AI THAILAND

Integrate AI ecosystem for Thai better living

Annual Report 2024

Thailand National AI Strategy and action plan

(2022-2027)

Annual Report
Thailand National AI Strategy and action plan (2022-2027)
Annual Report 2024

Ministry of Higher Education, Science, Research and Innovation
Ministry of Digital Economy and Society

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Executive Summary

Since late 2022, Artificial Intelligence (AI) technology has become a global trend, anticipated to be a new economic and social tool for the world. The launch of ChatGPT by OpenAI marked the beginning of a shift from Artificial Narrow Intelligence (ANI), AI that operates within limited scopes, to progress toward Artificial General Intelligence (AGI), AI that can perform a wide range of tasks with increasing similarity to human capabilities. This has led to diverse benefits, such as managing large-scale data, conducting deep data searches, answering questions in human language, and efficiently creating content and media. Simultaneously, it has brought risks from the unethical production or use of AI, which could create widespread problems, ranging from displacing human labor and personal data breaches to cybercrime.

Thailand is considered to be keeping pace with the AI trend. The "Thailand National AI Strategy and Action Plan 2022 - 2027 (NAIS)" was approved by the Cabinet on July 26, 2022. It has been driven for two years by the joint secretariats: the National Science and Technology Development Agency (NSTDA, Ministry of Higher Education, Science, Research and Innovation (MHESI), and the Office of the National Digital Economy and Society Commission (ONDE , Ministry of Digital Economy and Society (MDES).

After the two years of driving the 1st phase of the NAIS, operations have been successfully implemented, aligning with all five strategies as follows:

Strategy 1: Promoting AI Governance. In addition to ethical guidelines, several manuals have been issued to promote understanding of ethical AI development and practice, as well as identifying agencies responsible for studying the necessity of drafting AI legislation.

Strategy 2: AI Infrastructure. This includes the launch of LANTA, the largest supercomputer in ASEAN, and preparation of National AI service Platform for the public sector on the Government Data Center and Cloud (GDCC) infrastructure network.

Strategy 3: AI Workforce Development. Considered as the most essential part of the plan, it has continuously implemented AI engineer development programs both within the higher education system through the AI Engineer Institute (AIEI) consortium and outside the formal education system via the Super AI Engineer project (annually program start from 2021, currently, it is in the 4thyear). This also includes preparations for AI courses in basic and vocational education.

Strategy 4: Research and Innovation in Target Industries. The 1st phase focused on two areas: (1) using AI to enhance the efficiency of country-scale population data analysis for strategic planning by the Office of the National Economic and Social Development Council and (2) establishing a collaborative network for collecting and distributing large-scale medical data to promote comprehensive development of AI tools in the medical sector.

Strategy 5: Promoting AI Adoption. This is achieved by building collaborative networks with various sectors, such as the AI Entrepreneurs Association of Thailand (AIEAT) and the AI user group association, as well as corresponding government agency to formulate supporting mechanisms for AI adoption in both Thai private and public sectors.

Due to the change in government cabinet in 2024, there were delays in public budget allocation. Nevertheles s, agencies involved in the NAIS have still proceeded operations continuously. This has led to the implementation of at least six pilot projects in the next phase: upgrading the AI Governance advisory center, performing research and development of a Thai Large Language Model (Thai LLM) to be released as open source to promote further application, developing Biometrics standards testing services, analysis and using of large-scale tourism data, using AI to elevate the manufacturing industry, and using AI for financial fraud detection and prevention. Furthermore, the Ministry of Higher Education, Science, Research and Innovation (MHESI) has supported the advancement of the NAIS, particularly in the education sector, aiming to use AI to elevate non-formal education.

According to the Government AI Readiness Index by Oxford Insights, although Thailand's rank improved from 59th in 2021 to 31st in 2022, it dropped to 37th in 2023. This indicates the escalating global competition in AI. The ranking data shows that Thailand needs to accelerate development in at least three areas: urgent manpower development, promotion of large-scale open data, and domestic technology research and development. Participation in international forums such as Organisation for Economic Co-operation and Development (OECD) and United Nations Educational, Scientific and Cultural Organization (UNESCO) will provide Thailand with opportunities to demonstrate its stance and progress in AI, thereby promoting investment and economic growth, alongside using AI to improve the quality of life for Thai people as intended.

02

Background and Significance

Since late 2022, Artificial Intelligence (AI) technology has become a global trend, anticipated to be a new economic and social tool for the world. The launch of ChatGPT by OpenAI marked the beginning of a shift from Artificial Narrow Intelligence (ANI), AI that operates within limited scopes, to Artificial General Intelligence (AGI), AI that can perform a wide range of tasks with increasing similarity to human capabilities. This has led to diverse benefits, such as managing large-scale data, conducting deep data searche s, answering questions in human language, and efficiently creating content and media. Simultaneously, it has brought risks from the unethical production or use of AI, which could create widespread problems, ranging from displacing human labor and personal data breaches to cybercrime.

Thailand is considerably keeping pace with the AI trend. The "Thailand National AI Strategy and Action Plan 2022 – 2027 (NAIS)" was approved by the Cabinet on July 26, 2022. It has been driven for two years by the joint secretariats: the National Science and Technology Development Agency (NSTDA), Ministry of Higher Education, Science, Research and Innovation (MHESI), and the Office of the National Digital Economy and Society Commission (ONDE), Ministry of Digital Economy and Society (MDES).

This report presents the progress of the implementation of NAIS during 2024 by key government driving agencies.

03

Status of AI Application in Thailand

1. Report on the Status of AI Application

The Electronic Transactions Development Agency (ETDA), Ministry of Digital Economy and Society (MDES), in collaboration with the National Science and Technology Development Agency (NSTDA), Ministry of Higher Education, Science, Research and Innovation (MHESI), announced the results of the study on readiness for the application of AI for digital services for the year 2024 on October 3, 2024.

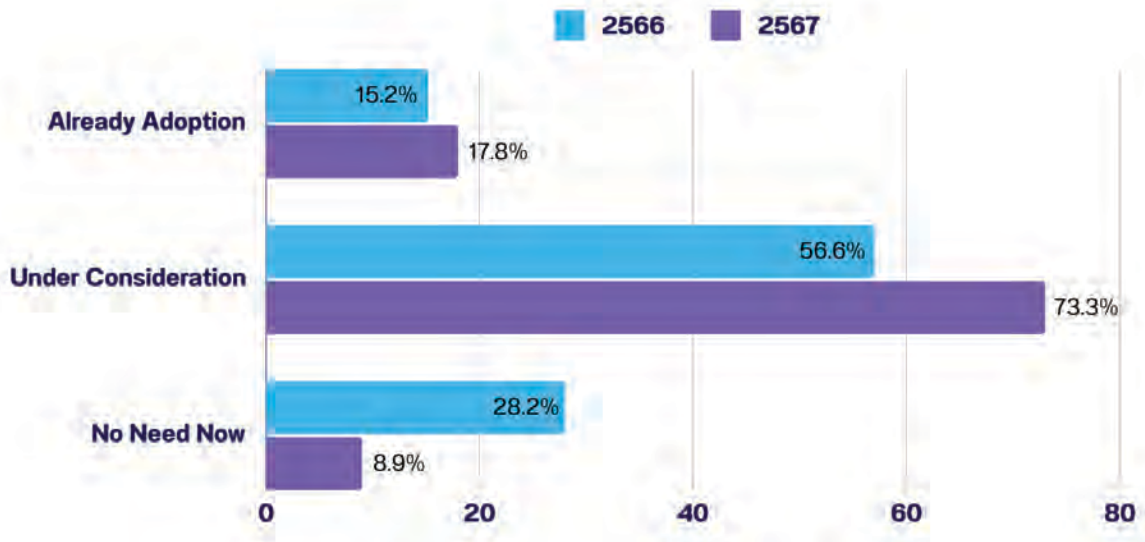
Organizational readiness assessment uses 5 measurement dimensions:

1. Organizational Strategy and Capability
2. Data and Infrastructure
3. Human Resources
4. Technology
5. Governance

This study updated 13 indicators from last year across the 5 measurement dimensions: (1) Organizational Strategy and Capability, (2) Data and Infrastructure, (3) Human Resources, (4) Technology, and (5) Governance. The survey was conducted among public and private sector organizations in the 10 groups specified in the NAIS. The assessment results according to these dimensions categorize organizational readiness into 4 levels: Unaware = not yet aware/in the initial learning phase, Aware = aware and beginning to use AI, Ready = ready to use AI, and Competent = solid AI usage.

The study surveyed a sample of 3,758 organizations over 75 days (July-September 2024), with 580 responses received. **It was found that 17.8% of organizations have already implemented AI, which is slightly higher than last year.** Organizations planning to use AI in the future accounted were 73.3%, and those with no plans to use AI were 8.9%. **Based on these findings, Thai organizations are expected to dramatically increase their pace of AI adoption.**

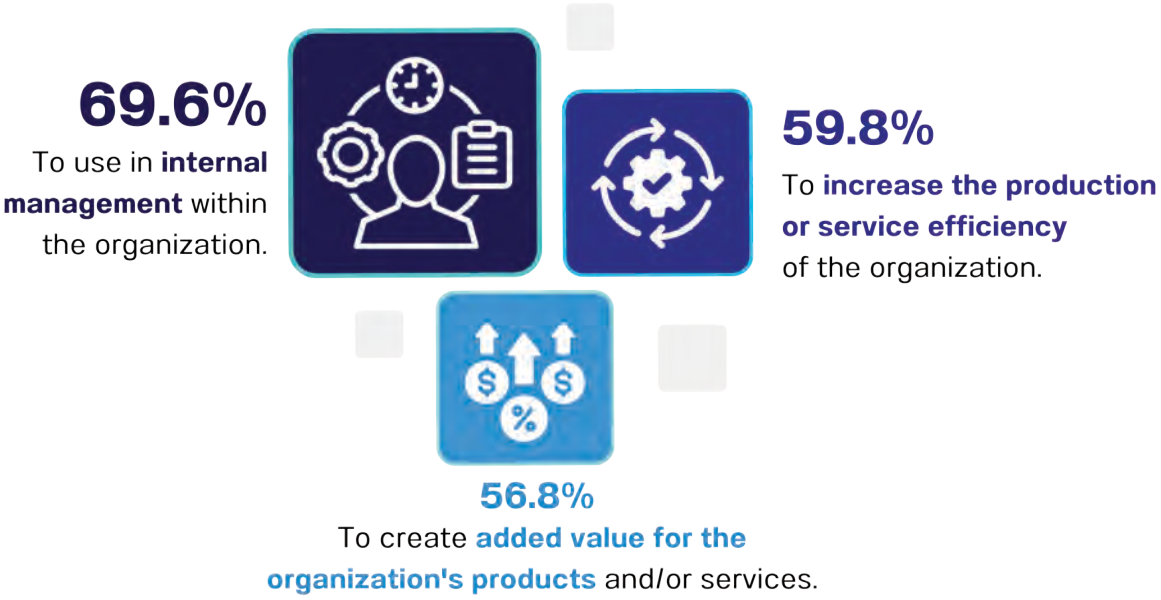
Proportion of AI Application



2. Readiness for AI Application within Organizations

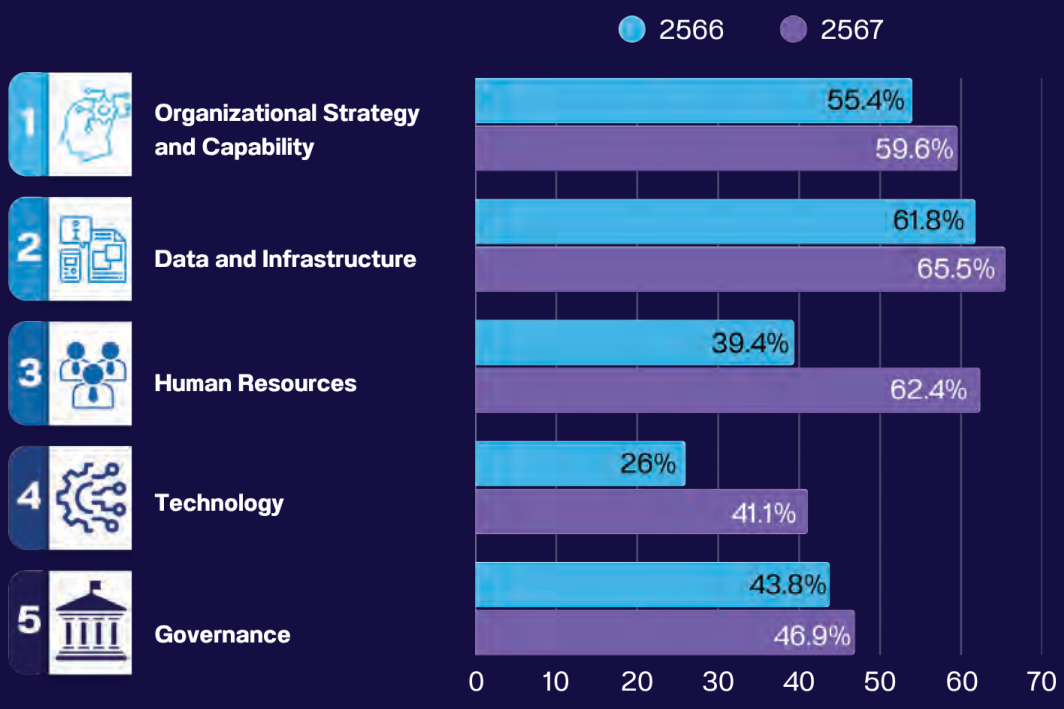
For organizations that have already adopted AI (Already Adoption - 17.8% of the sample), have top three key objectives:

1. To use in internal management within the organization.
2. To increase the production or service efficiency of the organization.
3. To create added value for the organization's products and/or services.



