Council of the European Union

Brussels, 13 May 2025
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IND 128
INTER-REP 55

NOTE

From:	General Secretariat of the Council
To:	Delegations
Subject:	Presentation by Sillicon Saxony (agenda item 2.) at the Working Party on Competitiveness and Growth (Industry) on 13 May 2025

Delegations will find attached a presentation by Silicon Saxony, with a view to the discussion by the Working Party on Competitiveness and Growth (Industry) at its meeting on 13 May 2025.

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Observations on the EU Chips Act

Frank Bösenberg

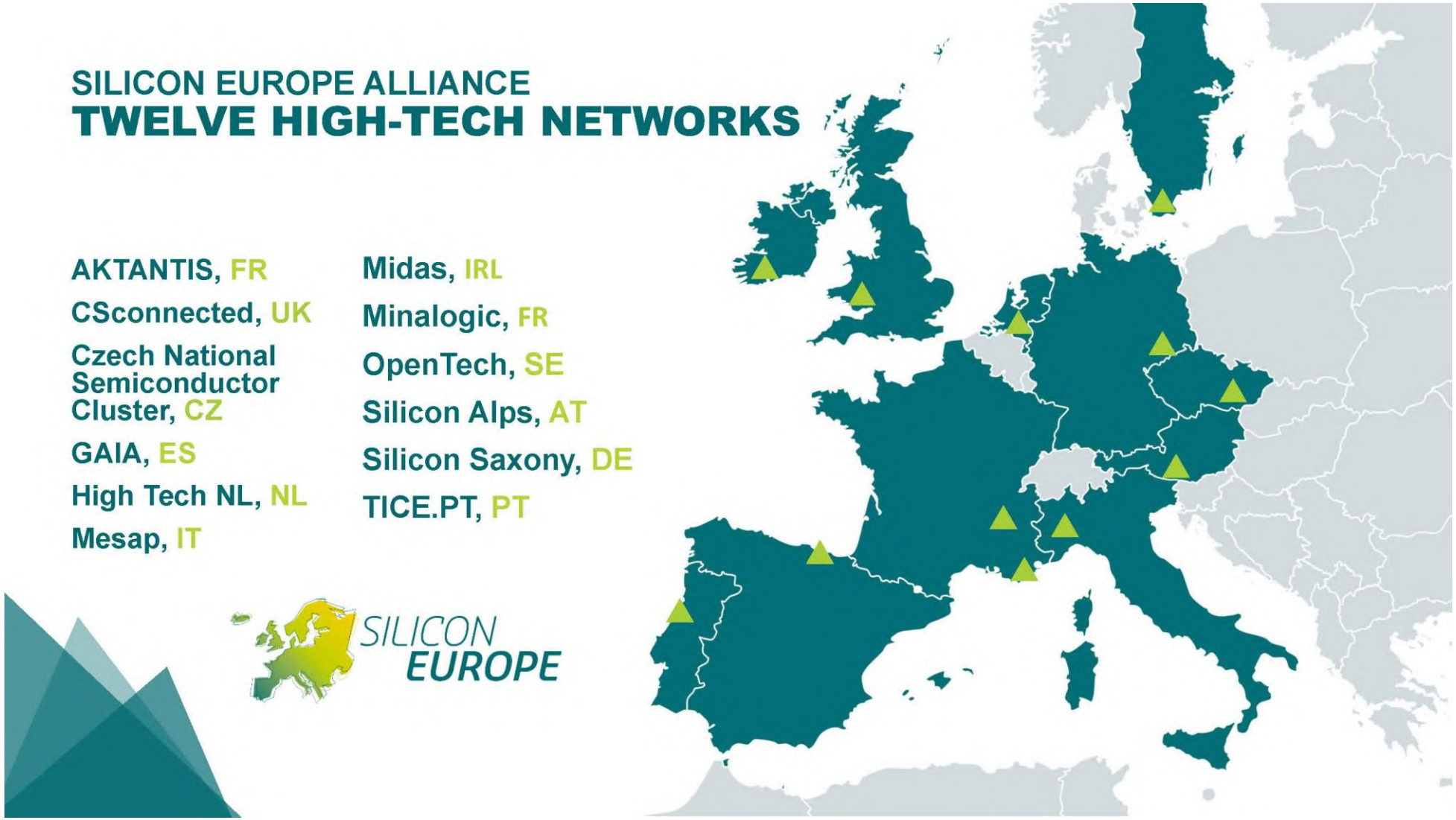
Silicon Europe

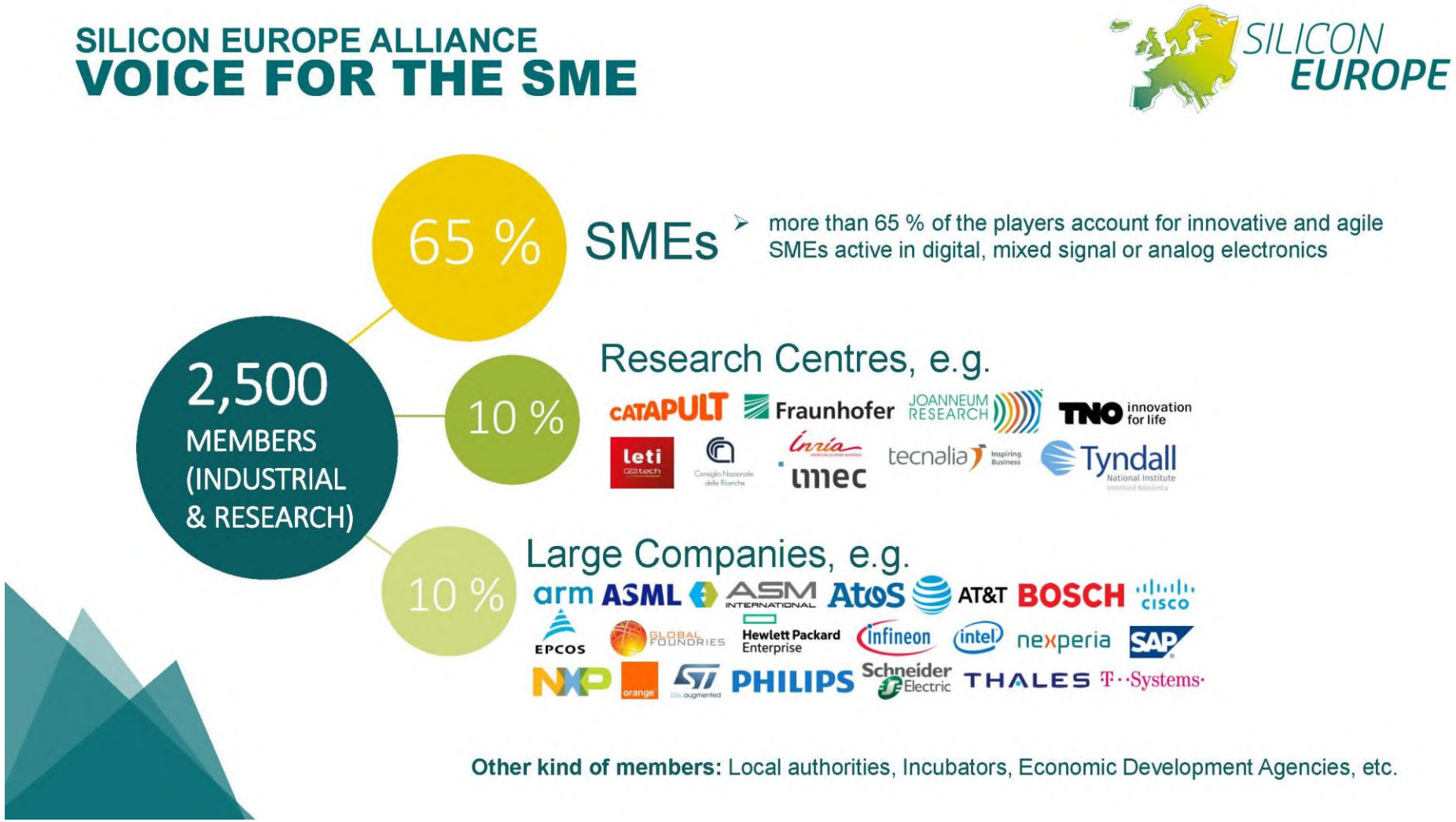
YOUR CONNECTION TO INNOVATIVE EUROPEAN SMES!

