[Press Release] ICOS² Project Launches to Strengthen Europe's Semiconductor Resilience and Global Partnerships

June 4th, 2026

A leading European consortium has officially launched ICOS² – International Cooperation on Semiconductor Innovation and Supply Resilience, a Horizon Europe Coordination and Support Action aimed at reinforcing Europe's position in the global semiconductor ecosystem through the promotion of international partnerships.

Coordinated by Tyndall National Institute, Ireland, ICOS² brings together 21 leading organisations spanning industry, research, and policy across Europe – including major technology leaders such as ASML, Bosch, Infineon, NXP, and STMicroelectronics, alongside Europe's foremost research and innovation actors.

Semiconductors are foundational to Europe's economic security, enabling critical sectors such as automotive, healthcare, energy, and telecommunications. However, Europe currently faces structural challenges, including limited manufacturing capacity and dependency on external partners across the value chain. ICOS² is designed to address these challenges by providing rigorous, evidence-based intelligence and actionable recommendations to support European policymakers and industry leaders in shaping future semiconductor strategy.

The project is closely aligned with the European Union's semiconductor agenda, including the European Chips Act and its anticipated evolution toward Chips Act 2.0.

By delivering data-driven insights, risk analyses, and cooperation frameworks, ICOS² will help:

- Strengthen Europe's technological autonomy and industrial competitiveness
- Reduce vulnerabilities in global semiconductor supply chains
- Enable targeted international cooperation with key global partners
- Inform future policy and investment decisions at EU and Member State level

In particular, ICOS² will provide direct input to the implementation design of Chips Act 2.0, supporting a more coordinated and strategic European approach to global semiconductor engagement.

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Recognising that semiconductor innovation is global by nature, ICOS² will establish a structured approach to international collaboration based on:

- **Economic intelligence** – mapping global supply chains and dependencies
- **Technology intelligence** – analysing emerging technologies and EU positioning
- **Cooperation intelligence** – assessing partnership opportunities and risks
- **Actionable recommendations** – enabling joint research initiatives and mobility programmes

The project will engage with leading semiconductor ecosystems worldwide – including Canada, India, Japan, South Korea, Taiwan, and the USA – to identify mutually beneficial partnerships that strengthen European resilience while safeguarding strategic interests.

Professor Giorgos Fagas, Director of Strategic Development at Tyndall and coordinator of the ICOS² project said "Building upon the strong foundations laid down by the preceding very successful ICOS project, ICOS² represents a critical step in moving from analysis to action in Europe's semiconductor strategy. By combining deep intelligence with targeted international cooperation, we are creating the conditions for Europe to strengthen its industrial base and global competitiveness."

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Consortium members

AENEAS, a not-for-profit industry association, aims to enhance the competitiveness of European industries in Electronic Components and Systems (ECS). It allows to influence RD&I policies, facilitates access to funding and offers networking opportunities. With almost 600 members, it represents the full ECS value chain. Governed by a 20-member board comprising representatives from major companies, SMEs, and research centres, AENEAS advocates for the sector at the highest European level. As a partner of the Chips Joint Undertaking, AENEAS represents the interests of its members in this tripartite partnership between industry, the European Commission and the participating states. AENEAS is also operating the EUREKA-funded programme Xecs.

AENEAS contributes to shaping and co-defining the Electronic Components and Systems Strategic Research and Innovation Agenda (ECS-SRIA), stimulates and supports collaborative innovation to meet societal and economic challenges in a sustainable way.

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.

Semiconductors and sensors from **Bosch** ensure safe, comfortable, and low-emission driving. With power semiconductors based on silicon and innovative silicon carbide technology,

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application-specific integrated circuits, and MEMS sensors, Bosch offers OEMs and tier-1 suppliers a comprehensive semiconductor portfolio with sales locations in Europe, the U.S., China, Japan, Korea, India, and Taiwan. Bosch employs more than 6,000 associates in frontend manufacturing facilities in Germany and the U.S., as well as in backend and development sites around the world. Bosch has unique expertise both in the automotive systems business and in the production of semiconductors. By 2035, Bosch expects an average of more than 40 of its own chips to be integrated in every new vehicle. With more than 60 years of experience, a global manufacturing and partner network, as well as sustainable investments in production and development, Bosch is shaping the mobility of the future.

