# The European Semiconductor Strategy

## Workshop “Trusted Chips: The Standardization Landscape & Opportunities for Europe”

*2 December 2022*

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*DG CONNECT*

# The EU Chips Act

> *We will present a European Chips Act…*
> *This is not just a matter of our competitiveness.*
> *This is also a matter of **tech sovereignty**.*
> *– Commission President Ursula von der Leyen*


**Vision**

To jointly create a state-of-the-art European chip ecosystem, that includes world-class research, design and production capacities

**Key objectives**

- strengthen **research and technology** leadership
- build and reinforce its **innovation capacity** in design, manufacturing and packaging
- put in place framework to increase substantially **production capacity** by 2030
- address the acute **skills** shortage, attract new talent
- develop mechanism to monitor **supply chain** and intervene if needed

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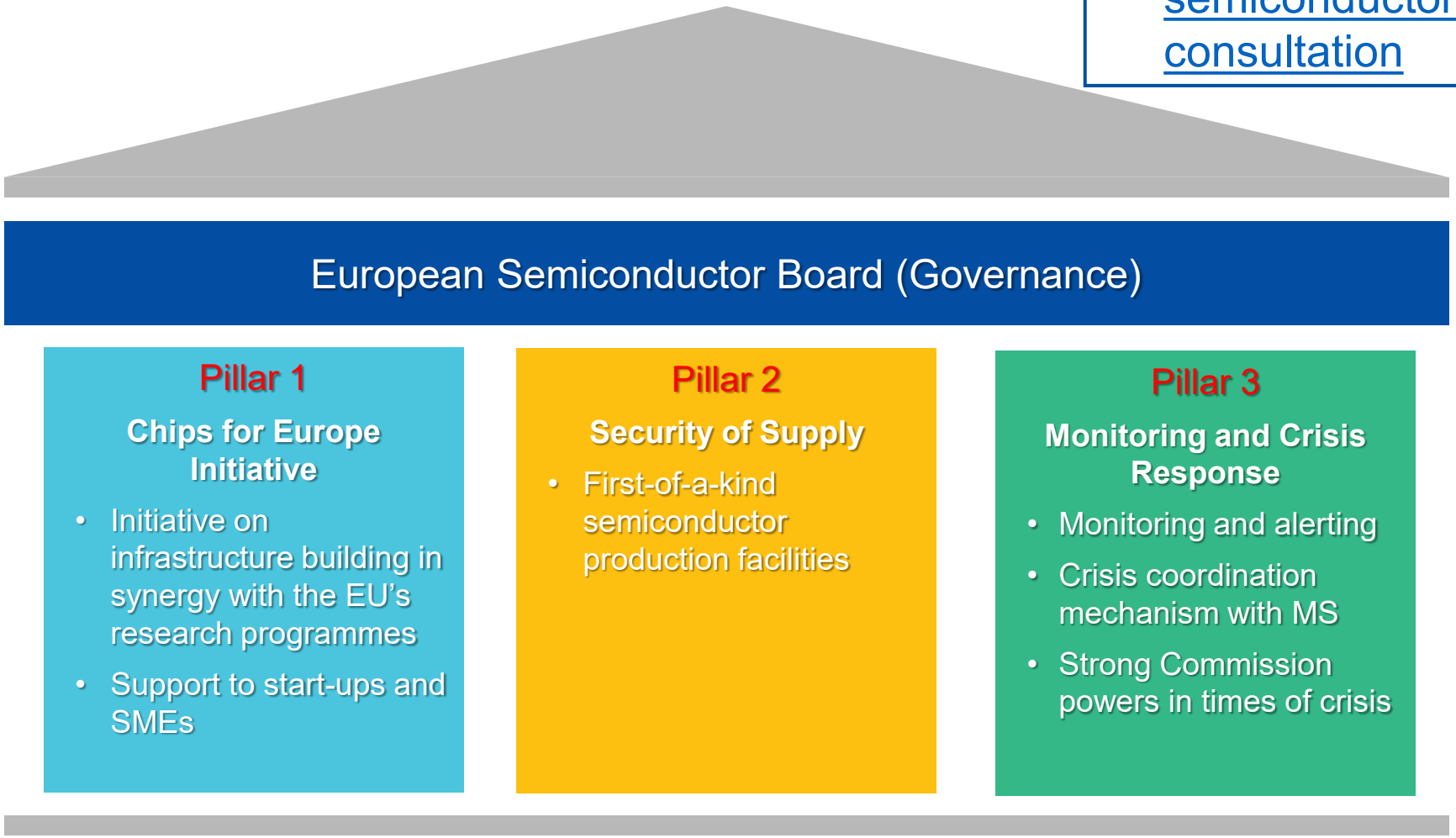
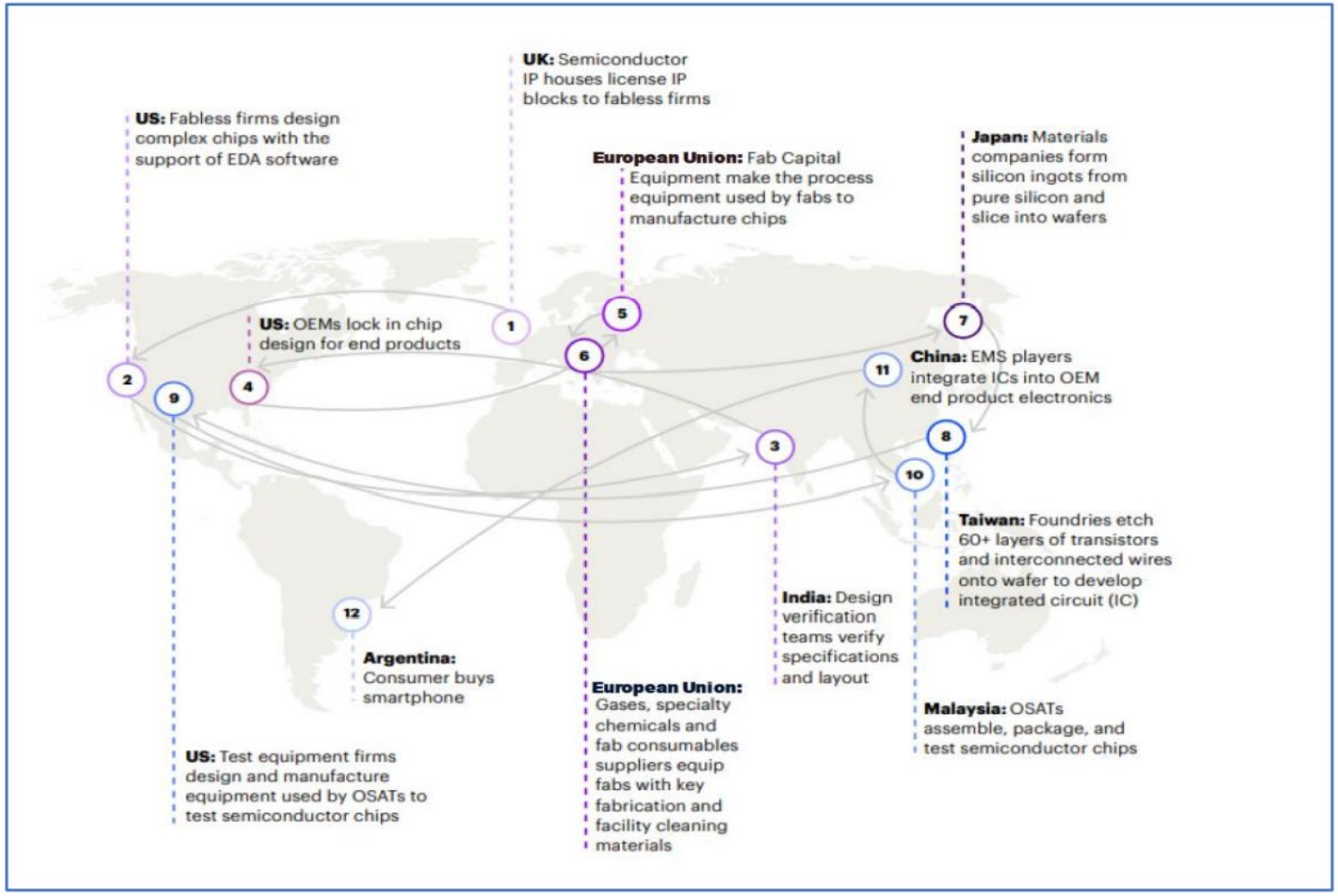
# Three pillars of the Chips Act