SILICON EUROPE

Content

- Introduction Silicon Europe
- 7 observations on the EU Chips Act
  - Triggered Investments materialize more often than not in established clusters
  - Research landscape broader, reflects strengths in the EU
  - Lack of EU strategy – and strategy existence/alignment on MS level
  - Top down + level up -> Eurostack and application industries
  - More with less? International competition
  - SME participation in R&D and Investments
  - Technology souvereignty – Chips = Chips?
- Conclusions


SILICON EUROPE ALLIANCE
TWELVE HIGH-TECH NETWORKS
AKTANTIS, FR
CSconnected, UK
Czech National Semiconductor Cluster, CZ
GAIA, ES
High Tech NL, NL
Mesap, IT
Midas, IRL
Minalogic, FR
OpenTech, SE
Silicon Alps, AT
Silicon Saxony, DE
TICE.PT, PT
SILICON EUROPE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VOICE FOR THE SME
SILICON EUROPE
65 %
SMEs
more than 65 % of the players account for innovative and agile SMEs active in digital, mixed signal or analog electronics
2,500
MEMBERS
(INDUSTRIAL
& RESEARCH)
10 %
Research Centres, e.g.
CATAPULT
Fraunhofer
JOANNEUM RESEARCH
TNO innovation for life
leti
Consiglio Nazionale delle Ricerche
Inria
imec
tecnalia
Tyndall
National Institute
10 %
Large Companies, e.g.
arm
ASML
ASM INTERNATIONAL
Atos
AT&T
BOSCH
cisco
EPCOS
GLOBAL FOUNDRIES
Hewlett Packard Enterprise
infineon
intel
nexperia
SAP
NXP
orange
PHILIPS
Schneider Electric
THALES
T··Systems·
Other kind of members: Local authorities, Incubators, Economic Development Agencies, etc.

The strength of clusters (IPCEI)

