

# Thailand National AI Strategy and Action Plan (2022 - 2027)

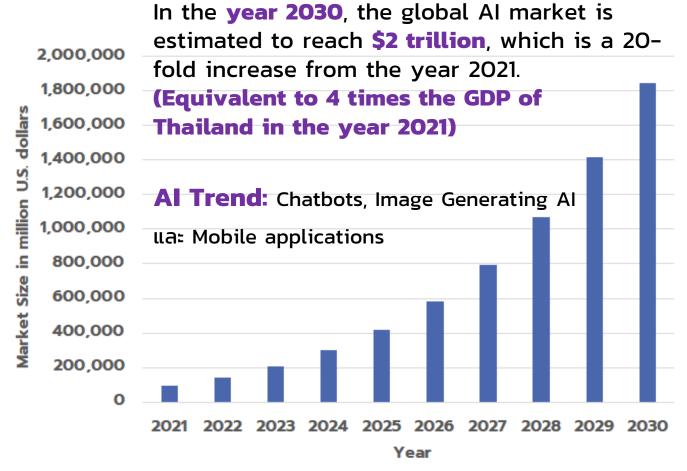


# **Outline**

- Background
- Al Landscape in Thailand
- NAIS & Thailand AI Ecosystem
- 1 Year Progress
- Next Steps

# Background

### The growth of the global AI economy



Source: Statista 2023 (<a href="https://www.statista.com/statistics/1365145/artificial-intelligence-market-size">https://www.statista.com/statistics/1365145/artificial-intelligence-market-size</a>)

### **26 July 2022**

Thailand NAIS received approval from cabinet

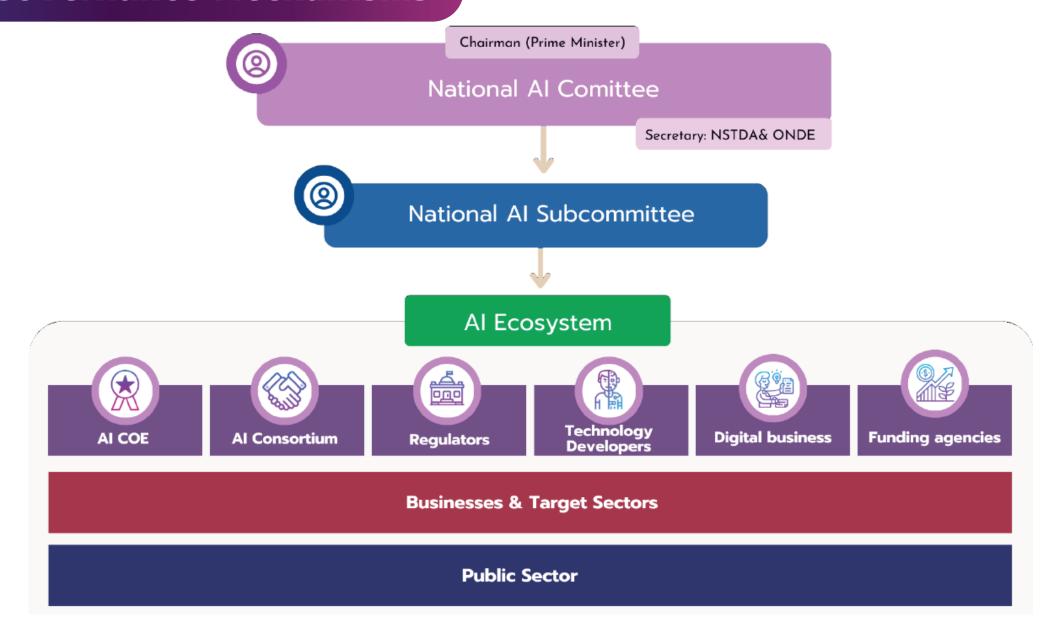
### **\* 17 August 2022**

Appointment order of "National AI committee" (the driving committee for AI Strategy)





