

AI Chips and Systems for EU Compute Infrastructure

Chips JU Work Programme 2026

Marco Ceccarelli
DG CNECT
European Commission

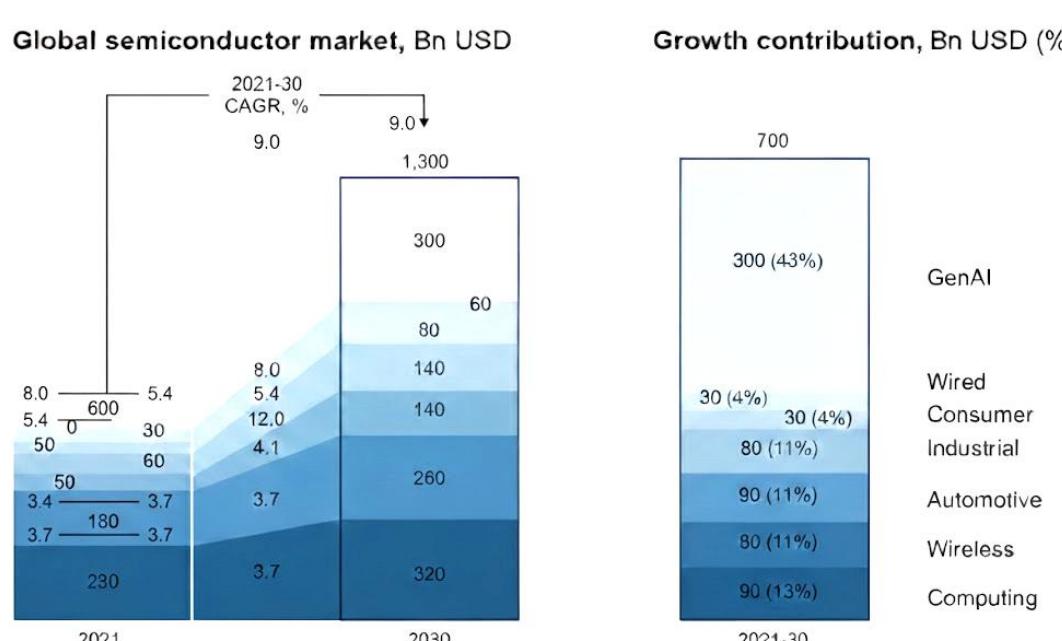
What this is about

- Reducing overdependencies in AI compute infrastructure
- Stimulating demand for EU technologies
- Supporting scaling of EU fabless
- Developing a reference EU stack



