

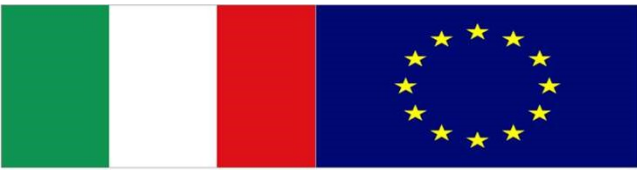


Bolzano, 22 Novembre 2024

# **Chips Revolution**

## **Chips Mirror Group Italy & the Chips Act**

Livio Baldi  
AEIT-AMES

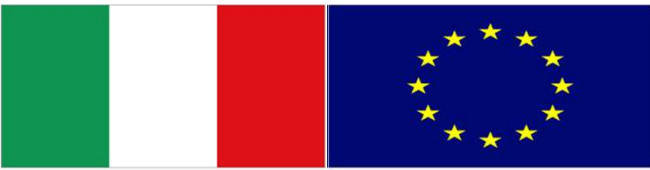


# what is it?



- Chips Mirror Group Italy is the continuation of the ECSEL Mirror Group Italy: an organization including researchers from Italian industrial and academic institutions involved in the **Chips JU** programme:
  - ✓ To facilitate / coordinate the participation of Italian industrial and academic research organizations to the Chips Joint Undertaking (JU)
  - ✓ To promote the support by Italian Public Authorities,
  - ✓ To coordinate with similar initiatives in Europe.

Following the evolution of Microelectronics Joint Undertakings!

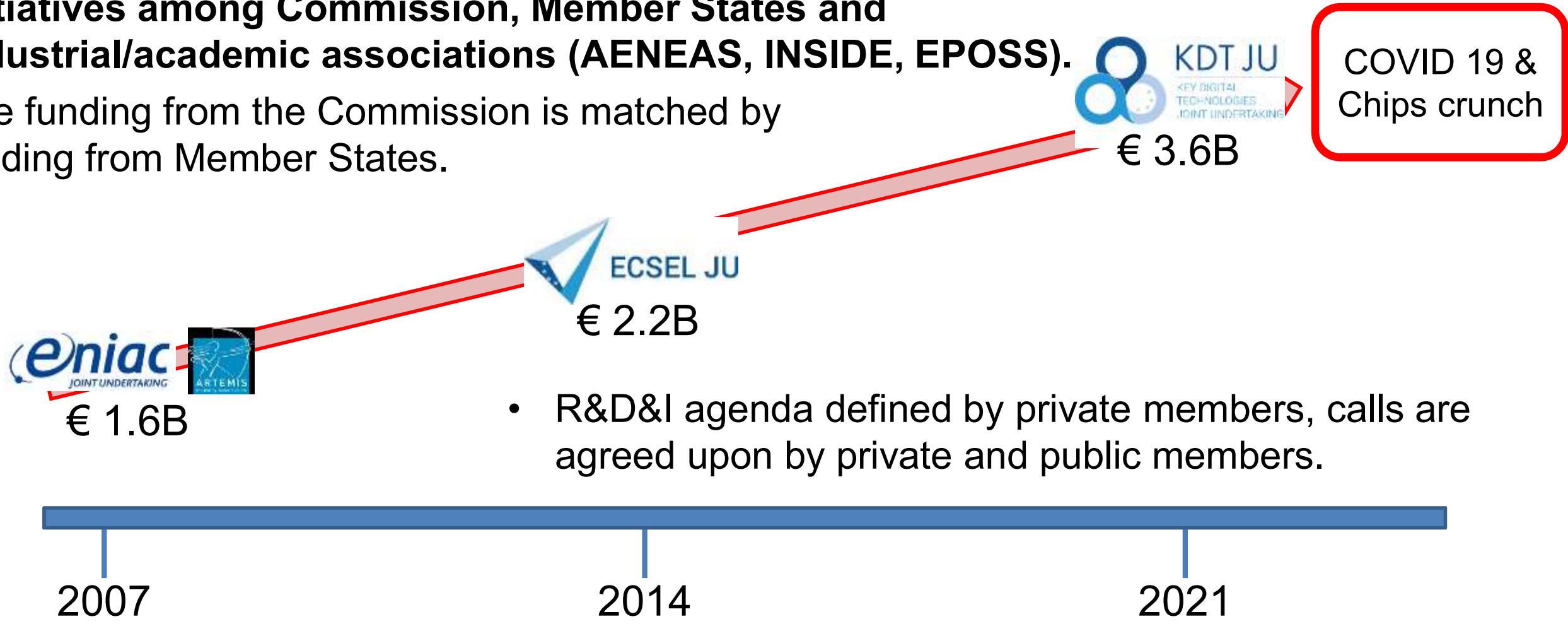


# The Joint Undertakings (JU) for Microelectronics



JU are part of the Public-Private Partnerships (PPP): **joint R&D&I initiatives among Commission, Member States and industrial/academic associations (AENEAS, INSIDE, EPOSS).**

