



European Chips Act

Iberian Science Day

Iberian Strategy in the Semiconductor Industry

EU Chips Act

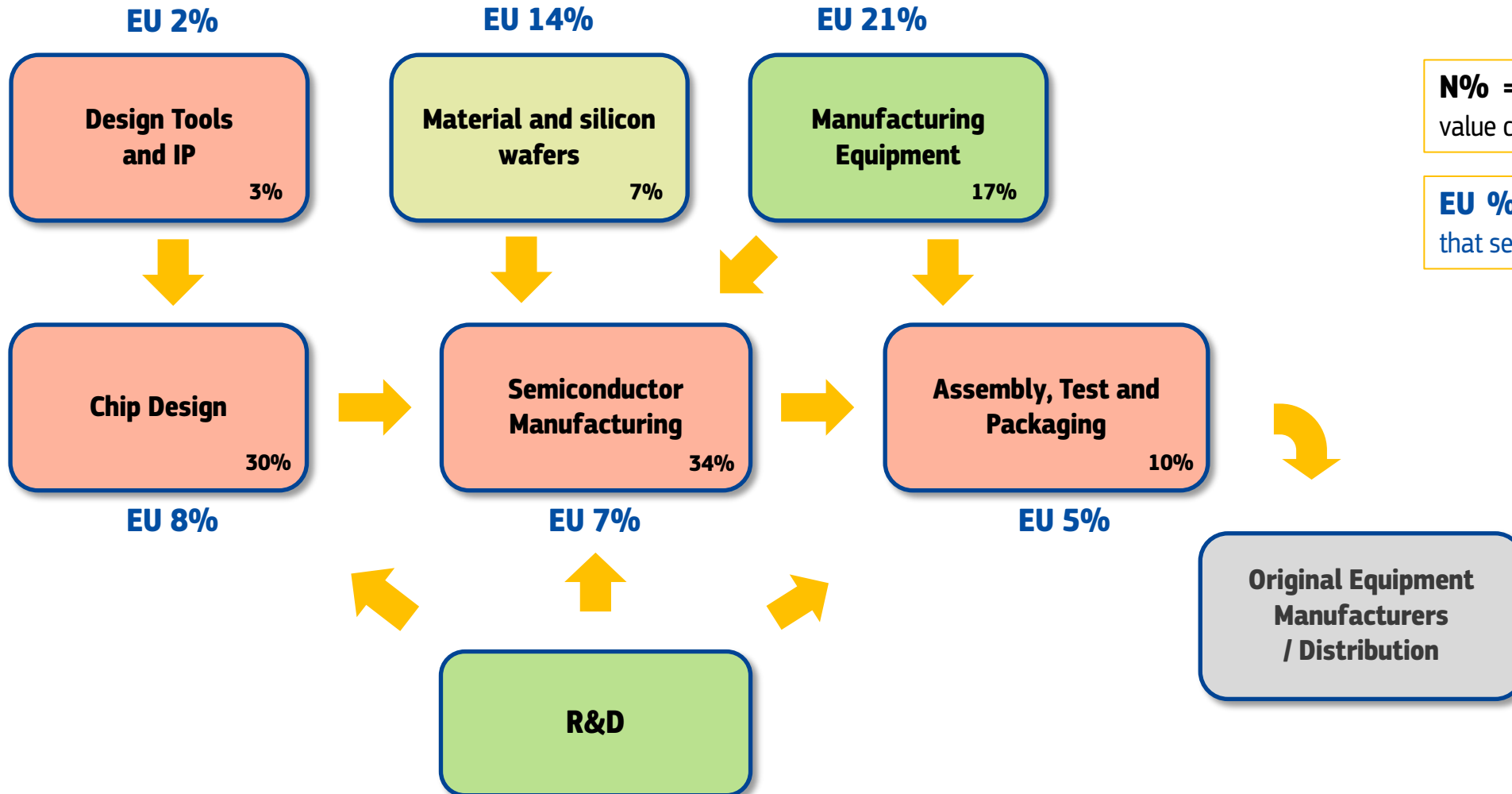
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European Commission

17 November 2023

The EU Chips Act - rationale for intervention



Semiconductors value-chain in EU



N% = added value of segment in the value chain

EU % = EU share of global market in that segment

Chips Act – already in motion

Pillar 1 – Chips for Europe Initiative

KDT JU formally becomes the Chips JU.
First calls expected for **Q4 2024**
EUR 5.75 billion EU + MSs investment in capacity building expected by 2027.