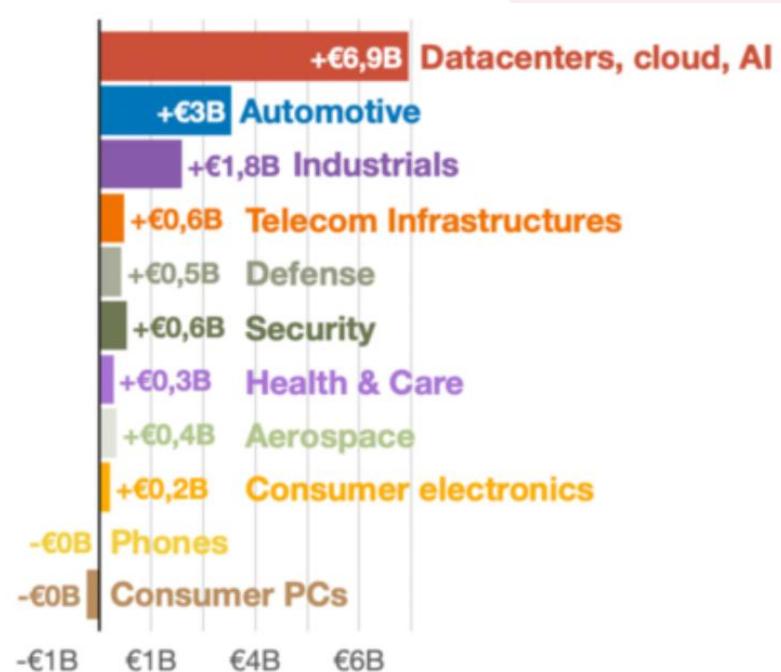
AI semiconductors market

Semiconductor market forecast 2030 AI expected to represent >40% of growth



Source: McKinsey 2025

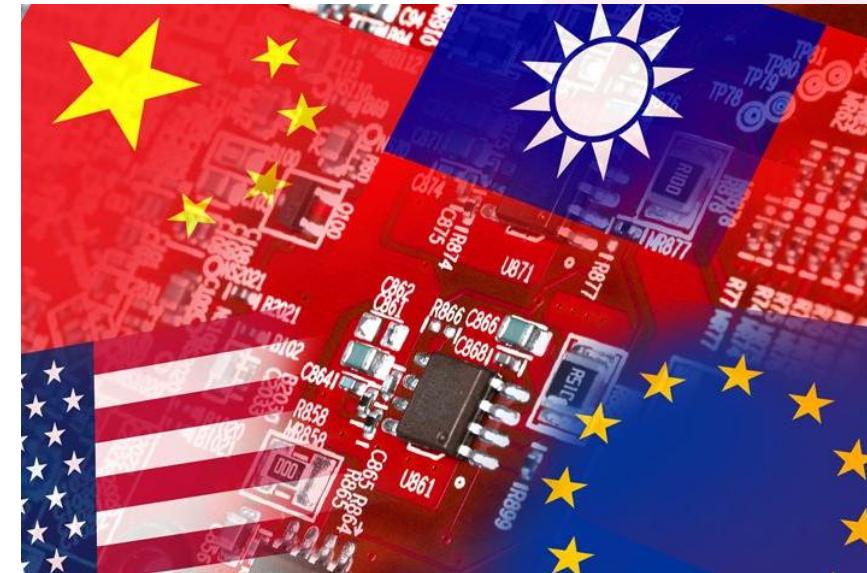
EU processor market size forecast 2030 Growth is mostly in datacentre/cloud/AI



Source: Yole + Decision, 2025

Geopolitical context in AI tech

- **Overdependence** (~100%) and **lock-in** to non-EU AI technologies => structural chokepoint
- **Exposure** to foreign jurisdictional, regulatory, and supply-chain constraints (export control)
- National **security & resilience**: defence and critical infrastructure need trusted components and assured access



Asymmetric interdependencies expose EU to vulnerabilities and constraints to its technological sovereignty

EU Political context

European Commission



- EC Competitiveness Compass: “(...) support for... ***cutting-edge AI chips.***”
- AI continent Action Plan: AI factories “should *stimulate the design ...of AI processors in Europe.*”

European Parliament



- Letter from 56 MEPs: “We urge the European Commission to launch an ambitious Chips Act 2.0 with a ***core focus on mobilizing greater investments in AI chips...***”

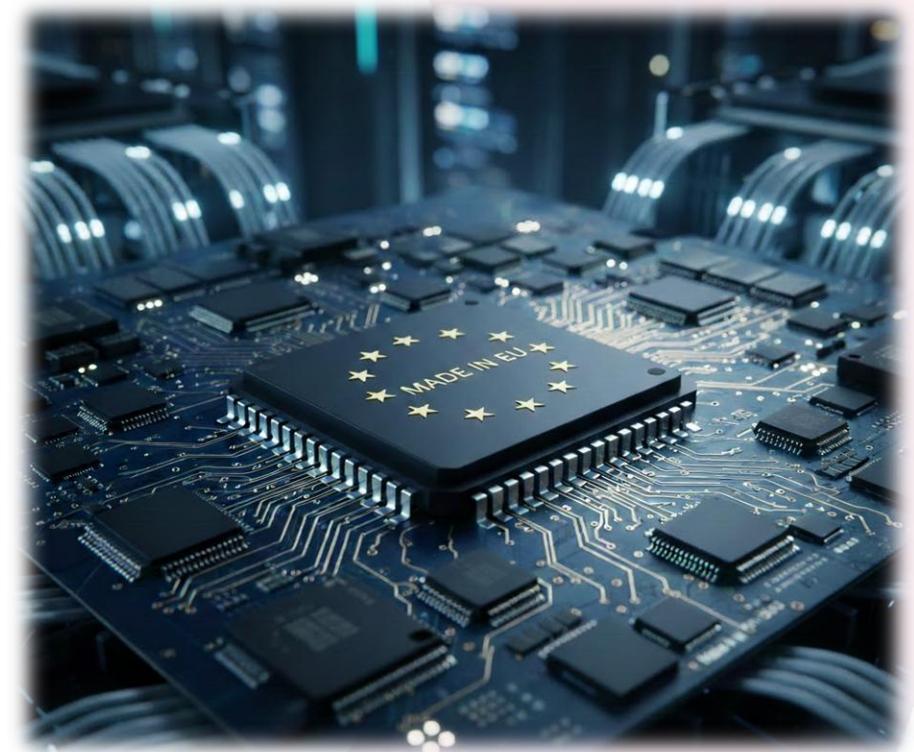
EU Member States



- Semicon Coalition, Declaration of 27 MSs: “Europe needs to... jointly work on the development of a “***EU semiconductor value chain for AI***”
- Summit on European Digital Sovereignty (DE-FR, 18/11/25) - Push for EU-made AI infrastructure and for “Buy European” in **public procurement of EU sovereign stack**

