

## LLECS2024 BELGIUM 5-6 December

# Lab-to-Fab Accelerators under the Chips for Europe Initiative

Elisabeth Steimetz EPoSS Director

#### **Chips Act Pillar 1: Chips for Europe Initiative**

#### Press Release European Commission, Brussels, 30 November 2023

Commissio Act

Brussels, 30

Today the Com will reinforce the bridge the gap commercialisat the Commissio be matched by

In addition, the together Memb the European C platform for co issues relating

#### The Chips Joint Undertaking

The Chips JU is the main implementer of the billion until 2030). The Chips JU aims at strue conomic security by managing an expected EU and participating states.

**"The first pillar - the Chips for Europe Initiative -** reinforces Europe's technological leadership, by facilitating the transfer of knowledge from the lab to the fab, bridging the gap between research and innovation and industrial activities and by promoting the industrialisation of innovative technologies by European businesses."

commission, Member States, and stakeholders to address supply chain and possible crisis responses.

> Europe initially expected total budget €15.8 In Europe's semiconductor ecosystem and In nearly €11 billion by 2030, provided by the

European Chips Act Communication
otes:

"I warmly welcome the launch of the Chips Joint Undertaking and the new pilot lines for semiconductors. We cannot achiev Diaital Decade without the foundational technologies on which our diaital society is built. Our transition to a more diaital fu