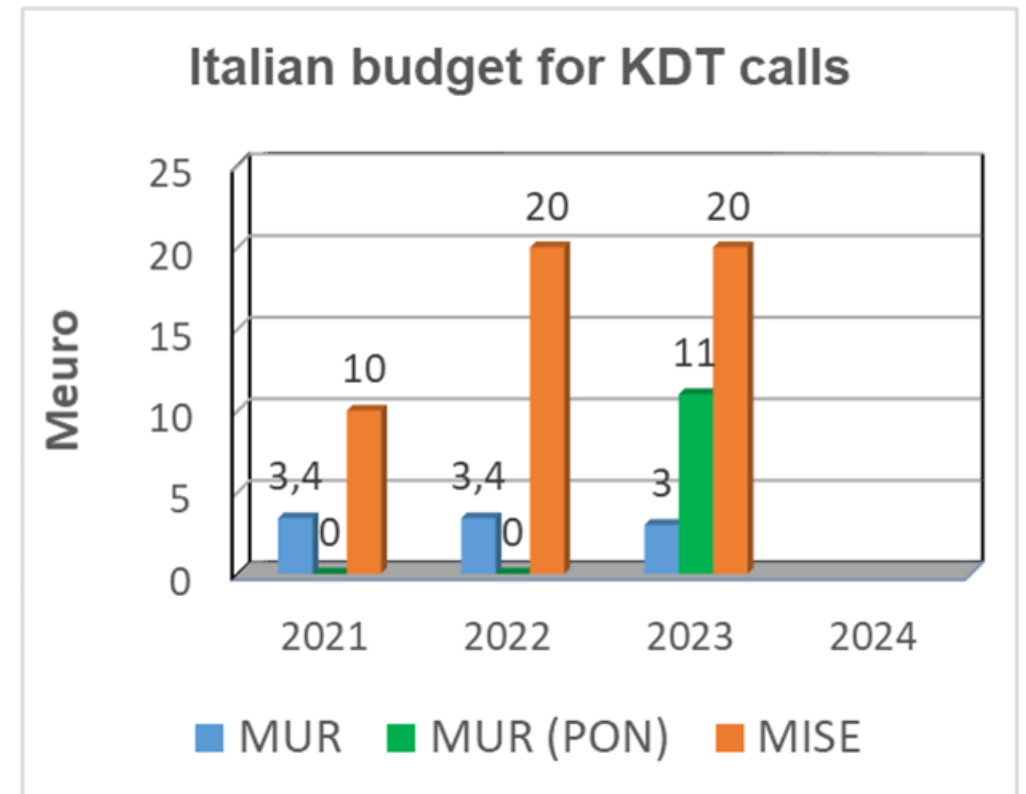
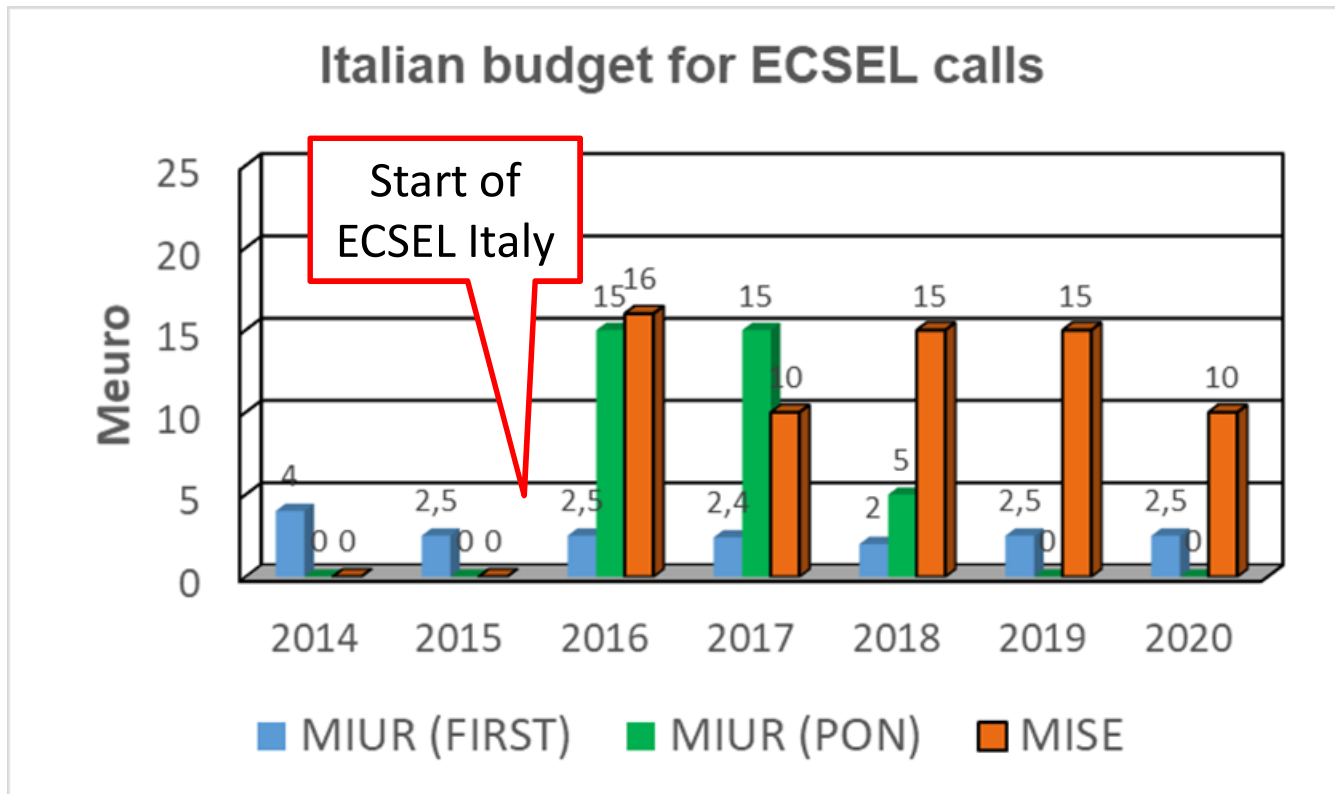
The funding from the Commission is matched by funding from Member States.



