First EU-Singapore Semiconductor Researchers Forum

Location: Brussels, Belgium
Date: July 8-9th, 2025
Participants: High level speakers, researchers, EC representatives, ICOS members and Singaporian representatives

icos-semiconductors.eu

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Context

As part of its work to identify strategic partnerships that can address both current and future challenges in the semiconductor sector, ICOS and the European Commission have recognized Singapore as an important stakeholder in this area. Singapore combines world-class research capabilities, robust industrial assets, and a strong commitment to advancing cutting-edge technologies.

In 2022, the European Union and Singapore signed a Digital Partnership Agreement, reflecting their joint determination to deepen cooperation and accelerate the digital transition on both sides. This partnership not only strengthens political and economic ties, but also creates new opportunities for collaborative research, joint innovation, and mutually beneficial industrial development in strategic fields such as semiconductors.

In this context, a dedicated Forum was organized in Brussels on July 8th and 9th 2025 to explore how both regions can join forces to shape the semiconductor chips of the future. Representing the European Commission, Pierre Chastanet (DG CONNECT) and Katherine Power (DG RTD) outlined Europe's key priorities: consolidating research and development efforts across the continent, fostering innovation ecosystems, and reducing strategic dependencies to ensure technological sovereignty. They emphasized that the semiconductor industry is not only vital for the digital economy, but also a cornerstone for the green transition, industrial competitiveness, and security of supply chains.

From Singapore's perspective, Aaron Thean, Deputy President and Provost of the National University of Singapore (NUS), and Tan Chee Seng, SD A*STAR, highlighted the central role of electronics as the country's largest manufacturing sector and a key driver of economic growth. Within this sector, semiconductors stand out as a particularly dynamic and strategic industry. Singapore has long invested in infrastructure, talent development, and international collaborations to strengthen its semiconductor ecosystem, and both speakers underlined that global cooperation is indispensable to sustain competitiveness and innovation capacity in the years to come.

Goals

The forum aimed at gathering experts and policy makers from both sides and give them the space to exchange on Advanced Functionalities, Heterogeneous Integration and Advanced Packaging to identify opportunities of collaborations. The forum was designed as a matchmaking event for researchers to analyze the strengths and current advanced research in these areas, offering possibilities of international cooperation between Europe and Singapore.

Outcomes: As an outcome of the forum, several promising areas for cooperation were identified, spanning different levels and domains. Demonstrating the tangible success of the discussions, concrete next steps were agreed upon, including the participation of ICOS members in the upcoming INPACE EU-Indo-Pacific Digital Partnership Conference 2025 organized by the Horizon Europe INPACE project at the National University of Singapore end of October 2025 to further explore research opportunities of cooperations.

Impact

The event, held on an invitation-only basis, was widely showcased on social media and on the ICOS website. A series of posts were published to introduce the sessions, highlight key messages, and

provide an overview of the presentations. All presentation materials are currently available on the ICOS website for further reference. ICOS partners actively contributed to the communication efforts, helping to promote the event beforehand and to amplify its success in the aftermath. Areas of future cooperation with Singapore were proposed in the fields of Power electronics, RF/mmW GaN, Heterogenous integration, Sensors & actuators, Advanced photonics, and Energy efficient compute.