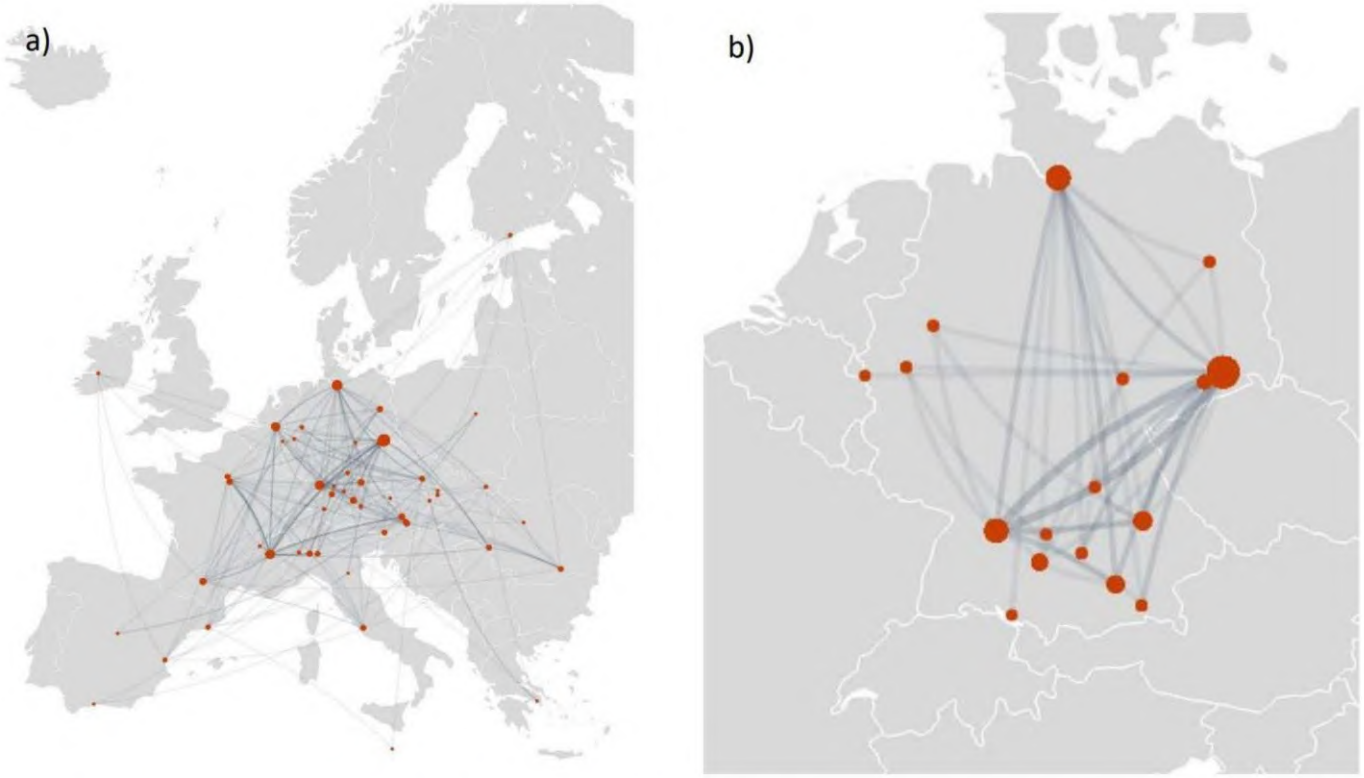


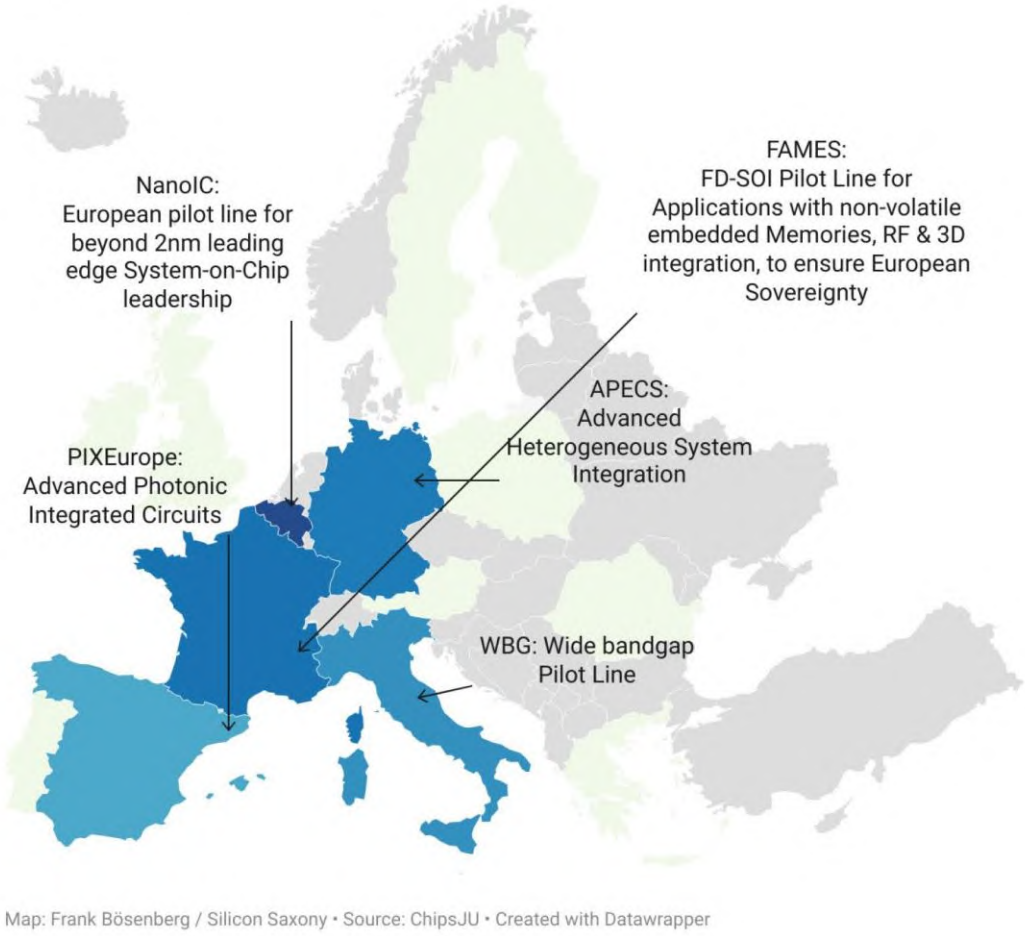
Abbildung 4: Kooperationen zwischen direkten IPCEI Partnern mit deutscher Beteiligung auf a) EU- und b) nationaler Ebene.