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



# Italian budget in ECSEL and KDT JU



- In the period 2014-2020 (ECSEL JU), a total of 119.4 M€ were made available by MUR and MISE. For the KDT JU, 50 M€ from MIMIT, 9.8 M€ from MUR and 11 from PON funds.
- MUR and MIMIT have made available 22 M€ for the first calls of the Chips JU



# The crisis of 2022

**TODAY Motori e mobilità**

**STOP FORZATO**  
**Crisi semiconduttori: lo stabilimento Stellantis di Melfi costretto a 9 giorni di stop**

Da bottiglie di plastica a pneumatici nuovi grazie a un nuovo processo tecnologico

**U.S. auto sales fall in first quarter as chip shortage slows factories**

By Tom Krisher  
 April 08, 2022 at 12:50 pm CDT

**Volvo cuts Swedish production on chip shortage**

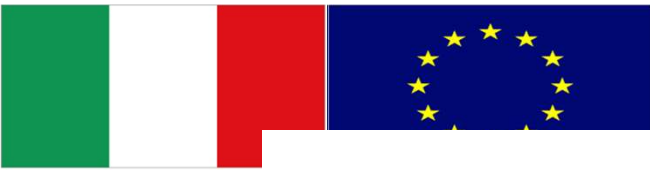
Volvo said it now expects marginal growth in deliveries this year due to the chip shortage.

