



SIE 2026

L'Aquila, June 24th, 2026

European Chips Act and the Chips JU Mirror Group Italy

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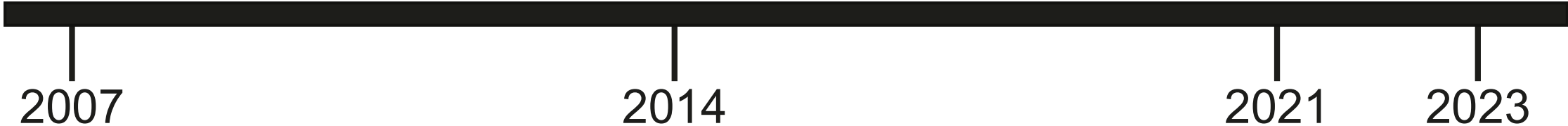
Chips JU Mirror Group Italy

What is a Joint Undertaking (JU)?

- JU's (or JTI'S; Joint Technology Initiatives) are part of the Public-Private Partnerships (PPP): **joint R&D&I initiatives among Commission, Member States and industrial/academic associations (AENEAS, INSIDE, EPOSS).**
- The funding from the Commission is matched by funding from Member States.



- R&D&I agenda defined by private members, calls are agreed upon by private and public members.



Europe in 2022

The context: we are in a crisis...

1

Severe shortage of semiconductor chips

In a context of...

- Accelerated digital transition
- Increased demand for semiconductors
- Concentration of production in Asia (Taiwan, Korea)

2

Security supply risk in the EU

Due to...

- Limited capabilities in manufacturing
- Insufficient expertise in manuf. at < 20 nm
- High entry fees / cost for new facilities
- Geopolitical tensions (e.g. South China Sea)

3

Detrimental effect across industries

Leading-edge semiconductor technology is central to...

- Competitiveness
- Security, safety and data protection
- Energetic performance of digital systems



*No single Member State can face these problems alone, need for:

- **EU & international partnerships**
- **Public subsidies**



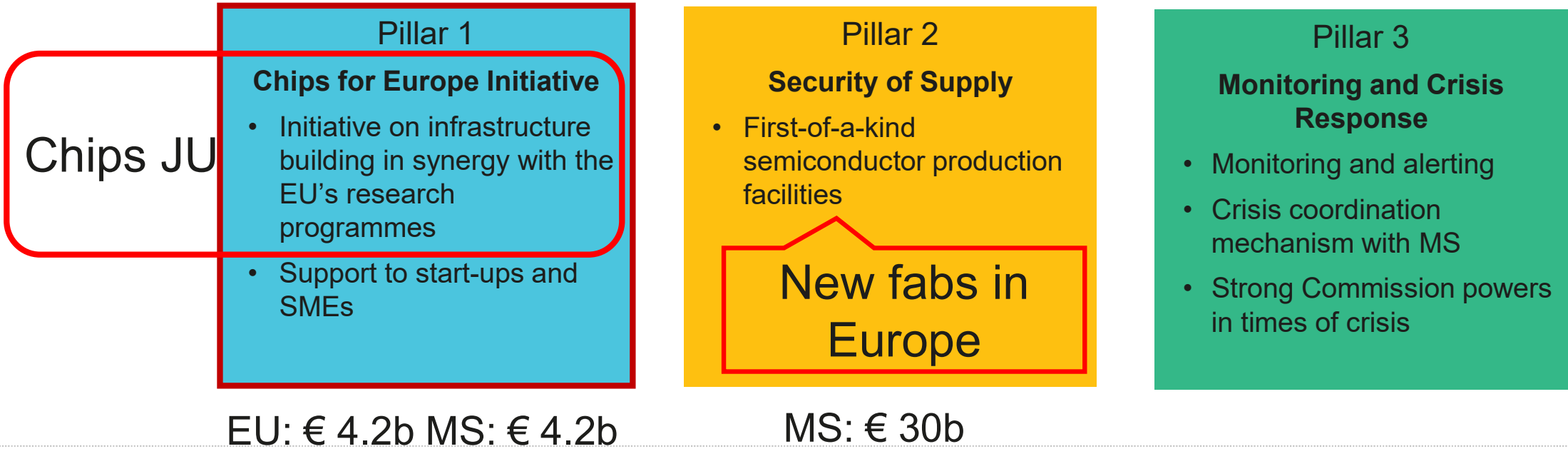
Minus 11 million cars produced globally and 23% drop in German car sales in 2021.