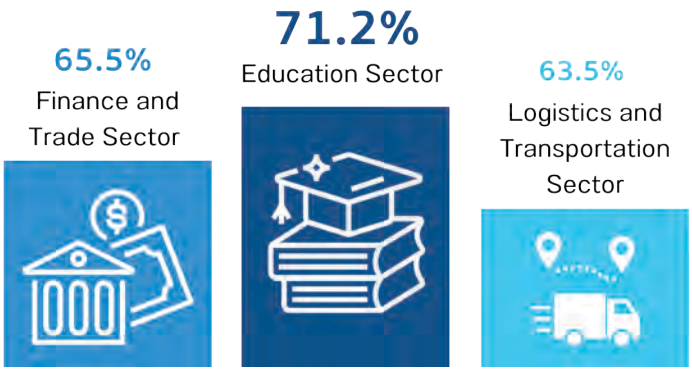
For organizations that have an average readiness score of 55.1%, aligning with the "Aware" level. This means the organizations have recognized the importance of AI technology and began applying AI to create added value for their products and/or services.

Readiness for AI Application specifically for the AI Adoption group



When considering each Pillar separately, the strongest Pillar is Data and Infrastructure (comprising data format and quality, and the digital infrastructure necessary for AI use), with an average readiness score of 65.5%, classified as "Aware". The sectors with the highest readiness levels are Finance and Trade, Logistics and Transportation, and Education. Key contributing factor to the highest readiness score is the data dimension. **This highlights the growing awareness in Thailand in recent years about the importance of Big Data and the potential of data analysis from various perspectives aligned with organizational interests.** The Pillars with the next highest average scores are Human Resources, Strategy and Capability, Governance, and Technology, respectively.

Organizations that have not yet adopted AI cited the top three reasons: (1) Still learning about AI and how to apply it; (2) Awaiting executive decisions to recognize the necessity of AI adoption; and (3) Requiring financial support and needing to consider effective investments that can fully utilize AI's potential.



Top 3 industries by readiness score in 2024

3. Interesting Issues and Trends from the 2024 Study

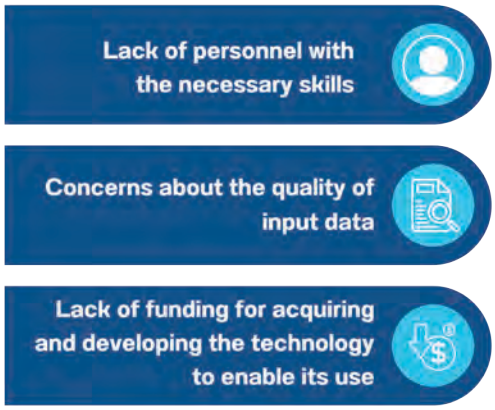
Interesting issues and trends from this year's study relate to Generative AI. Organizations are using Generative AI to support work across various areas. The top three applications are: (1) Product or service development, (2) Marketing, sales, and customer service, and (3) Production processes.

The key obstacles to using Generative AI include: (1) A lack of personnel with the necessary skills, (2) Concern about the quality of input data , and (3) Lack of funding for acquiring and developing the technology to enable its use.

An additional noteworthy finding is that no organization plans to entirely replace human employees with Generative AI, even in tasks that could be automated. Instead, the focus is on developing employees' skills to work more effectively alongside Generative AI.

Top 3 tasks organizations use Generative AI to support:

Top 3 key obstacles in using Generative AI:



Based on the survey results, the following recommendations are proposed to support preparation across various areas:

1. Human Development: Promote AI skill development at all levels by producing more AI talent (e.g., AI engineers), creating relevant curricula, and establishing professional AI skill qualifications. This also includes enhancing AI literacy and raising awareness of AI governance.

2. AI Cost and Productivity: Reduce the cost of AI adoption through government subsidies and encourage the cost-effective use of AI technologies.

3. Ethics and Governance: Develop AI governance guidelines and an AI risk management framework to ensure responsible AI use.

4. Consultancy Services: Raise awareness of AI and support the expansion of the AI ecosystem through initiatives such as specialized consulting centers (e.g., AI Consulting Clinics), AI service testing and registration centers, and AI readiness measurement reports.

4. AI Projects of Government Agencies

In the fiscal year 2024, there were 95 AI-related government projects with a total budget of 4.962 billion Baht, implemented by 48 agencies (department level). These projects covered areas such as infrastructure development, human resource development, AI research and development, and the development of AI laws/standards/regulatory guideline mechanisms for AI to prepare for the expansion of AI applications.

	2020	2021	2022	2023	2024
Number of Projects	63	93	144	122	95
Total Budget (Baht)	2,437,939,297	4,274,959,187	6,410,804,906	7,354,569,155	4,962,042,144
Dept. Level Agencies	38	47	67	68	48
Div. Level Agencies	48	68	98	83	68

Data from the Source: Data from Electronic Monitoring and Evaluation System of National Strategy and Country Reform (eMENSCR)

It is noted that the budget for government AI projects in 2024 has decreased compared to the previous year, primarily due to the high level of AI infrastructure investment made in the previous year 2023, which was reduced in 2024.

5. Organizations in Thailand AI Ecosystem

Source: Artificial Intelligence Entrepreneur Association of Thailand

04

Overview of Thailand National AI Strategy and Action Plan

2022 -2027

Vision

Thailand has an effective ecosystem to promote AI development and application

to enhance the economy and quality of life within 2027

Objectives

- To develop human capacity and technology
- To create economic growth
- To create social and environmental impact

5 Strategies

15 Work plans

1 AI Ethics, Law, and Regulation

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

2 AI Infrastructure

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

3 AI Workforce

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

4 AI Research, Development, and Innovation

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

5 AI Application

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

Key Indicators:

600,000
Thai citizens
have awareness of AI ethics.
An AI law/regulation
is enforced.

Increase
in AI investment
10% per year

Creating
30,000
AI talents

100 innovative prototypes
with business & social impact of
48 billion Baht

600 agencies
use AI innovation

AI Development in 10 Target Sectors

To enhance the competitiveness of the Thai economy and promote the adoption of AI technology for service development, meeting the needs of businesses, as well as developing knowledge and preparing for the development of AI technology in the country to support the future growth of AI businesses, the AI Action Plan has set the scope of AI technology application focusing on 10 industries, namely:

1st phase target group (2022 - 2023)

1. Government administration, Government services

2. Digital farm, Food quality

3. AI in self-care, Chronic disease, Medical assistant

2st phase target group (2024 - 2027)

4. Credit scoring, CRM

5. Intelligent transportation, Transport map

6. Public surveillance platform, Crime responsesystem, Cyber security

7. Smart guidance and planning, Tourism service quality, Smart tourism area

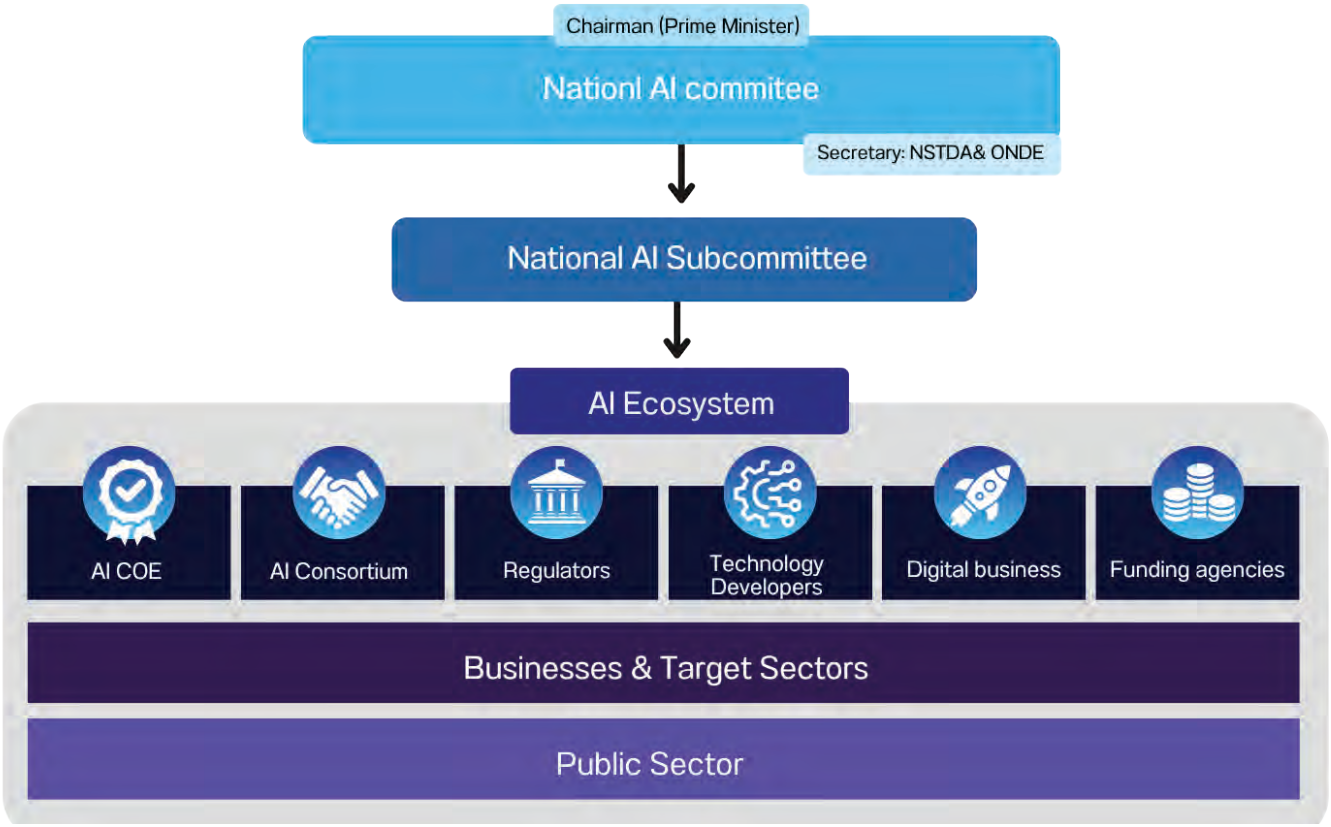
8. Smart education, Geography of educational opportunities

9 Energy management, Environmental geospatial analytics

10. Smart manufacturing, Industry assessment and testbed

05

Driving Mechanisms of Thailand National AI Strategy and Action Plan 2022 -2027



The mechanism for driving the NAIS is spearheaded by the National AI Committee (NAIC). The Prime Minister serves as the Chair, and the committee includes members from both government and private sector agencies.

The NAIC has the authority to appoint subcommittees, working groups, and advisory committees to assist in driving and advancing the NAIS, aligning with the relevant components of Thailand's AI ecosystem.

National AI Committee

Performed duties from December 2022 to August 2023

Chairman:	Prime Minister
Vice Chairman:	Deputy Prime Minister assigned by the Prime Minister
Committee Members and Secretaries:	Director of the National Science and Technology Development Agency (NSTDA), jointly with the Secretary-General of the National Digital Economy and Society Commission (ONDE)
Assistant Secretaries:	Director of the National Electronics and Computer Technology Center (NECTEC), jointly with the Director of the Digital Technology Infrastructure Division

Committee Members

9 Permanent Secretaries from the following Ministries:

1. Ministry of Finance
2. Ministry of Higher Education, Science, Research and Innovation
3. Ministry of Agriculture and Cooperatives
4. Ministry of Digital Economy and Society
5. Ministry of Commerce
6. Ministry of Labour
7. Ministry of Education
8. Ministry of Public Health
9. Ministry of Industry

5 Related Government Agencies:

10. Director of the Budget Bureau
11. Director of the Program Management Unit for Competitiveness (PMUC)
12. Director of the Electronic Transactions Development Agency (ETDA)
13. Director of the Digital Government Development Agency (DGA)
14. Chairman of the Council of University Presidents of Thailand (CUPT)

4 Related Private Sector Agencies:

15. Chairman of the Federation of Thai Industries (FTI)
16. Chairman of the Thai Chamber of Commerce and Board of Trade of Thailand
17. Chairman of the Thai Bankers' Association
18. Chairman of the Digital Council for Economy and Society of Thailand

3 Expert Committee Members:

19. Assoc. Prof. Dr. Piyabutr Bunaramrueang, Faculty of Law, Chulalongkorn University
20. Assoc. Prof. Dr. Tiranee Achalakul, Digital Economy Promotion Agency (depa)
21. Dr. Kobkrit Viriyayudhakorn, AI Entrepreneurs Association of Thailand (AIEAT) and Artificial Intelligence Association of Thailand (AIAT)

Currently, a proposal is being submitted to the Prime Minister to review the appointment order for the new steering committee. Preparations are also underway to propose the appointment of important subcommittees to the steering committee, such as the Subcommittee on AI Workforce Development and the Subcommittee on AI Economic Development and Promotion.

06

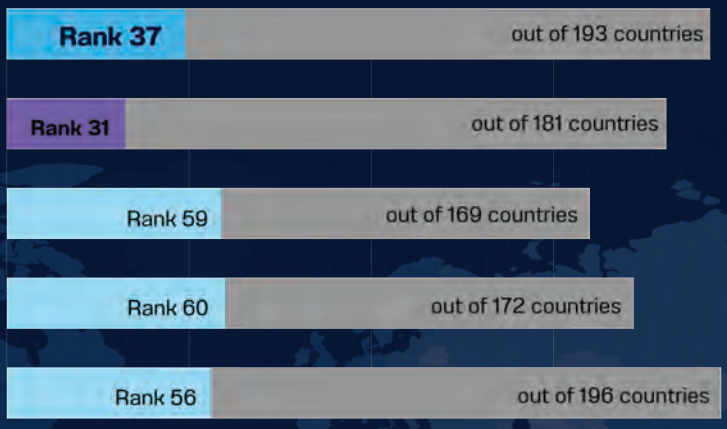
Key Performance Indicator Results

1. Government AI Readiness index

In the 2023 Government AI Readiness Index ranking, Thailand maintained its position among the top 40 countries globally amidst intensified competition and an increased number of participating countries. Thailand ranked 37th out of 193 countries, although this was a drop of 6 places from the previous year's rank of 31st out of 181 countries.