# **Governance Mechanisms**



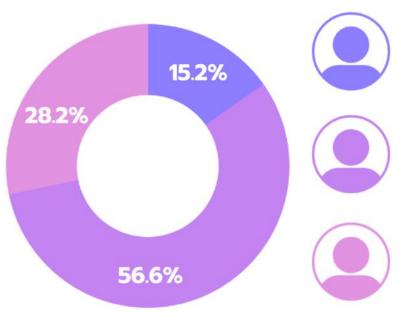


Al Landscape in Thailand



# Al Adoption Trends in Thailand: The Year 2023

## **Proportion of AI Adoption**



15.2%

**Already Adoption** 

Used by 86 organizations

56.6%

**Under Consideration** 

Planned to use 320 organization

**28.2%**No Need Now

Still no demand & additional support is needed for 159 organization

Survey results from 565 Thai organizations (Survey sent to 3,529 organizations)

# Purposes of applying AI

**50%** 

To increase the production or service efficiency of the organization

To apply for management within the organization





36%
To increase income for the organization



### Reasons for non-users of Al

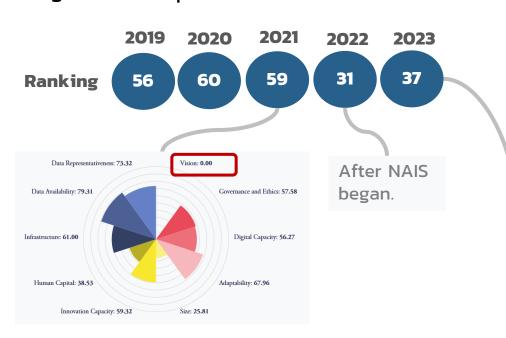
- Under studying 50.4%
- ❖ Not a priority 19.3%
- **❖** Under resource 18.5%



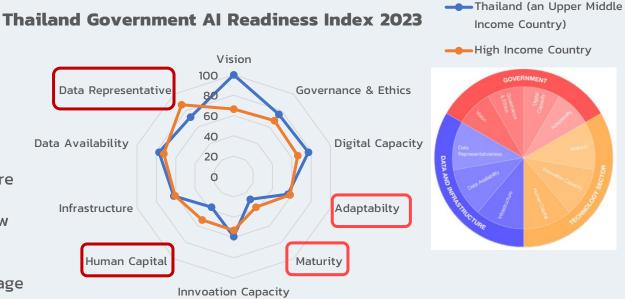
## **Government AI Readiness Index: Thailand's Status**



**Government AI Readiness Index** aims to provide valuable insights for effective & responsible AI integration into public services.



Year	Global Position	Overall Score	Government	Technology Sector	Data & Infrastructure
2023	37 (from 193)	63.03 (44.94)	77.21 (45.65)	41.33 (34.08)	70.55 (55.10)
2022	31 (from 181)	64.63	76.77	38.70	78.42
2021	59 (from 160)	52.63	45.45	41.22	71.21
2020	60 (from 172)	48.16	38.70	40.76	65.01



- **Overall:** Technology Sector has the lowest score; Data & Infrastructure shows a reduction from 2022.
- **Income**: Compared to High-Income Countries, Thailand remains below average level in Human Capital, Data Representation, Maturity, & Adaptability.
- Regional: Among 17 East Asia countries, Thailand is still below average level in Human Capital and Data Representation.

# Real Challenges

 Limited number of experienced human resources

 No data Not enough data Human Data Data fragmented Resource Data inaccessible Belief **Business** 

 Small number of inhouse-development businesses



NAIS & Thailand AI Ecosystem



# **NAIS:** 5 strategies

# 5 Strategies

15 Work plans

THAILAND

**Thailand National Al Strategy** 

### **Vision**

Thailand has an effective ecosystem to promote Al development and application to enhance the economy and quality of life within 2027.

AI Ethics. Law. and Regulation

- Developing law, standards, and policy
- Driving awareness and education for AI Ethics

Creating Al expert networks

Infrastructure

- Creating a national platform for advanced data analytics and management
- Creating a national AI service platform
- Developing High Performance Computing (HPC) infrastructure

Manpower

- Improving AI education and knowledge creation at all levels
- Al Scholarship programs
- Cooperation with international researchers and experts

Al Research. Development, and Innovation

- Applying AI technology and innovation for target sectors
- Developing AI core technology and platform

**Application** 

- Promoting Al use in government sector
- Promoting AI use in target industries
- Promoting system integrator industry with AI capability
- Developing mechanisms & sandboxes for business innovation and Al startup



600 agencies use Al innovation

### **Key Indicators:**



600,000

Thai citizens

have awareness of AI ethics. An Al law/regulation is enforced.



