

International collaboration - Joint call EU and Japan on semiconductors

Topic: DIGITAL-JU-Chips-2026-SG-JAPAN

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EU-Japan Call on semiconductors

[Text is tentative and subject to change!]

ECS BROKERAGE EVENT 2026

• Type of Action	Single Grant (Digital Europe Programme)
• Indicative Budget	Euro 5-15 million
• Expected EU contribution per project	Euro 5 million
• Mode	co-funded with NFA, one stage call
• Technology Readiness Level (TRL)	from <5 to 7
• Call launch date	07 July 2026
• Deadline	17 September 2026

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Context

- Advancing AI-enabled technologies and scaling chip architectures to node sizes below 2nm
- Balance performance and power efficiency
- Improve materials, equipment and process technologies

Focus

- Fostering a robust chiplet ecosystem to enable heterogeneous integration for the AI stack
- Advancing process technologies for next-generation, cutting-edge nodes

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Participation

- EU entities
- Japanese entities with domestic funding

Mode of cooperation envisaged

- Two frameworks/contracts per project (EU and JPN)
- Cross-referencing of workpackages and partners

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Expected Outcomes

- Advanced heterogeneous integration, particularly in 2.5D and 3D packaging, to support AI functionalities.
- Standardised chiplet interfaces, enabling interoperability and fostering a dynamic chiplet ecosystem.
- Process technologies for device structures beyond 2nm, such as CFET, enabling high-performance and energy-efficient solutions that meet next-generation demands.
- Contributions to international standard setting for chiplet integration.

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Scope

- Develop methods for chiplet co-optimization, interface design, and 2.5D/3D integration processes, including through-silicon vias, interposers, and bonding techniques.
- R&I on advanced fabrication processes such as thin film deposition, etching, and doping for devices that incorporate CFET or vertically stacked GAA switches, to enhance performance and reduce power consumption.

Addressed stakeholders

- Engage material scientists, chemical engineers, semiconductor manufacturers, and AI experts to bridge research and industrial applications, supporting broad adoption and commercial viability