https://digital-strategy.ec.europa.eu/en/consultations/european-semiconductor-value-chain-consultation



# Trusted electronics – the need




- Complex value chain with potential threats across several steps
- Applications in several sectors (critical infrastructure, automotive etc.)
- Not just cybersecurity! Implications in the physical world (automotive, healthcare etc.)

Illustrative example: Global Semiconductor Supply Chain for smartphone chip (Source: Accenture. 2022)

# Trusted electronics - Strands of work

**Standardisation**

- Grant under preparation to scan the standards landscape and identify gaps
- Call for proposals on pre-standardisation work related to the Cyber Resilience Act (CRA) proposal
- Stakeholder workshop with CENELEC on 2 December

**Certification – public procurement**

- Provisions of the CRA
- Identification of specific sectors and technologies with potential high social impact and respective security significance in need of certification for trusted products
- Commission, Member States, and private actors to work together on establishing common requirements for procurement

**Technology development – R&D – workshop early next year with DE (BMBF)**

# Research on Trusted chips

| | |
|---|---|
| Why? | • While research on secure software has been in the EU focus, activities on trusted hardware are embryonic. |
| | • Cyber Resilience Act will broadly set security requirements on digital products including hardware (microprocessors, FPGAs, microcontrollers etc.) |
| What? | ○ New chip design methods (incl. new security elements) |
| | ○ New production methods |
| | ○ New methods for assembly, analysis, test, measurement (e.g., chiplets) |
| Applications | • Data-Communication (5G) – trade off: trust vs. latency |
| | • Financial sector – trade off: trust vs. accessibility |
| | • Automotive – trade off: trust vs. cost<br>• Aeronautics, defense, critical infrastructure – trust vs. certification effort |
| How? | Cooperative research driven by end-user needs, influencing standards and easing certification |

# Thank you



Slide 4: image source Accenture 2022

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