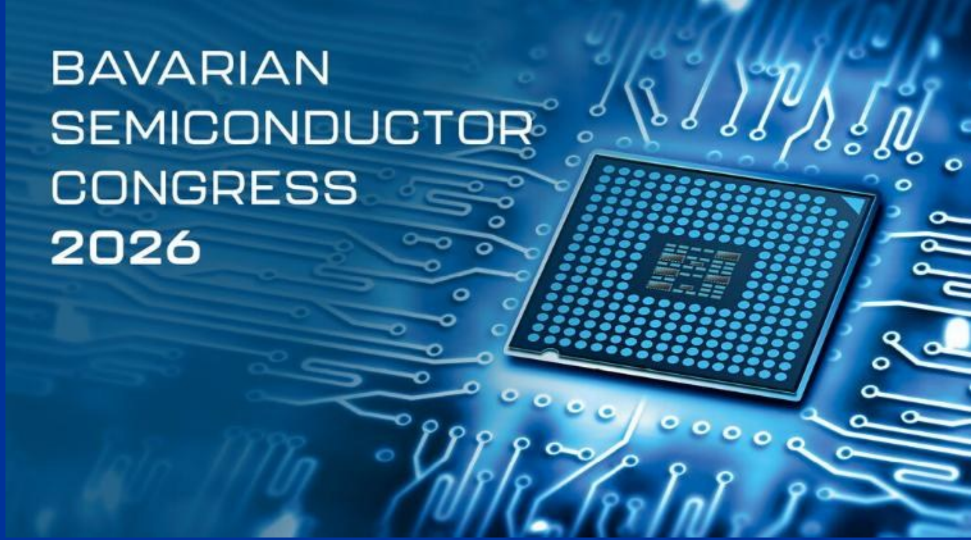
Semiconductor Policies: Chips Act 2.0 and Beyond

06 July 2026



Chips Act 2.0

European Technological Sovereignty Package

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Chips Act 1.0: in force since September 2023

EUROPEAN CHIPS ACT

European Semiconductor Board (Governance)

Pillar 1

Chips for Europe Initiative

- **Aim**: bolster large-scale technological capacity building and innovation within the EU semiconductor ecosystem.
- **Actions**: set up of pilot lines, competence centres, design platform, Chips Fund

Pillar 2

Security of Supply

- **Aim**: attract investments to increase semiconductor manufacturing capacity, contributing to security of supply.
- **Actions**: EUR 80 billion committed in manufacturing

Pillar 3

Monitoring and Crisis Response

- **Aim:** monitoring the supply chain, coordinate actions with Member States, especially in times of crises.
- **Actions:** monitoring and alerting system, European Semiconductor Board.

Mandatory evaluation & review by September 2026

Research policy + **Industry policy** + **Crisis management**

Chips JU

FOAK Investments

IPCEI Microelectronics and Communication Technologies

European Semiconductor Board

Pillar I – Chips for Europe Initiative

Infrastructures open to a wide range of EU Users

Pilot lines

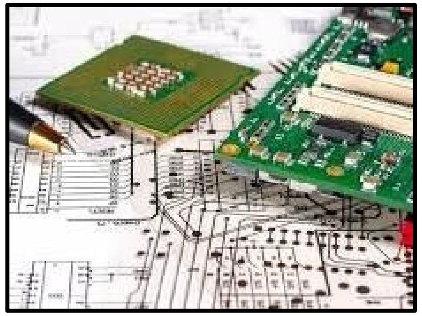
Prototyping of validated designs
Testing of equipment
Validation of process flows

5 launched

Design Platform

Help designing semiconductor devices, via access to Electronic Design Automation tools and IP libraries

In progress



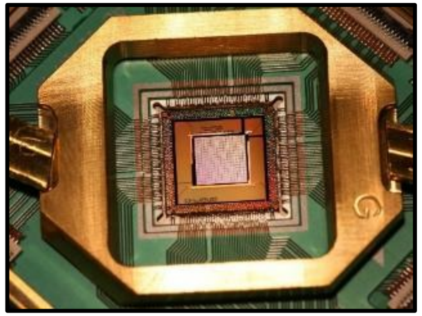
Competence centres

Access to technical expertise
Helping companies to approach and improve design capabilities and developing skills

