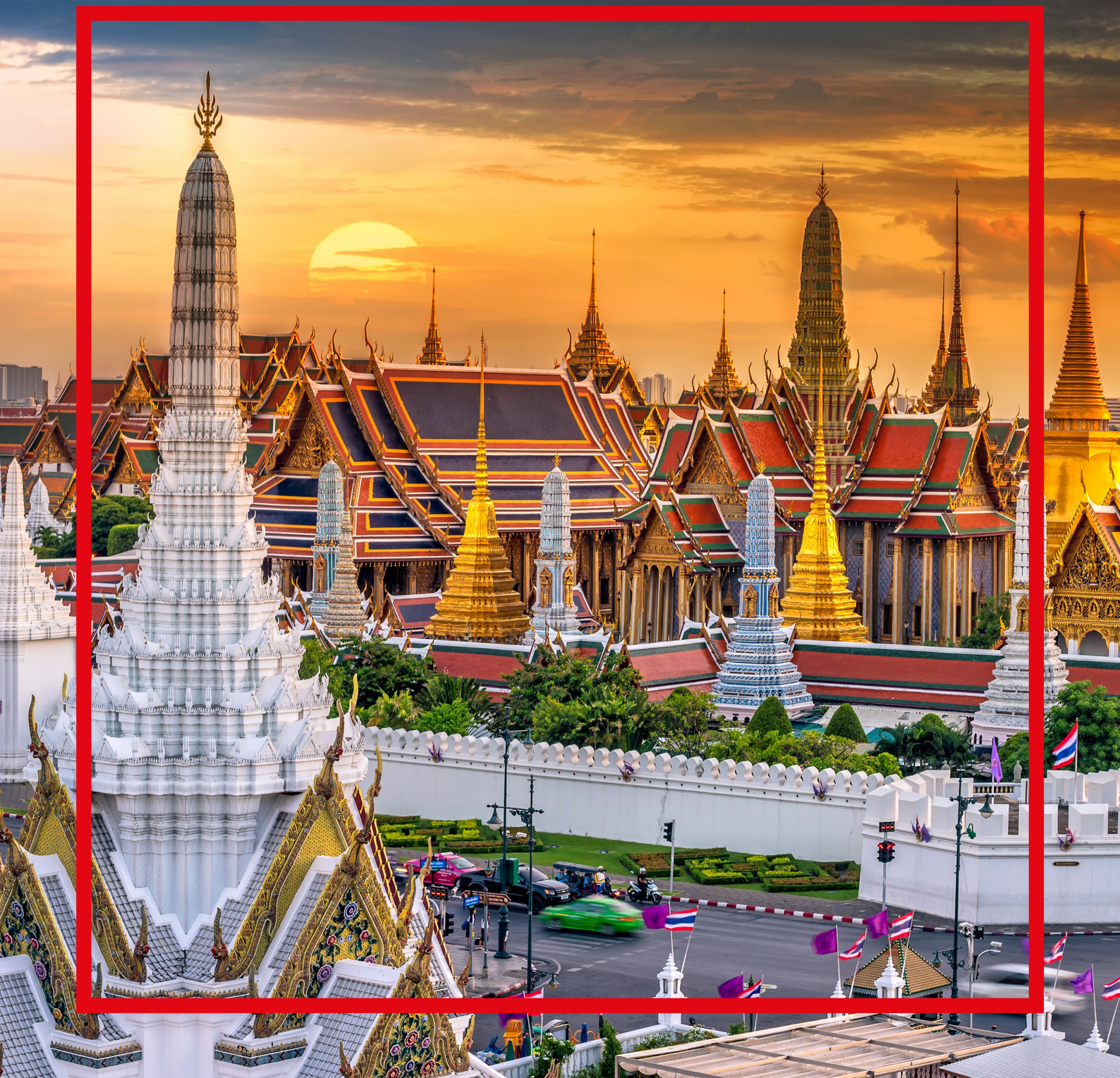


THAILAND

SUMMARY REPORT

Navigating
Thailand's
Science,
Technology &
Innovation
Diplomacy
Ecosystem





Country Focused Workshop Series 2025

“Navigating Thailand’s Science, Technology, and Innovation Diplomacy Ecosystem”

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Published by

Asia-Europe Foundation (ASEF)

www.asef.org

Note

The information presented in this Summary Report is based on the webinars of the Country Focused Workshop Series on Thailand for the Asia-Europe Science and Technology Diplomacy Initiative for Young Professionals. The views and information presented in the Summary Report are based on what was shared by the speakers in the webinars as part of the series, and do not necessarily reflect the official position of the Asia-Europe Foundation (ASEF) or its partners for the project. The author bears full responsibility for the content and contextualisation of information and any potential inaccuracies in the webinar series.



Country Focused Workshop Series on “Navigating Science & Technology Diplomacy Ecosystems”

Introduction

The [Asia-Europe Foundation \(ASEF\)](#) launched the [Asia-Europe Science & Technology Diplomacy Initiative for Young Professionals](#) in 2024 to serve as a platform for dialogue, knowledge sharing, and collaboration among young academics, diplomats, and professionals involved in the international science, technology and innovation sectors in Asia and Europe – using Science and Technology Diplomacy as a tool to come together to address global challenges.

In 2024, young leaders from 40+ countries contributed to the research titled [Asia-Europe Science & Technology Diplomacy Report](#), which mapped Science and Technology Diplomacy strategies and actions in the two regions.

Based on the report, this [Country Focused Workshop](#) series titled “Navigating Science and Technology Diplomacy Ecosystems” in 2025 highlighted four (4) selected Asian countries’ diverse Science and Technology Diplomacy approaches, their objectives, and how international partners can engage and collaborate with them.