Pillar 2 – First of a Kind (Foak) facilities

Approx. **EUR 100 billion** of first investments announced
Wide variety of technologies – power to leading-edge sub-2nm logic

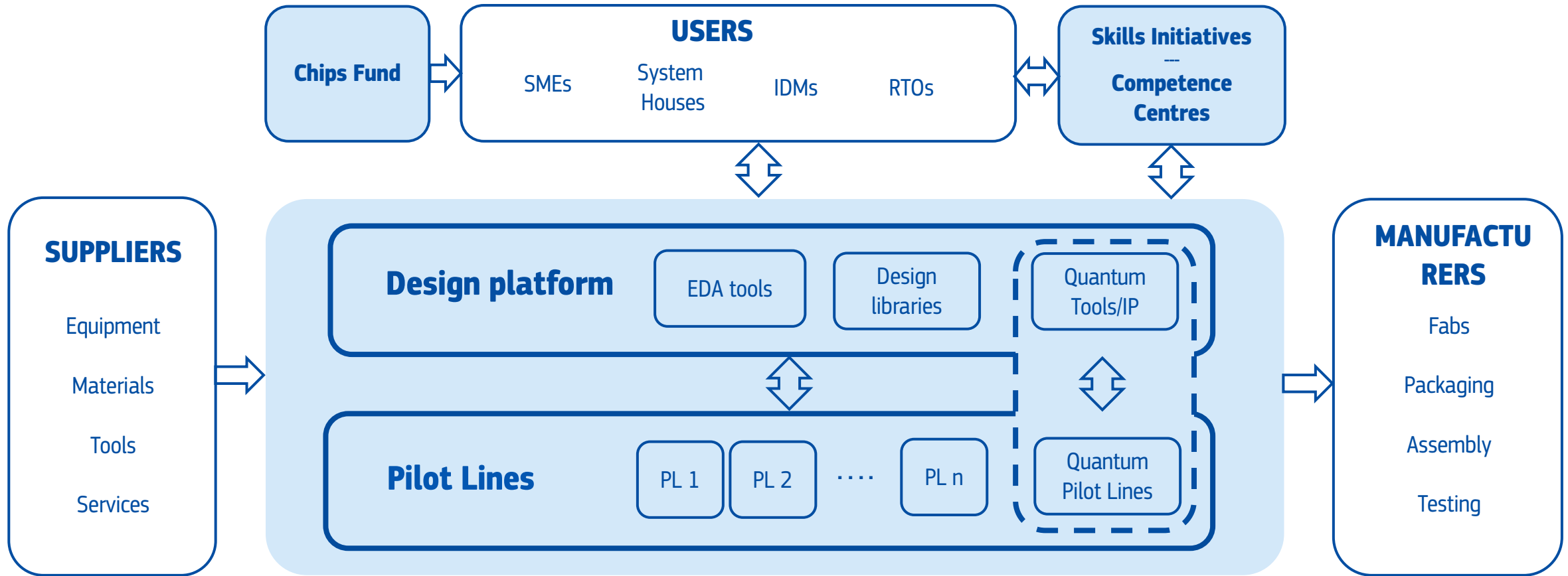
IPCEI on Microelectronics and Communication Technologies

14 Member States
56 companies of all sizes
68 RDI and first industrial deployment projects
EUR 21.8 billion (state-aid + private investment)

Pillar 1-Chips for Europe Initiative

Chips for Europe Initiative

Bridging the gap from lab to fab



Pilot Lines

Sub-2nm GAA

Advanced Heterogeneous Systems Integration

Sub-10nm FD-SOI

....

- Key issues to consider, given significant EU support:
 - Access conditions
 - IP rights
 - International cooperation

Design Platform



Access to a repository of IP (both open source and commercial)



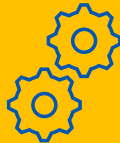
Easy access to design tools with reduced contract negotiation time



Tool-oriented and practical training



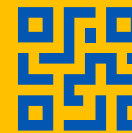
Customised cloud instance with scalable compute + storage resources



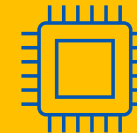
Application engineering support (design enablement)



EDA tools and IP sandbox (community-based testing + valid.)