European Chips Act:

Proposed: February 8, 2022, in force: September 18, 2023



European Semiconductor Board (Governance)



Pillar I: Chips for Europe

Chips for Europe

Pilot lines

Prototyping of validated designs
Testing of equipment
Validation of process flows



Competence centres

Access to technical expertise, helping companies to approach and improve design capabilities and developing skills



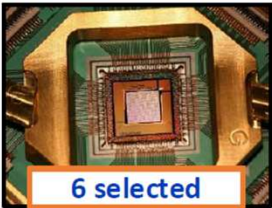
Design Platform

Help designing semiconductor devices, via access to Electronic Design Automation tools and IP libraries

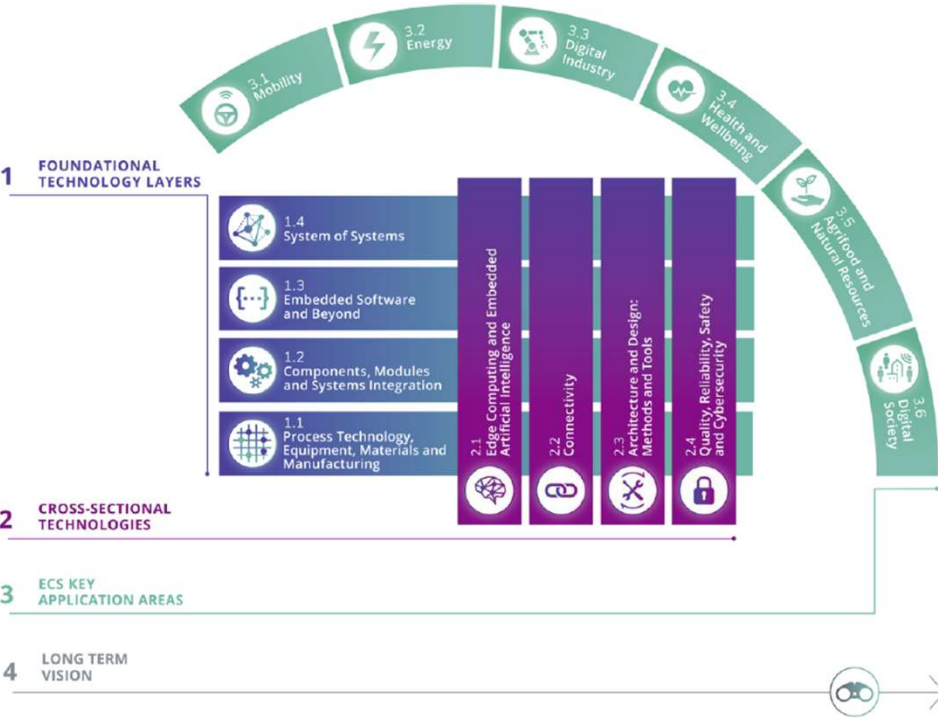


Quantum chips

Technology and engineering capacities for accelerating innovative development of quantum chips