AI system approach for EU sovereignty

- AI infrastructure competitiveness is system-level (not chips alone)
 - EU efforts must converge on reference **full-stack platforms**
 - **Full-stack optimization** requires **collaboration** with real operators/end-users
- Critical **funding gap** for scaling EU **fabless** companies
 - Industrialisation of AI chips is capital-intensive, require full system development (boards, rack, pod + SW + validation)
- **Public funding** is a strong lever for sovereign solution development
 - Public procurement of AI systems creates credible demand to start the flywheel and crowd-in private investment



Public procurement of AI systems

- **AI factories** are the ideal first **customers**
 - Provide credible demand and real constraints (power, reliability, security)
 - Can require co-optimised EU full-stack solutions (chips + systems + software)
 - Private cloud operators can support testing on real workloads
- **Pre-Commercial Procurement** is the right instrument
 - In R&D contracts can require development of AI compute systems in the EU
 - Compares candidates on common EU testbeds with transparent KPIs
 - Down-selects by performance, focusing funding on the best solutions

Chips JU WP'26 - Chips for Europe Initiative

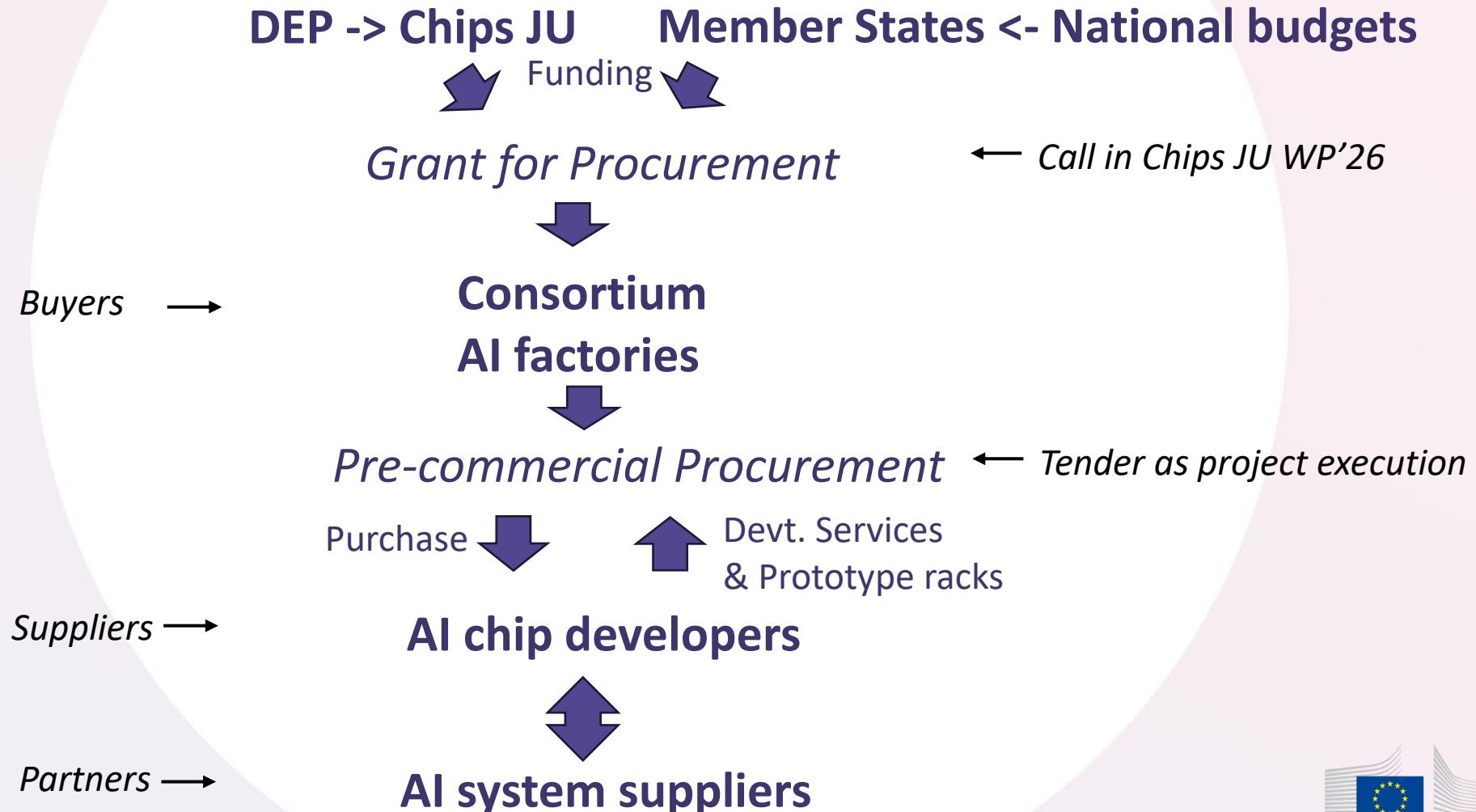
Call: AI Chips and Systems for EU Compute Infrastructure