28 countries

Quantum chips

Technology and engineering capacities for accelerating innovative development of quantum chips



In progress

- ➢ **More than <u>85% of budget</u> has been committed already (~ EUR 3 billion)**

Pillar II – Security of supply and resilience
State aid for production facilities

First-of-a-kind facility (FOAK): offers innovation in terms of products or process not yet present in the Union

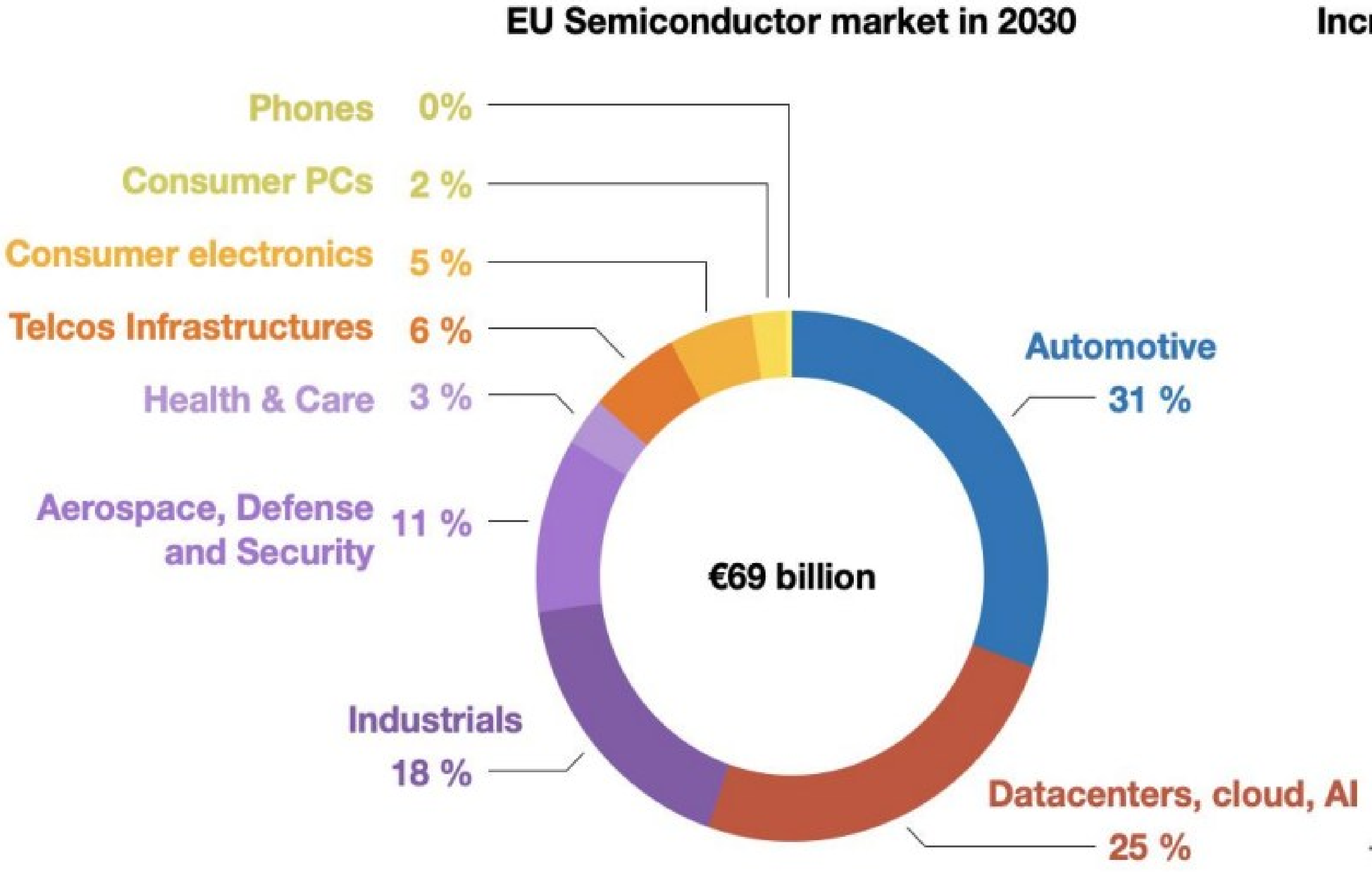
All stages of semiconductor production are eligible **Wafer production** → **Wafer processing** → **IC packaging / assembly**