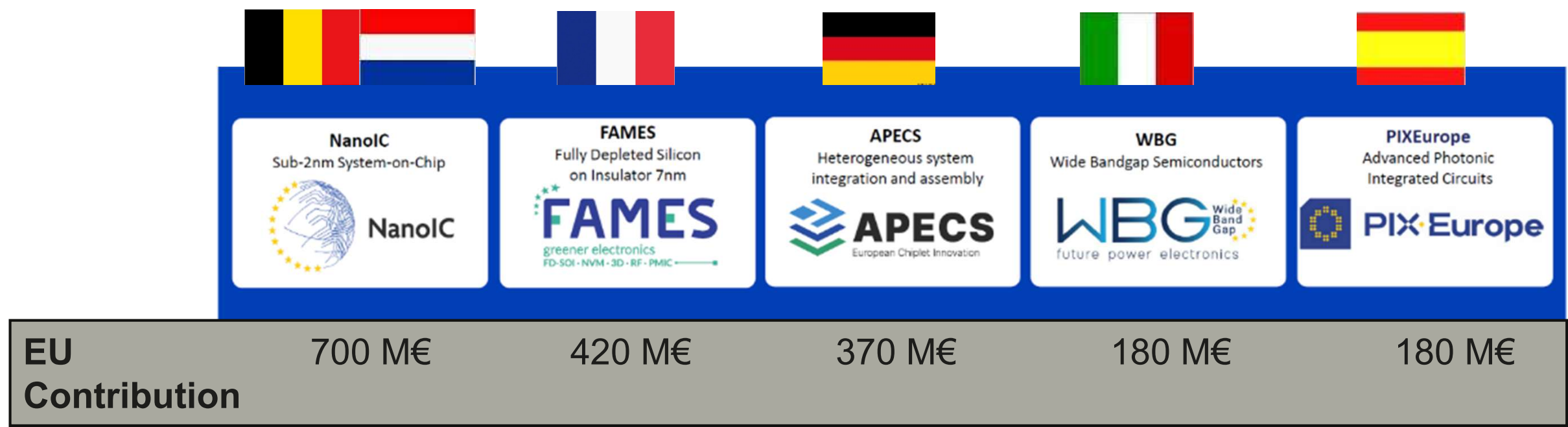


Electronic Components and Systems Open calls



Chips for Europe: Pilot Lines

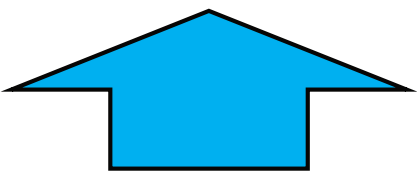
- To bridge the gap between lab demonstrations and full-scale manufacturing.
- Controlled by **public research actors** and offer access on open and non-discriminatory terms.
- Even if based on one country, they include a wide European participation.



Link to industry



Money spread too thin



Chips for Europe: Quantum Pilot Lines

To foster quantum chips production and rapid innovation.



Italy is present in all and coordinates DIREQT

Quantum Action	Italian Partners	Role & Contribution
SUPREME (Superconducting)	INFN, CNR-IFN	Fabrication & cryo-testing of superconducting qubits
P4Q (Photonic)	Politecnico di Milano	Quantum PIC design, PDK development
SPINS (Semiconducting/Spin Qubits)	CNR-IMM, Univ. of Padua	Si/SiGe qubit fabrication, cryo-CMOS control
DIREQT (Diamond)	CNR (Coordinator), Polimi, Element Six IT	Diamond growth, NV device integration, pilot line lead
Q-PLANET (Neutral Atoms)	INFN Naples, Univ. of Naples, CNR-INO, Quantum Technologies srl	Atom trapping, laser control, packaging
CHAMP-ION (Trapped Ions)	FBK, INFN Trieste, QTI srl	Ion-trap chip fabrication, packaging, PDKs

No semiconductor industry w/o design



- **30 Chips Competence Centres (CCC)** to provide access to specialised semiconductor design.
- In association with Pilot Lines.
- Co-funded by the Chips JU and Member States.



CADETTI: the Italian Competence Centre

The European Design Platform



- Designed to support startups, SMEs, and other fabless innovators with access to **design tools, IP**, expert support.
- A **one-stop platform** for chip design up to prototyping and market access.
- Linked to Chips Competence Centres
- Serving organizations based in EU Member States
- Total EU funding commitment of roughly €250–300 M so far (2024–2029)

Chips for Europe

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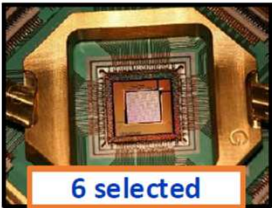
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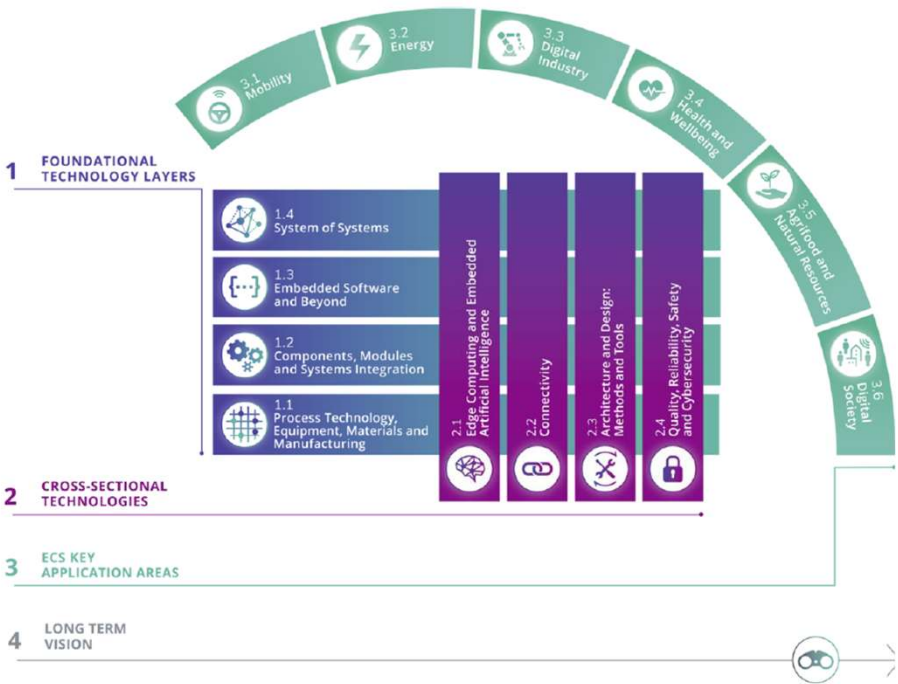