Each country was introduced in a three (3) session-long workshop series as follows:

Session 1: The role of **Government Strategy and Actions** in the science and technology diplomacy ecosystem;

Session 2: The role of **Academia and Research Institutions** in the science and technology diplomacy ecosystem and how to work with them; and

Session 3: The role of **Businesses** in the science and technology diplomacy ecosystem and how to work with them.

This report is a summary of the three webinars conducted as part of the Country Focused Workshop Series entitled “**Navigating Thailand’s Science, Technology, and Innovation Diplomacy Ecosystem**” which took place from 7 to 21 July 2025 and was organised in partnership with the [Office of the National Higher Education, Science, Research and Innovation Policy Council \(NXPO\)](#) and the [Ministry of Higher Education, Science, Research and Innovation, Thailand](#), and with support from [EURAXESS ASEAN](#).

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Navigating **Thailand's** Science, Technology, and Innovation Diplomacy Ecosystem

Overview

The Thailand Country-Focused Workshop Series under the Navigating Science and Technology Diplomacy Ecosystems initiative was conducted across three sessions held on 7 July, 14 July, and 21 July 2025, bringing together policymakers, diplomats, academics, funding agencies, and business leaders to examine Thailand's science, technology and innovation (STI) diplomacy ecosystem from complementary institutional and market perspectives. Designed as a sequential learning process, the series moved from strategic policy framing to institutional and academic engagement and finally to business-led implementation, offering international partners a comprehensive view of how Thailand operationalises STI diplomacy in practice.

The first session (7 July 2025) focused on the role of government strategy and actions, situating STI diplomacy within Thailand's national policy architecture and foreign policy practice. Discussions examined inter-ministerial coordination, the role of the Ministry of Foreign Affairs in convening STI actors, and Thailand's engagement with regional and global platforms such as the Association of Southeast Asian Nations (ASEAN), the Organisation for Economic Co-operation and Development (OECD), and multilateral science cooperation frameworks. Speakers highlighted how STI functions as a diplomatic instrument to advance economic resilience, sustainability objectives, and international collaboration, supported by funding systems, regulatory tools, and overseas missions.

Building on this policy foundation, the second session (14 July 2025) examined the role of academia, research institutions, and funding agencies in translating strategic intent into collaborative action. The session explored how universities act as connectors between research, policy, and international partners, and how structured mechanisms—such as researcher mobility schemes, multilateral funding programmes, and embedded fellowship models—enable knowledge exchange and policy-relevant research cooperation. Particular attention was given to the skills, incentives, and communication practices required for academics to engage effectively in diplomacy-oriented research and to sustain cross-border partnerships.

The third session (21 July 2025) shifted the focus to businesses and investors, analysing how innovation diplomacy extends STI cooperation beyond research into commercialisation, investment, and market access. Discussions highlighted the evolving role of startups, SMEs, and innovation-driven enterprises as strategic actors in Thailand's STI diplomacy ecosystem, supported by public agencies through regulatory sandboxes, co-investment mechanisms, and international partnership platforms. The session examined how policy clarity, human capital development, and execution capacity enable firms to scale innovations globally, positioning business engagement as a critical delivery mechanism for STI diplomacy outcomes.

Taken together, the three sessions presented Thailand's STI diplomacy as a distributed but coordinated ecosystem in which government strategy, academic collaboration, funding instruments, and business participation are mutually reinforcing. The workshop series provided a structured

overview of Thailand's approach, while also identifying the conditions—policy alignment, regulatory coherence, skills development, and institutional coordination—under which international collaboration can translate into sustainable innovation and development outcomes.

1. The Role of Government Strategy and Actions

The first session of the Country Focused Workshop Series on Thailand, “The Role of Government Strategy and Actions in Thailand’s Science, Technology, and Innovation Diplomacy Ecosystem,” took place on 7 July 2025.

The session commenced with opening remarks from the Asia-Europe Foundation (ASEF) and its partners. In his opening remarks, Mr Zhang Lei, Deputy Executive Director of ASEF, underscored the importance of highlighting opportunities for international cooperation in the field of science and technology diplomacy. This perspective was further emphasised by Ms Chulamanee Chartsuwan, ASEF Governor for Thailand, in her welcome remarks, where she highlighted the essential importance of science, technology and innovation in strengthening national competitiveness and promoting international collaboration, portraying science as a potent diplomatic conduit. From a national policy perspective, Associate Professor Wongkot Wongsapai, Vice President of the Office of the National Higher Education, Science, Research and Innovation Policy Council (NXPO), emphasised the significance of science, technology, and innovation in tackling global challenges such as climate change, advocating for international and interdisciplinary collaboration. Together, these interventions demonstrate how Thailand combines traditional and innovative approaches to STI diplomacy, supported by collaborative governance frameworks, robust interagency coordination, international partnerships, and evidence-based policymaking.

This was followed by a keynote presentation by **Mrs Salinee Phonprapai**, Deputy Director-General of the Department of International Economic Affairs at the Ministry of Foreign Affairs of Thailand (MFA), who established the policy context on Thailand’s rationale and institutional framework for science, technology, and innovation diplomacy. She articulated Thailand’s resilient STI ecosystem, underpinned by strategic planning, legal frameworks, and international partnerships led by the Ministry of Foreign Affairs. She emphasised the role of STI in enhancing resilience against Environment, Social, and Government (ESG) challenges and fostering good governance through digital public services. Furthermore, the Ministry of Foreign Affairs promotes Thailand’s STI diplomacy through initiatives that foster international startup ecosystems, support multilateral STI collaborations such as APEC’s scientist mobility programme, and strategically position Thailand within global forums including the OECD and the Mekong–Lancang cooperation framework. Mrs Phonprapai highlighted the [Saraburi Sandbox initiative](#), which functions as a platform for green innovation, adaptive governance, fiscal incentives, and investment infrastructure.