nips, ti

**EU** Chips

Act

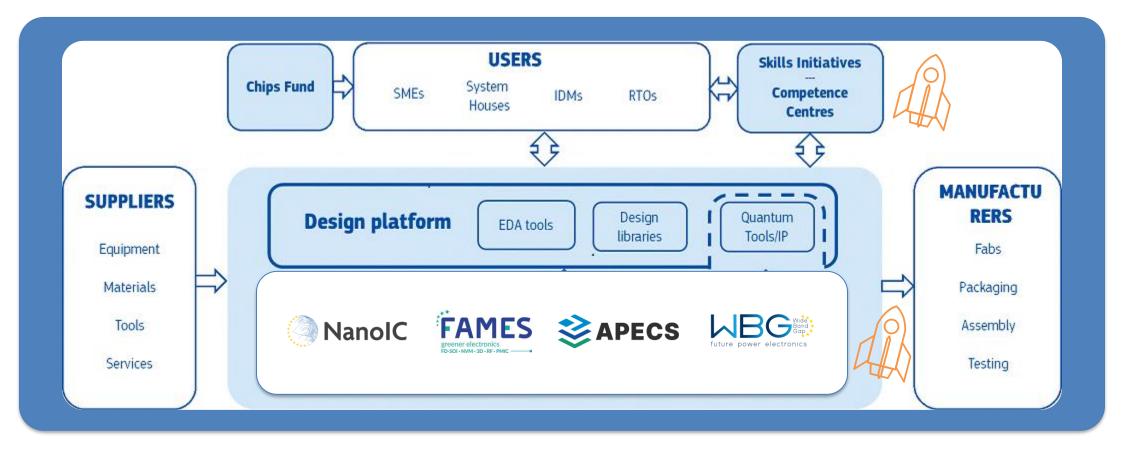
Pillar 1



#### **Chips 4 Europe Initiative: Investments**



#### Step 1: Capacity building



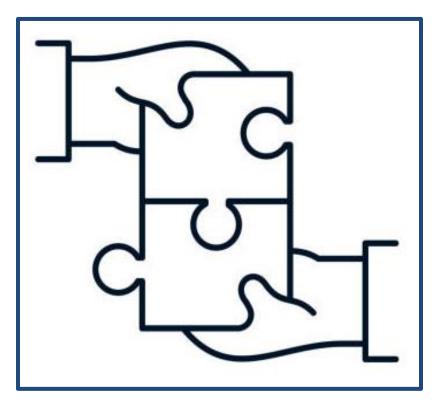




#### **Chips 4 Europe Initiative: Investments**

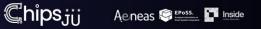


Step 2: Lab-to-Fab accelerator R&D programme to accelerate technology transfer

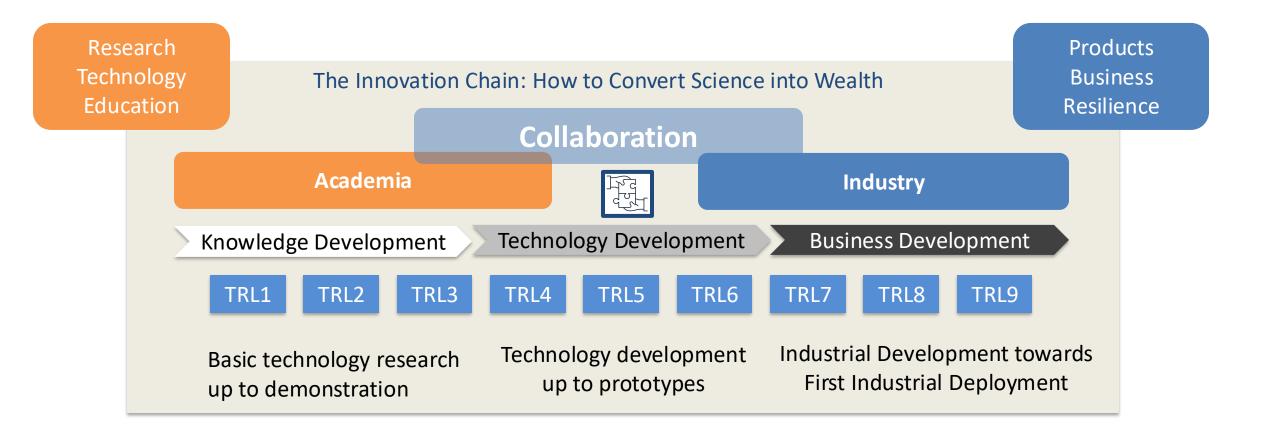


Ensure competitiveness and foster resilience of European semiconductor industry





#### **Collaboration between RTOs and Industry**



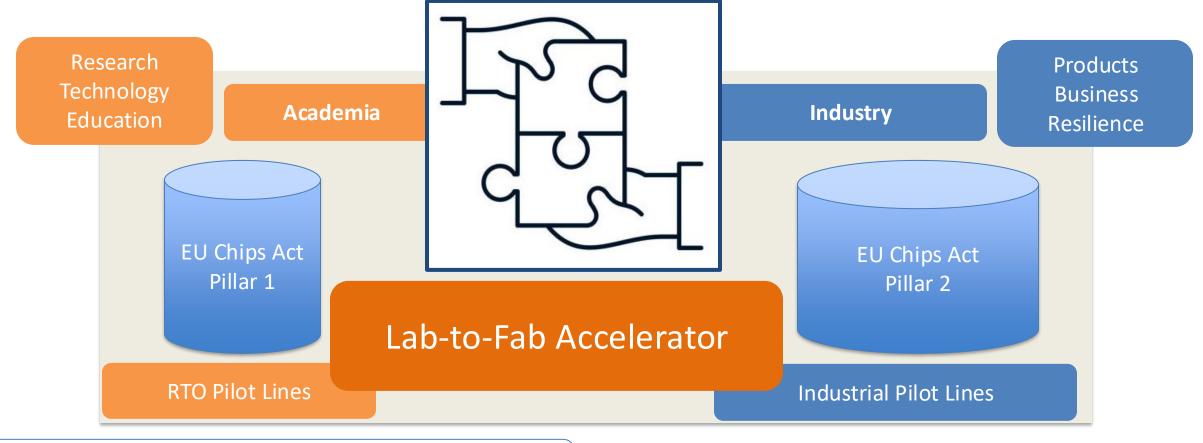
Source: uk-cpi.com

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Chipsjü



#### **Role of Lab-to-Fab Accelerators**









### **Final Recommendations of Pack4EU**





Implementation of an Industrial Transfer Instrument for semiconductor packaging bridging the gap between prototyping and production. 2 Establish a High-Level Packaging Board composed of industry leaders to guide strategic directions driven by market needs, ensuring innovation in packaging standards and practices. 3 Implementation of a technical expert group for developing and updating a Roadmap for Advanced Packaging in Europe. 4 Creation of Open Piloting Facilities for small and medium volume production as a seed for growing European Advanced Packaging capabilities

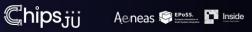
Development of tools and methodologies for a **Design-to-X approach &** Standardisation for an OPEN European Co-Design Ecosystem.

5



Final Report on Policy Recommendations available online.



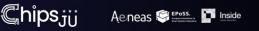


#### Lab-to-Fab Accelerators: Key principles

How to bring **research into products** faster in Europe?

- 1. Closer cooperation **between Chips Pilot Lines** and **industrial consortia** from the outset in line with **industries' roadmaps** to achieve **"right first time"**
- 2. Joint standardisation activities & creation of platform-based families of the solutions that can be transferred into different applications, e.g. automotive, industry, health, telecommunications scalable and upgradeable for next generation!
- 3. Common development of **equipment**, **materials**, **processes** and **tools** for rapid testing with **final cost targets in mind!**
- 4. Digital Twins using AI/ML-based models and standardised tools



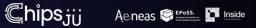


# Towards a first Lab-to-Fab Accelerator programme for Advanced Packaging



PL calls and decision	Set-up of expert group for APECS line	Workshops on accelerator projects for APECS pilot line to generate inpu- for WP 2025		WP 2025 and Calls 2025	Start first accelerator projects
Q1-Q2/2024	Q2/2024	Q2-Q4/2024	C	Q4/2024 - Q2/2025	
1. WS with APECS PL Session on Lab-to-Fab accelerators at		rators at	Sep –Nov WP 2025 preparation		
SSI 2024	in Hamburg Expert group in	· · ·	Open online expert Workshop		ry 2025: al first Call open





#### See you!

#### Today, 17:30 @ Bauwens room 1, floor 2

#### Workshop on Lab-to-Fab Accelerator on Advanced Packaging



moderated by Elisabeth Steimetz and Steffen Kröhnert



Antonio Mesquida Küsters Tech-Dilligence



Speakers

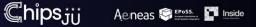
Eric Fribourg-Blanc Chips JU

Chipsjü

Przemyslaw Jakub Gromala Bosch









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#### Thank you very much!

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