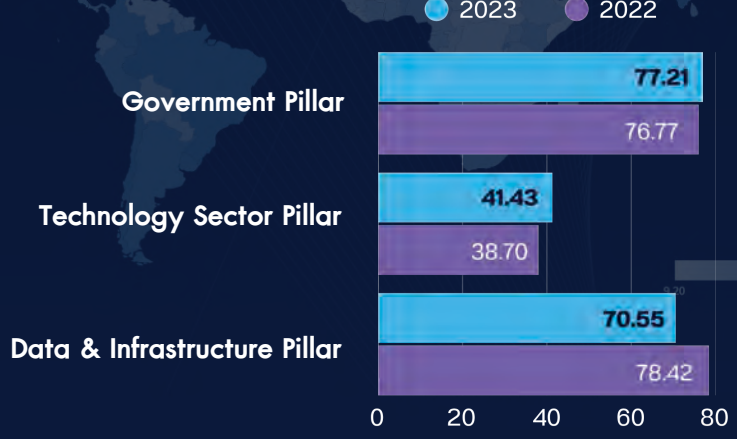
From in-depth review, Thailand's strengths lie in the Government Pillar (scoring 77.21) and the Data & Infrastructure Pillar (scoring 70.55), reflecting the readiness of government mechanisms and infrastructure systems to support AI development. Meanwhile, the Technology Sector Pillar scored 41.33, which, although this was higher than the previous year, it remained a crucial area where Thailand needs further development to enhance its overall national AI capabilities in the long run.

Thailand's AI Government Readiness Index Ranking (Past 5 Years)



Thailand's AI Readiness Index Score Details

(Bar chart shows the comparison of 2022 and 2023 scores)



ที่มา: oxfordinsights

2. Achievements in Workforce Development

AI workforce development through various projects and curricula of network agencies, including DGA, DEPA, AIAT, and NECTEC, achieved a total of 113,438 participants in training programs in the past year. In terms of degree-based workforce development, the AI Engineering Institute (AIEI), a network of 6 leading Thai universities led by CMKL University in collaboration with King Mongkut's Institute of Technology Ladkrabang, Mahidol University, Chiang Mai University, Prince of Songkla University, and Khon Kaen University, offers 14 AI-related degree programs (Bachelor's, Master's, and Doctoral levels). The total number of students enrolled is 1,214. According to statistics from the Ministry of Higher Education, Science, Research and Innovation (MHESI) (https://info.mhesi.go.th) , there are 21 direct AI-related programs (all degree levels) with a enrollment of 1,563 students, and 695 Computer-related programs (all degree levels) with an enrollment of 115,045 students.

3. Support for AI Research and Development Projects

In 2024, 592 AI-related projects were supported with a total budget of 1,043.04 million Baht from the Science, Research and Innovation Promotion Fund (TSRI Fund), the Digital Economy and Society Development Fund, and the Broadcasting and Telecommunications Research and Development Fund for Public Interest (BTFP Fund).

Support for AI Projects

592
Projects

1,043.04
Million Baht

- TSRI Fund under Program P5 (Development and application of digital technology, AI, smart electronics, including robotics and automation systems to increase efficiency in production, services, and self-reliance): 578 projects, total project value 851.14 million Baht.
- Digital Economy and Society Development Fund: 6 projects, total project value 71.64 million Baht (for fiscal year 2023, projects opened in March 2024).
- BTFP Fund: 8 projects, total project value 120.26 million Baht.

4. Measures to Promote AI Startups and AI Startup Investment Value

The Digital Economy Promotion Agency (DEPA) has measures to promote AI products and services through assistance or subsidies for the application of technology and innovation (DEPA Digital Transformation Fund). This has encouraged the adoption of AI technology in the private sector and industry for a total of 8 entities, representing an investment value of at least 3.7 million Baht. Additionally, DEPA also supports 7 digital startups that apply AI in their products or services in their early and growth stages. This initiative promoted the development of over 50 prototype AI innovations and technologies.

Measures to Promote AI Startups and AI Startup Investment Value

07 Achievements

Strategy 1

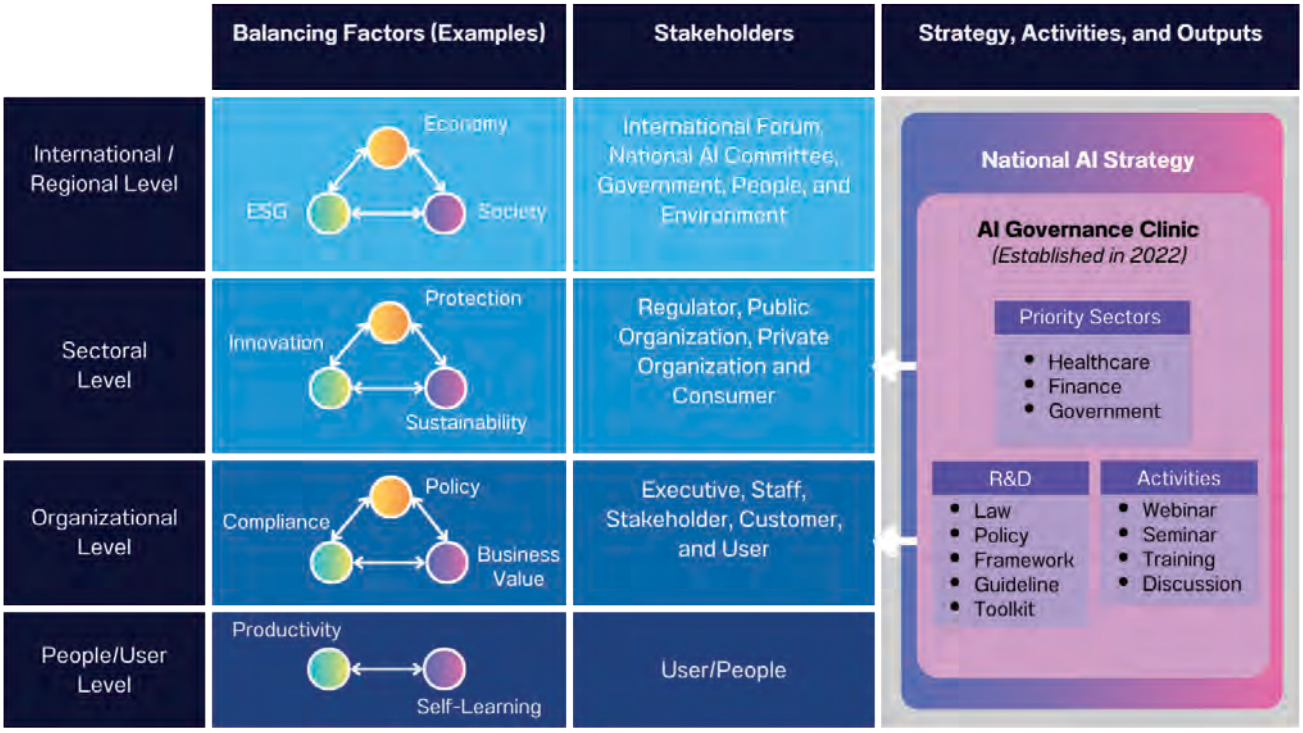
Preparing the Nation in Social, Ethical, Legal, and Regulatory Aspects for the Application of AI

1 AI Governance Center: AIGC

The Electronic Transactions Development Agency (ETDA) has advanced AI Governance Clinic's mission to be more comprehensive and changed its name to AI Governance Center (AIGC). It supports the driving of the NAIS, strengthening Thailand's capacity for ethical AI application across all sectors. It serves as the national center with the following functions:

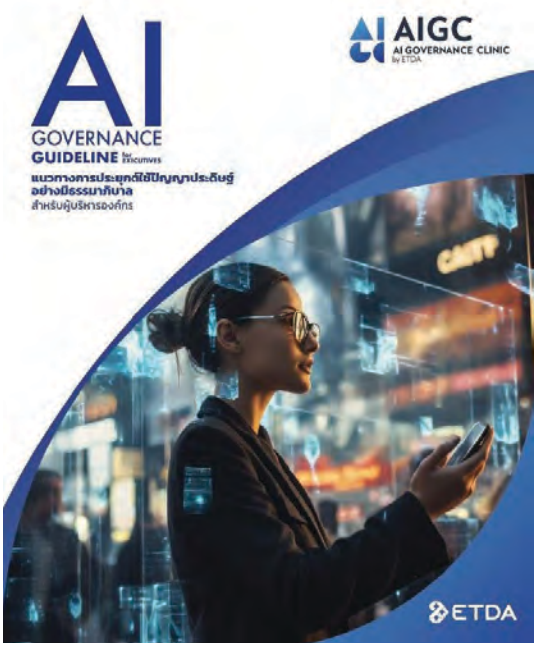
1. Performing Research and development in AI Governance.
2. Providing consultancy to organizations on applying AI reliably.
3. Creating awareness of AI Ethics & Governance.
4. Developing collaborative networks with public and private sectors, both domestically and internationally.

Thailand's AI Governance Apporch



2. Ethics & Regulation

Studied and developed a manual for guidelines on ethical AI application for organizations, along with AI Toolkits.



1. AI Governance Guideline for organizations, with AI assessment tools (Toolkits).

This is a general guideline manual for both public and private organizations to adapt for preparing their organizations for AI applications. It covers 3 important aspects:

1. Establishing an AI Governance Structure.
2. Defining an AI Strategy.
3. Governing AI-related Operations.

Additionally, tools have been developed to support widespread AI application while considering risks and impacts: 1) AI Readiness Scan (AIRS), 2) AI Use Case Canvas, 3) AI Risk Assessment.

AI Governance Framework

3-Key Components

2. Generative AI Governance Guideline for Organizations. This guideline is for executives and relevant personnel in organizations to adapt according to their organizational context. It aims to build understanding of ethical Generative AI application in consistent with relevant laws and regulations. It presents the benefits and limitations, risks, and approaches for applying Generative AI, which are considerations for organizations to balance Generative AI utilization with risk management, while promoting appropriate stakeholder engagement in various processes.

This guideline consists of 5 main parts:

1. Understanding Generative AI: Building basic understanding from definitions and related terminologies.
2. Benefits and Limitations of Generative AI: Understanding its potential, benefits, and limitations.
3. Risks of Generative AI: Understanding risk issues with appropriate management approaches.
4. Approaches for Applying Generative AI: Understanding application approaches within organizations and selecting methods suitable for the organizational context and readiness.
5. Considerations for Ethical Application of Generative AI: Establishing guidelines for ethical Generative AI application, referencing the AI Governance Guideline for organizational executives issued by AIGC under ETDA.

In the fiscal year 2024, ETDA's promotions and developments in AI Ethics & Governance, through both online and offline formats, reached a total of 37,000 individuals. Knowledge was disseminated through various activities such as: AI EXECUTIVE PROGRAM (AIX), AI Change Agent Program: AICA, AI Governance Webinars, the online course "Generative AI for Work in the Digital Age," and various academic seminars.

3. Creating AI Awareness under TH.AI Forum Activities

The Digital Economy Promotion Agency (DEPA), in collaboration with partner agencies, organized activities under the name TH.AI forum to create awareness of the trends and impacts of AI technology on various industries. Over 500 people participated in total. Other activities included AI Tools, Generative AI in daily life, how to talk to AI, and AI literacy, with over 12,000 online and onsite participants.

Additionally, activities were held to drive Thailand's AI Ecosystem and create awareness at the Southeast Asian regional level during the Techsauce Global Summit 2024. This event attracted 18,000 attendees, featured the launch of over 50 AI technologies, stimulated over 200 business matchmaking pairs, and led to more than 10 side events during the summit.

4. International Cooperation

1. Organisation for Economic Co-operation and Development (OECD)

Participation in the Working Party on Artificial Intelligence Governance (AIGO) under the OECD involved presenting progress on the NAIS and Thailand's AI regulatory approach. Contributions were also made regarding the AI Ecosystem, OECD AI Index, and reporting AI operational progress on the OECD AI database. Currently, Thailand is in the process of proposing "Adherence to the OECD Recommendation on AI," which will elevate cooperation with the OECD in AI and provide opportunities for Thailand to improve its AI readiness ranking on the international stage.

2. United Nations Educational, Scientific and Cultural Organization (UNESCO)

Participation in key UNESCO activities includes:

- Jointly implementing UNESCO's Readiness Assessment Methodology (RAM): A Tool of the Recommendation on the Ethics of AI.
- Thailand has been selected to host the Global Forum on the Ethics of AI 2025, which will enhance the country's role on the global stage, promote knowledge exchange, and elevate Thailand's AI capabilities.

