
Section 8 CIT Exemption 10 years	+ Exemption of CIT for 2 years	+ Exemption of CIT for 1 year	+ Exemption of CIT for 1 year

\* For Human Resource Development Criteria

- Must establish a cooperation with institutions or organizations to develop human resources in Science & Technology
- The training participants must not be less than 10% of the total number of employees or more than or equal to 40 participants.

Work Integrated learning (WIL)

Dual Vocational Training (DVT)

Co-operative Education (CoE)

Applicants can apply for incentives under one or both criteria.

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# Thailand Medical Landscape at a Glance



**27,367**  
Healthcare  
Providers

**386**  
Private  
Hospitals

**68**  
JCI Accredited  
Hospital

**3.5 Million**  
Medical Tourists

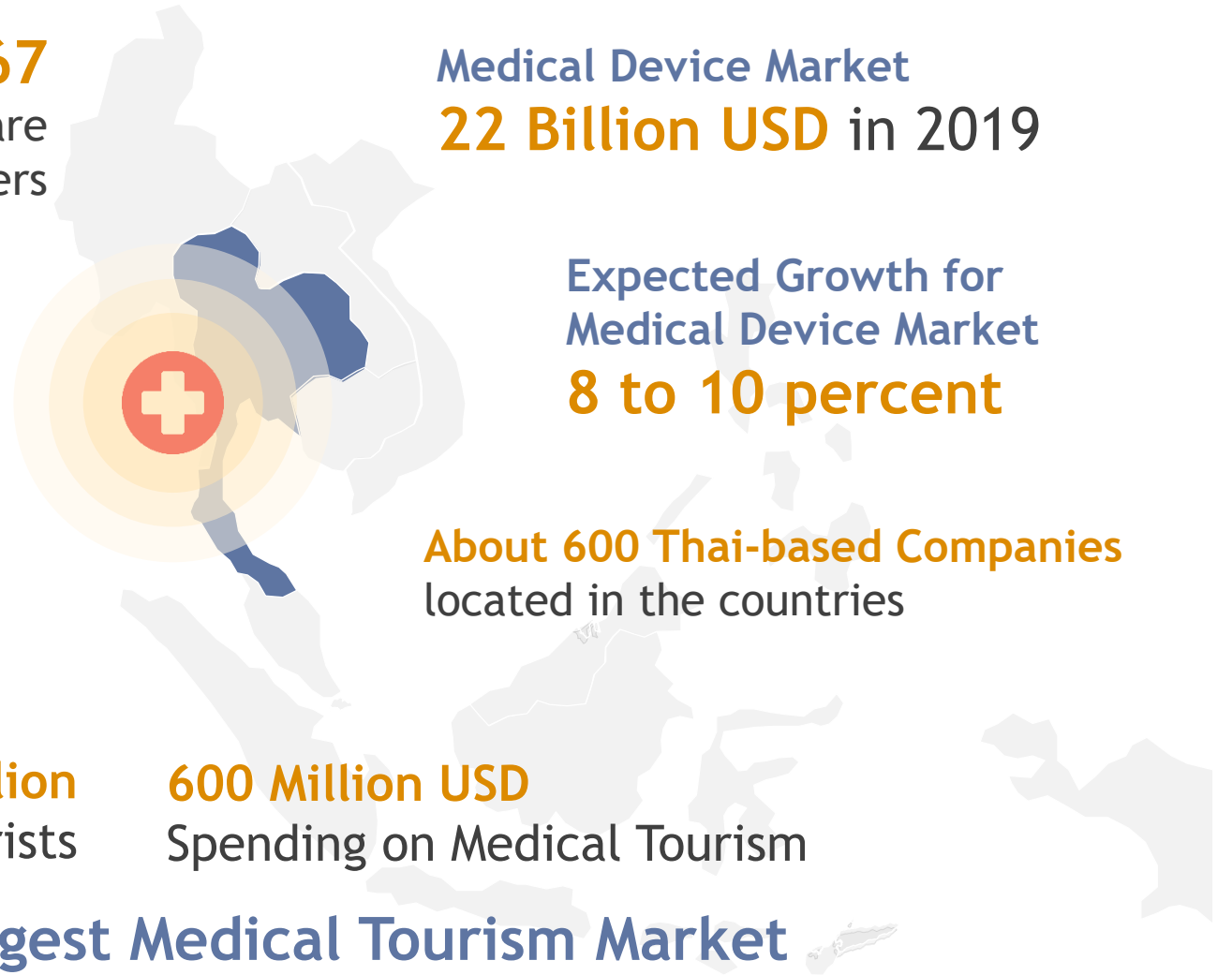
**600 Million USD**  
Spending on Medical Tourism