The session then transitioned into the panel discussion, featuring expert speakers from the field:

- **Dr Pongpan Kaewtatip**, Director of the Intelligence Unit: Science Research & Innovation for Economic Development at Science Research and Innovation for Economic Development, Thailand Science Research and Innovation (TSRI);
- **Dr Kanchana Wanichkorn**, Director of Sectoral Development, ASEAN Economic Community Department, ASEAN Secretariat;
- **Mr Thitidej Tularak**, Minister-Counsellor (Higher Education, Science, Research & Innovation), Royal Thai Embassy, Washington, D.C.; and

- **Dr Pranpreya Sriwannawit Lundberg**, Director of the International Policy Partnership at NXPO.

Dr Keawtatip explained how TSRI structures Thailand's national research funding across universities, institutes, and nine Programme Management Units, and how internationalisation is embedded within this architecture through a dedicated Global Partnership Fund. Dr Wanichkorn positioned Thailand as a “system builder” within ASEAN, arguing that the Secretariat's three-level engagement model such as policy coordination, collaborative platforms, and external partnerships, offers Thailand a strategic lever for regional STI diplomacy that extends well beyond its membership. Mr Tularak illustrated how Thailand's balancing strategy between major powers operates in practice through simultaneous science and technology agreements with both the United States and China, while flagging that internal governance fragmentation remains the most significant constraint on effective delivery. The discussion can be encapsulated under the following principal thematic domains.

The panel discussion was structured around interconnected thematic areas examining Thailand's STI diplomacy ecosystem and the practical mechanisms through which academic expertise can be translated into policy engagement and international cooperation.

1.1 Regional Cooperation via ASEAN

From the ASEAN standpoint, resilience and a “future-ready community” under [ASEAN Vision 2045](#) position STI as a cross-cutting enabler for climate action, health security, and digital connectivity. Dr Wanichkorn emphasised Thailand's potential as a strategic advocator, convener, and system builder within ASEAN. She proposed utilising effective national programmes, such as “Thailand Talent Mobility,” and adapting these initiatives regionally, advocating for regional databases and talent development to enhance ASEAN's science, technology and innovation in sustainability, agriculture, tourism, energy, biotechnology, and digital infrastructure.

1.2 Balancing Bilateral Geopolitics

In order to effectively implement STI policies and address inter-ministerial coordination gaps, the speakers emphasised through the discussion the increasing significance of establishing explicit task forces and cohesive command structures. Mr Tularak addressed concerns regarding research integrity and trust-building, advocating for transparency, honesty, and gradual trust-building through sustained engagement. Advocating for more engagement from essential sectors such as energy and digital infrastructure is crucial for the development of comprehensive and inclusive STI policy. Panellists emphasised that augmenting the capabilities of Thai higher education institutions to engage more actively in international collaborations and incorporate non-academic organisations will enhance strategic initiatives. Mr Tularak defined substantial bilateral agreements and initiatives, including involvement in the [Artemis Accords](#) and nuclear cooperation frameworks with the United States, MOU with China's CNSA regarding space exploration and the International Lunar Research Station, a collaborative AI laboratory with China's Ministry of Science and Technology, and Mekong-Lanchang STI initiatives. He noted ongoing challenges in navigating geopolitical tensions through STI cooperation,

underlining the imperative of establishing clear norms to foster sustainable and effective collaborations. His recommendation was to simultaneously facilitate technology transfer, joint research, and industrial opportunities, while also acknowledging sensitivities and avoiding redundancy in controlled domains.

1.3 Funding Architecture and Programmes

The financing stack must be deliberate to transform concepts into impact. Dr Keawtatip presented Science Research and Innovation for Economic Development, Thailand Science Research and Innovation's portfolio, including i) Fundamental Funds to universities and research institutes; ii) Strategic Funds channelled via programme-management units aligned to the national plan; iii) A Research Utilisation Fund to scale results; and iv) S&T infrastructure funds for long-term capability. Internationalisation is embedded structurally through several mechanisms: a dedicated Global Partnership Fund that channels resources specifically towards cross-border research and innovation projects; participation in the Global Research Council and Belmont Forum, both of which coordinate internationally pooled funding calls that allow multiple national research agencies to jointly commission research on shared priorities; and support for [ASEAN Talent Mobility](#) (via Programme Management Unit-Brain Power, Manpower (PMU-B)). He noted the shift toward multi-year, block-grant financing, underpinned by a dedicated capacity-building budget, to provide more predictable targeted schemes and stronger backing for young researchers. Additionally, 12.6% of the fund was allocated for capacity development and 12.6% for frontier research in the 2025 plan.

1.4 Coordination and Governance

Coordination and governance were presented as execution challenges rather than policy gaps in Thailand. Mr Tularak characterised the operational environment across ministries and overseas missions as analogous to a “worker-ant” system, drawing on his field observations. By this, he referred to a mode of operation in which officials at the working level conduct tasks with high diligence and persistence, but often within fragmented mandates, limited decision-making authority, and weak horizontal coordination. While this decentralised, labour-intensive model allows day-to-day functions to continue, it also results in siloed execution, slow escalation of decisions, and inefficiencies in cross-agency collaboration.

He recommended the creation of time-limited task groups with well-defined missions, empowered focal points, and standardised information-sharing procedures to coordinate activities across institutions in order to overcome these limitations. He added that when roles and power are clearly defined, dual reporting structures abroad – to both the parent ministry and the embassy – can speed up operational decision-making. However, whole-of-government responsiveness is also constrained by enduring disparities in attaché representation, especially in critical industries like energy and digital infrastructure. In order to facilitate the efficient execution and accomplishment of certain goals, he

suggested giving implementers more precise authority, well-defined deadlines, and mission-oriented mandates.