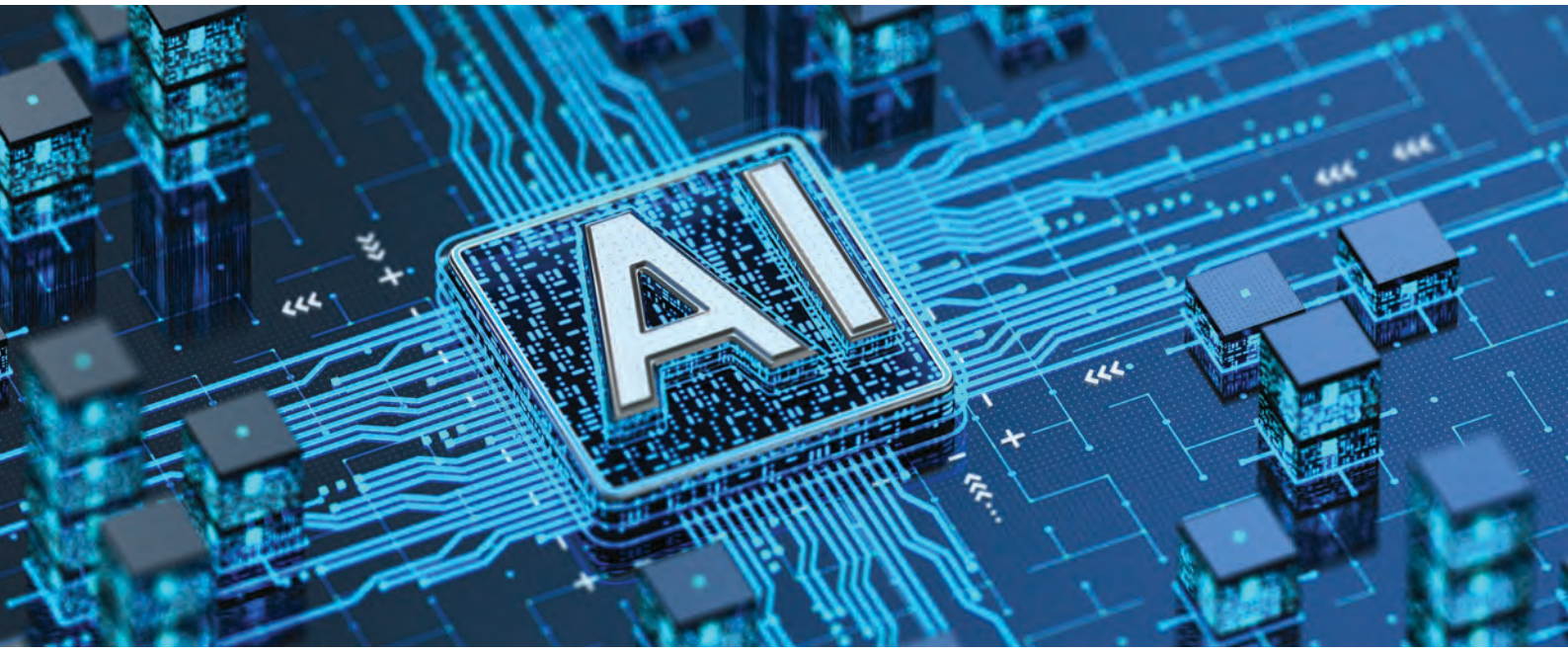
Other participated activities include: the Global Forum on the Ethics of AI 2024 in Slovenia, the Launch of Indonesia's AI Readiness Assessment & Closed Experts' Workshop for Subregional RAM Teams in Indonesia, and the UNESCO Policy Dialogue on AI Governance: Supervision of AI, Democracy, and Synthetic Content & the closed meeting of the UNESCO AI Ethics Experts without Borders network in France.

3. Hiroshima AI Process

Following the G7 Hiroshima Summit 2023, the "Hiroshima AI Process" was launched to establish international rules and guidelines for advanced AI systems such as Generative AI. This process aims to promote the development of safe, secure, and trustworthy AI globally. Thailand joined the "Hiroshima AI Process Friends Group" as a founding member on May 2, 2024. Member countries will participate in activities related to the Hiroshima AI Process and be part of an information-sharing network.

Strategy 2

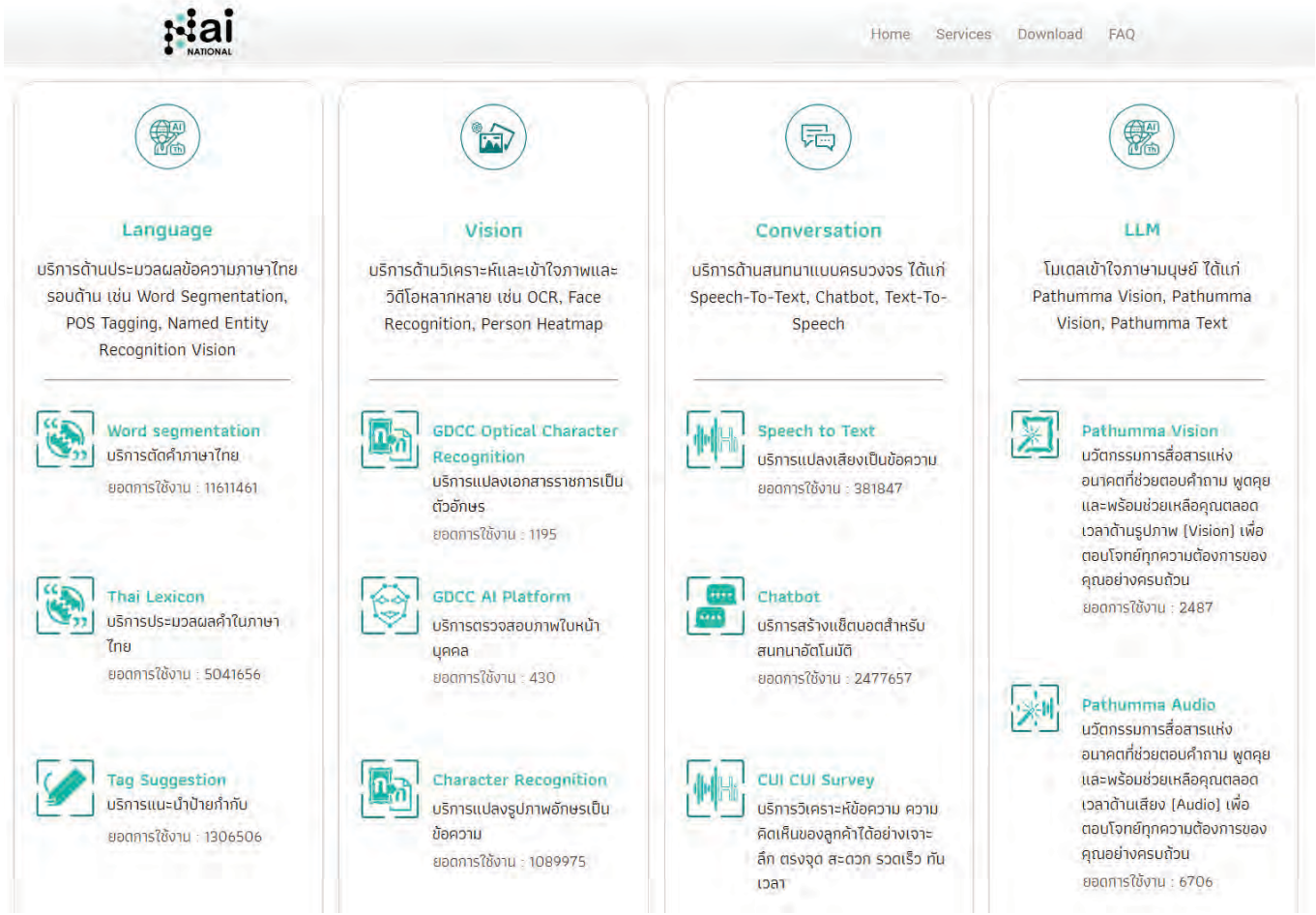
Development of AI Infrastructure and Support Systems for Sustainable Development (AI Infrastructure)



1. National AI Service Platform

The National AI Committee (NAIC) meeting on December 8, 2022, approved the establishment of Thailand's National AI Service Platform to serve the public sector, private sector, and citizens under the support of the Government Data Center and Cloud service (GDCC), operated by the Office of the National Digital Economy and Society Commission (ONDE).

Currently, this platform is operational under the support of GDCC and partner agencies. AI services are provided as Application Programming Interfaces (APIs) via the website www.nationalai.in.th. There are over 60 AI service APIs from partner networks (exceeding the target of 30 services) covering contexts related to the Thai language, including text, speech, and images. The average usage is 1 million times per month. In September, total usage reached 53,623,753 requests, with over 20,000 user accounts.



Platform Resource Plan for 2024-2025

Plan Item	2024	2025
Number of Services	30	50
Accumulated Usage	50 million times	70 million times
Number of Agencies Using	50 agencies	100 agencies
Required Resources (GDCC)	600 Core CPU 100 GB GPU	800 Core CPU 150 GB GPU

Since using AI services on this platform requires basic API calling skills, usage promotion activities have included training sessions on platform usage for government officials to enhance skills and understanding, encouraging increased adoption.

Finally, to support platform usage from a government policy perspective, the Ministry of Digital Economy and Society has internally reviewed and endorsed the promotion of this platform. It is currently awaiting submission to the Cabinet for a resolution to promote its use among government agencies.

2. Supercomputer center

The NSTDA Supercomputer Center (ThaiSC), provider of the LANTA supercomputer (ranked No. 1 in ASEAN for computing performance from November 2022 to the reporting date), has supported the NAIS in 3 main areas:

1. Computing Resource Services: In 2023, ThaiSC launched the LANTA supercomputer in a pilot phase, offering services free of charge to educational institutions, government agencies, and private sector organizations nationwide through 3 main activities:

(1) ThaiSC Pioneer program

(2) Beta test

(3) Thai Large Language model (Thai-LLM)

There were 21 interested organizations from various regions across Thailand, with over 164 projects, including 47 AI research projects.

Additionally, ThaiSC has continuously supported computing resources for key projects under the NAIS, such as the Open Thai Large Language model development project and the Medical AI Data Sharing project.

2. Personnel Development ThaiSC consistently supports the development of personnel in HPC and AI. In the past year, ThaiSC provided resources for: (1) A team of students from Thammasat University to develop skills for competing in the 6th APAC HPC-AI Competition, where they achieved Merit Place for Thailand. (2) The Super AI Engineer project.

3. Disseminating Knowledge about HPC The operation of the LANTA supercomputer involves the collaboration of various advanced technologies, including being the first supercomputer in Thailand to use Direct to Chip Liquid Cooling technology. Throughout the past year, over 900 individuals from 60 organizations have visited the LANTA supercomputer.

3. Data Sharing Consortium

The Digital Economy Promotion Agency (DEPA), along with a total of 12 organization partners from the public sector, private sector, educational institutions, and related associations has established a collaborative network for data sharing to develop AI under the name TH.AI Data Sharing Consortium. This aims to facilitate the exchanging and sharing of data between organizations, leading to the development of large databases for the benefit of developing and improving AI models. An MOU was signed together at the TECHSAUCE GLOBAL SUMMIT 2024 on August 7, 2024.

Strategy 3

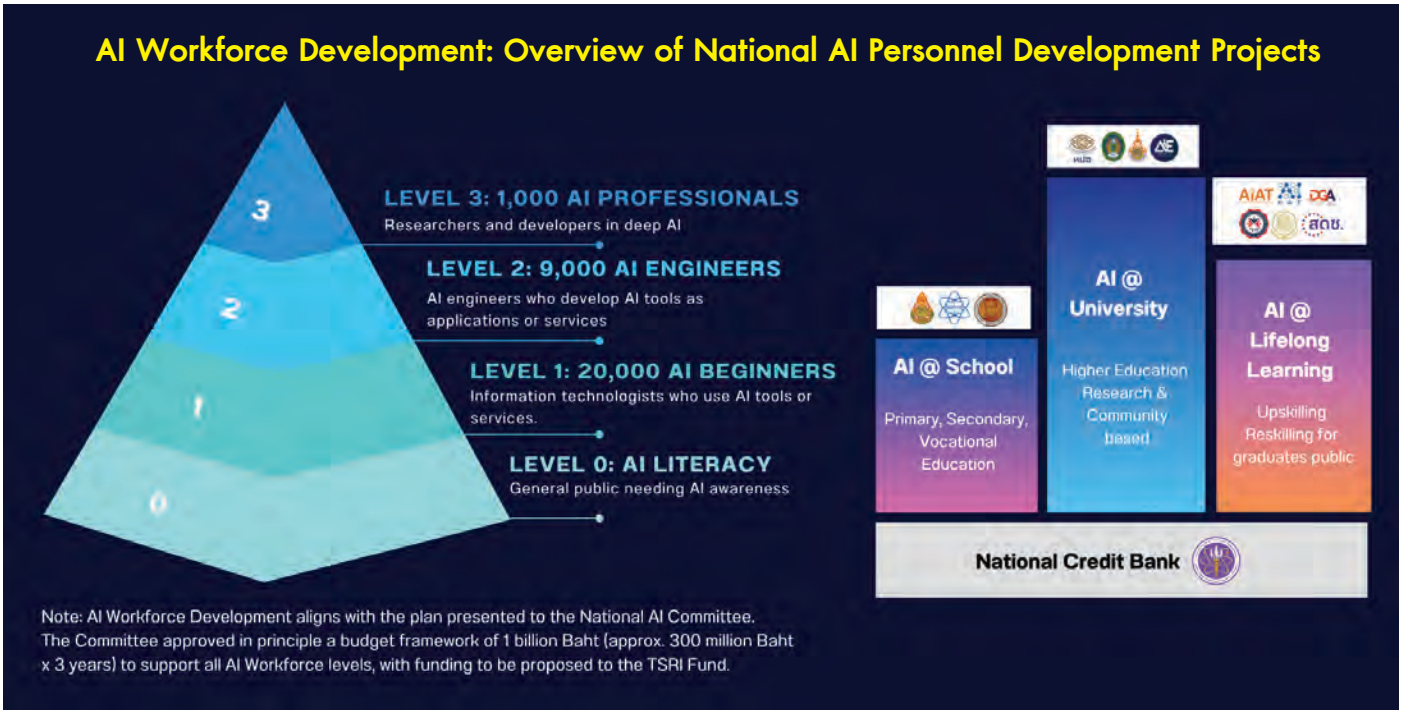
Enhancing Personnel Capacity and Developing AI Education

1. Key Directions for AI Workforce Development

AI workforce development under the NAIS aims to develop 30,000 personnel, categorized into 3 skill levels in AI:

- High-Level AI Workforce – AI Professional: 1,000 people
- Intermediate-Level AI Workforce - AI Engineer: 9,000 people
- Entry-Level AI Workforce - AI Innovator/Beginner: 20,000 people

Additionally, under Strategy 1 of the NAIS, there is a sub-goal regarding raising awareness and understanding for the correct use of AI (AI Literacy).



