ARTNET on STI
Science, Technology & Innovation Policy

Expert Workshop on
Strategic Financing of R&D in Frontier Technologies

Hosted by United Nations ESCAP
and
National Science Technology and Innovation Policy Office
Ministry of Science and Technology, Thailand

Hotel Pullman Bangkok King Power, Bangkok, 12-13 December 2018

Frontier technologies have the potential to re-shape the economy and boost productivity across all sectors and industries. They also offer great potential to harness social and environmental goals.

The challenge for policy makers is deciding where best to invest public resources in the development of capabilities in frontier technologies.

- Looking ahead, in which sectors, technologies or areas of R&D should my government invest?
- When and how much should my government invest in basic R&D?
- How should public funding for R&D be split across different economic, social or environmental goals?
- How best to engage and collaborate with the private sector in supporting R&D in frontier technologies?
- Which public investments in R&D spur and complement, rather than crowd out, private investment in R&D?
- What data and analytical models are available to inform the decision-making process?
- What other complementary investments and policy actions are necessary to achieve strong return on investments and positive spillovers?
- Given that many of the outcomes may take years to materialise, how can my government mobilise sufficient long-term public financial support, particularly for larger, bolder and riskier programmes?
- What is the role that regional and international collaboration can play in maximising the returns of public investment in R&D?

The workshop will provide insights on how to address these policy dilemmas through presentations from and panel discussions with international and regional experts; global private firms investing in frontier technologies; as well as policy makers, government officials and scientific advisors from countries in the Asia-Pacific region.

The workshop is addressed to senior government officials from the Asia–Pacific region making decisions on investments in R&D in frontier technology. These include senior officials and representatives from the Ministries of Finance; Science, Technology and Innovation; and Industry, national research councils, public research institutions and innovation agencies.

This event is the first expert workshop of the Asia-Pacific Research and Training Network on STI Policy **(ARTNET on STI Policy)** and is jointly organised by ESCAP and National STI Policy Office, Ministry of Science and Technology, Thailand.

UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

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Wednesday, 12 December 2018

ARTNETonSTI Expert Workshop

08:30 – 09:00	**Registration**
09:00 – 09:30	**Opening remarks** • Dr. Kitipong Promwong, Secretary General, National STI Policy Office, Thailand • Ms. Mia Mikic, Director, Trade, Investment and Innovation Division, ESCAP
09:30 – 10:30	**Session 1: Looking to the future. Envisioning the impossible.** The session will discuss the prospects of frontier technologies, and scan the type of R&D in frontier technologies capabilities Asia Pacific countries may need to develop. To support the further development of national capacities, it will share the experiences of countries and individuals that have envisioned the development of ambitious scientific, research and technological capabilities in areas that looked impossible. **Moderator:** Mr. Jonathan Wong, Chief of Technology and Innovation, ESCAP **Panellists:** • Mr. Jake Lucchi, Head of Content and AI- Public Policy, Google Asia Pacific • Mr. Punit Shukla, Expert, Frontier Technologies, Niti Aayog, India
	Networking coffee and tea
10:45 – 12:00	**Session 2: Investment dilemmas: Buy or make? Basic or applied R&D?; Economic, social or environmental investments?** The panel will discuss the different investment dilemmas government officials face when making strategic decisions on the financing of R&D in frontier technologies. **Moderator:** Dr. Kanchana Wanichkorn, Acting Deputy Secretary General, National STI Policy Office, Thailand **Panellists:** • Prof. Dato' Dr. Awang Bulgiba Awang Mahmud, Project Director, National Policy for Science, Technology and Innovation 2021-30, Malaysia • Dr. Kitipong Promwong, Secretary General, National STI Policy Office, Thailand
	Lunch
13:15 – 14:30	**Session 2: Continuation** **Panellists:** • Prof. Jiro Kokuryo, Vice-President of Keio University, Japan • Ms. Nguyen Thi Phuong, Deputy Director, National Technology Innovation Fund, Vietnam
	Networking coffee and tea
14:45 – 16:00	**Session 3: Business and financing models** This session will focus on building government capacity to engage and collaborate with the private sector and maximise investments in R&D in frontier technologies. It will also explore diverse financing models that catalyse public investment in R&D in frontier technologies. **Moderator:** Ms. Marta Pérez Cusó, Economic Affairs Officer, Trade, Investment and Innovation Division, ESCAP **Panellists:** • Mr. Shamkhal A. Dzhabrailov, Deputy Head of R&D Strategy and Operations Department, Skolkovo Institute of Science and Technology (Skoltech), Russia • Dr. Wilaiporn Chetanachan, Principal Innovation Advisor, Office of the President and CEO, SCG, Thailand • Mr. Habibollah Asghari, Director, Information and Communication Technology Research Institute, Iran

Thursday, 13 December 2018

ARTNETonSTI Expert Workshop *(cont.)*

09:00 – 10:30 **Session 4: Country experiences: Making possible the impossible**

The panel will discuss the experience of countries with advanced capacities in frontier technologies and how to address some of the challenges of financing R&D in frontier technologies, including establishing priorities and ensuring positive spillovers.

Moderator: Dr. Pranpreya Sriwannawit Lundberg, Policy Developer, National Science Technology and Innovation Policy Office, Thailand

Panellists:

- Prof. Kuniaki Yamashita, Director, Japan Society for the Promotion of Science (JSPS) Bangkok Office, Japan
- Mr. Arnab Kumar, Manager, Innovation and Emerging Technologies, Niti Aayog, India
- Mr. Knut Zuchan, Counselor, Head of Science and Technology Department, Embassy of the Federal Republic of Germany

Networking coffee and tea

10:45 – 12:00 **Session 4 (Continuation)**

Panellists:

- Mr. Steve Leonard, Founding CEO, SG Innovate, Singapore
- Dr. Jonghyun Kim, Project Manager, Institute for Information and Communications Technology Promotion (IITP), Korea

12:00 – 12:30 **Closing remarks**

Lunch

All presentations will be available after the workshop at http://www.sti.or.th/STIARTNET2018/

For further information, please contact:

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About ARTNET on STI Policy

The Asia-Pacific research and training network on STI policy **(ARTNET on STI Policy)** supports research to design locally-relevant policies that can leverage science, technology and innovation as powerful engines for sustainable development in Asia-Pacific.

ARTNET on STI Policy membership

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