**World's 5<sup>th</sup> biggest Medical Tourism Market**

Medical Device Market  
**22 Billion USD** in 2019

Expected Growth for  
Medical Device Market  
**8 to 10 percent**

**About 600 Thai-based Companies**  
located in the countries



# Thailand Medical Industry Supply Chain

## Supplier Industries



Agricultural



Chemical



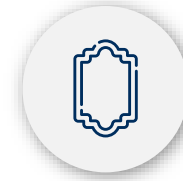
Metalworking



Textile



Ceramic



Glass and Mirror



Rubber

### Pharmaceutical Industry

Herb

Active/ Inactive Ingredients

Conventional Medicine

Traditional Medicine

### Medical Food Industry

Agricultural Product

Food

Medical Food

### Medical Device Industry

Parts and Components

Medical Devices

### Medical Services

Hospital

Clinic

Medical University

Others

# Demand Driven Factor: Thailand's Medical Sector Market



## No 1. Aging Society

Thailand's proportion of citizens aged over 60 is one of the highest in ASEAN leads to higher demand for healthcare.



## No 2. High Growth in Health Goods and Medical Service

The growth of consumer spending on health goods and medical services in Thailand is greater than the growth of domestic economy and spending on most other categories



## No 3. Investment in New Hospital

Existing hospital operators plan to invest in new hospitals and medical equipment that will support continuous growth in demand for medical devices in Thailand



## No 4. Increase in Illness

Especially heart disease, stroke, cancer and diabetes (due partly to the increasing number of elder people)



## No 5. Government Policy

Government promotes investment in medical device sector and intend to establish Thailand as a medical hub and a base for exports of medical devices.



## No 6. Increase in Foreign Patients

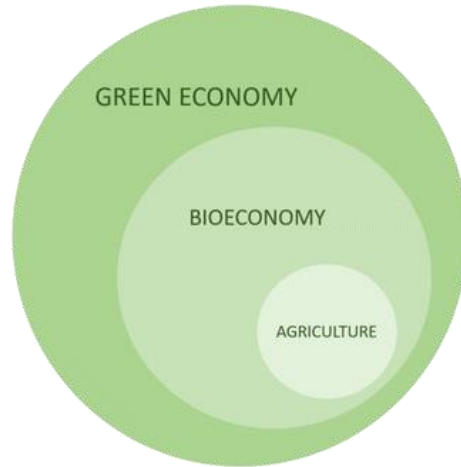
Tourists come to Thailand for medical treatment in Thai hospitals because of credibility, quality and standard of medical treatment

# Investment Incentive for the Medical Industry

Activities	Group	CIT Exemption	Exemption of import duties on machinery	Exemption of import duties on raw materials used in production for export	Non-tax incentives
<b>Manufacture of high-risk or high-technology medical devices, (e.g. x-ray machine, MRI machine, CT scan machine and implants) or medical devices that are commercialized from public sector research or collaborative public-private sector research</b>					
In case projects include R&D and innovation	A1	8 years CIT exemption (no cap)	✓	✓	✓
In case projects not include R&D and innovation	A2	8 years CIT exemption	✓	✓	✓
Manufacture of other medical devices (except for medical devices made of fabrics or fibers)	A3	5 years CIT exemption	✓	✓	✓
Manufacture of medical devices made of fabrics or fibers, e.g. gowns, drapes, caps, face masks, gauze and cotton wool	A4	3 years CIT exemption	✓	✓	✓
Manufacture of Medical Foods	A2	8 years CIT exemption	✓	✓	✓
Active pharmaceutical ingredients	A2	8 years CIT exemption	✓	✓	✓
<b>Manufacture of Medicine</b>					
Manufacturing of targeted medicine	A2	8 years CIT exemption	✓	✓	✓
Manufacturing of conventional and traditional targeted medicines	A3	5 years CIT exemption	✓	✓	✓

