

JASMINE Officially Launched To Reinforce EU–Japan Semiconductor Cooperation

April 15th 2026

The Coordination and Support Action (CSA) Japan and EU Semiconductors: Mutual Innovation & Excellence – JASMINE is now officially launched. This 18 months Chips JU project will support the European Commission in its effort to re-establish the global position of Europe in the semiconductor value chain while reinforcing EU–Japan cooperation on research and innovation initiatives.

The European Union and Japan are global leaders in advanced technologies with complementary strengths across the semiconductor ecosystem. Japan’s leadership in materials science, manufacturing equipment and advanced packaging, combined with the EU’s excellence in research, photonics, quantum technologies and embedded applications, creates a natural and powerful synergy.

Building on the commitments made at the EU-Japan Digital Partnership Council and the EU-Japan Summit in Tokyo in 2025, which established the EU-Japan Competitiveness Alliance, both regions recognize the importance of reinforcing cooperation to improve supply chain resilience, economic security and technological leadership. Through coordinated dialogue, research and industrial collaboration, the partnership aims to ensure stable, diversified and sustainable semiconductor supply chains within a rules-based framework for shared growth.

Coordinated by Tyndall and gathering leading European semiconductor stakeholders with strong ties to Japan, JASMINE will structure and deepen collaboration across research, skills, sustainability and supply chain analysis. The project will map and monitor EU and Japan semiconductor supply chains to identify complementarities, dependencies and new opportunities for joint R&D, while delivering strategic recommendations and a roadmap to strengthen security of supply.

JASMINE will also foster joint research priorities in areas such as advanced logic, high-performance computing, power electronics and novel materials, while preparing the ground for future EU-Japan collaborative R&I initiatives through dedicated networking and matchmaking activities. A strong focus is placed on talent exchange and skills development, encouraging mobility of researchers, engineers and students between both regions and supporting staff exchanges and fellowship opportunities.

In parallel, the project will enhance cooperation on Life Cycle Assessment (LCA) methodologies for semiconductor manufacturing, promoting regulatory alignment and a shared framework for measuring environmental impact and supporting sustainable innovation.

JASMINE will support coordinated risk-mitigation efforts by aligning policy frameworks, investment priorities, and strategic planning between the EU and Japan. By deepening industrial cooperation, fostering talent development, and harmonising sustainability initiatives through shared LCA methodologies, the project will strengthen strategic autonomy, accelerate innovation, and enhance the resilience and global competitiveness of both semiconductor ecosystems.

Mircea Modreanu JASMINE coordinator, Tyndall National Institute, said:

“Success in the semiconductor sector today requires radical collaboration. Through JASMINE CHIPS JU project, we are aligning the unique strengths of European and Japanese research ecosystems to solve the industry’s most pressing challenges. Our goal is to embed long-term competitiveness and sustainability into the very fabric of semiconductor development, and Tyndall is excited to drive this mission forward.”

Consortium members



Tyndall National Institute is a key R&D player in the European semiconductor research and ICT ecosystem, addressing electronics and photonics technologies across the value chain – from materials and devices to circuits and systems. It is a major research partner for many of the largest semiconductor companies in Ireland and it also serves a wide base of smaller indigenous enterprises who avail of Tyndall’s specialist infrastructure and technical expertise. Tyndall has been involved in technology foresight and strategic road mapping through participation in several CSAs, EC consultations and active engagement in research and industry groups for key digital technologies and enablers.



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ASML

ASML is a global innovation leader in the semiconductor industry, providing chipmakers with advanced lithography systems, metrology and inspection solutions, and the supporting software and services required to manufacture high-performance microchips. ASML enables the production of ever smaller, faster and more energy-efficient semiconductor devices using its holistic lithography approach. Headquartered in the Netherlands, with offices across the United States, Europe, and Asia, ASML is firmly embedded in the European and global semiconductor ecosystems and works through an open-innovation model with customers, suppliers, research institutes, and universities across Europe. ASML acts as architect and integrator of highly complex system-level innovations, collaborating closely with partners to strengthen the semiconductor value chain.



Brno University of Technology (BUT), founded in 1899, is the largest technical university in Czechia and a leading institution in engineering, information technology, and microelectronics research. BUT plays a central role in the national semiconductor landscape as the coordinator of the Czech Semiconductor Competence Centre. The participating Faculty of Information Technology contributes advanced expertise in digital design, embedded systems, AI/ML acceleration, approximate computing, and chip verification methodologies, while also exploring emerging directions such as quantum computing. Through its research centres and strong collaboration with industry, BUT fosters an integrated environment linking education, cutting-edge research, and innovation to support the development of next-generation semiconductor technologies.