Increase in Al investment 10% per year

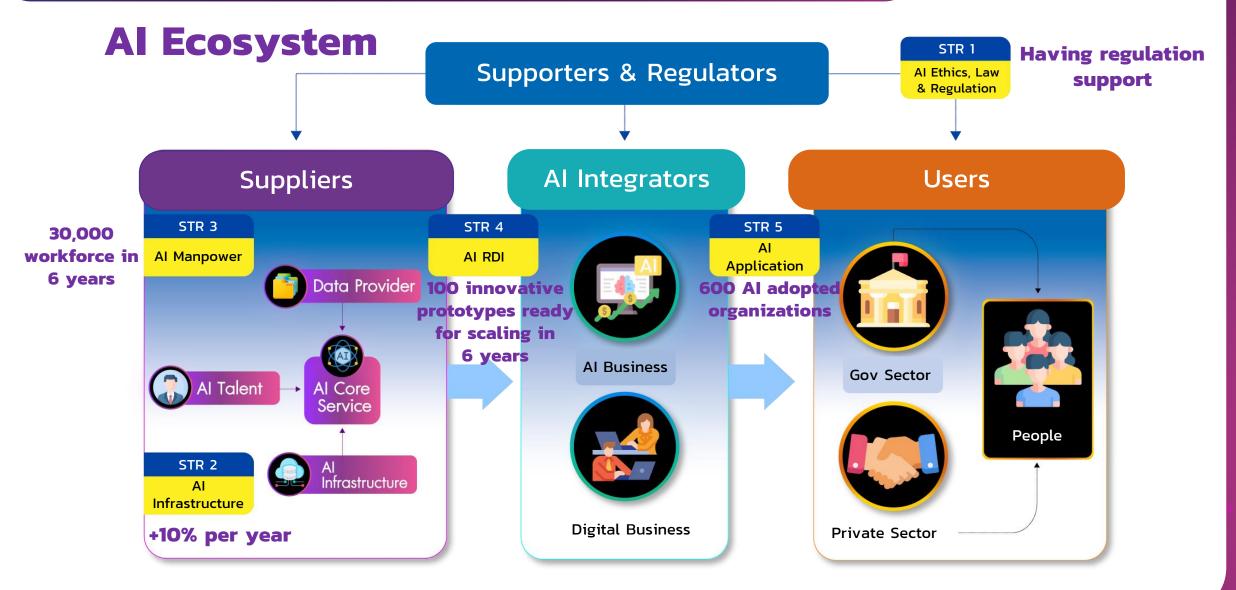
Creating 30,000 Al talents

Creatina 100 innovative prototypes

with business & social impact of 48 billion Baht



# NAIS: Fill Up the Thailand AI Ecosystem



# **NAIS: 10 Target Sectors**

Smart tourism area



opportunities



1 year Progress



# STR1: Al Ethics, Law & Regulation

### 1) Thailand AI Ethics Guideline

By Office of the National Digital Economy and Society Commission (ONDE), Chulalongkorn University & Thammasat University

Developed the first **Thailand AI Ethics Guideline** to inform researchers, developers, service providers, and AI users about the operating procedures and usage rights for AI services.





### Al Awareness

- Developed a self-paced ethics course.
- Individuals from all over the country have completed the training (4,112 in the theoretical part (online) & 1,229 in the practical part."

### 2) Opening of Al Governance Center (AIGC)

By Electronic Transactions Development Agency (ETDA)





Al Governance Center (AIGC) by Electronic Transactions Development Agency (ETDA) launched in Nov 2022 will serve as a central hub for

#### 4 Missions

- Developing AI Governance frameworks
- Providing consultancy in AI implementation
- Cultivating and disseminating knowledge and research outcomes
- Building a network of experts both locally and internationally.