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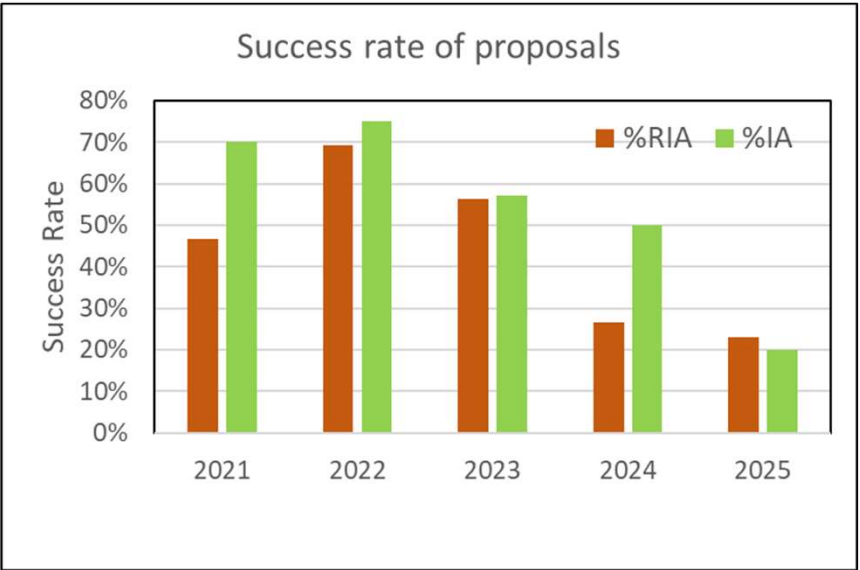
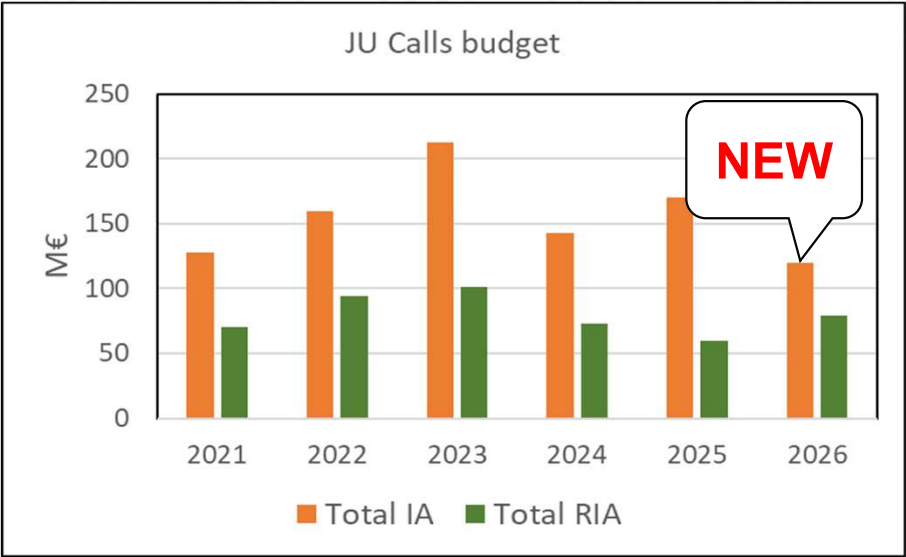
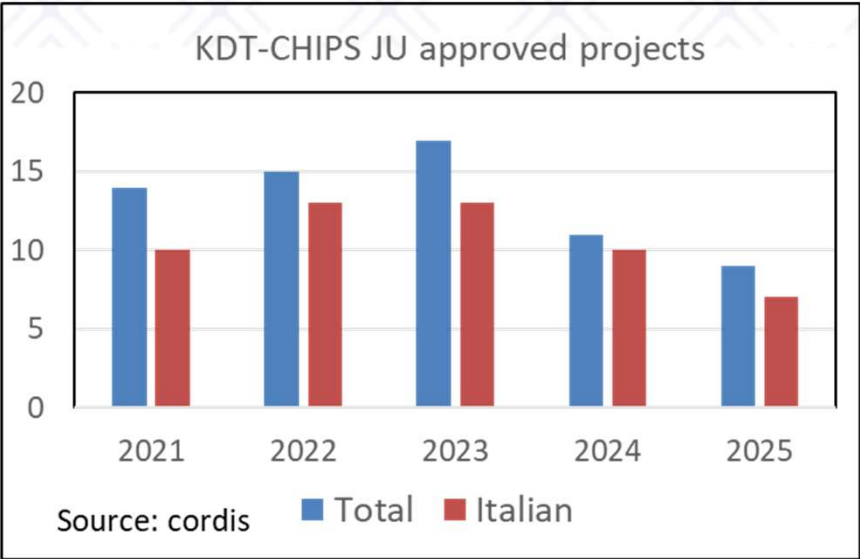