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 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

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

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of the EU Chips Act – Supply chain Analysis, International Cooperation on Semiconductors (ICOS-2), the Alliance on Processors and Semiconductor Technologies (ALLPROS-2029).

DKE

The **DKE German Commission for Electrical, Electronic & Information Technologies** (DKE) is the national platform for about 10,000 experts from industry, science and public administration to elaborate standards and safety specifications for electrical engineering, electronics and information technology. Standards support global trade and, among other things, the safety, interoperability, and functionality of products and systems. As a competence centre for electrotechnical standardization, the DKE represents the interests of German industry in European (CENELEC, ETSI) and international standardization organizations (IEC). In addition, the DKE provides comprehensive services in the field of standardization and VDE specifications.
The Association for Electrical, Electronic and Information Technologies e.V. (VDE), which the DKE is a part of, was founded in 1893 and is one of Europe's largest technical-scientific associations for sectors and professions in electrical engineering and information technology.

Fraunhofer

The **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, and participates in ICOS² with two institutes: The Fraunhofer Institute for Integrated Systems and Device Technology (IISB) conducts applied research and development in the fields of micro- and nanoelectronics, power electronics, and mechatronics. The Fraunhofer Institute for Electronic Microsystems and Solid-State Technologies (EMFT) is regarded among the global leaders in microsystems technologies, explicitly in interconnect technologies for 3D integrated heterogeneous microelectronic systems. **EMFT** is partner in the European Pilot Line on Advanced Packaging and Heterogeneous Integration for Electronic Components and Systems (APECS) and in Munich Quantum Valley (MQV). **IISB** is partner of the European Pilot Line on Wide Bandgap (WBG).

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GHENT UNIVERSITY

Ghent University is a top 100 university and one of the major Belgian universities counting over 41,000 students and 9,000 employees. Located in Flanders, Ghent University is an active partner in national and international educational, scientific and industrial cooperation. The Photonics Research Group (PRG) of Ghent University hosts ePIXfab, which performs the activities of Ghent University in the ICOS project. ePIXfab is an open non-profit alliance of academic and industrial organizations with a mission to promote silicon photonics science, technology, and applications in Europe and the world. ePIXfab acts as a catalyst for European academia and industry to strengthen the worldwide silicon photonics ecosystem. PRG is an affiliated lab of imec, consisting of 11 professors and over 70 research staff, focussing its research on silicon photonics.

GRENOBLE INP UGA

For over a century, **Grenoble INP - UGA** has pursued its original mission: to train engineers. This core mission was soon joined by others, including scientific and technological research, doctoral training, continuing education, and support for industrial development. Grenoble INP - UGA has consistently supported - and often anticipated - industrial developments by establishing engineering schools and research laboratories. Grenoble INP - UGA continued its growth into the modern era by embarking on the journey of micro and nanotechnologies. In 2002, it became a founding member, alongside the CEA, of the Minatec innovation hub, inaugurated in June 2006. The Institute also plays a governance role in two key competitiveness clusters: Minalogic, a global leader in micro and nanotechnologies and embedded software, and Tenerrdis, which focuses on renewable energy.

imec

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

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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 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 – driving decarbonization and digitalization; together. We are a world leader in semiconductor solutions, employing about 57,000 employees worldwide generating a revenue of about €14,7 billion in the 2025 fiscal year (ending September 30). Infineon is ranked number one provider of automotive semiconductors, discrete power devices, MEMS microphones, security ICs, and microcontrollers, enabling game-changing solutions for green and efficient energy, clean and safe mobility, as well as smart and secure loT. Our semiconductor and systems solutions help to reduce carbon emissions and drive the digital transformation. We bring high levels of energy efficiency, safety, security, and convenience to countless industrial and consumer products and services. Every day. For an easier, safer, and greener life.

IUNET is a non-profit research consortium that brings together the leading Engineering schools in Electrical Engineering and Computer Science from Italian universities. In European and national projects, IUNET serves as a unified interface for Italian universities, selectively involving research units with proven expertise in the project's specific themes. Additionally, it oversees both the scientific and administrative reporting of project activities. IUNET has a strong track record in JU-funded initi atives, with successful participation in ENIAC, ARTEMIS, ECSEL, KDT, and CHIPS-JU programs.

