ECS Brokerage Event 2024
20 & 21 February

European Commission – Lucilla Sioli
Director AI and Digital Industry
20 February 2024
Chips Act – The Chips for Europe Initiative
Chips for Europe Initiative
Bridging the gap from lab to fab

SUPPLIERS
- Equipment
- Materials
- Tools
- Services

 USERS
- SMEs
- System Houses
- IDMs
- RTOs

Skills Initiatives
- Competence Centres

MANUFACTURE
- RS
- Fabs
- Packaging
- Assembly
- Testing

Design platform
- EDA tools
- Design libraries
- Quantum Tools/IP

Pilot Lines
- PL 1
- PL 2
- PL n
- Quantum Pilot Lines
**State of Play**

First calls on **pilot lines** launched on 1st December. For ~ EUR 3.3 billion

**Chips JU**
Implementing vehicle of the Chips for Europe Initiative

**EUR 5.75 billion [EU + MSs]**
investment in infrastructures expected by 2027
Chips for Europe Initiative – current status (I)

Pilot lines

- **FD-SOI** scaling towards 7nm
- **Leading-edge nodes** below 2nm
- **Heterogeneous systems** integration and assembly
- **Wide-bandgap semiconductors**

Calls launched 1st December 2023.
Chips for Europe Initiative – current status (II)

Design platform

Main objectives

- **Reduce entry barriers** and admin burden for EU companies in design
- **Facilitate access** to pilot lines and foundries
- Foster **collaboration** among EU stakeholders on new developments
- Access training and support to boost design skills

Instrument

Develop a **virtual design platform**, offering **cloud-based** access to tools, libraries and support services to accelerate development and reduce time-to-market
Chips for Europe Initiative – current status (III)

Competence centres

- EU support for at least one centre per Member State
- Co-investment with Member States and Regions
- Supporting industry and public services
- Access to design platform and pilot lines
- Focus on Semiconductors Skills
- A strong European network of Competence Centres
InvestEU - Debt and equity programme to mobilise private and public investments in key areas through EU guarantees

- Implemented in partnership with EIB, EIF, financial institutions and promotional banks
- Funding available in the form of equity and debt products for R&I and production
- Thematic funding for semiconductor SMEs and scale-ups: EU EUR 125 million ➔ ~EUR 1.25 billion with partners

European Innovation Council of Horizon Europe - promotes breakthrough innovation

- EIC Accelerator: support startups and SMEs to bridge the financing gap between R&D and market take-up
- Funding in the form of grants, equity and blended financing
- Thematic funding for semiconductor start-ups: EU EUR 300 million ➔ ~EUR 900 million with partners

Chips for Europe Initiative – current status (IV)

Chips Fund

European Innovation Council

EIC Accelerator

InvestEU

European Innovation Council of Horizon Europe - promotes breakthrough innovation

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Chips Fund
Possible implementation roadmap of the automotive hardware platform via Chips Act

- A number of automotive-related actions are foreseen under in the Chips JU.
- Chips JU RDI support for:
  - High-performance and real-time cores (1)
  - IP blocks e.g. AI, Cryptography* etc. (2)
  - *Software Defined Vehicle (SDV) Software Stack (3)*
  - *Integration via chiplet approach through continued support for heterogeneous integration (incl. pilot lines, R&I) (4)*

*illustrative examples only – actual projects may focus on other IP blocks
Facilitate investments in manufacturing facilities

State aid distorts competition and is prohibited in the Union (TFEU) - unless justified by economic development needs

First-of-a-kind (FOAK) facility: to qualify, facility needs to offer innovation in terms of products or process that is not yet present in the Union (not to distort competition)

Conditions: positive impact, security of supply and commitment to next generation

Integrated Production Facility (IPF)
First-of-a-kind facility which produces the chips (mostly) for the same undertaking

Open EU Foundry (OEF)
First-of-a-kind facility that produces chips (mostly) for unrelated undertakings
A European economic security strategy (I)

Risk categories:

- Technology security and technology leakage
- Resilience of supply chains
- Critical infrastructure
- Weaponization of economic dependencies / economic coercion

COM recommendation on list of critical technology areas

Joint risk assessments with MS (by the end of 2023):

1. Advanced semiconductor technologies
2. Artificial intelligence technologies
3. Quantum technologies
4. Biotechnologies

List of critical technology areas:
- Advanced semiconductor technologies
- Artificial intelligence technologies
- Quantum technologies
- Biotechnologies
- Advanced connectivity, navigation and digital technologies
- Advanced sensing technologies
- Space and propulsion technologies
- Energy technologies
- Robotics and autonomous systems
- Advanced materials, manufacturing and recycling technologies

CNECT & RTD
A European economic security strategy (II)

On 24 January, the Commission proposed five concrete initiatives to strengthen the EU's economic security.

The initiatives cover the following areas:

- Improved screening of foreign investment
- Enhanced European coordination in the area of export controls
- Identification of potential risks stemming from outbound investments in a narrow set of technologies
- How to better support research and development involving technologies with dual-use potential
- Measures aimed at enhancing research security at national and sector level
Semiconductor value chain is global and spread over different world regions

We need to cooperate, proactively managing interdependencies to ensure a reliable global marketplace for EU products and security of supply including in crisis situations

**International partnerships and frameworks**

**Bilateral**

**Digital Partnerships:**
- Japan
- South Korea
- Singapore
- Canada

**Trade and Technology Council (TTC):**
- US
- India

**Multilateral**

Annual “Government/Authorities Meeting on Semiconductors” (GAMS) among US, EU, Japan, South Korea, China, Chinese Taipei: exchange on regional support for semiconductors as well as compelling global issues signaled by the World Semiconductor Council (WSC) composed of Semiconductor Industry Associations from the 6 regions meeting annually before GAMS

**OECD Informal network on semiconductors:**
*Coordinated approach to gain a better understanding of global semiconductor ecosystems through information sharing on identified parts of the value chains and policy efforts across countries*
- 38 OECD members + accession candidates
- Launched in June 2023;
- 3rd meeting took place in December 2023