1.5 Trust, Integrity, and Standards

Thailand's framework for governing frontier technology collaboration such as nuclear energy, space exploration, and artificial intelligence must prioritise trust as its foundational principle. Mr Tularak underlined transparency, honesty, and good-faith engagement as prerequisites for durable partnerships, arguing that in areas involving sensitive knowledge and technology, trust between parties matters more than rigid regulation at the outset. He promoted regulatory sandboxes, which codify guardrails and facilitate experimentation, initially in fintech but increasingly extended to areas such as unmanned aerial vehicles and artificial intelligence. He contended that when honesty and sincerity are genuinely in place between partners, the need for formal regulation diminishes, not because the regulation is unnecessary, but trust creates the conditions under which collaboration can proceed without it. Cross-border regulatory pilots operating within this framework help ensure that scientific research remains insulated from political volatility and that all parties can manage risk without escalating geopolitical tension.

1.6 Capacity Building and Talent Mobility

Building on TSRI's funding architecture, Dr Kaewtatip cited science-diplomacy seminars sponsored by TSRI that establish regional researcher networks. Both Dr Kaewtatip and Dr Wanichkorn advocated for the enhancement of internationalisation in Thai higher education, and the inclusion of non-academic actors, such as industry associations, accelerators, and think tanks, to transform research into policy-relevant outcomes and enduring cross-border partnerships. ASEAN Talent Mobility, administered through PMU-B, is a structured exchange channel through which researchers, scientists, and innovation professionals can assess regional networks and collaborate with Thai counterparts across government, academia, and industry.

Dr Wanichkorn went further in proposing structural mechanisms to build the next generation of STI diplomats. She contended that what is needed is not simply more dialogue between scientists and policymakers, but institutionalised formats such as "policy labs" modelled on those already piloted by NXPO and TSRI, where participants jointly develop policy recommendations rather than merely exchanging views. She proposed a dedicated early-career STI diplomacy fellowship that would rotate participants across government ministries, research institutes, international organisations, and innovation centres, drawing on the precedent of ASEAN's existing attachment programme for member states. Complementing this, she called for expanded secondment and shadowing schemes that would embed scientists within ministries and diplomats within research settings, ensuring that both communities develop a working fluency in each other's language and decision-making culture.

1.7 Summary

The session underscores Thailand's increasingly sophisticated approach to STI diplomacy, demonstrating how a coherent legal mandate, strategic funding architecture, and active foreign policy instruments can work together. Effective STI diplomacy requires institutional frameworks and investment in early-career fellowships and policy labs to secondment schemes that build genuine fluency across scientific and diplomatic communities. Navigating geopolitical complexity demands deliberate balancing with trust and good faith serving as the foundation for sensitive technology collaboration. Furthermore, Thailand plays a regional role as a system builder within ASEAN and a bridge between Asian and European innovation ecosystems, offering a strategic platform that extends well beyond its bilateral partnerships.

2. The Role of Academia and Research Institutions

The second session of the Country Focused Workshop Series on Thailand, “The Role of Academia and Research Institutions in Thailand’s Science, Technology, and Innovation Diplomacy,” took place on 14 July 2025. The session examines how Thai Universities, research institutions, and international funding frameworks operate at the intersection of science and diplomacy.

The introductory keynote speech was given by the Chairperson of the Committee on Promoting and Enhancing Higher Education Towards Quality and International Standards, Thailand at Chulalongkorn University, **Assoc. Prof Rattachat Mongkolnavin**. In it, he highlighted that authentic collaboration and successful internationalisation frequently originate from establishing personal relationships, emphasising academics' importance in Thailand's scientific diplomacy. Assoc. Prof Mongkolnavin established that effective STI diplomacy requires a unified conceptual foundation, proposing a three-dimensional framework derived from Royal Society and AAAS standards: diplomacy for science, which leverages international relations to secure access to global research infrastructure and collaborative funding; science for diplomacy, which uses scientific cooperation as neutral ground to build trust and mitigate geopolitical friction; and science in diplomacy, which embeds evidence-based expertise in foreign policy decisions on issues such as pandemics and climate change.

He situated this framework within Thailand's five strategic directions for higher education internationalisation: Global Network Development, Internationalisation at Home, Strategic Partner Enhancement, Thailand Branding, and Agile Ecosystems. To operationalise these directions, he outlined Thailand's "[Reinventing Universities](#)" initiative, which classifies over 150 institutions into five groups according to their strategic function — from Group 1 universities conducting frontier research to Group 3 universities focused on community development and sub-regional stability and Group 5 with specialised universities — ensuring that national funding is not merely distributed but strategically invested according to institutional mandate. He also addressed the security-diplomacy nexus, arguing that "responsible openness" is the only sustainable path for a country seeking to remain an open, trusted research partner without compromising national security, and identifying Japan, Canada, and Germany as models for the due diligence frameworks Thailand is developing. These include internal policy capacity-building, the establishment of help desks to guide researchers through international partnership agreements, and rigorous ethical review mechanisms for partnerships involving sensitive data or frontier technologies.