**MOW**  
**Esplode il “chippageddon”. Dall’automotive agli smartphone: la crisi dei chip è più seria del previsto**

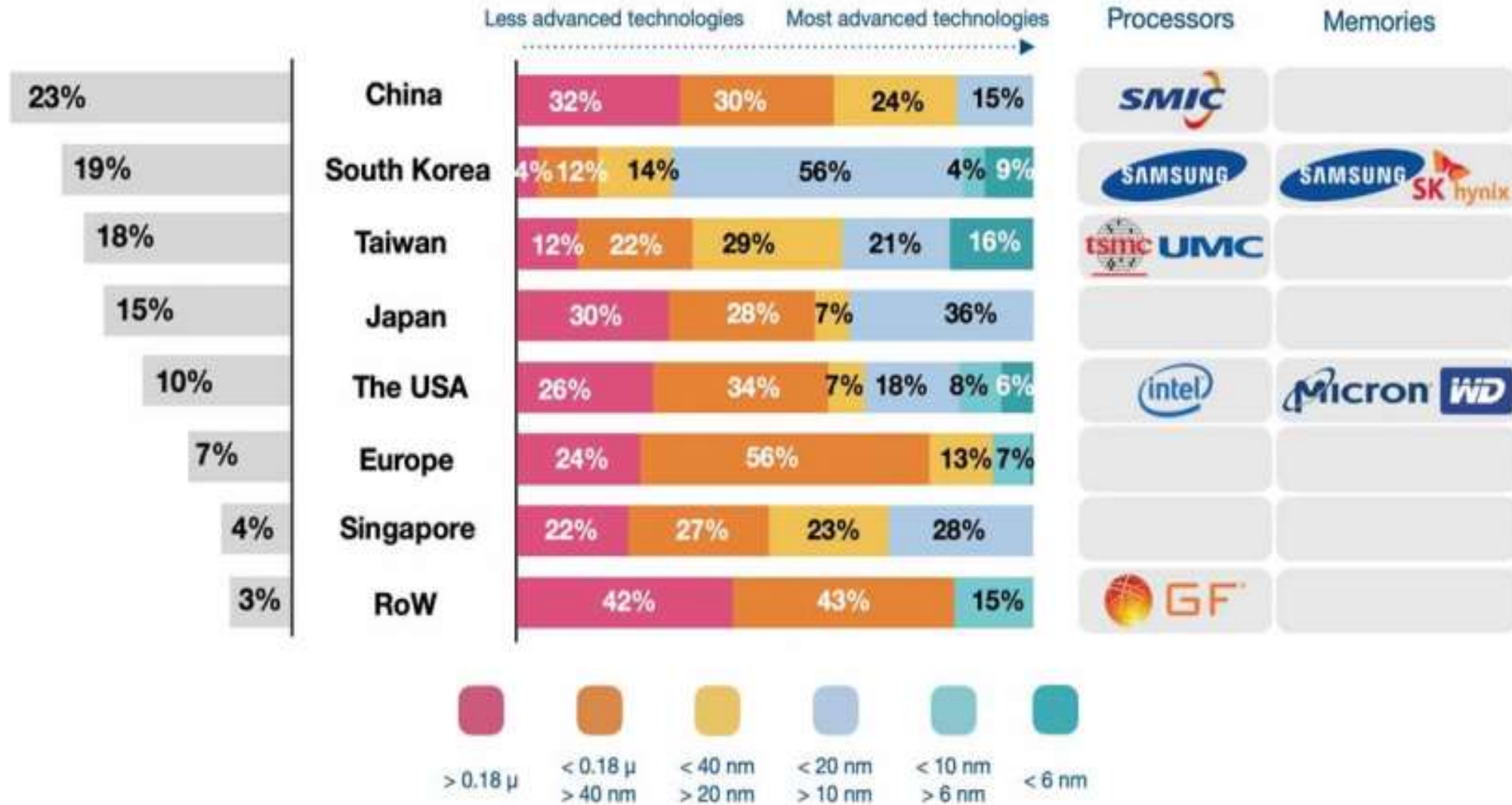
**CarExpert**  
**U.S. auto sales fall in first quarter as chip shortage slows factories**