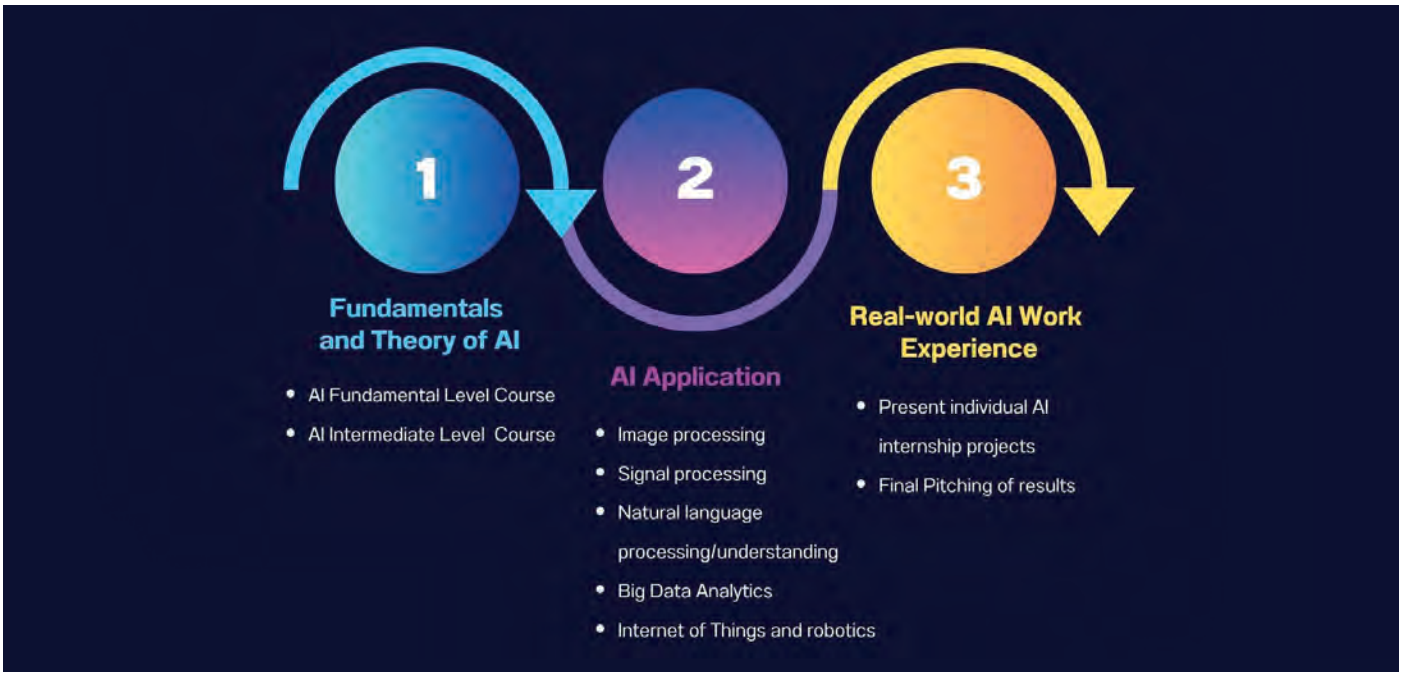
The AI workforce development approach in the fiscal year 2024 included: **AI@School** (new plan) to alleviate the shortage of applicants for related higher education programs, **AI@University** with sub-plans for AI Research universities and Community-based universities, **AI@Lifelong learning** to enhance AI knowledge for graduates, and the **National Credit Bank** to serve as a base for linking learning credits from all channels.

2. Results of AI Workforce Development

(1) The AI Engineering Institute (AIEI) offers 14 AI-related programs covering all educational levels (Bachelor's, Master's, PhD) across 6 universities, with a total student enrollment of 1,214. Additionally, it collaborates with university networks and external organizations to organize activities promoting and developing AI skills and knowledge for students at each university, such as the AISE CAMP #2 and AIEI Tech Talk: CEE-TP (AI4D) activities.

(2) The Artificial Intelligence Association of Thailand (AIAT), together with partners, has continued the Super AI Engineer project for the 4th consecutive year funded by the Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B). This AI@lifelong learning project provides opportunities for Thais of all ages, with or without basic AI knowledge, to participate.

This year, the project received 10,304 applicants.



Phase 1 (Level 1): Basic and theoretical AI training via Self-learning through AIAT MOOC and AI Lectures. Includes Fundamental Level and Intermediate Level courses, with assessments via an online evaluation system. 187 participants completed this phase.

Phase 2 (Level 2): Applied Level AI training focusing on Workshops and Hackathons, experimenting with solving real problems from AI organizations. 170 participants completed this phase.

AI Applications include:

(1) Image processing

(2) Signal processing

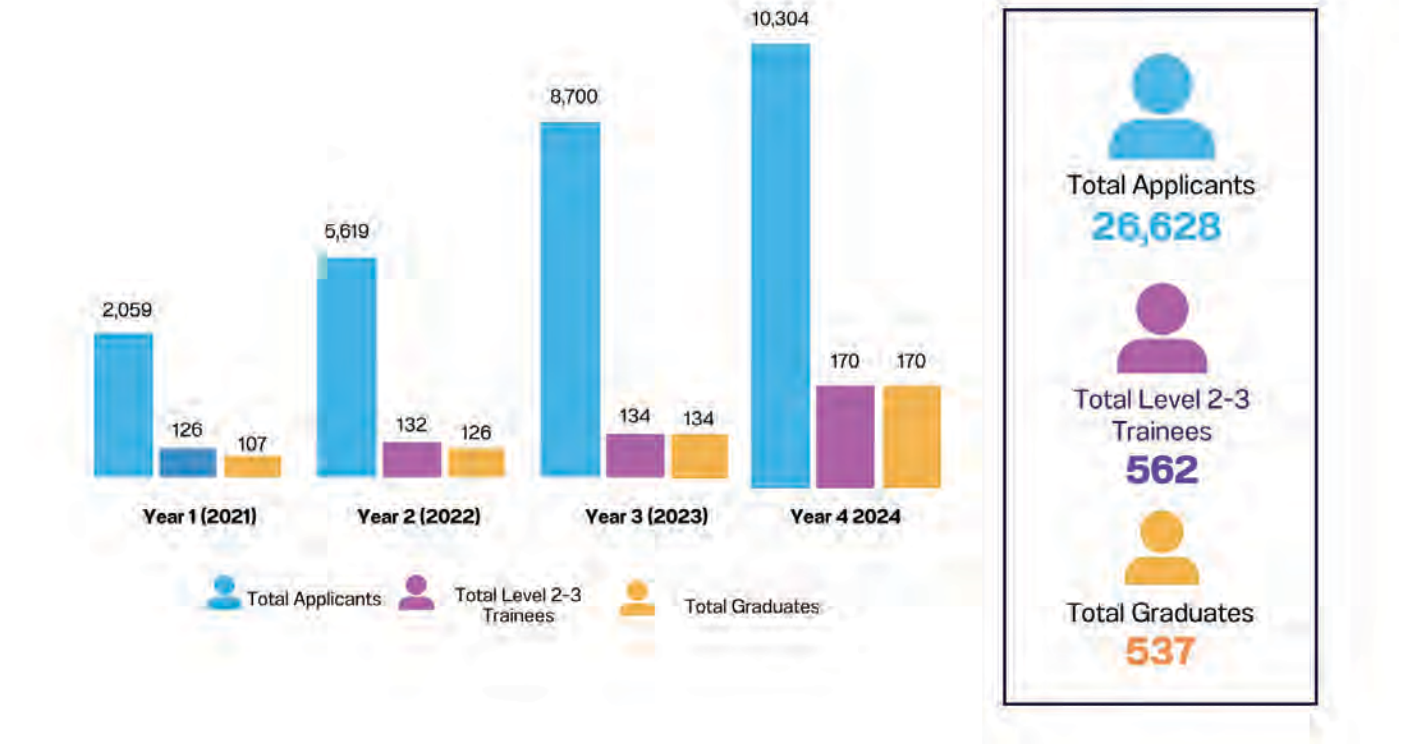
(3) Natural language processing/understanding

(4) Big Data Analytics

(5) Internet of Things and robotics

Phase 3 (Level 3): Participants undertake real AI work experience in actual business settings for at least 2 months. This is followed by a final round featuring a Final Pitching of their work, considered for certificates, prizes, and medals at the project's conclusion. 170 participants were in this phase.

Summary of Super AI Engineer Project Participants



(3) Thailand Digital Government (TDGA) has developed skills through the AI@lifelong learning approach, focusing on government personnel, the private sector, and the general public. They have created online lessons (e-learning) and AI training topics to enhance skills for government personnel, including:

- **Online learning via the Digital Government Learning Platform**, consisting of 5 lessons. A total of 107,251 individuals have completed the learning and passed the tests across all lessons.

- **The Tech for Gov Gen III training program** was held from August to September 2024 under the theme "AI & Cyber Security, Towards Smart Government." In collaboration with technology partners from both public and private sectors (Microsoft, Line, Huawei, Cisco, Ericsson, Palo Alto Networks, AWS, and NCSA), the event attracted 2,759 participants from government, private sector, and the general public.

(4) The Digital Economy Promotion Agency (DEPA) has implemented measures to enhance personnel capabilities and develop AI education through various mechanisms and activities, including:

- Supporting infrastructure development for education in AI vocational schools (2 locations) and related technology fields (8 locations).
- Developing the workforce through upskilling and reskilling initiatives, benefiting over 6,000 individuals.

(5) The Department of Skill Development, Ministry of Labour, has developed 4 courses in collaboration with NECTEC NSTDA, for workforce development in AI and IoT, such as "Application of AI for Manufacturing", "AI for Industrial Robotics and Automation with CIRA CORE", and "Content Marketing and Online Sales with AI Technology". In the fiscal years 2023-2024, a total of 13,038 people completed the skills training.

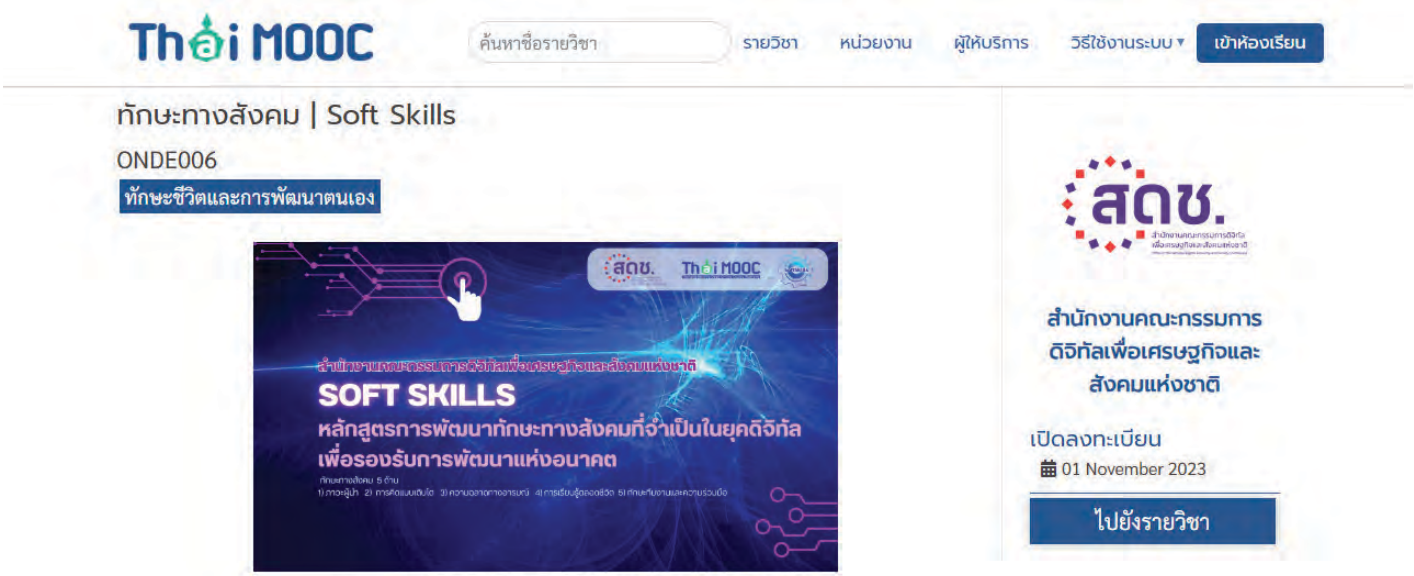
(6) The Office of the National Digital Economy and Society Commission (ONDE) has conducted studies to review and update the ASEAN ICT professional standards for 11 professions through the project "Study and Development of Soft Skills and Digital Skills to Support Future Development under International Cooperation Frameworks". AI is one of the professional standards developed. Skill competency levels are defined in three tiers:

Basic Level: Possesses fundamental knowledge and professional skills sufficient to perform assigned tasks under supervision.

Intermediate Level: Possesses professional knowledge and skills to perform assigned tasks independently, can supervise and guide others, understands nuances in problem-solving within their field, and can apply them effectively when needed.

Advanced Level: Possesses professional knowledge and skills in both technical aspects and managing groups of less experienced individuals.

Documents have been disseminated, and online courses have been created on ThaiMOOC. As of September 26, 2024, over 6,845 people have registered for the training.



Strategy 4

Development of Technology and Innovation to Support AI Technology

1. Network for Open Medical Data Management (Medical AI Data Sharing)

The country's first open medical data management network and platform to promote research and development of AI for application in medical services and innovative businesses.

NECTEC NSTDA, in collaboration with leading partners such as the Department of Medical Services and the Faculty of Medicine Ramathibodi Hospital, Mahidol University, as founding organizations, set a three-year goal to develop an open medical data management platform. This platform aims to be a crucial infrastructure for accelerating the progress of AI innovation in the public health sector. It has received budget support from Thailand Science, Research, and Innovation Promotion Fund through the Program Management Unit for Human Resources & Institutional Development, Research and Innovation (TSRI / PMU-B).