The keynote was followed by a panel discussion with expert speakers:

- **Dr Somkiat Kamolpun**, Minister-Counsellor (Higher Education, Science, Research and Innovation), OHESI Brussels
- **Dr Romyen Kosaikanont**, Vice President, Mae Fah Luang University, Thailand
- **Dr Worajit Setthapun**, Assistant Dean, Chiang Mai Rajabhat University
- **Ms Leonie Nagarajan**, Representative, EURAXESS Worldwide

Dr Kosaikanont grounded the discussion in concrete transboundary challenges facing northern Thailand, using the cases of PM2.5 air pollution and heavy metal river contamination in Chiang Rai to

illustrate how geopolitical barriers can render conventional science diplomacy protocols structurally ineffective. These barriers include inaccessible Myanmar border areas administered by non-state actors. He asserts that universities must reposition themselves as regional hubs committed to long-term collaborative problem-solving rather than unilateral expertise transfer. Dr Setthapun drew on her experience spanning Chiang Mai Rajabhat University, the PMU-B Global Partnership Fund, and the ASEAN-US Science and Technology Fellows programme to argue that effective science diplomacy is rarely labelled as such. It is embedded in funding programme design, researcher mobility schemes, and long-term network building. The central challenge is not the absence of mechanisms, but the absence of people trained to operate across scientific, policy, public, and economic communication registers simultaneously. Ms Nagarajan presented Horizon Europe as the world's largest multilateral research collaboration framework and a science diplomacy instrument in its own right, highlighting that Thai institutions have achieved a 26% success rate across 35 funded projects, and situating Horizon Europe's dual focus on individual researcher mobility (Pillar 1: Marie Skłodowska-Curie Actions and European Research Council (ERC) grants) and large-scale collaborative challenges (Pillar 2: climate, health and digital transition) as directly aligned with the thematic priorities Thai institutions are already pursuing. The discussion can be encapsulated under the principal thematic domains explored in the following sections.

2.1 Communicating Science Diplomacy: Bridging Researchers and Policymakers

Dr Kosaikanont identified the most acute constraint as geopolitical access: in the case of transboundary pollution in Chiang Rai, specifically PM2.5 from agricultural burning upstream and heavy metal contamination of international rivers. The sources of transboundary pollution flowing into northern Thailand, particularly heavy metals entering the Mekong, originate partly upstream in these Wa-administered areas, which are inaccessible even to the central Myanmar government. This creates a total data collection barrier that satellite imagery and remote sensing can partially but not fully address, and even available technological evidence is frequently dismissed by stakeholders as politically biased or externally influenced. She concluded that science diplomacy frameworks designed for open, willing bilateral partners do not translate readily into conflict-affected or contested territories, and new models are needed.

Dr Setthapun identified a complementary structural constraint: the disciplinary silo. Pure scientists are trained to pursue deep, narrow inquiry; they are not equipped by their education to translate findings into policy language, communicate to public audiences, or make the economic case for political decision-makers. She argued that effective science diplomacy requires not one person performing all these functions, but deliberately composed teams in which technical experts, policy translators, and communicators operate in complementary roles. Ms Nagarajan extended this point, observing that researchers must now be proficient in at least four registers: scientific language for peer publications, policy language for briefs and government engagement, public language for science communication, and English as the de facto international working language. Dr Kosaikanont added a fifth — economic language — as the ultimate currency of political decision-making, arguing that no collaboration survives

a budget cycle unless its proponents can articulate its financial value to the institution and to government.

2.2 Universities as Regional Hubs and Connectors

Assoc. Prof Mongkolnavin presented “[Reinventing Universities](#)” framework by illustrating Thailand’s university system that is not a monolithic actor in STI diplomacy but a differentiated ecosystem. Different groups of institutions contribute according to their geographic, thematic, and strategic positioning. Dr Kosaikanont illustrated this connector role through two cases from Mae Fah Luang University and Chiang Mai Rajabhat University, respectively. The university functions as a sub-regional connector, linking local challenges to international expertise and building the bilateral and multilateral relationships that sustain long-term cooperation. In this case, at first, the university designed border university network pairing seven Thai universities with seven Myanmar counterparts along the Thailand-Myanmar border, funded by MHESI as part of a strategic academic cooperation plan for neighbouring countries. The network met twice a year and developed joint research proposals that were submitted to the bilateral technical commission of the Ministry of Foreign Affairs. Although the programme's progress has since been affected by the political situation in Myanmar, the personal networks it created — maintained through informal channels — remain intact, demonstrating that people-to-people connections can outlast institutional disruption. In the second case, Chiang Mai Rajabhat University launched a "Horizons Southeast Asia" project funded by the German Academic Exchange Service (DAAD), designed to address gaps in the research ecosystem of lower-income Southeast Asian countries by building institutional leadership capacity and establishing researcher networks around three thematic clusters: climate change, sustainable river management, and sustainable agricultural production. A key finding of the underlying research was that some countries — Laos was cited as an example — had committed national budgets for research but lacked the regulatory mechanisms to disburse them, suggesting that research capacity gaps are often institutional rather than financial.

Ms Nagarajan reinforced the connector argument from a European perspective, pointing to Horizon Europe as a framework that by design requires cross-border, multi-institutional collaboration, making universities structural intermediaries in international partnerships rather than optional participants.

2.3 Capacity Building and the Science-Diplomacy Interface

Drawing on her experience as former Vice Director of the Programme Management Unit for Technology and Innovation for Future Industries (PMU-B), Dr Setthapun highlighted the strategic role of funding agencies in balancing scientific excellence with regional relevance and durable international partnerships. She emphasised that funding agencies function not merely as financiers, but as system orchestrators that shape incentives, align research agendas with diplomatic priorities, and enable science diplomacy through collaborative research structures and targeted talent development.