**Chip shortage could last until 2024, according to Volkswagen**

**ECSEL Italy**



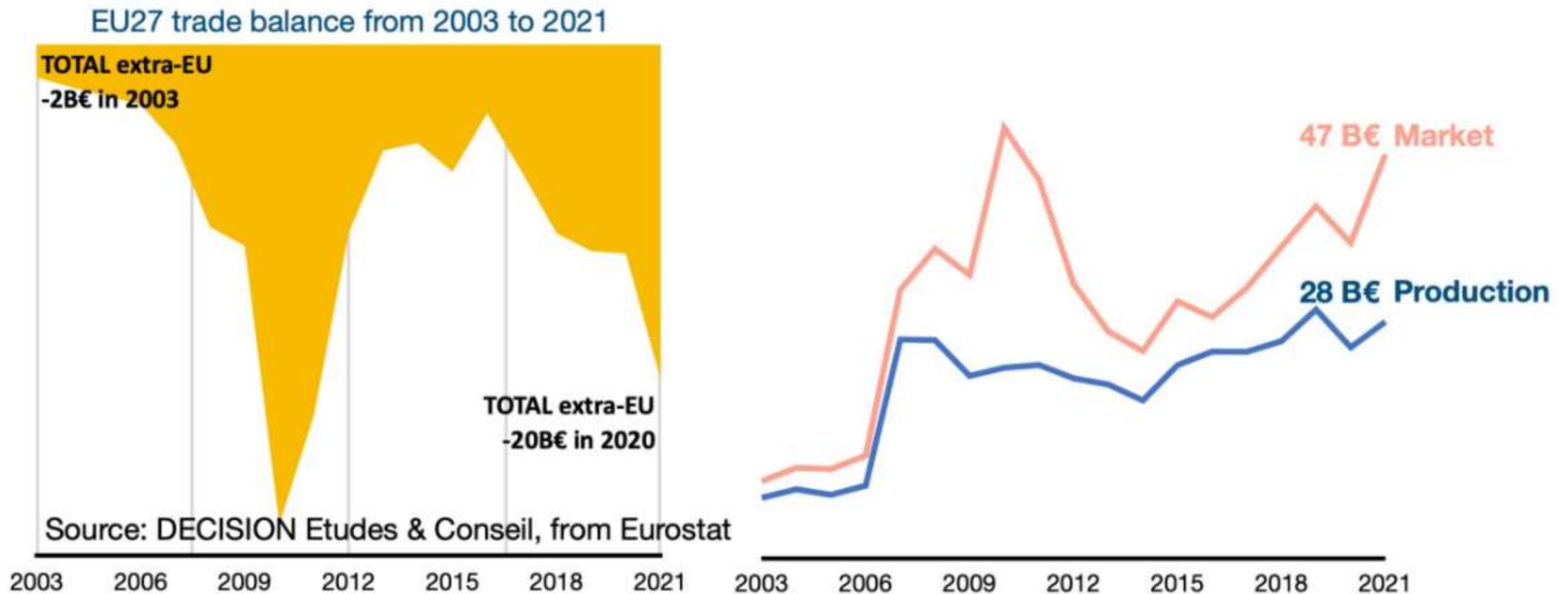
# Semiconductor manufacturing



Millions of wafers per month (200 mm equivalent)  
 Source: DECISION Etudes & Conseil, Semi Database 4Q2022



# The EU semiconductor trade balance





# 2022: European Chips Act



## European Semiconductor Board (Governance)

**Chips JU:**

- Calls
- **Pilot Lines**
- Competence Centers

**Pillar 1**

**Chips for Europe Initiative**

- Initiative on infrastructure building in synergy with the EU's research programmes
- Support to start-ups and SMEs