# Biotechnology as the Engine for the Knowledge-based Bioeconomy

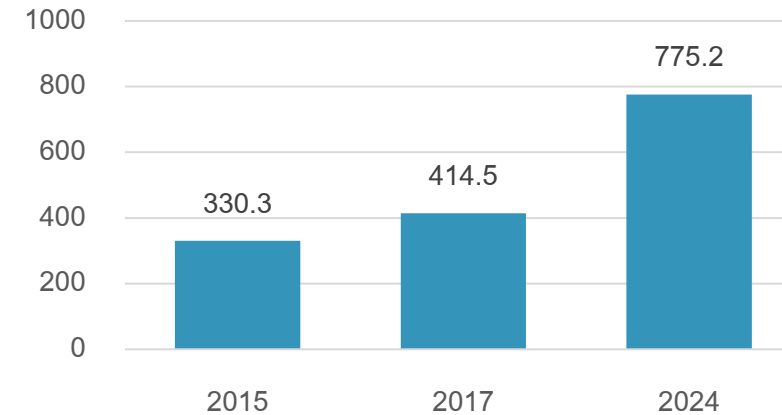
## Bioeconomy Concept



In response to the wide range of acute environmental challenges facing the world today, many governments have begun to focus their efforts on developing bioeconomy industries

Over the last decade, biotechnology has continued to be a major contributor of bioeconomy. According to Global Market Insights, the global market of biotechnology is expected to reach 775.2 billion USD by 2024.

## Global Market Value of the Biotechnology Market





## Biotech Sector



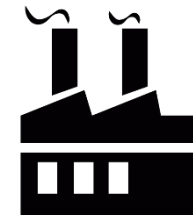
Thailand is the **18<sup>th</sup>**  
most bio-diverse  
country  
in the world



- **15,000** species of plants
- **50,000** strains of bacteria, fungi and yeasts collected
- **200,000** species of microbes-world's largest and most diverse collection of micro organisms



**165**  
biotech  
companies  
in Thailand



Science Parks  
and industrial  
estates

# Agriculture and Bio-economy in Thailand

## From Resource-based Agriculture

### Agricultural-based Economy



Cassava



Sugarcane



Palm



Rubber

7% of GDP

USD 29.81 Billion

Feedstock-based

20 Million Population, Mainly in Agriculture

Molecular Breeding

Forecasting

Precision Agriculture

Mechanization

GDP Contribution

Total Value

Core Value

Employment

## To Knowledge-based Value Chain

### Bio-economy



Biochemical



Pharmaceuticals



Food for Future



Biofuel

8-11% of GDP

USD 40.79-53.34 Billion

Processed Food, Biochemical and Biofuel

Employment throughout Higher Value Sectors

# Biopolis: Innovation Platform for Biotechnology



**BIOPOLIS Location:**  
Wanchang Valley, Rayong

**Strategic Technology Area in EECi**

## Innovative Agriculture (Agriculture / Aquaculture)

- Phenotyping facility / greenhouse to do research on phenomics for trait improvement
- Plant factory for production of high value crops

## Functional Ingredient (Food & Feed, Cosmetic, Pharmaceuticals)

- GMP facility to do scale up production for functional ingredients (plants & microbes)
- Application testbed for nutraceutical, cosmeceutical and pharmaceutical industries