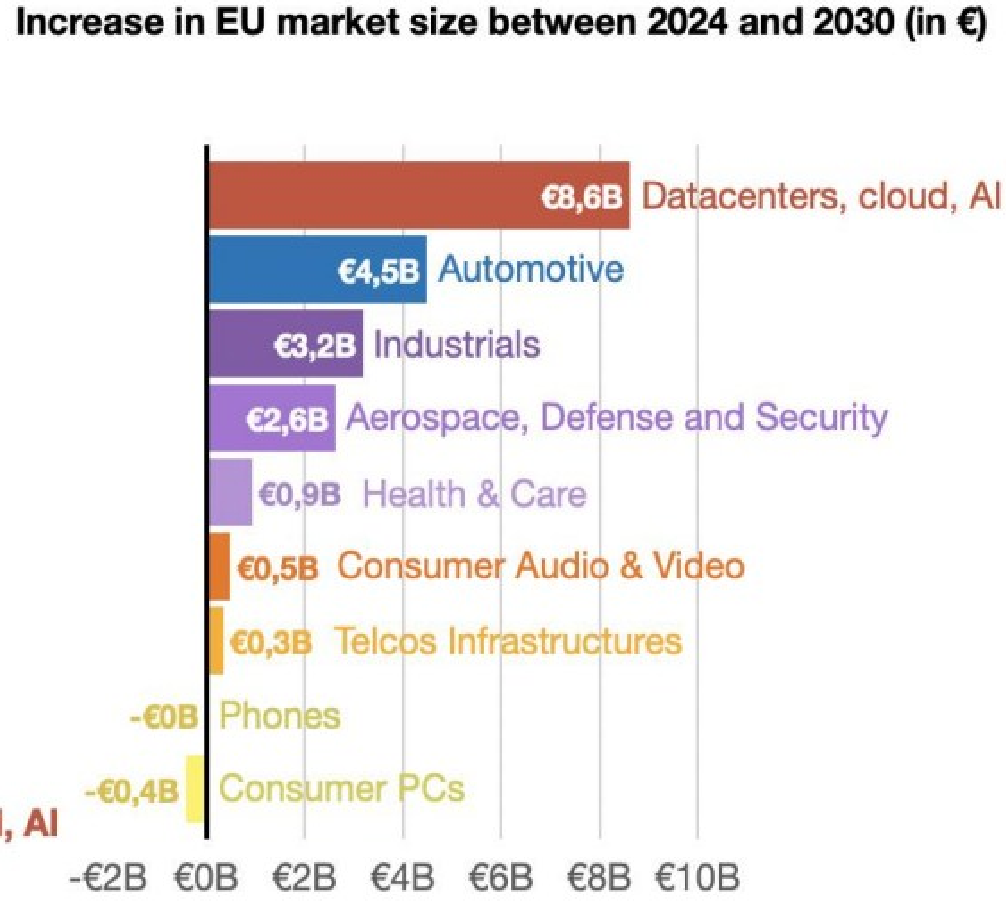
Company	Location	Investment (EUR billions)	Technology
STMicroelectronics	Catania, Italy	**0.73**	*SiC Wafer*
STMicro & GlobalFoundries	Crolles, France	**7.5**	*300-mm FD-SOI*
STMicroelectronics	Catania, Italy	**5.0**	*SiC Devices*
ESMC	Dresden, Germany	**>10**	*CMOS, FinFET*
Silicon Box	Novara, Italy	**3.2**	*Advanced Packaging*
Infineon	Dresden, Germany	**3.54**	*Discrete, Analog/Mixed Signals*
ams OSRAM	Premstätten, Austria	**0.567**	*CMOS*
Ephos	Milan, Italy	**n.d.**	*Glass-based Photonic Chips*
Onsemi	Rožnov, Czech Republic	**1.64**	*SiC Devices*
GlobalFoundries	Dresden, Germany	**n.d.**	*300-mm FD-SOI and BCD*
X-Fab	Erfurt, Germany	**n.d.**	*Advanced Packaging*
Zadient	Bitterfeld, Germany	**n.d.**	*SiC source granulate material*
Carl Zeiss	Oberkochen, Germany	**n.d.**	*EUV lithography optics*
Total		>32 billion Euros	