**Pillar 2**

**Security of Supply**

- First-of-a-kind semiconductor production facilities

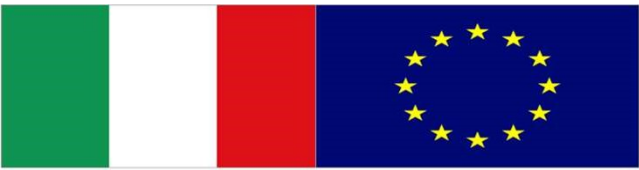
**Attract new fabs in Europe**

**Pillar 3**

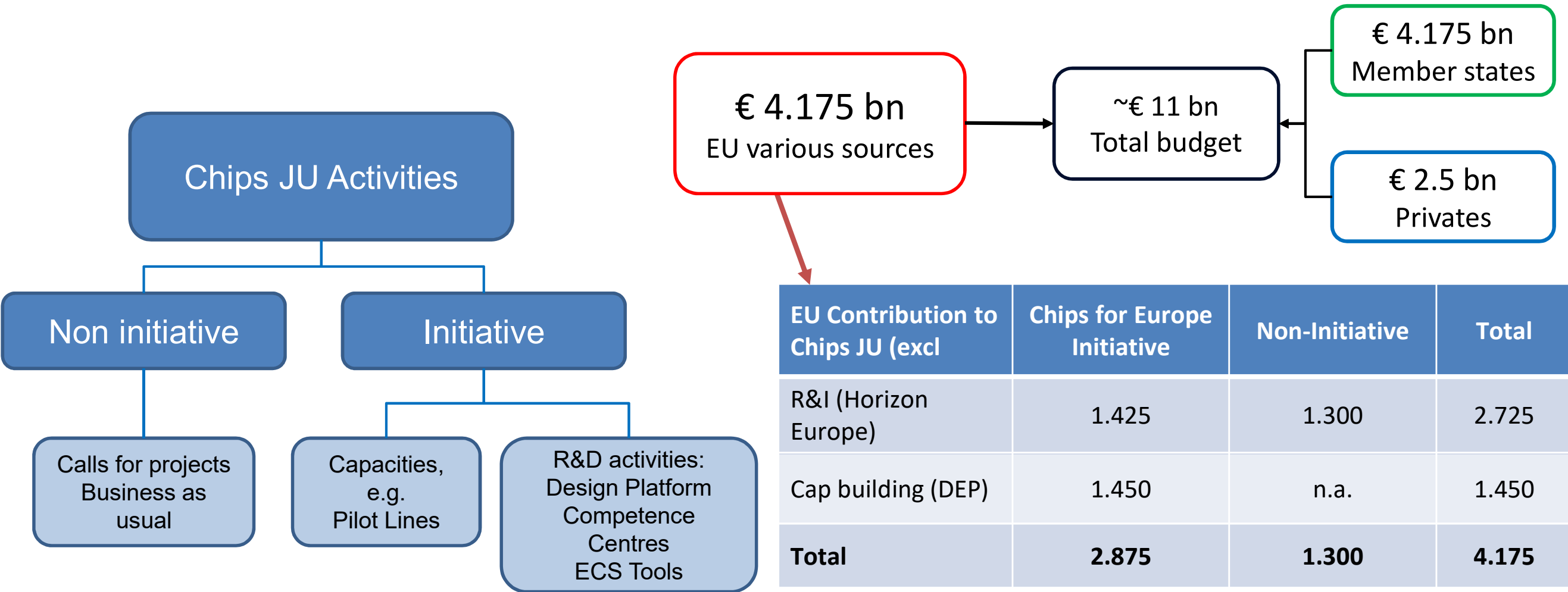
**Monitoring and Crisis Response**

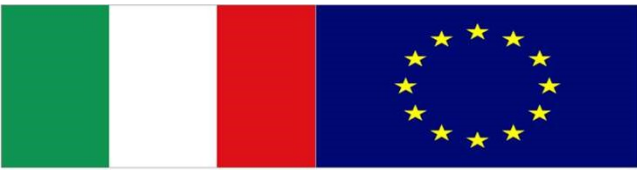
- Monitoring and alerting
- Crisis coordination mechanism with MS
- Strong Commission powers in times of crisis





# Chips JU program





# Initiative Activities

## Pilot Lines



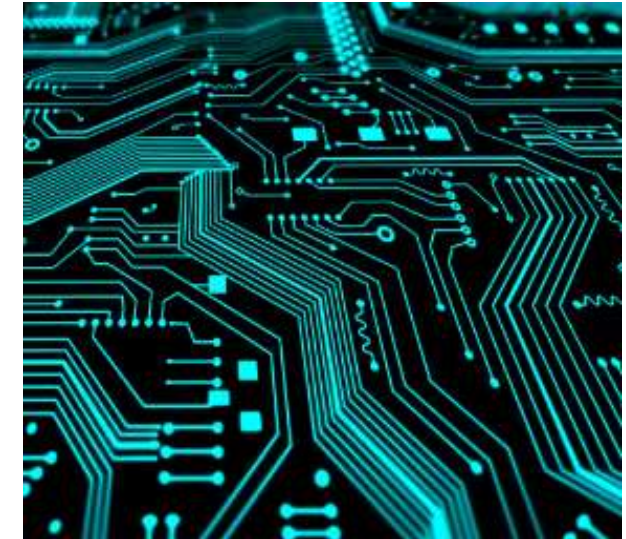
**Public** leading-edge facilities to support industry in developing, testing and validating new technologies and systems, and implementing prototypes.

