# ASEAN-ROK STI Cooperation Forum 2026 and the 2nd ASEAN-ROK Retreat Meeting

*"Intensifying ASEAN-ROK Joint Research Collaboration on Emerging Technologies"*

Bangkok, 28-29 May 2026

# PARTICIPATION REPORT

## 1. BACKGROUND AND PURPOSE

I have the honour to represent Timor-Leste to participate in this important forum and retreat meeting: the ASEAN-ROK STI Cooperation Forum 2026 and the 2nd Retreat Meeting, held in Bangkok on 28-29 May 2026. These forums brought together science, technology, and innovation (STI) stakeholders from across ASEAN member states and the Republic of Korea (ROK), minus representatives from Cambodia and Myanmar.
The event served as the operational platform for implementing the ASEAN-ROK STI Cooperation Work Plan 2025-2027, which was endorsed by the Committee on Science and Technology (COSTI) in October 2025.
The Forum's stated objective was to move beyond policy dialogue toward actionable and implementable collaboration, translating previously identified priority research areas such as *digital transformation (AI, HPC)*, *biotechnology*, and *semiconductors* into concrete joint pilot initiatives. The author attended both the open public forum (Day 1) and the closed retreat workshop (Day 2).
The followings are the summary of discussions I managed to extract during the course of two days, the conclusions I drew from the entire discussions and the recommendations I hope the INCT and the Ministry of Higher Education, Science, and Culture (MHESC) will be able to accommodate.

## 2. SUMMARY OF DISCUSSIONS

### 2.1 ROK STI Ecosystem Overview (National Research Foundation of Korea -NRF)

Mr. Hoseok Jeon, Director of the Office of International Research Cooperation at NRF, presented the Republic of Korea's STI landscape. Key highlights included:

- South Korea's national R&D budget increased from KRW 29.6 trillion (19,2 T USD) in FY2025 to KRW 35.5 trillion (23 T USD) in FY2026, approximately a 20% year-on-year rise.
- The AI-specific budget saw a dramatic 3.3-fold increase, rising from KRW 3.0 trillion (1,95 Trillion USD) to KRW 9.9 trillion (6,4 T USD), reflecting Korea's national agenda to become a global top-3 AI nation.

- NRF's four-strategy framework for 2026 spans: (i) AI Governance, (ii) Accelerating the AI Top-3 Drive, (iii) Innovation Growth through S&T, and (iv) Inclusive Growth and Public Safety.
- NRF maintains MOUs with 86 agencies across 53 countries and operates an S&T Cooperation Center in Jakarta (ASEAN). Key programmes relevant to ASEAN include the Bilateral Exchange Program (with Vietnam, Taiwan, and Thailand), the Joint Research Program, and a Scientist Invitation Program targeting APEC researchers.
- Korea's formal association with Horizon Europe (confirmed March 2024) was highlighted as a model for how an STI ecosystem can rapidly integrate into global multilateral frameworks.

### 2.2 Thailand's STI Ecosystem (TSRI and RISE Fund)

Asst. Prof. Dr. Sirinan Kulchat of TSRI presented Thailand's research funding architecture, structured under the Science Research and Innovation (SRI) system established in 2019:

- TSRI's FY2026 budget stands at approximately USD 600 million, distributed across economic development (26%), social and environmental enhancement (39%), brainpower development (31%), frontier research (1%), and ecosystem cross-cutting programmes (3%).
- The RISE Fund channels support through a Research and Innovation Fund (comprising Fundamental and Strategic streams) and a Science and Technology Development Fund.
- Thailand's 15 flagship programmes range across vaccine development, EVs, aging society, food biotechnology, advanced earth-space technology, and carbon neutrality.
- TSRI's INNOGLOBE Global Partnership Programme was introduced as a dedicated vehicle for attracting foreign R&D co-investment through four pillars: Global Co-Investment Lab (GCL), Research Utilisation Acceleration Partnership (RUAP), Frontier Sandbox Alliances (FSA), and a Foreign Direct Investment and Research Intelligence Unit (FRIU).
- Proposed collaboration modalities with ASEAN-ROK partners included flagship co-funding programmes, researcher exchange and shared facility access, research-industry innovation consortia, and joint training programmes for young researchers.

### 2.3 Korea's STI Ecosystem and Global Collaboration Trends (STEPI)

Ms. Seona Lee of the Science and Technology Policy Institute (STEPI) offered a policy analysis of Korea's STI ecosystem through the lens of global collaboration trends:

- Korea's STI ecosystem is characterised as agile (rapid pivot to emerging priorities through 'selection and concentration') and timely (elite bureaucracy enabling short cycles from policy decision to deployment).
- Korea's advanced industries such as batteries, high-bandwidth memory (HBM), biopharmaceuticals, and drones are the sectors driving international partnership interest.