Further reinforcing this point, Dr Setthapun drew on her own trajectory as an illustration. Her understanding of the science-policy interface did not come from reading national STI plans — which

she described as impenetrable to working scientists — but from being embedded in the Ministry of Energy through the [ASEAN-US Science and Technology Fellows Programme](#). Running from 2014 for approximately five years, the programme placed researchers from across ASEAN member states within government ministries for one year, then brought them together twice annually to share learning. Of the approximately 70 fellows produced, a significant proportion have gone on to hold senior institutional positions — as deans, vice presidents, and directors — while others have joined the ASEAN Secretariat, creating an informal network of people who understand both the scientific and diplomatic registers and can bridge them in practice. Although the US funding that sustained the programme has ended, former fellows have initiated their own training derivatives to continue the model.

She also highlighted two further programmes: the Global Young Academy's [ASEAN and APEC Science Leadership Programme](#), which selects and convenes top-tier early-career scientists from across the ten ASEAN member states for joint leadership and networking activities, providing a regional-level cohort effect; and [Japan's STI Coordination Programme for ASEAN](#), which specifically develops the soft skills — coordination, stakeholder management and cross-cultural communication — required to manage large multilateral research initiatives rather than simply conduct research within them.

To illustrate this role in practice, Dr Kosaikanont argued that what is most missing is not individual training opportunities but strategic vision at the institutional level: universities need to articulate a clear purpose for their science diplomacy engagement, identify the researchers most willing and able to step into boundary-spanning roles, and build the internal flexibility to support secondments, regional appointments, and extended international engagement without penalising academic careers. Dr Kamolpun, drawing on his experience coordinating Thailand-EU cooperation from Brussels, reinforced this, noting that the ministry is moving towards co-funding models for international cooperation — a structural shift that embeds science diplomacy into the financial architecture of research programmes rather than treating it as an add-on.

2.4 Horizon Europe as a Multilateral STI Diplomacy Tool

Ms Nagarajan presented [Horizon Europe](#) — with a budget of EUR 95.5 billion for 2021–2027 — not merely as a funding source but as the world's largest multilateral instrument for science diplomacy, designed to build durable cross-border research partnerships while tackling global challenges aligned with the UN Sustainable Development Goals.

For Thai institutions and researchers, two pillars are most relevant. Pillar 1 supports individual researchers through Marie Skłodowska-Curie Actions — including postdoctoral fellowships, doctoral networks, and staff exchanges — and through European Research Council grants for high-risk, high-gain frontier research. Both instruments are open to researchers of any nationality embedded in eligible institutions. Pillar 2 funds large-scale collaborative projects organised around six thematic clusters addressing societal challenges, including climate, health, and digital transitions — areas that closely mirror the priority sectors already identified in Thailand's national STI plan.

Thai institutions have demonstrated a strong track record of engagement: 35 funded projects have been secured with a 26% success rate, with natural sciences and medical and health sciences as the

leading thematic areas. One ongoing example is the Greener RPP biotechnology project, coordinated by the University Medical Center Groningen in the Netherlands, in which two Thai institutions are among thirteen international partners. Ms Nagarajan noted that the pathway into larger collaborative grants often begins with individual mobility schemes: several Thai researchers who completed MSCA postdoctoral fellowships have gone on to lead multi-partner collaborative projects, illustrating how personal connections, built through mobility, can scale into institutional partnerships. For Thai universities seeking to engage with Horizon Europe, she advised identifying a strong European partner at the outset, noting that consortium composition significantly affects evaluation outcomes.

2.5 Summary

The session concluded with suggestions for future actions, underscoring the need for universities and funding agencies to cultivate strategic vision among academic leaders so that they can clearly define and articulate science diplomacy objectives. Dr Kosaikanont argued that universities must develop strategic vision at the leadership level, identifying not only what they want to achieve through international engagement but also who within their institutions is positioned and willing to take on boundary-spanning roles. He proposed building the internal flexibility to support those people through secondments, regional appointments, and extended international commitments without penalizing their academic careers.

Dr Setthapun emphasised that the most effective capacity building happens through immersion rather than instruction. According to her experience, understanding the science policy interface does not come from reading national plans but from being embedded in a ministry through the ASEAN-US Science and Technology Fellows programme. She added that placing researchers inside policy institutions for defined periods of time produces a quality of mutual understanding that no seminar or training course can replicate. Ms Nagarajan reinforced this from the funding perspective, noting that Horizon Europe's success metrics explicitly account for policy impact and researcher employability alongside scientific excellence, and that Thai institutions which begin with individual mobility grants, frequently develop the personal networks that later anchor larger multilateral collaborations. In conclusion, speakers suggested that the foundation of effective science diplomacy is not institutional architecture but people, such as researchers who can move fluently across scientific, policy, public and economic registers, and institutions willing to invest in developing them.

3. The Role of Businesses

The final session of the workshop series, “The Role of Businesses in Thailand’s Science, Technology, and Innovation Ecosystem and How to Work with Them,” was held on 21 July 2025 and moderated by Ms Linnéa Regnell, Project Executive in the Education Department of the Asia-Europe Foundation (ASEF). The session examined the evolving role of businesses, particularly startups, SMEs, and innovation-driven enterprises, as active strategic actors within Thailand’s science, technology, and innovation (STI) diplomacy ecosystem, rather than as passive recipients of policy support. The discussion highlighted how Thai firms are increasingly engaged in advancing national innovation priorities while participating in global collaboration and market positioning.

The session started with a keynote address by **Dr Krithpaka Boonfueng**, Executive Director, National Innovation Agency (NIA), Thailand, who, in her address articulated Thailand’s approach to innovation diplomacy through the lens of private-sector mobilisation. She emphasised the importance of collective action across government, industry, and international partners in transforming Thailand into an “innovation nation.” She identified priority sectors (agriculture, energy, travel and soft power, and health) as strategic interfaces where national policy objectives intersect with market adoption and international opportunity.