n.d. = not disclosed (yet)

- Further, IPCEI ME-CT started in 2023 with around **EUR 20 billion** investments
- More projects in the pipeline

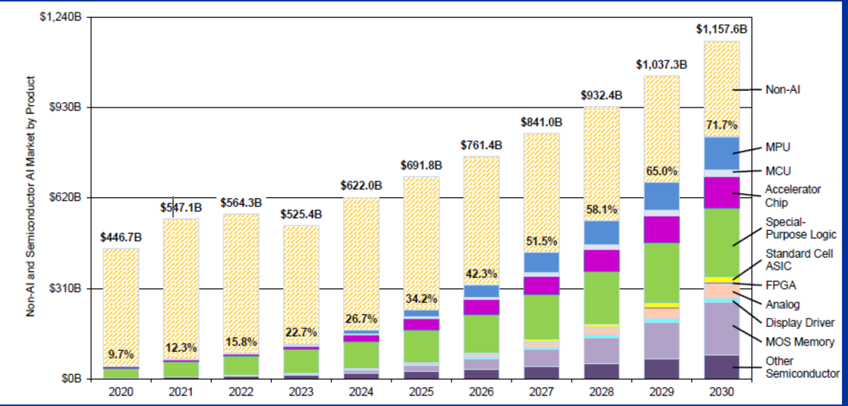
European Semiconductor Demand Forecast - 2030





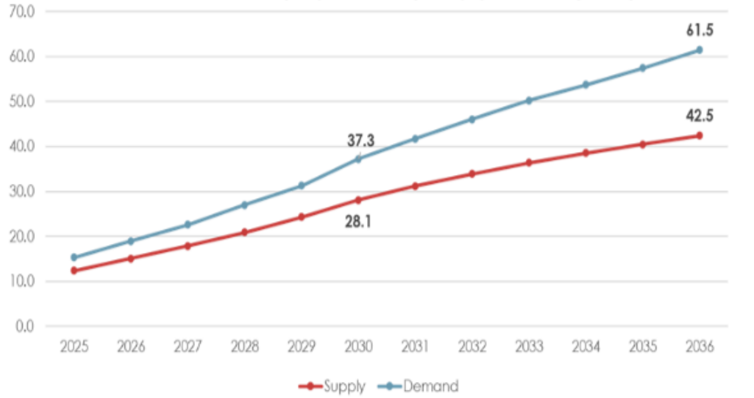
Source: Decision Etudes et Conseil, based on Eurostat and WSTS

AI will drive chip demand

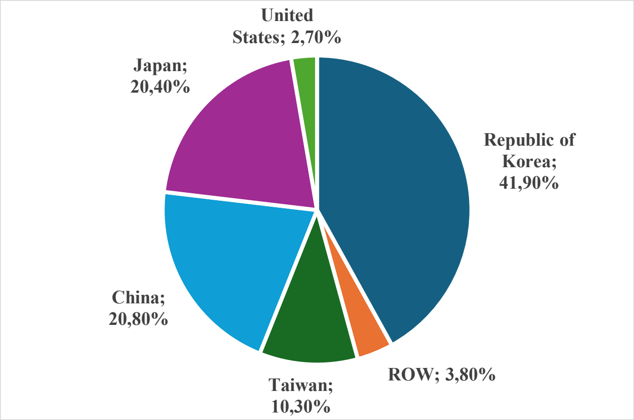


- **AI logic chips** are projected to **grow at a CAGR of 18–29%**
- **AI-related** components will represent **more than 70% of the total semiconductor market by 2030**