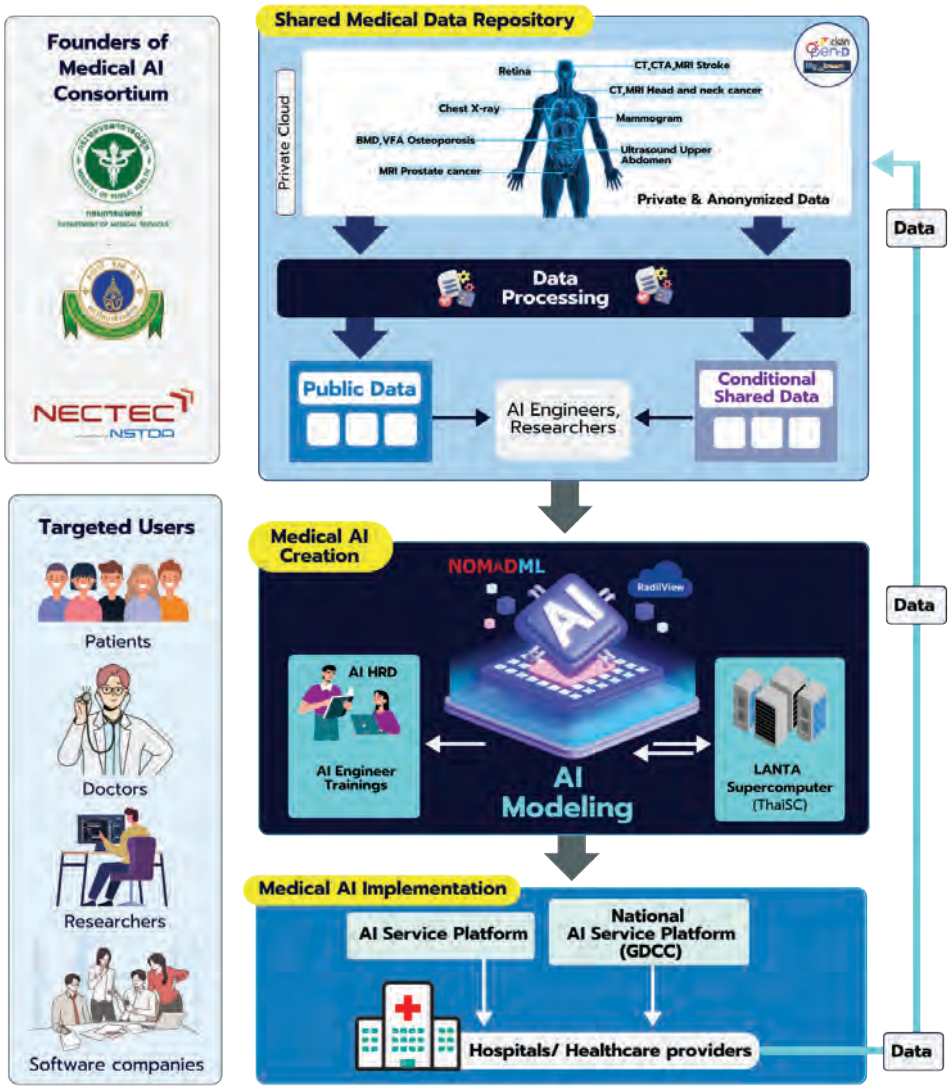
Currently, the project is in its second year of a three-year plan, with significant progress in three main areas:

1. Establishment of the Medical AI Consortium

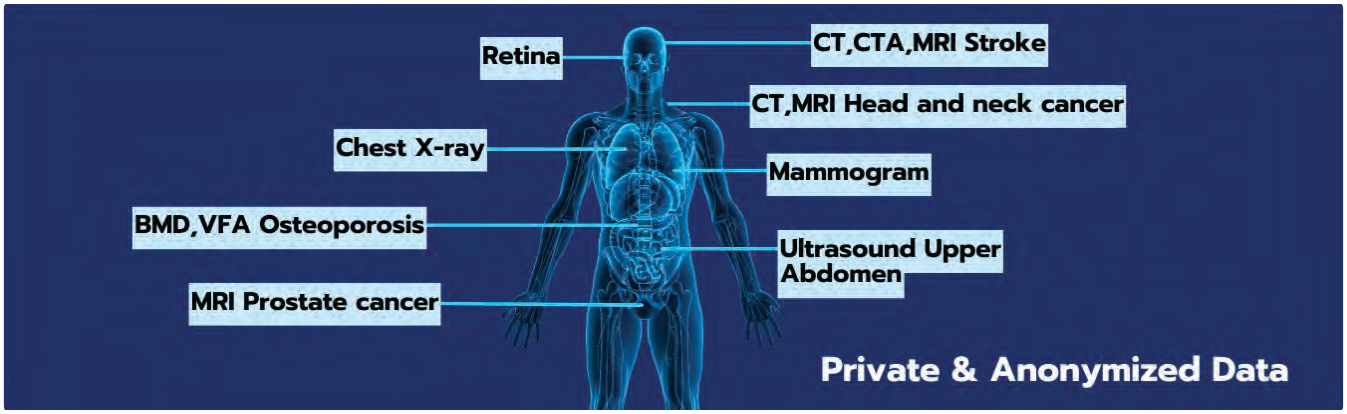
Currently, organizations recognizing the importance and interested in joining the Medical AI Consortium have increased from the initial 3 founding members (Department of Medical Services, NECTEC, and Ramathibodi Hospital). An additional 5 organizations have joined the Medical AI consortium: (1) National Health Security Office (NHSO), (2) Electronic Transactions Development Agency (ETDA), (3) Faculty of Medicine, Chulalongkorn University, (4) Faculty of Medicine, Prince of Songkla University, (5) Faculty of Medicine, Chiang Mai University. Discussions for further collaboration were ongoing with institutions like Thammasat University Hospital and Vajira Hospital Faculty of Medicine, Navamindradhiraj University.

The consortium established clear management guidelines and appointed an executive committee for the open data platform for medical AI development, which is responsible for setting policies, approving, and overseeing activities. The committee has approved the Data Governance document and is in the process of appointing a Data Steward working group to oversee data quality and standards.

Medical AI Data Platform



2. Repository of Standardized Medical Data and Images



Currently, a repository of standardized medical data and images covering 9 types has been compiled: Chest X-ray images, Bone density X-ray images, Head and neck CT scan images, Prostate MRI images, Abdominal Ultrasound images, Retinal photographs, and Mammogram images, totaling over 1,600,000 images. This serves as a database for developing and training AI models.

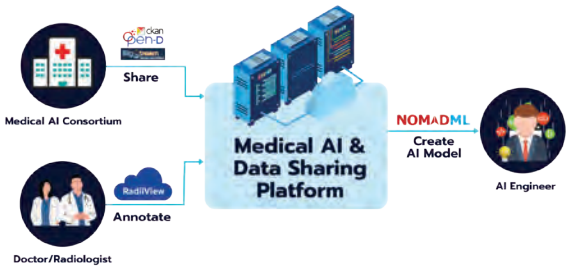
3. Open Medical Data Management Platform

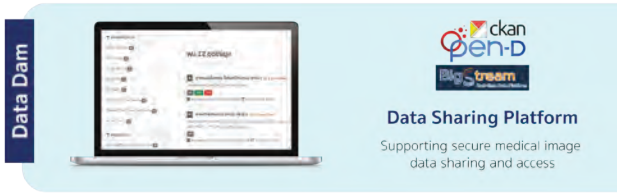
The open medical data management platform is being developed in line with the designed system architecture, divided into 3 main parts:

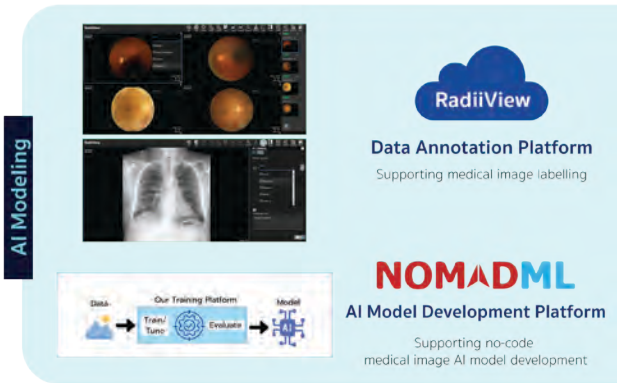
(1) Data Platform: Designing metadata and data governance processes, including linking the data platform with tools used for annotating medical images, such as RadiiView, and automated AI model building systems like NomadML.

(2) AI Model Training: Initiating the data preparation process for developing and training models.

(3) Service Provision: Designing a Service platform that supports the use of AI in service delivery. It is expected that at least 3 pilot medical AI models will be developed for service use in public health service units.







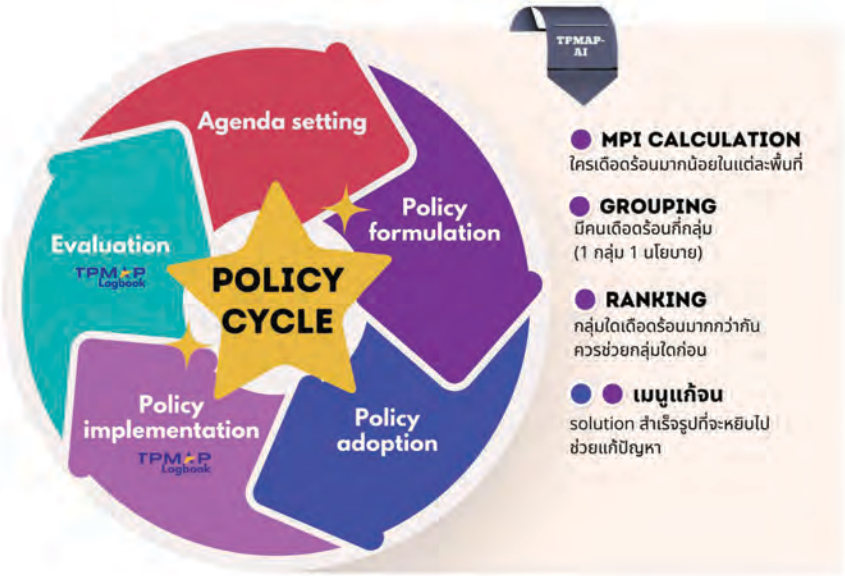
4. Promoting Awareness, Collaboration, and Supporting the Utilization of Medical AI Examples include the seminar "Managing Data from Public Health Services for Medical AI Development and Workshop on Data Platforms and AI Development" at the 24th HA National Forum on March 14, 2024, and the training "Artificial Intelligence and Medical Imaging Session 1/2024" at the Faculty of Science, Naresuan University on May 21, 2024.

2. Targeted People Development Data Management System

Thai People Map and Analytics Platform (TPMAP) is a Big Data system established since 2018 to serve as a government platform tool for improving citizens' quality of life, covering poverty alleviation and targeted group development, reflecting the actual situation regarding various issues.

TPMAP was jointly developed by the Office of the National Economic and Social Development Council (NESDC) and the National Electronics and Computer Technology Center (NECTEC NSTDA). TPMAP has been used nationwide as the main information platform for the operations of the Center for Poverty Eradication and Development of People of All Ages according to the Sufficiency Economy Philosophy, established at both provincial and district (or equivalent) levels. Provincial governors and district chiefs chair the respective driving committees, following Prime Minister's Office Order No. 347/2563 dated October 30, 2020.

In 2024, the TPMAP added 4 AI features:



1. MPI calculation

Calculates the Multidimensional Poverty Index. Users can define and adjust index parameters such as the number of dimensions, indicators, weights, and search for populations or households based on desired conditions (inference engine) to identify target groups aligned with specific policies.

2.Grouping

Clusters populations with similar characteristics and problems, aligning with local needs and resources, to provide targeted policy assistance.

3. Ranking

Prioritizes target groups that should receive assistance first, applying statistical processes like average ranking, e.g., ranking assistance based on problem severity.

4. Poverty Solution

Automatically recommends poverty alleviation policies based on the characteristics of the population or household, using personal data, area information, and poverty indices, leveraging expert system technology.

Usage Expansion in 2024

In the fiscal year 2024, the Office of the NESDC organized training activities on using the TPMAP feature for prioritizing assistance to target groups based on AI system recommendations. Participants included users such as district chiefs, community development officers, community development academics, social development officers, social workers, local poverty alleviation support teams, mentoring teams of the Operation Center for Poverty Alleviation and Sustainable Human Development for All Age Groups Based on the Sufficiency Economy Philosophy, sub-district operation teams, Tambon Administrative Organization council members, community development volunteer leaders, village headmen, and sub-district headmen in Nakhon Sawan, Udon Thani, Saraburi, and Bangkok, serving as pilot provinces for implementing the AI-prioritized assistance targeting feature.

3. Biometric Identity Verification and Identification System for Public Health Services

A web application for biometric identity verification and identification using facial and iris recognition technology, aligned with the mission of the Thai Red Cross Society and expanded by the Department of Disease Control focuses on individuals residing in Thailand without identification documents, both legally and illegally, such as foreign nationals and refugees fleeing war, to provide humanitarian aid, public health services, and disease control accurately and precisely. Examples include administering COVID-19 vaccines and HPV vaccines. It enables tracking and surveillance of disease outbreaks due to population movement, such as tuberculosis patients requiring long-term treatment, facilitating effective and non-redundant planning for public health care in both normal and emergency situations.