### 3) Drafted AI Law



# **STR2: Al Infrastructure**

## **HPC**

**LANTA HPC** at National Science and Development Agency (NSTDA) completely installed by the end of 2022, LANTA HPC ranks 70<sup>th</sup> globally and 1<sup>st</sup> in ASEAN for its high computing performance



Ready to serve for reducing country expenses in large-scale computing

### **Pilot Projects**



PM2.5 prediction Pollution ControlDepartment

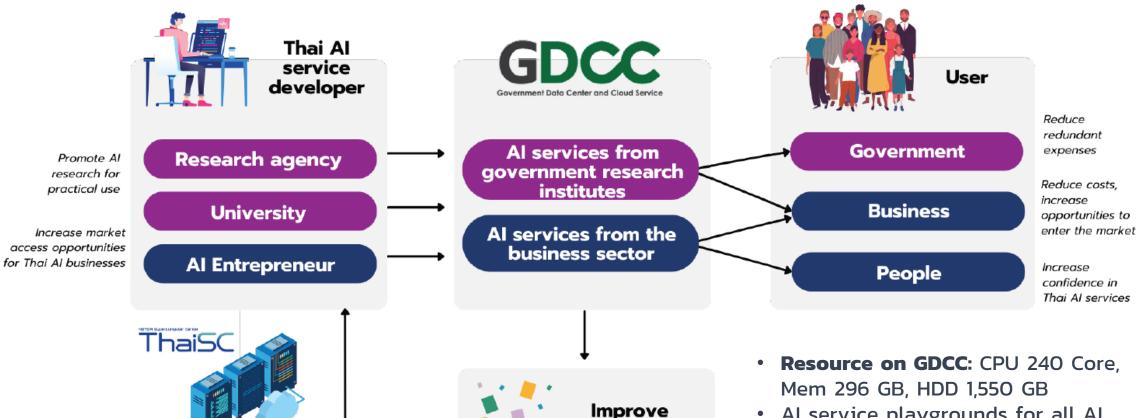


Thai large language modeling VISTEC / AIEAT



# STR2 : Al Infrastructure

## **National AI Service Platform**



**NSTDA Supercomputer** 

Create data governance

data quality

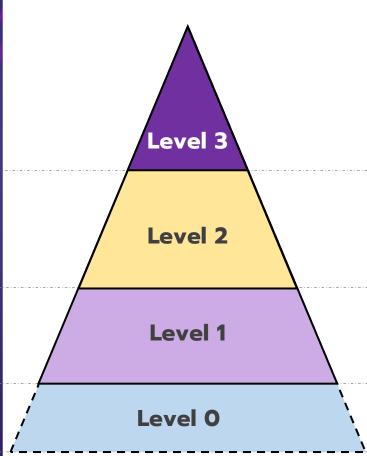
- Al service playgrounds for all Al developers
- 60+ fundamental AI services being publicly available on GDCC within 2023
- Requested for use: 800,000 times/month
- Popular services such as speech-to-text,
   Chatbot, etc.,



# **STR3: AI Workforce Development**

### Overview of the National AI Workforce Development Program





### **Level 3 1,000 AI Profession**

Researchers and developers on deep AI technology, algorithm, or core engines

### **Level 2 9,000 AI Engineers**

Developers on AI tools, applications, or service platforms

### **Level 1 20,000 Al Beginners**

Users of available AI tools or services

### **Level 0: Al Literacy**

People with Al Literacy

# AI @

# **University**

Research & Community Universities

### AI @ Lifelong Learning

Non-degree Workers & **Entrepreneurs** 

**National Credit Bank** 

AI @ School

Primary,

Secondary &

Vocational

**Schools** 

Note: Al Workforce Development aligns with the plan proposed to the National Al Committee. The committee has approved in principle a budget framework of 1,000 million baht (approximately 300 million baht x 3 years) to support all levels, for consideration to be presented to the National Science, Research and Innovation Fund.