## Chemical & Bioprocess Technology (Biochemical, Biomaterial, Biospecialty)

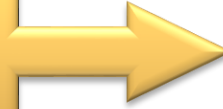
- Bio-refinery facility to do scale up research & pilot production for market testing ex. pretreatment, fermentation, extraction, downstream process
- Facilities for preparation process of tailoring specialty bio-based master batch (structure/surface modification units, mixing & compound units, pre-impregnated pellet & tape unit, multi-structure design unit & verification)

# Biotechnology: BOI Eligible Activities

## Investment Incentives

- 8 Years CIT exemption (with no cap)
- Exemption of import duties on machinery
- Exemption of import duties on raw materials used in production for export
- Non-tax incentives

Biotechnology



Seed & Plant R&D

Biopharmaceutical agents

Diagnostic kits for health, agriculture, food and environment

Biomolecule & bioactive compounds using microorganisms, plant cells and animal cells

Raw Materials and/or essential materials used in molecular biological experiment

Biological substances analysis and/or synthesis services

# One Start One Stop Investment Center (OSOS)



Consolidating staff from numerous investment-related agencies



Easing & speeding procedures for new investors



Provides comprehensive information and advice on establishing operation in Thailand



Provides useful contacts with key public and private organizations



1-Stop for visas & work permits In 3 hours  
“SMART Visa Program”



Assist investors with various applications

*More Convenience  
Less Time  
More Efficiency!*



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# Supporting Body: The Medical Products Consortium of Thailand

Main Organizations

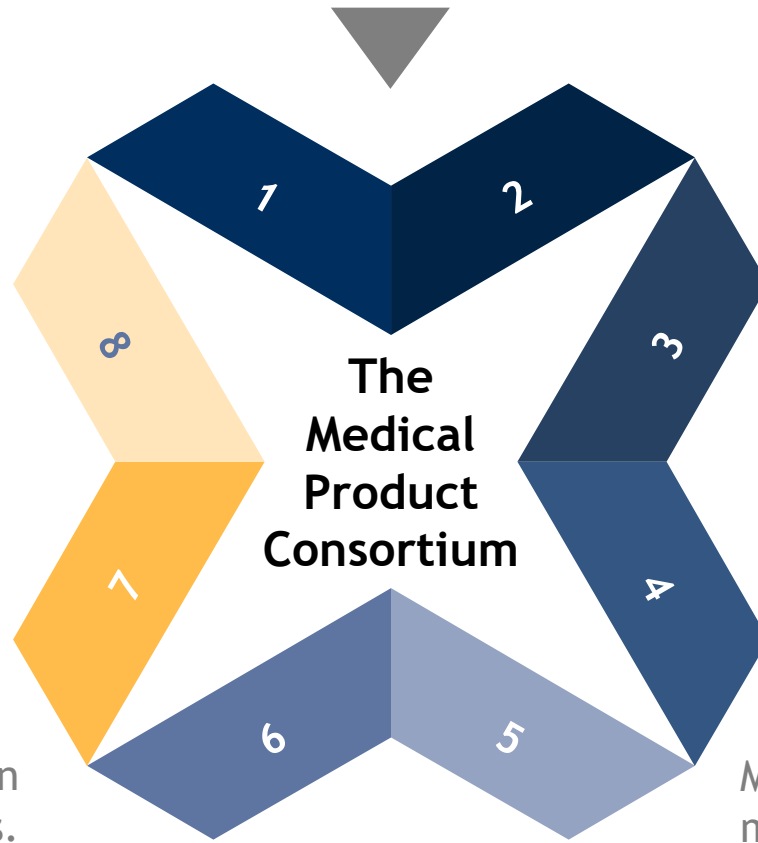


Support medical expert system, medical training, conformity assessment body and notified body

Cooperate in other areas related to objectives

Conduct human development program and knowledge transfer

Disseminate knowledge through cooperation and academic platforms.



Advise on regulations, standards, guidelines and documents related to medical products


Promote and support registration system, central database and big data to integrate medical database


Promote the introduction of medical products for commercial purpose


Monitor the progress of missions related to medical products development




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