Dr Boonfueng outlined Thailand’s core STI assets, including its strategic geographic location, cost-effective labour base, robust infrastructure, strong agricultural exports, and a rapidly expanding startup ecosystem. She highlighted high-potential sectors such as agriculture and food businesses, medical and healthcare technology, energy and climate solutions, innovative tourism, and cultural innovation (soft power). Within this context, NIA’s role was presented as that of a public authority that leverages partnerships to translate sectoral priorities into vehicles for international collaboration, regulatory experimentation, and talent development, thereby embedding private-sector capabilities into Thailand’s broader STI diplomacy strategy.

She further explained how NIA operationalises this approach through energy-transition initiatives such as EGAT (Electronic Generating Authority of Thailand)’s InnovPower, which enable co-investment, co-development, and standards-setting by linking climate-tech ventures and maker spaces with real-world laboratories and educational curricula. These mechanisms were described as tools for aligning market adoption with Thailand’s diplomatic objectives, including by testing entry points for foreign firms and international investment funds. Dr Boonfueng noted that NIA currently collaborates with partners across Japan, Korea, Europe, the Middle East, and Scandinavia. However, she also acknowledged persistent challenges, including the need for sustained public investment in research and development, the reduction of bureaucratic barriers, the expansion of regulatory sandboxes, and the cultivation of a stronger global mindset among Thai entrepreneurs.

Building on this strategic framing, the panel discussion translated policy into practice with the following speakers:

- **Dr Darnp Sukontasap**, Lecturer, Rangsit University, and Member, Legal Committee, National Cyber Security Agency (NCSA), Thailand;

- **Dr Pun-Arj Chairatana**, Chairman, Canvas Ventures International (CVI) and former Executive Director of NIA; and
- **Dr Ajaree Tavornmas**, Partner, Access-Europe and Chair of Sustainability Committee, Thai European Business Association (TEBA).

The discussion was organised around four interrelated thematic areas, examining innovation diplomacy as a commercial instrument, the role of regulatory clarity in unlocking investment, the centrality of human capital for scale, and the organisational structures required for effective delivery. Dr Chairatana argued that STI diplomacy has evolved through three distinct phases — from Cold War-era science-for-defence, through post-Cold War technology transfer to catching-up economies, to a contemporary third phase centred on innovation diplomacy, in which venture capital, commercialisation storytelling, and deep-tech scaling are the primary instruments for escaping the middle-income trap. Dr Tavornmas drew on her experience representing European investors in Thailand to identify the specific conditions that determine investment decisions: policy focus and follow-through, a level playing field with transparent regulation, and a sufficiently skilled workforce capable of operating across digital and electrification-led industries — citing automotive and aerospace as the sectors where Thai-European collaboration holds the greatest near-term potential. Dr Sukontasap challenged the prevailing decentralised model of Thailand's STI diplomacy directly, arguing instead for a one-team approach with clear ownership, defined KPIs agreed across agencies, and dedicated full-time resourcing — and citing Australia and Denmark's appointment of specialist ambassadors for technology, climate, and cybersecurity as models for how countries can move from following global trends to actively shaping them. Building on the strategic framing set out in the keynote, the panel.

3.1 Innovation Diplomacy Becomes a Commercial Instrument

As one of the original architects of the innovation diplomacy concept in Thailand, a framework he developed and operationalised during his tenure as Executive Director of the National Innovation Agency, Dr Chairatana drew a clear distinction between conventional science diplomacy and what he termed its third-generation form. Where science and technology diplomacy uses research cooperation to build relationships and transfer knowledge, innovation diplomacy adds a commercial layer: it is oriented not towards joint publications but towards market entry, investment mobilisation, and the scaling of firms across borders. The instruments are correspondingly different, encompassing venture and co-investment partnerships, corporate-startup accelerator programmes, IP licensing pathways, regulatory sandboxes, and export-facing branding, and so are the intended outcomes: sales, employment, and international scale rather than academic outputs alone.

For Thailand specifically, Dr Chairatana argued that this commercial orientation is not optional but strategically necessary. Middle-income economies cannot escape the middle-income trap through research cooperation alone; they must translate accumulated knowledge into investable propositions, open international markets for their innovations, and tell more compelling stories about what they offer global partners. The sectors where Thailand is best positioned to do this are food technology, medical technology, and emerging areas such as space and creative industries, where existing

industrial strength can be matched with targeted diplomatic and investment promotion efforts. The key takeaway from his argument is that innovation diplomacy reframes the role of government from knowledge facilitator to commercial enabler: the measure of success is not how many partnerships are signed, but how many Thai innovations reach global markets.

3.2 Policy Clarity, Transparency, and Regulatory Agility to Unlock Investment

Dr Tavornmas reinforced the importance of transparency and explicit policy alignment. In order to attract investment, it is imperative to enhance regulatory frameworks. Thailand's competitiveness could be enhanced by streamlining domestic certification and technical-barrier procedures (TBT), which can be duplicative and sluggish, resulting in increased costs for sectors such as automotive. She emphasised that strengthening human capital skills training will guarantee compatibility with new technologies, for example, in digital and aerospace sectors. Echoing that regulatory theme, Dr Boonfueng underscored the importance of regulatory sandboxes, which enable frontier tech to launch in controlled conditions, learn quickly, and reduce risk for both firms and regulators. Combined with incentives (e.g., co-funding, tax tools) and legal updates, these measures enhance Thailand's innovation benchmarks and facilitate the co-investment, certification, and scaling of foreign partners with Thai companies.

3.3 Human Capital and Organisational Readiness as the Hinge for Scale

Across the panel, speakers converged on a shared conclusion: that Thailand's ability to translate its STI ambitions into tangible outcomes depends less on the sophistication of its strategies than on the quality of the people and organisations tasked with delivering them.