- Two dominant global collaboration trends were identified: Trusted Supply Chain Connectivity (motivated by geopolitical realignments) and Mission-Oriented Partnerships (focused on solving shared societal challenges such as climate change and health security).

### 2.4 Singapore's A*STAR: Translating Emerging Technology into Real-World Impact

Dr. Jamie Ng, Senior Principal Scientist and Division Head at A*STAR's Institute for Infocomm Research, presented Singapore's approach to translating emerging technology collaboration into industrial deployment, with a focus on AI, robotics, and advanced manufacturing:

- Collaboration success requires bridging ecosystems through public-private partnerships (PPPs) and establishing joint deep tech labs and global consortia.
- Critical success factors include co-located research hubs (such as Singapore's Fusionopolis) and standardised IP frameworks enabling rapid commercialisation.
- The 'Valley of Death', the gap between lab-proven technology and scaled industrial deployment was identified as the primary systemic challenge, alongside cross-border compliance burdens related to data governance and ethical AI regulation.
- Researchers and early-career scientists require agile funding mechanisms (from proof-of-concept to prototyping) and mentorship platforms connecting ASEAN and Korean researchers to global networks and early industry integration.

### 2.5 Malaysia's Cradle Fund: ASEAN Startup Ecosystem

Ms. Nurshaffira Izzad of Cradle Fund Malaysia highlighted Malaysia's role as a startup ecosystem hub within ASEAN:

- Cradle serves as the focal point connecting over 5,000 startups and scale-ups, more than 400 research institutions, universities, and tech parks, and over 1.1 million SMEs across 11 ASEAN member states.
- The fund's ASEAN network links approximately 2,000 investors, including over 100 venture capital firms, 30 private equity funds, 6 development finance institutions, and 60 banks.
- The MyStartup and Startup ASEAN platforms were cited as digital infrastructure for talent mobility and technology transfer across the region.

### 2.6 ASEAN-ROK Work Plan 2025-2027: Priority Areas

The endorsed ASEAN-ROK STI Cooperation Work Plan (2025-2027) anchors the Forum's actionable agenda around three priorities:

- Priority 1: Capacity Building and Human Resource Development in STI targeting at least 110 trained researchers and scientists within three years, with a focus on digital transformation, AI, quantum computing, robotics, semiconductors, and biotechnology.

- Priority 2: Joint Research and Shared R&D Infrastructure to support joint projects on climate change, food security, renewable energy, AI, health technology, and sustainability; promoting infrastructure sharing between ASEAN and ROK.
- Priority 3: High-Performance Computing (HPC) and Regional Data Utilisation to facilitate HPC infrastructure access and developing a joint ASEAN-ROK 'Science and Technology Knowledge Platform'.

### 2.7 Retreat Workshop: Collaborative Pilot Initiative Design (Day 2)

The closed retreat session (Day 2) convened implementing agency representatives to co-design joint pilot project concepts across three thematic tracks: Digital Transformation (AI, HPC), Biotechnology, and Semiconductors. The structured co-creation methodology moved through six steps: problem framing, pilot concept development, partnership and governance, resource mapping, implementation timelines, and impact/feasibility assessment. Key outputs aimed at identifying 2-3 priority joint research project concepts or shared R&D infrastructure initiatives with 3-6 month implementation plans.

## 3. CONCLUSION

The ASEAN-ROK STI Cooperation Forum 2026 demonstrated a maturing regional STI partnership that has moved from aspirational declarations toward structured implementation. Several themes emerged consistently across presentations and discussions:

- AI and digital transformation are unambiguously the dominant investment priority for ROK and increasingly for ASEAN member states, with Korea committing unprecedented public resources toward becoming a global AI top-3 nation.
- The shift toward mission-oriented, trusted partnerships beyond broad multilateral engagements. This reflects a post-pandemic and geopolitically reconfigured global R&D landscape.
- Shared R&D infrastructure and talent mobility programmes are the most immediately actionable collaboration mechanisms, requiring policy harmonisation rather than large capital investments.
- The persistent challenge for smaller and less-resourced ASEAN member states is inclusion: most existing mechanisms are better calibrated to middle-income ASEAN economies (Thailand, Malaysia, Singapore, Indonesia, Vietnam) than to newer members such as Timor-Leste.