Electronic Components and Systems Open calls

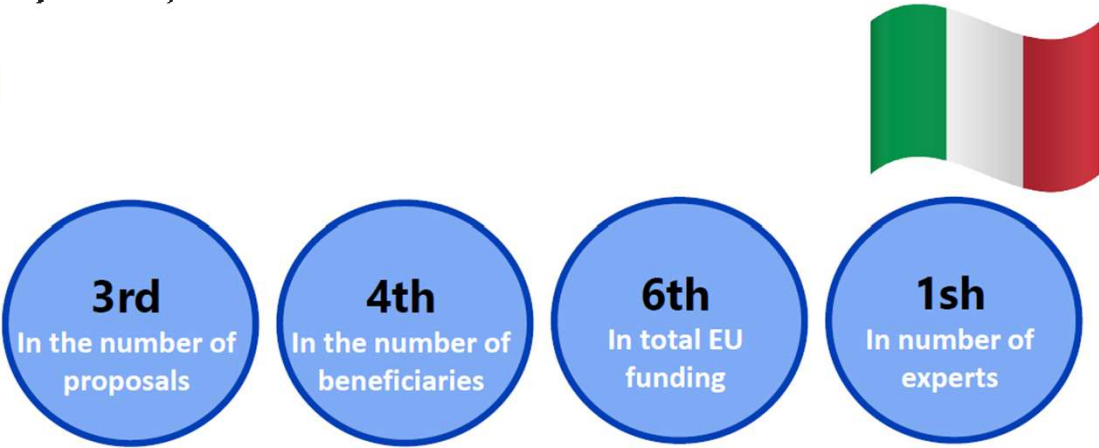


 Co-funded by the European Union

Budget and projects



- Italian partners have been present in $\approx 80\%$ of projects,



Pillar II – Security of Supply



> **First-of-a-kind facility (FOAK):** a facility that offers innovation in terms of products, process (including environmental performances) or open access, not yet available in Europe.

	Company	Country	Location	B€	Technology
	ST Microelectronics	IT	Catania	0,73	SiC wafer
	ST Micro & GlobalFoundries	FR	Crolles	7,50	300-mm FD-SOI
	ST Microelectronics	IT	Catania	5,00	SiC devices
	ESMC (J.V. TSMC+Bosch/IFX/NXP)	DE	Dresden	>10	CMOS, FinFET
	Silicon Box	IT	Novara	3,20	Advanced packaging
	Infineon	DE	Dresden	3,50	Discrete, analog/mixed signals
	ams Osram	AT	Premstätten	0,57	CMOS
	Ephos	IT	Milan	0,10	Photonic chips
	onsemi	CZ	Rožnov	1,60	SiC devices
	GlobalFoundries	DE	Dresden	1,00	300-mm FD-SOI and BCD
	X-Fab	DE	Erfurt	0,25	Advanced packaging

Chips JU

Mirror Group Italy



What is it?



- The Chips Mirror Group Italy was founded in 2015 as ECSEL Italy, and adapted its name to the new **Joint Technology Initiatives** on semiconductors.
- It includes Italian Industrial and academic representatives playing a role in the Industrial organizations supporting the JTI's and involved in its governance.

