



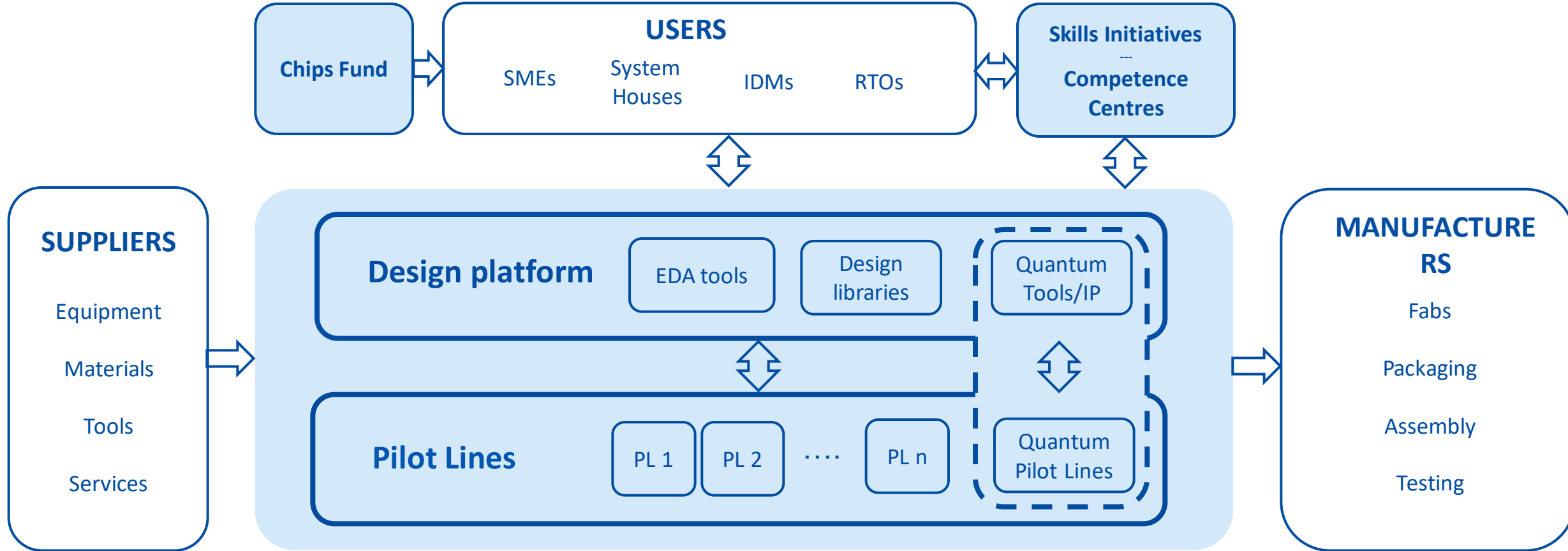
ECS Brokerage Event 2024 20 & 21 February

*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



State of Play

Chips JU

Implementing vehicle of the
Chips for Europe Initiative

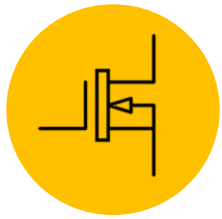


First calls on **pilot lines** launched
on 1st December. For ~ EUR 3.3
billion

EUR 5.75 billion [EU + MSs]
investment in infrastructures
expected by 2027

Chips for Europe Initiative – current status (I)

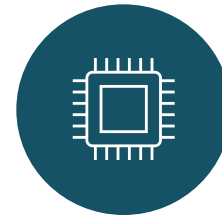
Pilot lines



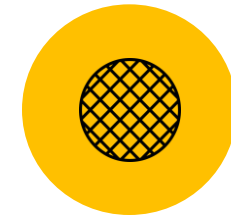
FD-SOI scaling towards
7nm



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



Instrument

Training and support to boost design skills



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

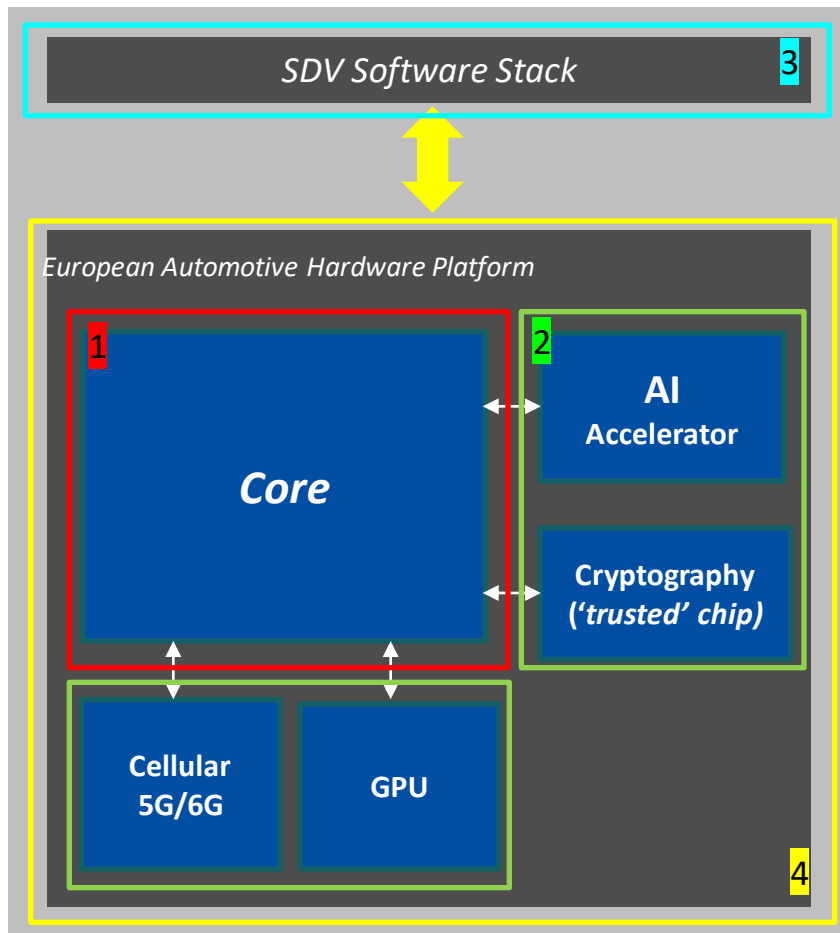
Chips for Europe Initiative – current status (IV)

Chips Fund



- **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
- **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

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)

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)

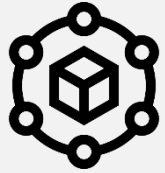
First-of-a-kind facility that produces chips (mostly) for unrelated undertakings

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

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

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

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

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**



International partnerships and frameworks

- 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

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