# STR4: Al Research, Development & Innovation

# Thai People Map and Analytics Platform (TPMAP)



#### **Data Sources**



Community Development Department



Ministry of Finance



Department of Local Administration Ministry of Social Development and Human Security

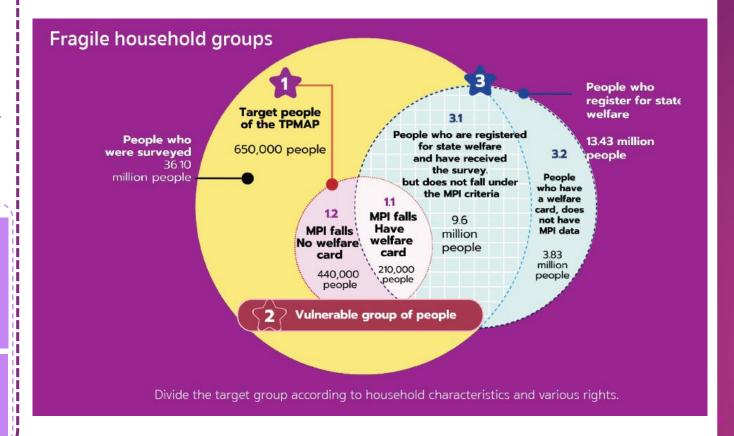


Driving poverty
eradication and
developing people of all
ages based on empirical
data - Al introduced for
more precise targeting of
poverty/fragile people

#### **Outcomes**

Government agencies in 76 provinces use poverty alleviation support systems through local projects.

Main data of Poverty Eradication and Life Cycle Development (PELCD)





# STR4: Al Research, Development & Innovation

# **Medical AI Data Sharing Platform**

#### "Medical AI Consortium"



#### Department of Medical Services

- Support medical information
- Define AI research and development questions
- Expand the benefits of Al



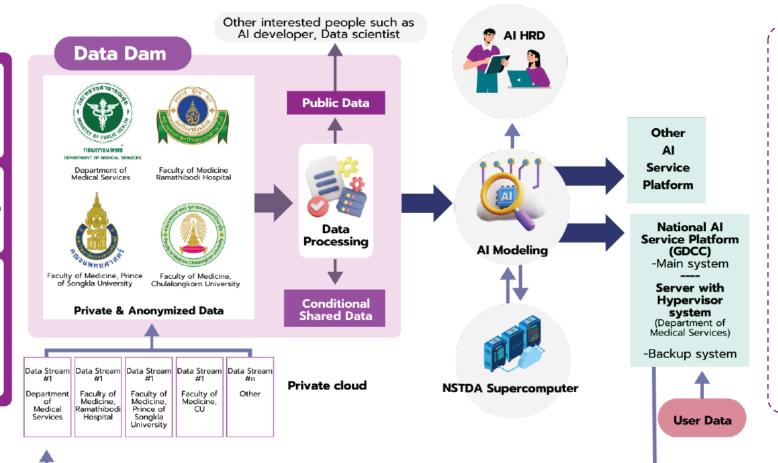
#### Faculty of Medicine Ramathibodi Hospital

- · Support medical information
- Research and development
- Expand the benefits of Al

#### NSTDA



- Research and development (NECTEC -NANOTEC)
- Consortium Management (RDI)



#### **Outcomes**

Medical Al Consortium

Standardized medical data: Chest X-ray images, retinal images & Mammogram totaling over 1,000,000 images.

By Department of Medical Services, Faculty of Medicine: Ramathibodi Hospital, NSTDA & PMU-B



## Outputs and significant outcomes of NAIS between 2022 to 2023



Human capacity
development in AI through
various projects & curriculum
frameworks (all levels)

83,721 participants



**Research and development projects** in Al funded by the R&D fund

1,290 million baht

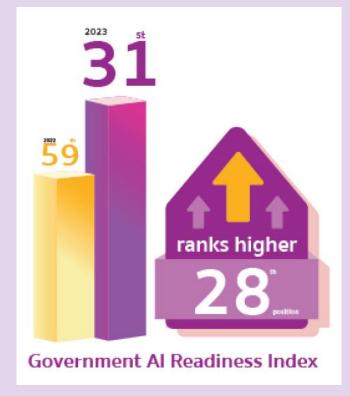


**Startup** invests more due to government promotion

**639** ล้านบาท

### **Thailand's Government AI**

**Readiness Index** of Thailand has risen to the 31<sup>st</sup> position in 2023, up from its previous ranking of 59<sup>th</sup> in 2022.



Note: Oxford insights survey 160 & 181 countries in 2022 & 2023, respectively.