Dr Tavornmas, drawing on her experience representing European investors through the Thai-European Business Association (TEBA), a body comprising major European companies already operating in Thailand, identified workforce capability as one of the three primary factors that determine whether investors commit and stay. The transition to electrification and digitalisation has fundamentally changed what skilled labour looks like in industries such as automotive and aerospace: workers must now be conversant in artificial intelligence, electrical systems, and digital manufacturing processes, not merely traditional engineering competencies. TEBA is actively addressing this through targeted vocational training and capacity-building programmes, and Dr Tavornmas noted that the association's member companies are willing partners in student and workforce collaborations for institutions that make the approach.

Dr Sukontasap approached the question from a different angle, arguing that multidisciplinary education is the foundational prerequisite for effective STI diplomacy at the leadership level. Future business leaders and diplomats must be literate across science, security, economics, law, and society,

not as deep specialists in each but sufficiently so to know who to involve and when. To this, he added project management know-how as an underrated but essential capability, arguing that strategies and action plans only produce results when they are implemented with clear ownership, realistic timelines, and disciplined execution.

This led to his most pointed intervention of the session: a direct challenge to Thailand's prevailing decentralised model of STI diplomacy. Describing himself as not a believer in this approach, Dr Sukontasap argued that what Thailand needs instead is a one-team model, with shared objectives, clearly assigned roles, KPIs agreed across agencies rather than set in isolation, adequate budgets, and full-time dedicated teams rather than the part-time add-on arrangements that currently characterise much of the coordination effort. As a concrete institutional model, he pointed to Australia and Denmark, both of which have appointed specialist ambassadors for technology, climate change, and cybersecurity who do not merely monitor global trends but actively shape them and help build the international ecosystem for STI diplomacy. His conclusion was that until Thailand makes similar structural commitments, the gap between its strategic ambitions and its delivery capacity will persist.

3.4 Summary

The session concluded with a compelling call to action to strengthen the role of business in Thailand's STI diplomacy. Dr Chairatana argued that the shift from science diplomacy to innovation diplomacy requires a corresponding shift in how success is measured: not by the number of partnerships signed but by the number of Thai innovations that reach global markets, making commercialisation infrastructure, investment facilitation, and export-facing branding as important as research collaboration. Dr Tavornmas was direct about what international partners need before they will commit: policy focus, regulatory transparency, and above all the sustained consistency of direction that allows a business model to be built with confidence — warning that Thailand's tendency to maintain too many strategic priorities simultaneously dilutes the signal that investors rely on. Dr Sukontasap reinforced this from the domestic side, arguing that capacity building at home must precede international outreach, and that Thailand's R&D investment levels, at approximately 1.21% of GDP, remain insufficient to support the level of international ambition the country has set for itself in sectors such as aerospace and frontier technology.

Taken together, the session made a compelling case that Thailand's STI diplomacy will be most effective when strategic direction is chosen deliberately and followed through consistently, when the institutions responsible for delivery are structured for accountability rather than coordination, and when investment in human capital and domestic research capacity keeps pace with the partnerships being pursued internationally.

Conclusions

Across the workshop series, speakers consistently presented Thailand's science, technology and innovation (STI) diplomacy as an operational mechanism that connects national policy priorities with international cooperation and concrete development outcomes. Rather than relying on a single coordinating body, STI diplomacy in Thailand operates through a distributed model in which ministries, specialised agencies, universities, funding organisations, businesses, and overseas missions act within clearly defined roles. This structure enables diplomatic engagement to be directly linked with research collaboration, financing instruments, regulatory mechanisms, and market access pathways.

The three sessions examined this system from complementary perspectives. The first session focused on the policy rationale and coordination arrangements required to anchor STI diplomacy within government and diplomatic practice. The second session examined how universities and funding agencies translate policy intent into practice through structured research collaboration, researcher mobility, and participation in international funding frameworks. The third session explored the role of businesses and investors, demonstrating how innovation diplomacy expands STI cooperation beyond research to include commercialisation, investment facilitation, and regulatory engagement as core elements of international partnership.

Collectively, the discussions demonstrated that Thailand provides multiple, clearly defined entry points for international engagement. Academic institutions and researchers participate through mobility schemes, joint research programmes, and multilateral consortia. Funding agencies enable collaboration by aligning national priorities with international calls and by supporting capacity-building and partnership formation. Businesses engage through innovation programmes, pilot projects, and co-investment arrangements that link research outputs to market adoption. These pathways are supported by diplomatic missions and inter-agency coordination mechanisms that facilitate partner identification, network building, and programme alignment.

The sessions also clarified the conditions under which STI diplomacy delivers effective and scalable outcomes. Participants emphasised the importance of sustained investment in human capital, particularly in areas requiring multidisciplinary and technology-intensive skills. Regulatory clarity, including coherent standards, certification processes, and the use of regulatory sandboxes, was identified as essential for reducing uncertainty and enabling cross-border collaboration. Equally important was institutional coordination, with clear mandates, predictable funding instruments, and mechanisms that minimise fragmentation across agencies and programmes.

The workshop series illustrated an STI diplomacy ecosystem in which policy direction, research collaboration, business engagement, and diplomatic coordination reinforce one another. For international partners, engagement with Thailand offers access to established cooperation frameworks, structured funding and mobility instruments, and mechanisms to translate joint research into deployable solutions. When collaboration is designed to align with policy priorities, regulatory frameworks, and skills development needs from the outset, Thailand's STI diplomacy provides a coherent and reliable platform for long-term international cooperation and shared innovation outcomes.

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