Figure 6. Evolution of the gap between data centre demand and supply
Forecasted data centre capacity and demand (status quo) in EU27 in GW (2025-36)

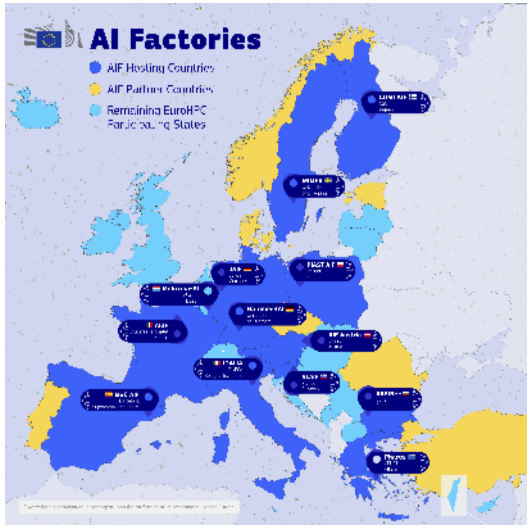


Triple capacity for data in Europe will stimulate demand for chips



- **AI memory chips** are expected to **grow at a CAGR of 17–23%**
- **Europe is absent from the memory market**

Generating chips demand for leading edge and edge AI



AI Factories

- Dynamic innovation ecosystems, connecting **supercomputing centres**, start-ups, research organisations, industry
- **19 AI Factories** set up throughout the EU
- **13 AI Factories antennas**
- AI Factories **access policy**

Cloud and AI Development Act

- At least **triple the EU data centre capacity within the next 5 to 7 years**
- **Incentivise European investments** in cloud and edge capacity – e.g. **simplifying the permitting process**

Up to 5 AI Gigafactories

- Large-scale facilities **developing** and **training complex AI models**
- Massive computing power (over **100,000 advanced AI processors**)
- MS can **mobilize RRF budget** for AI GigaFactories
- A **call for expression of interest** for interested consortia launched with this Action Plan.

A whole-of-chain ecosystem approach needed

Chips Act 2.0			CADA	Gap to be filled with further enabling measures		
Equipment & Materials Hardware	**Semiconductor Manufacturing** Fabrication	**Chip Design** Architecture	**Cloud** Infrastructure	**AI Models** Foundation	**AI Applications** Products	**End Users** Demand

Supply push – public support pushing products / technologies (or results) downstream

Demand Pull – public support stimulating demand pulling products / technologies downstream

More demand-side instruments are needed.

A whole-of-chain approach combining supply-side subsidies with demand-pull mechanisms is essential for EU digital sovereignty.

Towards Chips Act 2.0

Develop a strong Design ecosystem

Accelerate R&D transfer lab-to-fab

AI

Quantum

Photonics

Equipment and Materials

Trusted

Low Power

Advanced, sustainable Manufacturing and Advanced Packaging

Deploy large-scale skills initiatives

Verticals generating the future demand for chips in the EU

Automotive	Telecom	Data infrastructure / Edge AI	Aerospace Security & Defence	Healthcare	Energy

1 – Supply-side measures

First-of-a-Kind initiatives

State aid funding to finance projects not yet present in the EU
Extended to all of the value chain

Strategic Projects

Unlock additional Union-level funding
For projects of strategic importance and EU-added value

Fast-track permitting

Aggregated permitting procedure with a one-stop-shop
Maximum of 12 months

Design activities

Building on the Chip Design Platform
Industrial deployment supported by: Grand Challenges, FOAK and Strategic Projects

Advanced manufacturing

Attract advanced fabs, packaging, assembly & memories
Closer involvement of end markets.