## Competence Centres

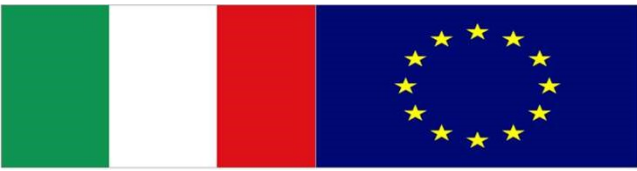


A network of competence centres, across Europe, to provide access to technical expertise and experimentation, to approach and improve design capabilities and developing skills

## Design Platforms



A virtual environment, based on the cloud, available across the Union, integrating a wide range of design facilities from IP libraries to EDA tools and support services, for SME's and RTO's.

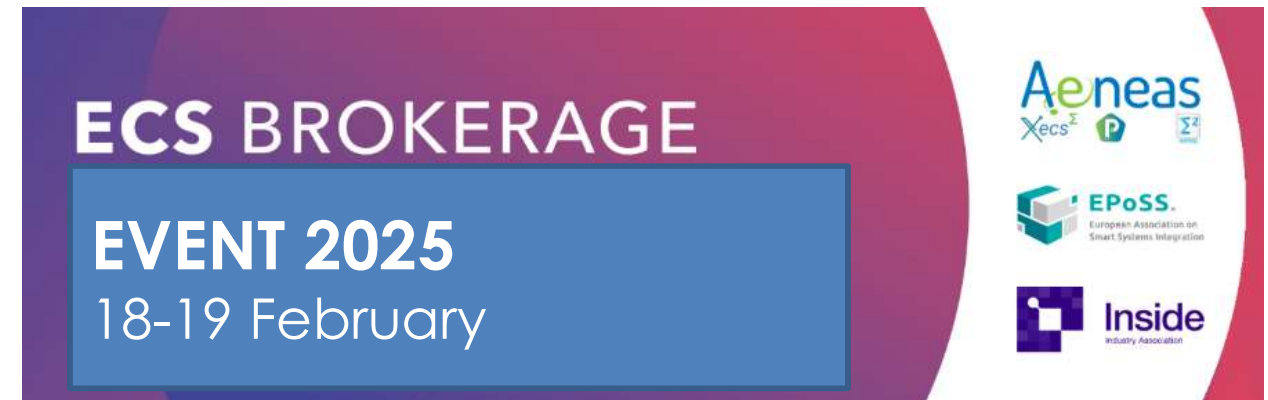


# Non Initiative Activities

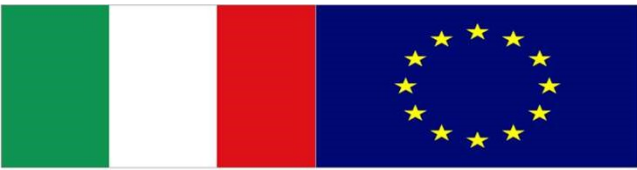
- Yearly call for projects in the field of Electronic Components and Systems.
- Calls open in February with a 1° deadline in April and the final one in September.
- Advertised by two events



**EF ECS 2024** is the European Forum for Electronic Components and Systems, brings together industry, policymakers and researchers. It offers the opportunity for networking and project presentation.



The ECS Brokerage Event combines the brokerage activities of the industry associations AENEAS, EPoSS and INSIDE into one networking event dedicated to the preparation of project proposals



# Non Initiative Activities Calls 2024

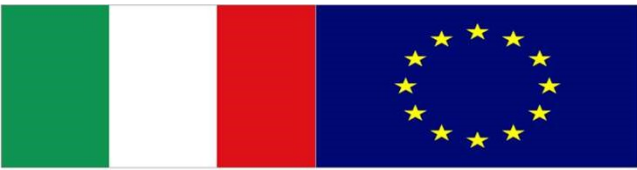
Action	Title	Maximum JU Funding (M€)
HORIZON-Chips 2024-1-IA-T1	Global IA call according to SRIA 2024	103.00
HORIZON-Chips 2024-1-IA-T2	Focus topic on “High Performance RISC-V Automotive Processors supporting SDV”	20.00
HORIZON-Chips 2024-1-IA-T3	Focus topic on “Service Oriented Framework for the Software Defined Vehicle of the future”	20.00
HORIZON- Chips 2024-2-RIA-T1	Global RIA call according to SRIA 2023	52.00
HORIZON- Chips 2024-2-RIA-T2	Focus topic on “Sustainable and greener manufacturing”	15.00
HORIZON- Chips 2024-3-RIA *	Joint call with Korea on Heterogeneous integration and neuromorphic computing technologies for future semiconductor components and systems	6.00
		216.00