CEA-Leti, a technology research institute at CEA, is a global leader in miniaturization technologies enabling smart, energy-efficient and secure solutions for industry. Founded in 1967, CEA-Leti pioneers micro- & nanotechnologies, tailoring



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differentiating applicative solutions for global companies, SMEs and startups. CEA-Leti tackles critical challenges in healthcare, energy and digital migration. From sensors to data processing and computing solutions, CEA-Leti's multidisciplinary teams deliver solid expertise, leveraging world-class pre-industrialization facilities. With a staff of more than 2,000 talents, a portfolio of 3,200 patents, 14,000 sq. meters of cleanroom space and a clear IP policy, the institute is based in Grenoble (France) and has offices in San Francisco (United States), Brussels (Belgium), Tokyo (Japan), Seoul (South Korea) and Taipei (Taiwan). CEA-Leti has launched 80 startups and is a member of the Carnot Institutes network.



CNRS is the largest scientific Center in France and is among the world's leading research institutions. The Centre for Radiofrequencies, Optic and Micronanoelectronics in the Alps (CROMA) is a « Unité Mixte de Recherche UMR 5130 » (CNRS / Grenoble INP / UGA / Université Savoie Mont Blanc) and one of France's top micro and nanotechnology research academic laboratories. It led the Horizon Europe ICOS project dedicated to strengthening international cooperation between EU and leading semiconductor countries and has participated in or coordinated many other EU projects. It is strongly committed in research activities related to micro and nano-electronics, micro photonics, micro and nano-systems, microwaves and microwave-photonics.



DECISION Etudes & Conseil is a market research and consulting firm specialized in the analysis of the electronics value chain, from materials to components and end systems. As such, DECISION provides strategic insights across key verticals including datacenter, cloud and AI; automotive; industrial electronics; aerospace, defense and security; and more. DECISION also provides market intelligence within several EU-funded initiatives, including the European Chips Skills Academy, support to the European Commission in the implementation of Pillar 3 of the EU Chips Act – Supply chain Analysis, International Cooperation on Semiconductors (ICOS-2), the Alliance on Processors and Semiconductor Technologies (ALLPROS-2029).



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Fraunhofer

Fraunhofer-Gesellschaft zur Förderung der Angewandten Wissenschaften e.V. (Fraunhofer) is Europe's largest application-oriented research organization with over 70 institutes in Germany and several international research centres, with a total annual research budget of some 2.6 B€. All Fraunhofer institutes perform contract research and development work for industry and public funders. The majority of more than 28,000 staff are highly trained scientists and engineers. The Fraunhofer Group for Microelectronics collaborates with two Leibniz Institutes as the « Research Fab Microelectronics Germany » (FMD). As a one-stop shop, the FMD integrates the scientifically excellent technologies, applications, and system solutions of the cooperating institutes into a combined offering in the field of micro and nanoelectronics. The activities of the Fraunhofer Group for Microelectronics and FMD are coordinated by a joint office in Berlin. Its employees serve as points of contact for representatives from research, industry, and politics, as well as for cooperation partners. The office team is also responsible for developing cross-institute R&D concepts, acquiring and coordinating selected cross-institute projects, and public relations. In addition, the FMD acts as the implementing body for the APECS-pilot line.



Imec is a world-leading research and innovation hub specializing in nanoelectronics and digital technologies, founded in 1984 and headquartered in Leuven (Belgium). With a team of over 6,500 employees, including 350+ PhD students on site, IMEC drives innovation in advanced semiconductor and systems scaling, silicon photonics, artificial intelligence, beyond-5G communications, quantum technologies, and sensing. These advancements address critical challenges in health and life sciences, mobility, Industry 4.0, agro-food, smart cities, energy, education, sustainability, and more. Our state-of-the-art cleanroom infrastructure (300/200 mm, more than 14,000 m²), equipped for advanced lithography, next-generation logic, novel memory concepts, nano-interconnects, 3D integration, neuromorphic and quantum computing, among other technologies, is essential to our mission of translating fundamental research into industrial innovation.

Imec collaborates with global leaders across the semiconductor value chain, as well as with technology companies, start-ups, academia, and research institutions in



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Flanders and worldwide. Headquartered in Leuven, Belgium, imec has research facilities in Belgium, across Europe, the USA and the GCC region, and representation on three continents.