## 4. RECOMMENDATIONS FOR TIMOR-LESTE

Based on the discussions observed at the Forum, the following recommendations are offered for consideration by relevant Timorese institutions, including the Ministry of Higher Education, Cultura e Desporto (MECAS), the National Innovation and Technology Centre (INCT), and the relevant academic institutions:

### 4.1 Formalise Engagement with ASEAN STI Mechanisms

Timor-Leste as a full ASEAN member creates a timely opportunity to begin engaging with COSTI and the ASEAN STI mechanisms that underpin the Work Plan 2025-2027. Timor-Leste should designate a focal point within MECAS to participate in COSTI deliberations on an observer or provisional basis, and to track emerging collaboration opportunities under Priority Areas 1-3 of the Work Plan. Early engagement will position Timor-Leste to benefit from the planned Scientist Invitation Programme and bilateral exchange frameworks once full membership is achieved.

### 4.2 Pursue Targeted Bilateral Linkages Directly with Korea's NRF

NRF's Joint Research Program (with existing ASEAN partnerships with Vietnam and the Philippines) and its Bilateral Exchange Program offer a concrete entry point for Timorese research institutions. An MOU between INCT and NRF based on existing ASEAN bilateral arrangements has the potential to unlock joint research funding of up to KRW 120 million (78 Million USD) per year over a three-year cycle. Priority research themes should align with Timor-Leste's national development needs: food and agricultural technology, appropriate environmental technology, digital transformation and e-government, health systems and others. My existing research connections at ANU and within ASEAN forums can help facilitate introductions.

### 4.3 Position INCT and Timorese High Education Institutions for HPC and AI Capacity Building

The ASEAN-ROK Work Plan explicitly targets HPC infrastructure access and AI capacity building for ASEAN researchers. This facility has been fully constructed and will be launch on the 10th of June at *Badan Riset and Inovasi Nasional* (BRIN) Indonesia. Timor-Leste's institutions should proactively apply for inclusion in regional training programmes, bootcamps, and workshops under Priority 1 and Priority 3 of the Work Plan. The planned ASEAN-ROK Science and Technology Knowledge Platform presents a low-barrier digital access point for Timorese researchers who lack physical access to shared research facilities. INCT should formally register interest with the ASEAN Secretariat's Science and Technology Division.

### 4.4 Leverage Korea's ODA and Development Cooperation Programmes

NRF's ODA Programme which includes the Leading University Project for International Development Cooperation, is explicitly designed for capacity-building in developing countries. Timor-Leste's universities and research institutes are eligible beneficiaries. A targeted proposal from Timorese High Education Institutions, aligned with Korea's development cooperation priorities in AI literacy, digital governance, and agricultural biotechnology, could secure multi-year support. Korea's KOICA (Korea International Cooperation Agency) complementary programmes should also be explored in parallel.

### 4.5 Adopt the TSRI INNOGLOBE Model for Research Commercialisation

One particular development from Thailand to serve as an importante reference is the Thailand's INNOGLOBE framework. This framework links public research funding to foreign direct investment through co-investment labs and frontier sandbox alliances. It offers a conceptual model that Timor-Leste could adapt at a smaller scale. As the INCT Annual Research Fund matures, a dedicated mechanism for connecting INCT-funded research

outputs to ASEAN and Korean industry partners (particularly in agricultural technology, digital infrastructure, and appropriate technology) would help bridge the local 'Valley of Death' between research and deployment that was widely acknowledged at the Forum.

4.6 Develop a National STI Engagement Strategy

Timor-Leste currently still in the process of formalising its own national STI policy to guide its strategies for international STI engagement. The Forum made clear that effective participation in ASEAN-ROK mechanisms requires not only political will but sustained institutional capacity: designated national contact points, clear research priority areas aligned with national development plans (such as the Timor Digital 2032 roadmap and the PLANO 2030 framework), and a pipeline of researchers capable of engaging with bilateral funding calls. MECAS, working with INCT, Timorese High Education Institutions, and civil society, should develop such a strategy as a matter of priority.

4.7 Research and Travel Grants.

Academic research in Timor-Leste is still in its early stages. Therefore, government needs to further promote research activities, especially bu linking the research with industrial needs (tourism, fisheries, agriculture, livestocks, etc.). The annual Research Grants from INCT need to be consolidated to provide adequate supporting environments to the researchers. Moreover, the government also need to introduce more incentives such as travel grants for researchers whose papers were accepted to be presented in quality academic conferences.

## 5. CONCLUSION

The ASEAN–ROK STI Cooperation Forum and the Retreat Meeting are some of the important ASEAN related opportunities, which present valuable opportunities for Timor-Leste to develop its own industry based research and innovation strategies and promotion. For this purpose, I have developed several important recommendations pointing to real programmes, existing funding mechanisms, and identifiable institutional counterparts that Timorese authorities can engage with in the near term. Timor-Leste's full ASEAN membership makes early and deliberate engagement not merely desirable but strategically necessary if the country is to benefit meaningfully from the regional STI architecture being constructed around it. Thank you.

Dili, 8 June 2026

**Abel Pires da Silva, Ph.D.**