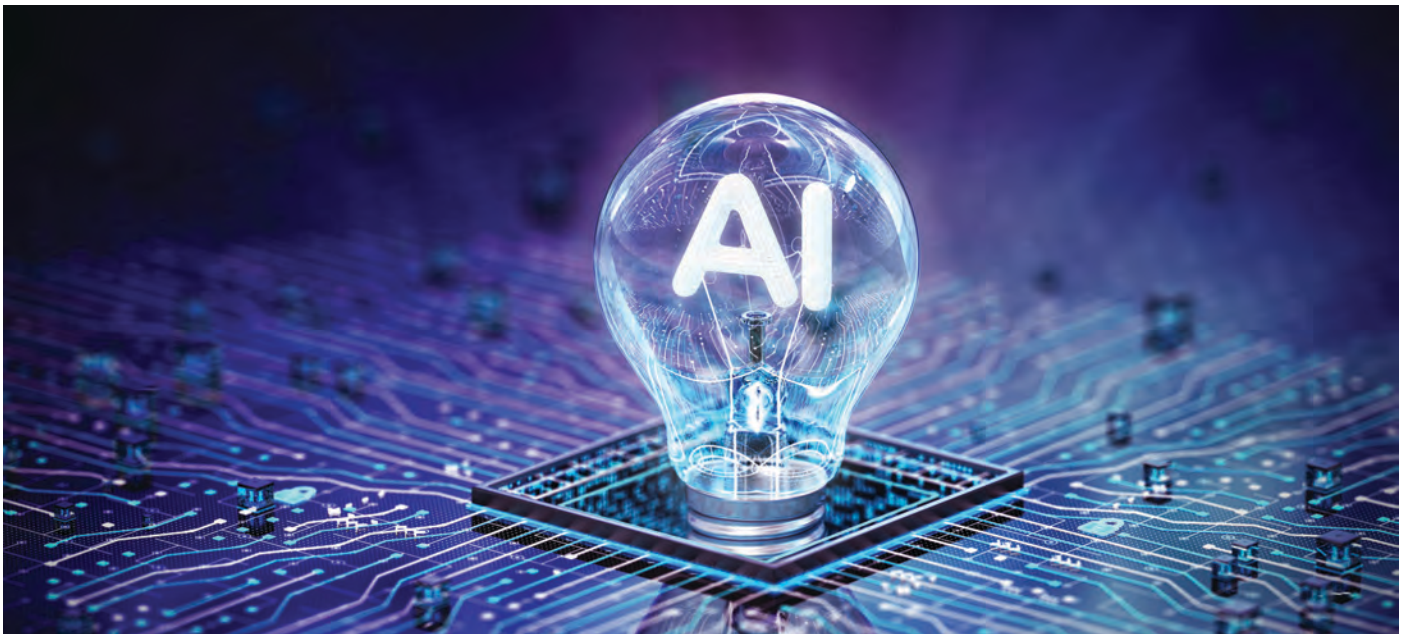
The identity verification and identification system is a service applying in-house AI technology combined with open-source software to ensure the security of sensitive personal data, prevent technology monopolies, and avoid transferring sensitive data out of the country. **It has been operational since 2022 and used by Thai Red Cross staff and pilot hospitals in 15 provinces. Over 40,000 individuals have registered.**

สภากาชาดไทย
THAI RED CROSS SOCIETY

กรมควบคุมโรค
Department of Disease Control

Strategy 5

Promoting Business and AI Utilization



The Digital Economy Promotion Agency (DEPA) has undertaken initiatives to promote business and AI utilization, resulting in 3 main outcomes:

(1) Implemented measures to assist or subsidize the application of technology and innovation (DEPA Digital Transformation Fund) for AI products and services registered in the digital service account. This promoted the adoption of AI technology in the private sector and industries, total of 8 entities, representing an investment value for AI application of at least 3.7 million Baht. Examples of AI products/ services include AI chatbot systems for automated responses and data analysis, and data management systems using AI-OCR.

(2) Supported the linking of agricultural Big Data platforms for data storage or traceability of agricultural products, leading towards a National Agriculture Platform for the country. This was done through the OTOD Digital Durian project in 8 provinces (Chanthaburi, Rayong, Prachinburi, Chumphon, Yala, Nakhon Si Thammarat, Trat, and Sisaket) with a total of 1,100 farmers participating.

(3) Promoted and supported 7 digital startups in the early and growth stages that apply AI in their products or services. This represents investment value in digital startups applying AI. Additionally, DEPA promoted the development of over 50 prototype innovations and technologies based on AI.

Partner Organizations

Driving the Thailand National Strategy and Action Plan

Ministry:

Government agencies:

Educational institution:

Association/Confederation/Foundation:

Key Activities

Aug 16-17, 2023 NSTDA and ETDA represented Thailand at the Working Party on Artificial Intelligence Governance (AIGO) meeting under the OECD. Presented progress on the NAIS and Thailand's AI governance approach. Provided input on the AI Ecosystem, OECD AI Index, and reported AI progress on the OECD AI database.

Aug 16-17, 2023 AI Thailand Forum 2023: Embracing the Future of AI. The country's first major AI technology event, co-organized by the AI Entrepreneurs Association of Thailand (AIEAT), Artificial Intelligence Association of Thailand (AIAT), and the National Innovation Agency (NIA). Announced collaboration among 15 organizations to develop Thai AI standards.

Aug 28, 2023 Announcement of "1 Year of Thailand's AI Action Plan and Key Milestones in Driving Medical AI." Included an MOU signing ceremony for "Research and Development of Data Sets and Innovations for Advancing Medical AI Applications" between the Department of Medical Services, Faculty of Medicine Ramathibodi Hospital, and NSTDA.

Sep 12, 2023 Seminar "AI for Thai: Thai-born AI, Co-creating the National AI service platform and Cultivating AI Talent." Organized by NECTEC NSTDA with support from the NBTC Fund, Office of the NBTC. Featured discussions themed "Thai AI Service," covering business stories, achievements, and efforts to drive Thai AI by government agencies, educational institutions, and the private sector.

Nov 11-19, 2023 Bangkok AI Hack 2023, an AI Hackathon competition themed "Unlock Generative AI Adoption: Build / Innovate / Transform," provided participants with opportunities to exchange knowledge closely with experts from various AI industry sectors and the chance to join SCB 10X's Incubation program.

Nov 23, 2023 "National AI Strategy, best practices & Lesson learnt: AI in Manufacturing" at the Metalex AI Forum 2023. From policy to practice - revolutionizing the manufacturing industry. Presented AI applications in manufacturing, such as Image processing technology.

Nov 28, 2023 Thai PBS World, in collaboration with Techsauce, NIA, TDRI, and SONGSUE, organized the **Thai PBS World Forum on "AI and the Future of Newsroom."** Provided a platform for brainstorming and exchanging views to shape the future direction of journalism, preparing for changes in the AI media era with AI innovations, changing newsgathering based on media ethics, accuracy, and reliability.

Dec 18, 2023 Huawei Cloud AI Summit Thailand 2023 under the theme "Pioneer AI Future with Huawei Cloud." A showcase of vision, cutting-edge cloud and AI technology, and innovations of the year from Huawei, featuring various services tailored for Thailand.

Jan 29, 2024 The National Science and Technology Development Board (NSTDA Board), chaired by the Minister of Higher Education, Science, Research and Innovation, approved the (draft) AI Utilization Plan. **Provided policy feedback before presentation to the National AI Committee.** This plan aims to promote concrete AI utilization for maximum national benefit and reduce economic disadvantages.

Feb 22-23, 2024 The TRAIN: Trustworthy AI International Network academic conference, promoting the development and use of safe and ethical AI sustainably through international cooperation. Founding members include Korea, Vietnam, Thailand, and China. Aims to build trust and enhance AI reliability through regional cooperation in Asia, focusing on information sharing, knowledge exchange, and joint AI personnel development.

The "Training on AI Skills and Application of the AI for Thai Platform 2024" activity promoted the use of AI for Thai, the national AI platform. Organized by NECTEC NSTDA with partner networks (public and private) under the support of the Broadcasting and Telecommunications Research and Development Fund for Public Interest (BTFP), Office of the National Broadcasting and Telecommunications Commission (NBTC). Held across 4 regions:

Feb 29 - Mar 1, 2024: Northeast Region, Suranaree University of Technology, Nakhon Ratchasima.

Mar 21-22, 2024: Central Region (Bangkok & Vicinity), Silpakorn University, Nakhon Pathom.

Apr 29-30, 2024: Southern Region, Singh Golden Place Hotel, Songkhla.

May 20-21, 2024: Northern Region, Naresuan University, Phitsanulok.

Mar 7, 2024 Launch of 6 projects to drive Thailand's AI plan. The two major ministries, MHESI and MDES, convened a meeting to gather opinions on the direction of AI development to cover all dimensions. This discussion on the (draft) pilot projects under the NAIS aimed to establish operational guidelines with expert networks that meet national needs and align with government policies.

Mar 14, 2024 Consumers International, along with over 200 member organizations from 100 countries, elevated consumer protection by setting the 2024 agenda on **"Fair and responsible AI for consumers."** Aims to raise awareness about the benefits and harms of AI in consumer protection and push for policy recommendations and consumer protection measures.

Mar 14, 2024 Seminar "Managing Data from Public Health Services for Medical AI Development" at the 24th HA National Forum. Introduced the **"Open Medical Data Management Platform (Medical AI Data Platform)"** to help researchers, doctors, and private sector partners in the network access and utilize medical data for advancing AI to support the country's medical services.

May 1, 2024 Opening ceremony for the "Super AI Engineer Season 4" project, a leading AI initiative in Thailand. Organized by AIAT with support from numerous organizations like the Ministry of Higher Education, Science, Research and Innovation, PMU-B, NXPO, NSTDA. Aims to develop AI technology, specifically enhancing skills, knowledge, and creating high-quality AI personnel to be a key driving force for the country's future.

May 20, 2024 NECTEC NSTDA, in collaboration with the Office of the Basic Education Commission (OBEC) and the Institute for the Promotion of Teaching Science and Technology (IPST), organized **the 5th KidBright Developer Conference (KDC24)** under the theme: Edge AI, combining the capabilities of Edge Computing and AI.

May 21, 2024 Training on "Artificial Intelligence and Medical Imaging Session 1/2024" for education and medical personnel from Naresuan University. Conducted under the "Development of an Open Medical Data Management Platform for Research, Development, and Innovation to Advance AI in Thailand" project. Founding members of the Medical AI Consortium collaboration network include the Department of Medical Services, Faculty of Medicine Ramathibodi Hospital, Mahidol University, and NSTDA.

May 29, 2024 The Ministry of Higher Education, Science, Research and Innovation (MHESI) announced the "MHESI for AI" policy to equip Thais with AI for national development. Highlighted the flagship transformation of universities with AI, pushing 3 key plans: AI for Education, AI Workforce Development, and AI Innovation. Aims to develop AI for practical use in the country with seamless capabilities, elevate Thai competitiveness internationally, support AI for lifelong learning, and promote real AI use in the business sector to boost the Thai economy.

May 29-30, 2024 ETDA, Ministry of Digital Economy and Society, hosted the grand **DGT 2024 (Digital Governance Thailand 2024)** event under the theme "Digital Momentum for the Future." Served as a landmark for creating digital opportunities and phenomena, bringing together key partners from public and private sectors, as well as leading Thai and international Tech Companies and Service Providers (over 120 organizations).

AI Thailand Hackathon 2024 EP.1 AI Cooking. A competition stage to stimulate and promote AI development in Thailand. Provided an opportunity for Developers, Programmers, and AI Engineers from all sectors to test their skills in creating AI Models, extending Corpus and APIs into innovative works or Applications based on 4 challenges: (1) Prompt Engineer, (2) Image captioning (IC), (3) Machine translation (MT), and (4) Automatic Speech Recognition (ASR). Marked the first time NECTEC-NSTDA's Corpus data warehouse was opened as raw material for competitors to train AI Models, along with access rights to NSTDA's LANTA Supercomputer throughout the competition. Divided into 2 rounds: Online (June 17-19) with 157 teams competing to select 20 finalists, and Onsite (June 21-23) competing for prizes totaling 245,000 Baht.

Jun 27, 2024 Academic conference "The 8th STS forum ASEAN-JAPAN WORKSHOP: For the next 50 years of ASEAN-JAPAN Science and Technology Cooperation." A policy forum on science and technology in the ASEAN region, gathering high-level leaders from governments, public agencies, private sector, and researchers to meet and exchange knowledge to drive economic development.

Jul 4, 2024 MHESI and the Ministry of Education (MOE) signed an academic Memorandum of Understanding for the **"Project to Drive the Teaching of Artificial Intelligence and Modern Technology in Educational Institutions."** Aims to equip teachers and students with AI knowledge, understanding, and awareness, preparing them to become digital citizens and meet the demands of the modern 21st-century labor market.

Jul 7, 2024 "SPU AI Prompt Mini Hackathon 2024 (Special Track): Unlock Your Coding Hack Your Brain Activate coding power with AI" organized by the Faculty of Information Technology, Sripatum University. A stage providing opportunities for high school and vocational students to practice AI coding skills, fix or complete code perfectly using Generative AI as an assistant to conquer the given challenges. More than 300 students participated in the activity.

Jul 18, 2024 KBTG Techtopia by Kasikorn Business-Technology Group (KBTG) themed "A Blast From the Future." Met with over 50 leading experts from Thailand and abroad. Additionally, KBTG and Mr. Andrew Ng joined hands with partner organizations such as the Artificial Intelligence Association of Thailand (AIAT) and the Equitable Education Fund (EEF) to sign two Memoranda of Understanding: (1) KBTG, DeepLearning.AI, and AIAT to develop the KBTG.AI Kampus project. (2) KBTG, AI Fund, and EEF to develop an AI Assistant supporting education and mental health, driving education, promoting the development of AI knowledge and capabilities equitably for Thailand.

Jul 23, 2024 MOU signing ceremony for **"Research and Development of Technological Innovation" between the Royal Thai Police and 17 educational and research institutions.** Aims to integrate cooperation in academics, research and development, and high-tech innovation, such as automation systems and AI technology, to support the operations of the Royal Thai Police, helping to ensure the safety of life and property for the public.