Its mission

- To facilitate and coordinate the Italian participation to the calls of the Joint Technology Initiatives on semiconductors.
- Chips Mirror Group Italy has the administrative support of AEIT and Fondazione Chips-IT

What can we do for you?



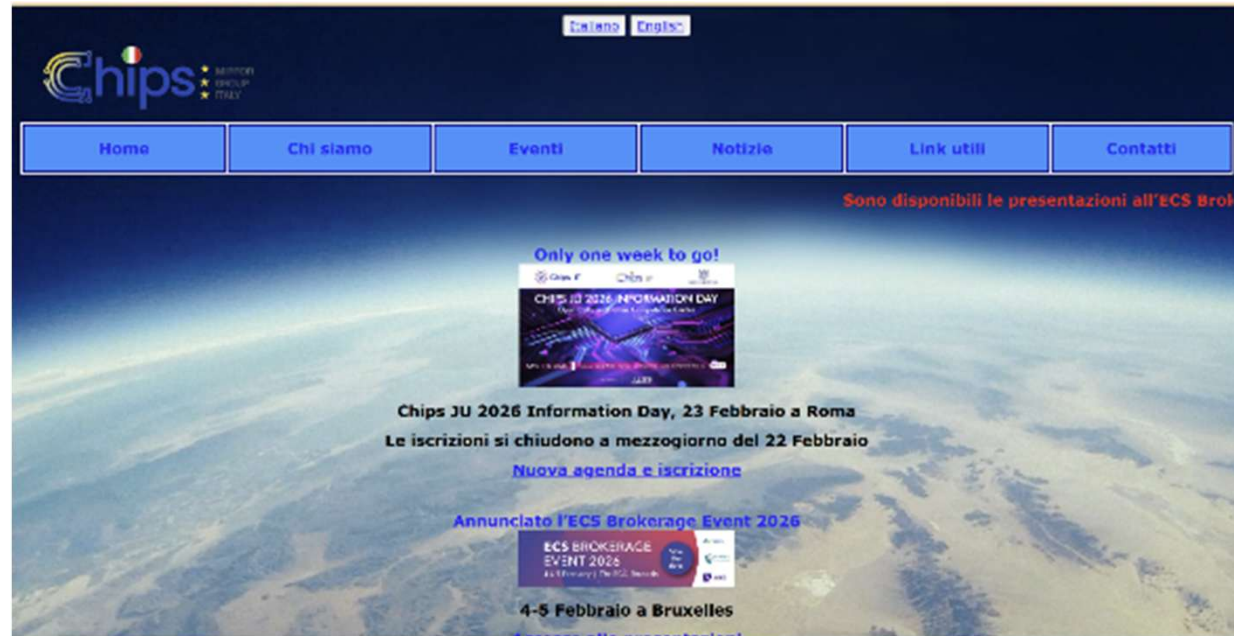
- Disseminate information on Chips JU events and calls.
- Coordinate with Public Authorities to support Italian projects.
- Coordinate with Industrial Associations in Italy and Europe to define research program (SRIA) and support funding to projects.
- Collect project ideas and presentation of partners' competences for future brokerage events.
- Provide advice and support in the search for projects partners and in proposal preparation.



Follow us on the web sites



A web site is available at:
<https://www.chips-mgi.it/>



NOTE: Content will soon be transferred to the new
CADETTI website, currently in progress.

REGULATION ...on a framework of measures for strengthening the Union's semiconductor ecosystem (CHIPS ACT 2 June 3rd, 2026)

Semiconductors are the world's **third** most traded commodity – after oil and vehicles – with global revenues reaching **USD 700.9 billion in 2025**. The market is expected to **surpass USD 1 trillion by 2026 and to grow to USD 1.6 trillion by 2030**.

Chips Act 1 was predominantly **supply-driven**; Chips Act 2.0 places greater emphasis on **demand-side** measures.

A **strategic project on advanced manufacturing** will be treated with the highest priority to support the production of AI chips

industrialisation of **pilot lines** + adds **photonics and photonic integrated circuits**

European Semiconductor Region of Excellence label for regions with a robust semiconductor regional investment plan

Designed to be compatible with the next Multiannual Financial Framework (**MFF 2028–2034**)

Part of the **Technological Sovereignty Package**



<https://www.chips-mgi.it/>

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STEERING COMMITTEE

Thank you!