Infineon Technologies AG is a global semiconductor leader driving Europe's green and digital transformation. With expertise in power systems and IoT solutions, Infineon delivers cutting-edge technologies that enable decarbonization and digitalization across industries. As one of Europe's leading technology companies, Infineon employs approximately 57,000 people worldwide and generated €14.7 billion in revenue in fiscal year 2025. The company brings deep industry knowledge, advanced R&D capabilities, and a strong commitment to innovation.



SEMI Europe is the European branch of SEMI, the global industry association representing the semiconductor and electronics manufacturing supply chain with more than 3,500 member companies worldwide. It connects stakeholders across materials, equipment, device manufacturing, design, and supply-chain services. SEMI Europe supports industry standards development, market intelligence, policy advocacy, and workforce development. The organization also hosts major international events such as SEMICON Europa. SEMI Europe collaborates closely with European institutions, governments, research organizations, and industry stakeholders to strengthen Europe's semiconductor ecosystem and competitiveness. It actively contributes to EU-funded initiatives under Erasmus+, Horizon Europe, and the Chips Joint Undertaking, including the European Chips Skills Academy and the European Chips Diversity Alliance.



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The SINANO Institute is the European Academic and Scientific Association for Nanoelectronics, acting as a network of excellence connecting the European Research and Academic community in semiconductor science and technologies. It gathers 27 academic/RTO members and 22 deep-tech start-ups in the area of fabrication, characterization, modelling, design and simulation of emerging nanoelectronic materials, devices, circuits and systems from 16 European Countries. The SiNANO mission is to secure the future of European semiconductor science and technology by mobilizing and nurturing the European R&I community, promoting and strengthening synergies in the field through our membership, accelerating the translation of excellent research into European knowhow, technologies, and products, ensuring the pipeline of talented researchers and the growth of skilful talent in an inclusive and diverse. SiNANO is the European representative of IRDS "International Roadmap for Devices and Systems.

SONY

Sony Depthsensing Solutions (SDS), based in Europe, aims to be a leading industrial player in depth sensors and camera technologies supporting Sony Semiconductor Solutions (SSS) Japan. SDS is advancing context awareness and real-world acquisition, dedicating over 90% of its resources to R&D with a team of highly specialized engineers. SDS has successfully integrated and optimized commercial depth-sensing cameras and modules, and is developing next-generation products through advanced research.

SDS combines 3D sensing, IR LiDAR and chip design expertise with advanced middleware and embedded software to deliver state-of-the-art sensing solutions for industries such as automotive, AR/VR, mobile, industrial and robotics.



At ST, we are 48,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An integrated device manufacturer, we work with more than 200,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of cloud-connected autonomous things. We are on track to be carbon neutral in all direct and indirect

emissions (scopes 1 and 2), product transportation, business travel, and employee commuting emissions (our scope 3 focus), and to achieve our 100% renewable electricity sourcing goal by the end of 2027.

TEL

Tokyo Electron (TEL) was established in 1963 and is a global leader in semiconductor process equipment in the fields of photolithography, etching, thin film deposition, and prober. TEL continuously pursues the newest technologies to support the manufacturing roadmaps our global customers and provides a product portfolio that covers leading-edge and mature technology nodes. With a global footprint of approximately 20,000 employees, TEL is actively involved in R&D activities in various geographical locations, including with RTO's and universities in Europe.

Associated Partners



SEMI® is the global industry association connecting over 3,000 member companies and 1.5 million professionals worldwide across the semiconductor and electronics design and manufacturing supply chain. We accelerate member collaboration on solutions to top industry challenges through Advocacy, Workforce Development, Sustainability, Supply Chain Management and other programs. Our SEMICON® expositions and events, technology communities, standards and market intelligence help advance our members' business growth and innovations in design, devices, equipment, materials, services and software, enabling smarter, faster, more secure electronics.



AVL is one of the world's leading mobility technology companies for development, simulation, and testing in the automotive industry and in other sectors such as rail, marine, and energy. Based on extensive in-house research activities, AVL delivers



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concepts, technology solutions, methodologies, and development tools for a greener, safer, and better world of mobility and beyond. The company supports international partners and customers in their sustainable and digital transformation. The focus lies on the areas of electrification, software, AI and automation. In addition, AVL supports companies in energy-intensive sectors on their way to a greener and more efficient energy generation and supply.



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