Jul 22, 2024 NIA x NSTDA, two agencies under MHESI, joined hands to sign a Memorandum of Understanding for academic cooperation on the "AI Thailand Mobile Lab" project. Aims to foster an environment conducive to the country's AI development across the public sector, private sector, and education sector by providing spaces for meeting, exchanging knowledge, and organizing various activities for AI researchers and developers.

Aug 1, 2024 The AIEAT and AIAT associations joined forces with NSTDA and SCBX to hold **a press conference announcing readiness for the AI THAILAND FORUM 2024 under the concept "Sustainable Growth with AI."** Aims to raise awareness about the application of AI in developing and supporting the country's sustainable growth across economic, social, and environmental sectors.

Aug 5, 2024 MOU signing ceremony for academic cooperation on AI technology development, advancement, and transfer between the Secretariat of the House of Representatives and MHESI, represented by NSTDA. Aims to jointly develop AI technology consistent with the national strategic plan regarding competitiveness in digital industries, data services, and artificial intelligence, and to support the work of the Secretariat of the House of Representatives and the Senate.

Aug 6-7, 2024 Open Parliament Hackathon 2024. The first time in Thai parliamentary history that parliamentary data was opened up for system development towards greater transparency, openness, and belonging to all citizens. Participants collaborated in designing and developing projects applying AI, Big Data, and Machine Learning technologies to co-create digital services from open parliamentary data.

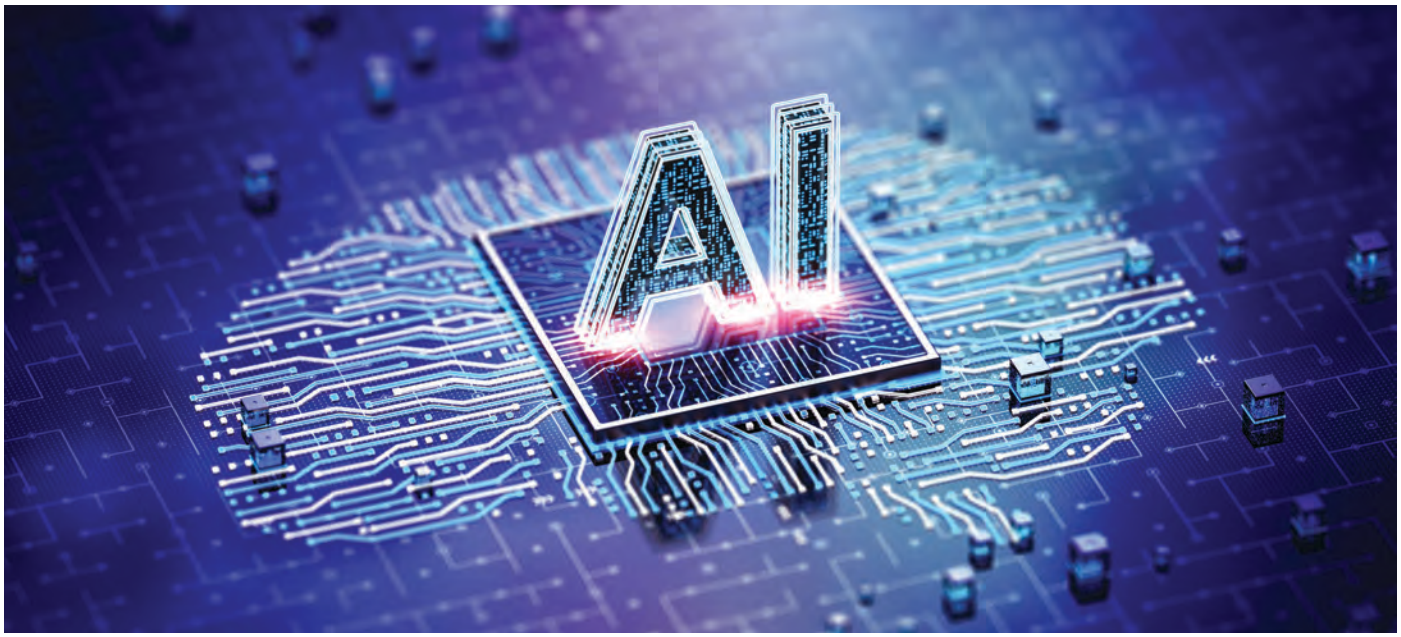
Aug 7, 2024 MDES, through DEPA, led 11 organizations to drive inter-organizational data sharing cooperation under the name **"TH.AI Data Sharing Consortium."** Aims to foster cooperation in data exchange, promote the development and improvement of artificial intelligence models, create standards and guidelines for data exchange, leading to the development of a large national Open Data database.

Aug 7-9, 2024 Techsauce Global Summit 2024. The largest technology summit in Southeast Asia, reinforcing the goal of establishing Thailand as the Tech Gateway of the region. Amidst cooperation from partner networks in Thailand and internationally, under the theme **'The World of Tomorrow with AI,'** highlighting key AI issues that will drive the future of the world.

Aug 11-16, 2024 The 62nd Annual Meeting of the Association for Computational Linguistics (ACL 2024). A major international conference in the fields of computational linguistics and natural language processing (NLP), bringing together researchers, academics, and industry experts from around the world to discuss the latest advancements in NLP, including topics such as machine translation, sentiment analysis, conversational systems, and AI ethics.

Sep 30, 2024 MHESI held a meeting to deliver policy on AI workforce development according to the " MHESI for AI" policy. Announced the strategy for developing AI skills, moving forward with implementation in teaching and learning at higher education institutions nationwide through the "AI University" project towards "Education 6.0". The goal is for 90% of graduates to have basic AI knowledge upon graduation. Piloting cooperation between universities and the private sector to offer online AI courses, aiming to produce 30,000 AI personnel within 3 years, pushing Thailand to become an AI leader in ASEAN.

Action Plan for the Next Phase



Strategy	Activity / Project
Strategy 1 **AI Ethics and Governance**	Plans to promote AI literacy, such as: designing AI literacy courses, jointly between the National Research Council of Thailand (NRCT) and NSTDA; and designing multimedia content for public dissemination in collaboration partners including media production agencies such as NSTDA, the Faculty of Communication Arts at Chulalongkorn University, and ThaiPBS.
Strategy 2 **AI Infrastructure and Data**	Prepare a laboratory for being certified under Thai Industrial Standard (ISO/IEC) 17025 to provide AI Service testing in three areas: Medical AI, Biometric AI, and IoT AI. This aims to elevate Thai AI Services to meet international standards.
Strategy 3 **AI Workforce Development**	MHESI will drive further actions, for instance, through the "MHESI for AI" policy. The higher education system will reform to incorporate AI skills into teaching and learning. Establish an AI Workforce Development Subcommittee to strengthen implementation efforts. Seeking additional budget support for operations, such as revising project proposals to request funding from various sources.

Strategy	Activity / Project

Strategy 4

AI Research and Development in Target Industries

Promote AI research and development that can be applied to solve real-world problems in target industries. Currently, the flagship R&D projects are as follows:

1.Tourism Industry: Travel Link, or the development of a central hub for linking and providing tourism information services using AI technology to enhance Thailand's tourism potential. The operational approach includes three main activities: Develop a central hub for linking and developing tourism data services (Travel Link), Develop or promote the development of tourist attraction recommendation services (Attraction Recommendation), Develop or promote the development of tourism chatbot services using Generative AI.

2. Manufacturing Industry: Application of AI Machine Vision in small and medium-sized enterprises (SMEs) to increase production productivity. There are two main operational approaches: Development of smart camera devices (Smart Camera) as central equipment for AI Machine Vision applications, Promotion of the use of low code/no-code AI platforms from KMITL (CiraCore)

3. Education Industry: AI Coach, or a lifelong learning platform incorporating AI technology specialized in the Thai language. It can act as a teacher-tutor, capable of greeting, answering questions, summarizing content, stimulating learning, and providing personalized learning recommendations.

4. Finance Industry: Fraud detection, or the development of a platform focused on analyzing and detecting suspicious financial transactions for financial institutions, the telecommunications industry, and online platforms.

5. AI Core Technology: OpenThaiGPT, underpinned by the key technology of a Thai Large Language Model (LLM). This AI Model mimics human language capabilities, such as composing human-like speech and understanding the Thai grammatical system.

The working principle is that the model receives a "prompt" (command or question) similar to human communication. The synthesized answer is based on statistics processed from the language corpus, progressing word by word. The initial answer provides context for subsequent words until an end-of-sentence marker is reached. The LLM imitates speech based on a large language data corpus by observing statistics of phrase occurrence, word order, and grammatical structure.

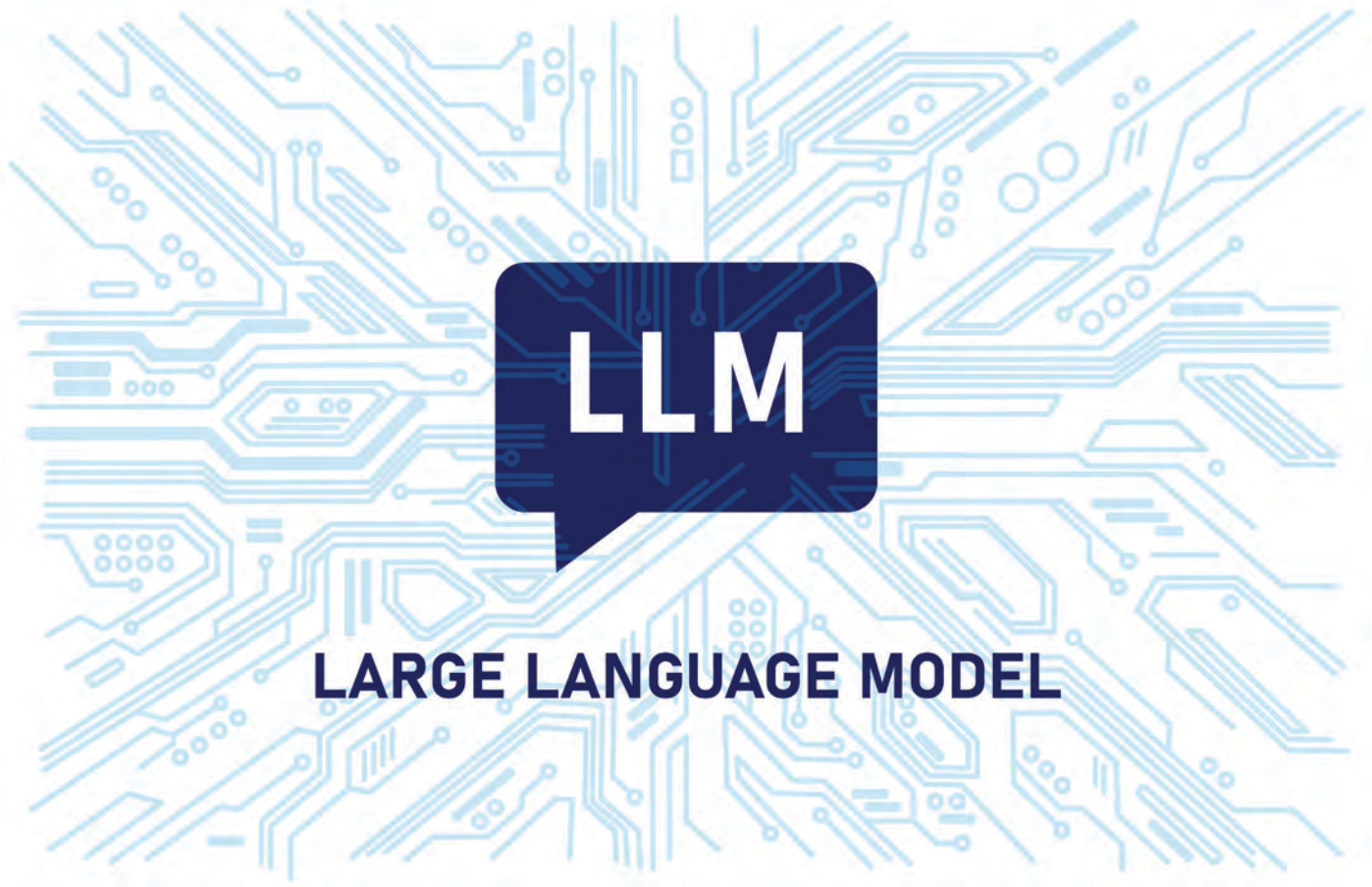
The LLM development reported in this section is a collaboration between NECTEC NSTDA, AIAT, and AIEAT. The primary current output is an LLM for the Thai language, built upon the Llama 2 base model. It is available in three sizes: 7 billion parameters, 13 billion parameters, and 70 billion parameters (the number of parameters can be roughly compared to the number of neurons in the human brain).

Additionally, a pipeline program suite has been developed for creating Thai LLMs from any base model using a large Thai language dataset. This allows developers to create Thai LLMs using this pipeline in the future. Based on these capabilities, OpenThaiGPT currently possesses five notable abilities:

- Reading and summarizing documents (automatic text summarization)
- Retrieving documents based on queries and composing answers (retrieval-augmented generation)
- Language translation (machine translation)
- Short story generation (story generation)
- Extracting important words and phrases from documents (keyword and key phrase extraction)

The next phase involves enhancing the Thai LLM's capabilities, including:

- Handling multimedia data (multimodal LLM) by understanding text within images (optical character recognition or OCR), describing images (image captioning), and generating images from commands (image generation).
- Focusing on explaining the reasoning behind outputs and interpreting the behavior of the Thai LLM to foster the creation of transparent and trustworthy artificial intelligence systems.



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- Artificial Intelligence Engineering Institute (AIEI)
- Department of Skill Development, Ministry of Labour
- Broadcasting and Telecommunications Research and Development Fund for Public Interest (BTFP)
- Artificial Intelligence Association of Thailand (AIAT)
- Artificial Intelligence Entrepreneur Association of Thailand (AIEAT)

AI THAILAND

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