Access to pilot line and foundry PDKs/ADKs



Support until first prototype (MPW)

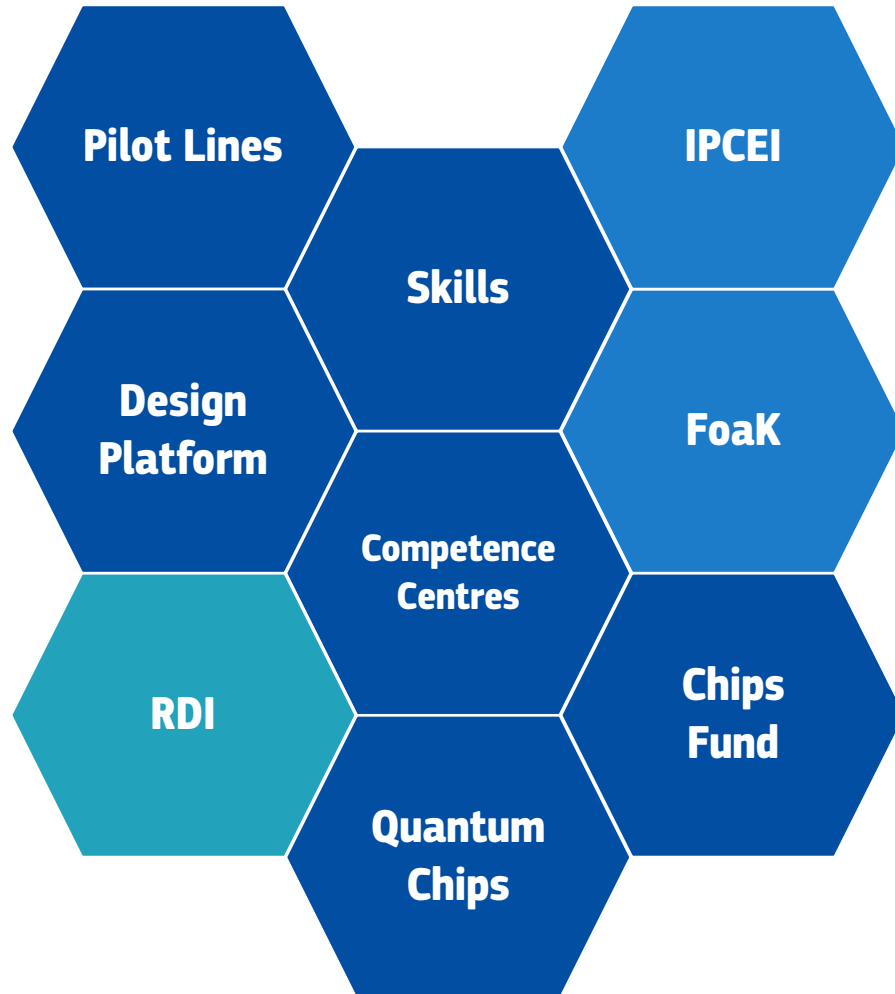
Ambition: to provide start-ups, SMEs and other users a design environment similar to what is expected at larger companies through the aggregation of demand

Competence Centres

Main objectives

- Have specialised areas of expertise in certain technology, domain, or activities (**specialisation**)
- Facilitate effective use of capacities and facilities, including access to **design platform** and **pilot lines**
- Support interested stakeholders in developing semiconductor solutions (**technology transfer**)
- Address **skills shortage** by offering (access to) **training** on semiconductors, including workforce upskilling and reskilling
- Match user needs with available expertise in network of competence centres and act as **access point to the network**
- **Promote Chips Fund** and facilitate access to venture capital
- **Awareness raising, promoting services, promoting success stories**

The pieces are there – time to complete the puzzle



Scope

- Build strong and interdependent activities across the different actions within the **Chips Act**, especially in core horizontal issues such as skills
- Address the needs of **key industrial verticals** from these actions (automotive, telecommunications, ...)

Pillar 2-First of a Kind (FOAK) Facilities

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

FOAKs in motion



SiC Epi-substrate Wafer Plant for
Power Chips, STMicroelectronics,
Sicily, Italy
(approved in October 2022)



Jointly-operated, high-volume
plant with focus on FD-SOI,
GlobalFoundries and
STMicroelectronics,
Crolles, France
(approved in April 2023)

...more to come

Thank you



INTERNATIONAL
SEMICONDUCTOR
EXECUTIVE SUMMITS

Q&A

Lucilla Sioli
European Commission



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