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NXP Semiconductors N.V. (NASDAQ: NXPI) is the trusted partner for innovative solutions in the automotive, industrial & IoT, mobile, and communications infrastructure markets. NXP's "Brighter Together" approach combines leading-edge technology with pioneering people to develop system solutions that make the connected world better, safer, and more secure. The company has operations in more than 30 countries and posted revenue of $12.27 billion in 2025.

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.

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 29 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 Institute 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.

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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.

TU Delft

Delft University of Technology (TU Delft) is the oldest and largest Dutch public technical university. With eight faculties and numerous research institutes, it has more than 27,000 students (undergraduate and postgraduate) and 6600 employees (teaching, research, support and management staff). Through the mission 'Impact for a better society' TU Delft creates collaborations with industry, governments and knowledge institutions. We believe that multi-party collaborations are the key to accelerating innovations and bringing them to society faster. The Faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS) focuses on developing novel, sometimes revolutionary, engineering solutions and technologies. Themes are broad, spanning health and well-being, the energy transition, the transition of our digital society, communication and sensing, IoT, artificial intelligence and unconventional computing/quantum technologies. The Electrical Engineering Departments focus on architectures and targets the invention, design, prototyping and demonstration of disruptive accelerators/engines by making use of unique features of emerging devices. TU Delft closely works with QuTech, performs strong interdisciplinary research on the full stack of quantum computing to enable the design, fabrication and the demonstration of quantum processors and their potential.

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Tyndall

Tyndall National Institute, established through a partnership between the Department of Further and Higher Education, Research, Innovation and Science and University College Cork, is Ireland's leading Research and Technology Organisation (RTO) and a globally recognised centre of excellence in semiconductor research and innovation, advancing technologies from materials to systems to deliver real-world economic and societal impact. Tyndall combines research leadership with innovation, talent development and advanced infrastructure delivered as a shared national asset. Operating across the full value chain of semiconductor technologies, from discovery to deployment, Tyndall applies its capabilities to critical sectors including communications, health, agritech, energy and climate, while also advancing emerging domains such as quantum and novel computing. Through strong collaboration with industry, academia and international partners, Tyndall drives Ireland's and Europe's position at the forefront of sustainable semiconductor innovation.

VDI|VDE|IT

With around 900 employees, **VDI/VDE Innovation + Technik GmbH** provides support and advice on the analysis of complex projects or market situations, comprehensive transformation processes, funding activities in research programmes from the German federal government, the German state governments and the EU, and the organisation of branch offices or contact offices for research and industry. As a project management agency, VDI/VDE-IT offers the right solution for every step in the innovation process. The company has seven locations in Germany: Berlin, Dresden, Munich, Bonn, Hanover, Erfurt and Stuttgart.

VTT

VTT is one of the leading European research organisations focused on carbon-neutral solutions, sustainable materials and digital technologies. We strengthen industry by combining technologies, generating knowledge and supporting commercialisation.
Our world-class micro- and nanoelectronics infrastructure enables innovation, design, prototyping and small-scale manufacturing. We support customers from early ideas to technology transfer.

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VTT's micro- and nanoelectronics research infrastructure supports the entire research and development cycle of technologies such MEMS, optical MEMS, hyperspectral, integrated photonics, 2D materials, piezo materials as well as superconductive and semiconductor technologies.

Warsaw University of Technology
Centre for Advanced Materials and Technologies
CEZAMAT

Warsaw University of Technology (WUT) is the largest and one of the leading universities in Poland, actively engaged in research across nearly all technical fields. The Centre for Advanced Materials and Technologies CEZAMAT is one of Poland's major high-tech investments, focusing on five Key Enabling Technologies: nanotechnology, advanced materials, micro- and nanoelectronics, photonics, and advanced manufacturing.

CEZAMAT is a unique research centre supporting interdisciplinary studies on future-oriented materials and technologies. Its main goal is to integrate the research community and foster collaboration with Polish and international scientists and innovative companies. The centre hosts the most advanced and largest laboratories of this type in Poland, including cleanrooms for semiconductor and bio-related research.

CEZAMAT conducts R&D in nanotechnology, biotechnology, printed electronics, microelectronics, and photonics, with emphasis on nano-electronic sensors, energy harvesters, and photonic integrated circuits. Its state-of-the-art facilities enable the development of market-ready technologies with commercial potential, contributing to economic growth. WUT-CEZAMAT is a member of the European associations EPoSS and AENEAS.

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