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- **Proposed funding:** DEP 100M€ EU + commensurate funding PSs
- **Type of action:** Grant for procurement
- **Scope:** funding to be used by consortium mostly for Pre-Commercial Procurement of development service: AI racks based on EU chips
- **Approach:**
 - Consortium involving *contracting authorities* (e.g., AI factories), private entities may join as partners
 - PCP tender restricted to EU as 'place of performance'
 - AI chip companies to compete on performance, the selected ones will finalise system development with partners
 - Buyers may select prototypes for final pilot based on different priorities

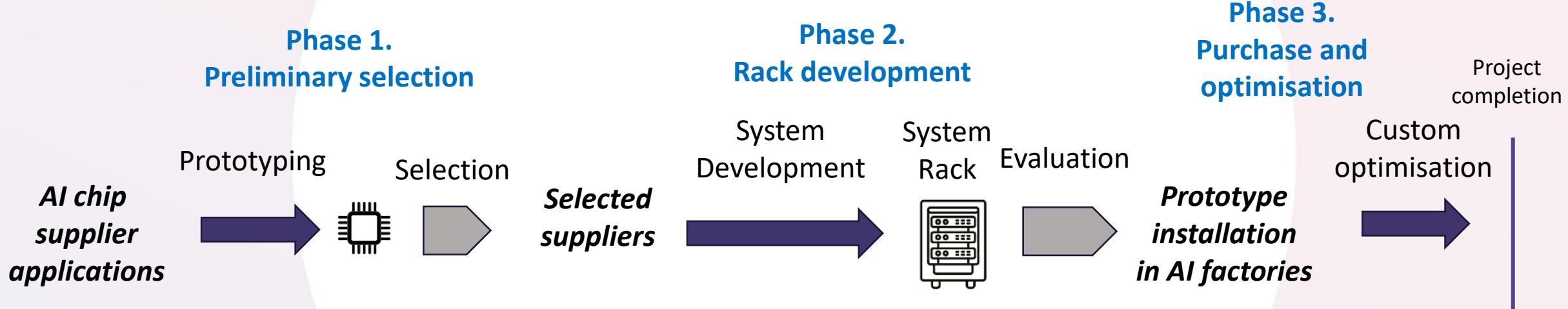
Pre-Commercial Procurement - implementation

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EXAMPLE of potential PCP funnel implementation

- Example of a potential implementation of the PCP process
- Details (duration, funding, KPIs etc) to be decided by selected consortium



- Open Competition
- Limited to prepare demonstrator
- Comparative KPI test (~TRL6)
- Downselect to few suppliers
- System partners for rack prototypes
- Common testbed trial (~TRL7)
- Pilot purchases (<50% of PCP value)
- AIF call-offs, under framework
- Site-specific optimisation (~TRL8)

Conclusions

Public procurement of AI systems

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- Stimulate **demand** for EU AI stacks → flywheel
- De-risk EU **fabless** scale-up, crowd in **private** capital
- Less **overdependencies** / lock-in to non-EU platforms
- Open, KPI-based **competition** → funding focus, no market distortion
- Pilot + **system optimisation** on real AI-factory workloads
- Promotes deployment of **reference EU stack**



Thank you!

Chips JU Work Programme 2026
“AI Chips and Systems
for EU Compute Infrastructure”

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