\* For the Call 2024-3 there is a PC where only 500 places with a deadline on 14 May 2024



# Calls 2024

Call	Proposals	Total requested funding	Available funding
Global IA	13	€ 214.5M	€ 103M
Focus IA	1		
Global RIA	21	€ 187,2M	€ 52M
RIA focus 1	1		
RIA focus 2	1		



# Italy in the Chips Act



**Nasce a Pavia la Fondazione Chips.IT**  
*Il Centro italiano per il design dei circuiti integrati a semiconduttori*, coordinerà attività di ricerca e design con attori pubblici e privati, mettendo a disposizione attrezzature e software di ultima generazione.



## Contratti di sviluppo – Nuovo sportello Semiconduttori



**3,3 Miliardi di euro** di contributi a fondo perduto e finanziamento agevolato per sostenere la crescita e lo sviluppo tecnologico della catena di approvvigionamento dei semiconduttori



**Un nuovo fab di STM a Catania** per i semiconduttori a largo gap.



**Un nuovo sito di Silicon Box a Novara** per advanced packaging.



# Contratti di sviluppo



## Contratti di sviluppo – Nuovo sportello Semiconduttori



Il 30 aprile apre un nuovo sportello per la presentazione di domande a valere sullo strumento agevolativo dei **Contratti di sviluppo**, dedicato allo sviluppo della filiera nazionale dei semiconduttori. Alla misura sono destinate le risorse del Fondo istituito dall'articolo 23, comma 1 del decreto-legge 1° marzo 2022, n. 17, che ha una dotazione di **3,292 miliardi di euro**.

### Cosa finanzia

- sviluppo dell'industria nazionale dei semiconduttori, nelle diverse fasi che ne compongono il processo di produzione;
- crescita e sviluppo tecnologico delle imprese appartenenti alla catena di approvvigionamento dei semiconduttori.

<https://www.mimit.gov.it/it/incentivi/semiconduttori>



# A new fab in Sicily



## Urso e Vestager a Catania per il nuovo impianto STMicroelectronics, 5 miliardi di investimento

31 Maggio 2024



Con questo nuovo sito la società annuncia un maxi investimento da 5 miliardi di euro per il nuovo stabilimento produttivo che offrirà nel capoluogo etneo 2000 posti di lavoro, con un sostegno finanziario di circa 2 miliardi di euro da parte dello Stato italiano nel quadro del Chips Act.

Il nuovo sito contribuirà a rafforzare la sicurezza nell'approvvigionamento, la resilienza e la sovranità digitale dell'Europa nei **semiconduttori** e avrà come focus produttivo la realizzazione in grandi volumi di carburo di silicio per dispositivi e moduli di potenza, nonché per attività di test e packaging.





# Chipelets in Novara



## Silicon Box sceglie Novara per il nuovo maxi impianto per la produzione di chipelet, investimento da 3,2 miliardi



Silicon Box ha scelto Novara, in Piemonte, come sede del suo nuovo maxi-impianto produttivo per la realizzazione di chipelet integration e advanced packaging e testing foundry, il primo nel suo genere in Europa per un investimento complessivo di 3,2 miliardi di euro.



# Chips Mirror Group Italy: What can we do for you?



- Disseminate information on Chips JU events and calls.
- Keep informed on future Chips JU and Chips Act initiatives and on running project proposals
- Collect project ideas and presentation of partners' competences for future brokerage events.
- Provide support and advice in the search for projects partners and in proposal preparation.





# Follow us on the web sites



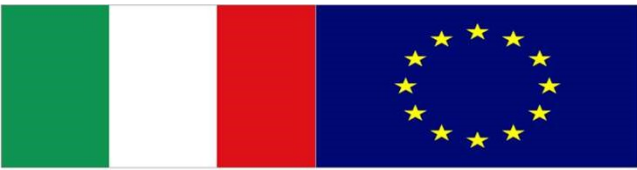
In addition to the previous web site, hosted by AEIT at:

<https://www.aeit.it/ecsel>,

a new web site is available at:

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





# Thank you!

<http://www.aeit.it/ecsel>

## Contacts

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## Steering Committee