# **Collaborative organization driving Thailand NAIS**

**Ministry** 

































**Government agencies** 



























**Educational institution** 















**Association/Confederation** /Foundation















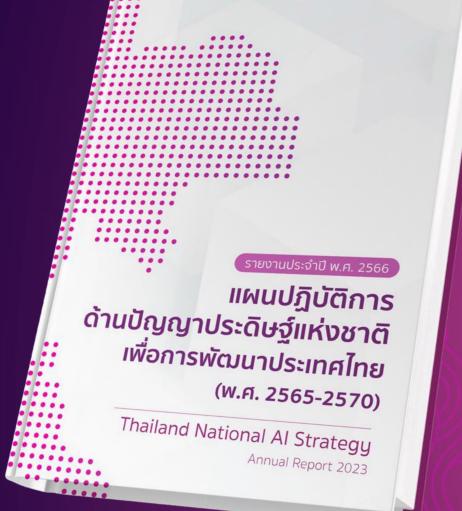


# Performance and key results between 2022 - 2023









AI THAILAND



**Next Steps** 



# Al technology development focusing on 10 sectors



opportunities

Smart tourism area



# **Current operational status**

**S1** 

- Al Governance clinic (AIGC)
- Thailand AI Ethics Guideline
- Al Awareness
- Thailand AI Guidelines 1.0 (2022)
- Al Governance Guideline for Executives (2023)
- Regulatory framework for the Use of AI/ML in the capital market (2023)
- Al GovernanceCenter (AIGC Plus)
- Al Literacy

**S2** 

- Al service platform on the GDCC
- Super Computer
  - Al Standard
    and Testing
    Center
    (Biometric
    identification)

**S3** 

- Subcommittee Al Workforce
   Development
- Approved Al workforce development project proposal (drafted) on July 17, 2023
- Al workforce development: 5 projects
  - 1. Al Sandbox Degree
  - 2. Al Degree
  - 3. Non-Degree (general public)
  - 4. Non-Degree (State personnel)
  - 5. Connector to National Credit Bank

**S4** 

- Medical AI Data
   Sharing Platform
- TPMAP: targeting of poverty/fragile peopl
- Travel Link: Tourism Information System
- Thai Large Language Model
- Fraud Detection
- Al-based Machine
   Vision in Industry
- Al for Crop Prediction

**S5** 

- Innovation& StartupPromotion
- Al Cocreation space

International Visibility/Collaboration

- OECD
- ASEANDigital (MDES)& ASEANCOSTI (MHESI)
- UNESCO
- Hiroshima Al Process

S

Strategy

Phase I/ continue from Phase I



In progress



# Thailand NAIS Flagship projects, Phases 2 (Project Set 1)

# Key challenges according to the strategies and target sectors





















#### **Tourism**

### **Travel Link**

Enhance Thailand's Tourism Potential: A Central Hub for Data Linkage and Services



Strengthening
Fraud
Detection
Ecosystem
with AI AOC
Data Lab



Al Governance Center (AIGC

**Plus)** Operational center for AI application with ethical considerations, the center elevating from AIGC



# Research & Development

Thai LLM
Creating a
Generative AI
model supporting
the Thai
language

# Security Biometric Verification and evaluation of

Safety &

evaluation and evaluation of personal identity from biometric data

### Manufacturing

**AI-based** 

Machine Vision
Image analysis in
manufacturing
industry













# Thailand's AI Collaborations on the World Stage (Examples)

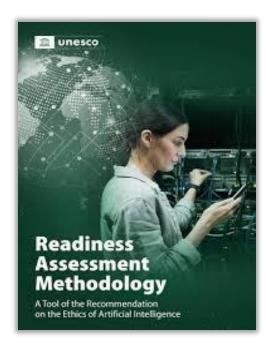
#### **OECD**

Thailand joining the Working Party on Al Governance (AIGO) and in the process of adhering OECD Recommendation on Al



#### **UNESCO**

Thailand preparing to adopt UNESCO Readiness Assessment Methodology (RAM) on Al Ethics, and to be the host country for the Global Forum on the Ethics of Al 2025



#### **Hiroshima Al Process**

Thailand joining
Hiroshima Al Process
Friends Group to study
Hiroshima Al Process
Comprehensive Policy
Framework





# เชื่อมระบบนิเวศปัญญาประดิษฐ์ ยกระดับคุณภาพชีวิตคนไทย

Integrate AI ecosystem for Thai better living