Semiconductor Regions of Excellence label

Create the framework conditions at regional level to attract semiconductor investments

2 – Demand-side measures

Innovation procurement

Legal and technical support for first deployment of innovative EU semiconductors

Demand Forum

Supply/demand matchmaking
Common requirements and roadmaps

Demand Accelerators

Stimulate key markets uptake of EU semiconductors through co-design and integration

Grand Challenges

Support industrial deployment of critical semiconductors in areas of strategic importance to the Union

Preferential access to public procurement

Risk assessment for critical infrastructure
Boost demand for domestic ***or equivalent*** undertakings

Synergies with other policies

CADA: sovereign cloud and AI investment boosting demand for advanced EU chips

Focus: Stimulating chip design

Measures in Pillar I

Design capabilities & Infrastructure

Build on the European Chip Design Platform
Support strategic design flagships

Grand Challenges

Support industrial deployment of semiconductors in areas of strategic importance to the EU
Example: 1000x energy reduction for AI infrastructure

Demand Accelerators & Innovation Procurement

Stimulate key markets uptake of EU semiconductors through co-design and integration in key markets (cloud, automotive, telecom, robotics)
Direct demand from sovereign cloud and strong synergies with AI Factories and Gigafactories

Measures in Pillar II

First-of-a-Kind initiatives

Enables State aid for manufacturing-related design activities
Include: design-for-fabrication steps, design–process co-optimization, finalized tape-outs…

Strategic Projects

Large-scale, cross-border projects that strengthen EU's technological sovereignty and reduce reliance on foreign suppliers.

Examples of Strategic Projects in chip design

Leading edge chip design

Example: A massive public-private partnership mobilizing €8–12 billion to develop advanced AI5G/6G ASICs, and open-architecture RISC-V processors.

Autonomous processors for autonomous driving

Example: design and tape-out of high-performance, RISC-V-based automotive processors for autonomous vehicles
To address carmakers' dependence on non-EU suppliers.

AI chips for EU compute infrastructure

Example: home-grown full-rack AI compute systems (accelerators, high-bandwidth memory, full software stacks…)
Anchoring the supply chain and R&D talent in Europe.

3 – Supply chain resilience measures

Business-to-Business Semiconductor Supply Chain Platform

By industry, for industry

For Companies

- Input is aggregated from participating companies
- Market intelligence, better anticipate crises
- Allow companies to take proactive measures

FOR COMMISSION

- Information to anticipate supply chain disruptions

Risk-prone sectors

- Commission to issue methodological recommendations to carry out risk assessments for risk-prone sectors.

- Possibility to impose remedies in case of supply chain issues.

International Cooperation

- Increase cooperation in **mutually beneficial** areas.
- New **International Strategic Partnerships** on Semiconductor

Implementation of measures from Chips Act 1 and further measures

- Supply Chain monitoring
- Priority Rated Orders
- **Blueprint for crisis management**

4 – Chips Act 2.0 Governance

Commission

Chair of the ESB

European Semiconductor Board
Member States representatives

Can sign

Awards the label

Regular exchanges

NEW

International Strategic Partnerships on Semiconductors

- Cooperation with partners in mutually beneficial areas
- EU remains open for business

NEW

Semiconductor Regions of Excellence label

- **Label** & Network of Regions
- Based on a Region Investment Plan (NRPPs)
- For Regions with a strategy to attract investments

Chips Joint Undertaking

- Public Authorities Board
- Governing Board including industry

NEW

Industrial Alliance
for Processors and Semiconductor Technologies

- **Steering Committee** with CxO level from industry
- Working groups, including priority sectors (automotive, defence, telecom, cloud)

Chips Act 2.0 – Policy Measures Overview

Supply-side measures

- Clarify scope of *First of a Kind*
- Fast-track permitting
- Strategic Projects
- Lab-to-fab industrial accelerators

Demand-side measures

- Innovation procurement
- Demand Forum & Accelerators
- Grand Challenges
- Public procurement

Supply chain resilience measures

- B2B Semiconductor Supply Chain Platform
- Information requests

Improving framework conditions

- Increased RDI support
- Increased skills investments
- Semiconductor Regions of Excellence label

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