R&D

- Pilot lines

Chips JU Pilot Lines

Countries coordinating (blue) and participating (light green) in the first 5 selected CHIPS JU Pilot lines



R&D

- Locations of EIC accelerator projects

HORIZON-EIC-2023-ACCELERATORCHALLENGES-05 - EIC Accelerator Challenge: Emerging semiconductor or quantum technology components

Location of coordinating organisations of the 11 selected projects

Map: Frank Bösenberg | Silicon Saxony • Created with Datawrapper

Draghi report

The future of European competitiveness

Part B | In-depth analysis and recommendations

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Objectives and proposals

The EU must de-risk its strategic dependencies and improve its capabilities in semiconductors, focusing on supply chain segments where it has or can develop a competitive advantage. The EU should aim to:

- Boost R&D in selected mainstream and innovative product segments, like larger nodes (sensors, power controls, etc.), where the EU is already present.
- Develop a sovereign position in design and manufacturing processes, incentivising technology transfer only for newer manufacturing technologies.
- Strengthen EU companies of demonstrated excellence in selected semiconductor equipment and materials, defending their export ambitions and expanding their addressable markets.

FIGURE 12

SUMMARY TABLE SEMICONDUCTOR PROPOSALS: A REVISED EU CHIPS ACT		TIME HORIZON[16]
1	**Enable the development of a new EU Semiconductor Strategy, by establishing an EU semiconductor budget, coordinating demand requirements, introducing EU preferences in procurement and a new 'fast-track' IPCEI**	**ST/MT**

8

Status quo

Interface (formerly SNV) : The Missing Strategy in Europe's Cl Ambitions

Because the EU Chips Act fails to provide a long-term strategy with clear policy objectives, EU member states must take proactive steps to fill this gap. This includes obtaining a detailed understanding of their semiconductor ecosystems, setting clear long-term objectives, and developing the required administrative expertise to engage effectively at the level of the EU and vis-à-vis the United States.

Joint declaration on processors and semiconductor technologies

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December 2020
22 member states

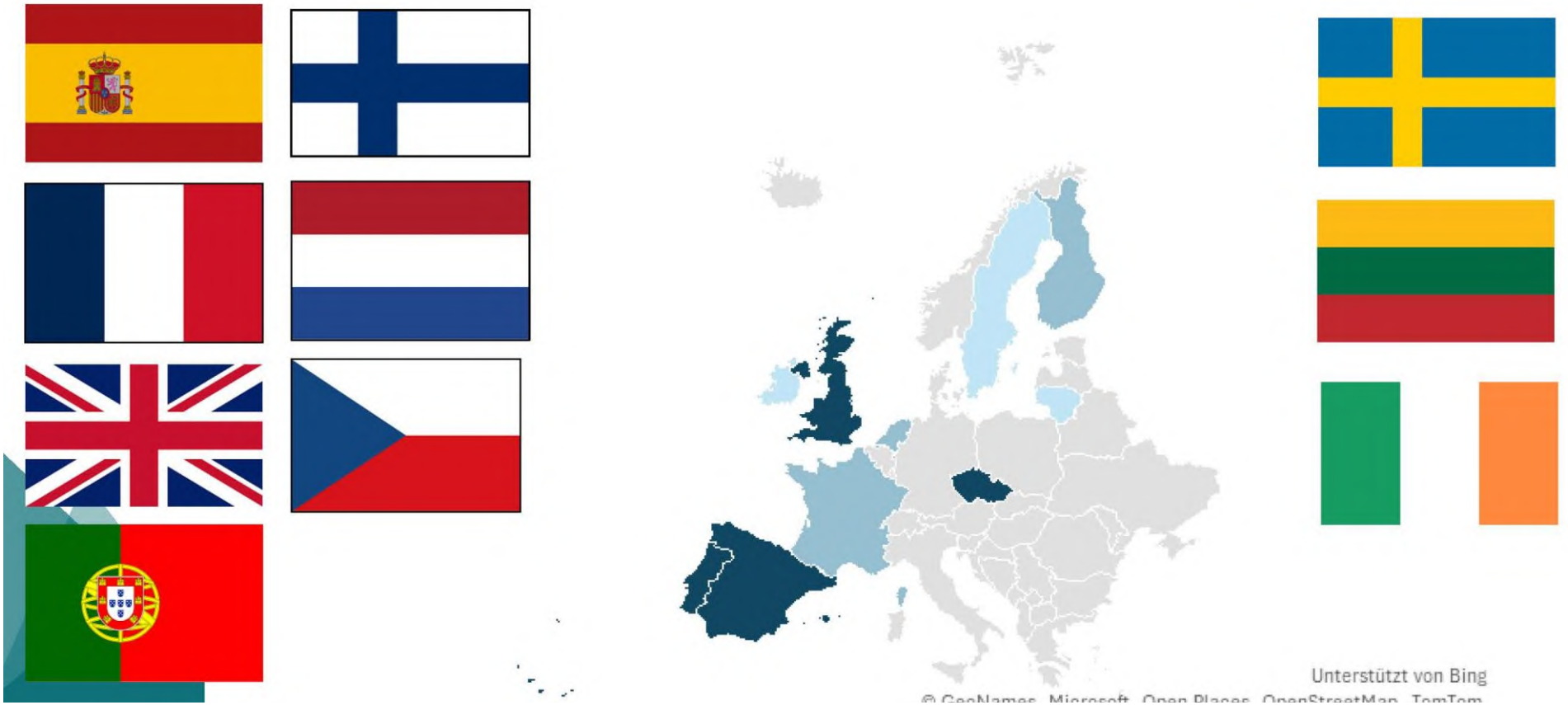
The signing Member States agree to:

1. *Cooperate and engage in efforts to co-invest in semiconductor technologies* ***across the full value chain*** *and to this end:*

- Mobilize industrial stakeholders through a future industrial alliance to establish strategic roadmaps and research and investment plans for processor design, deployment and fabrication that takes into account the full semiconductor ecosystem;

- Address common challenges through various funding mechanisms, including where feasible through the national Recovery and Resilience plans, contributing to a substantial increase in the production capability in Europe of semiconductors and embedded systems across the value chain, and processor chips with significant improvements in energy performance and speed by 2025;

Overview on national strategies



Political economy of digital souvereignity

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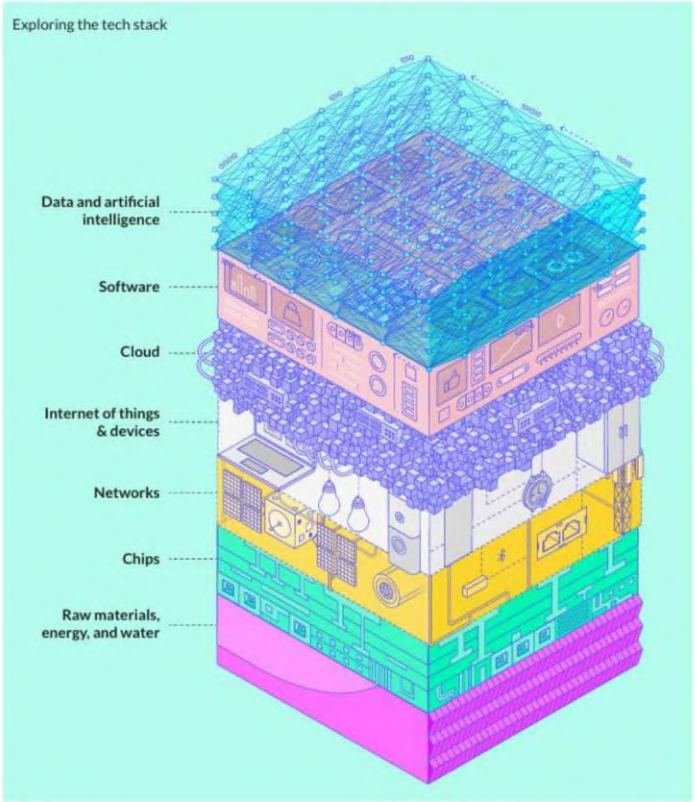
	KEY COUNTRIES	KEY FIRMS
Data and artificial intelligence	US, China	*OpenAI, Microsoft, Google, Meta, Anthropic, XAI, Amazon, Baidu, Tencent, Alibaba, DeepSeek*
Software	US, China, Germany	*Microsoft, Apple, Alphabet, Meta, Amazon, Salesforce, SAP, ByteDance, Tencent*
Cloud	US, China	*Amazon, Microsoft, Alphabet, Alibaba*
Internet of things & devices	US, China, Korea, Germany	*Amazon, Google, Apple, Samsung, Huawei, Bosch, Siemens, Xiaomi*
Networks	US, China, Europe, Japan	*Huawei, Nokia, Ericsson, ZTE, SpaceX, NEC*
Chips	Taiwan, Korea, US, Netherlands	*TSMC, Samsung, Intel, NVIDIA, AMD, ASML*
Raw materials, energy, and water	US, China, Russia	*Chinese government (through SOEs e.g., China Rare Earth Group), ExxonMobil, Gazprom*



More with less?

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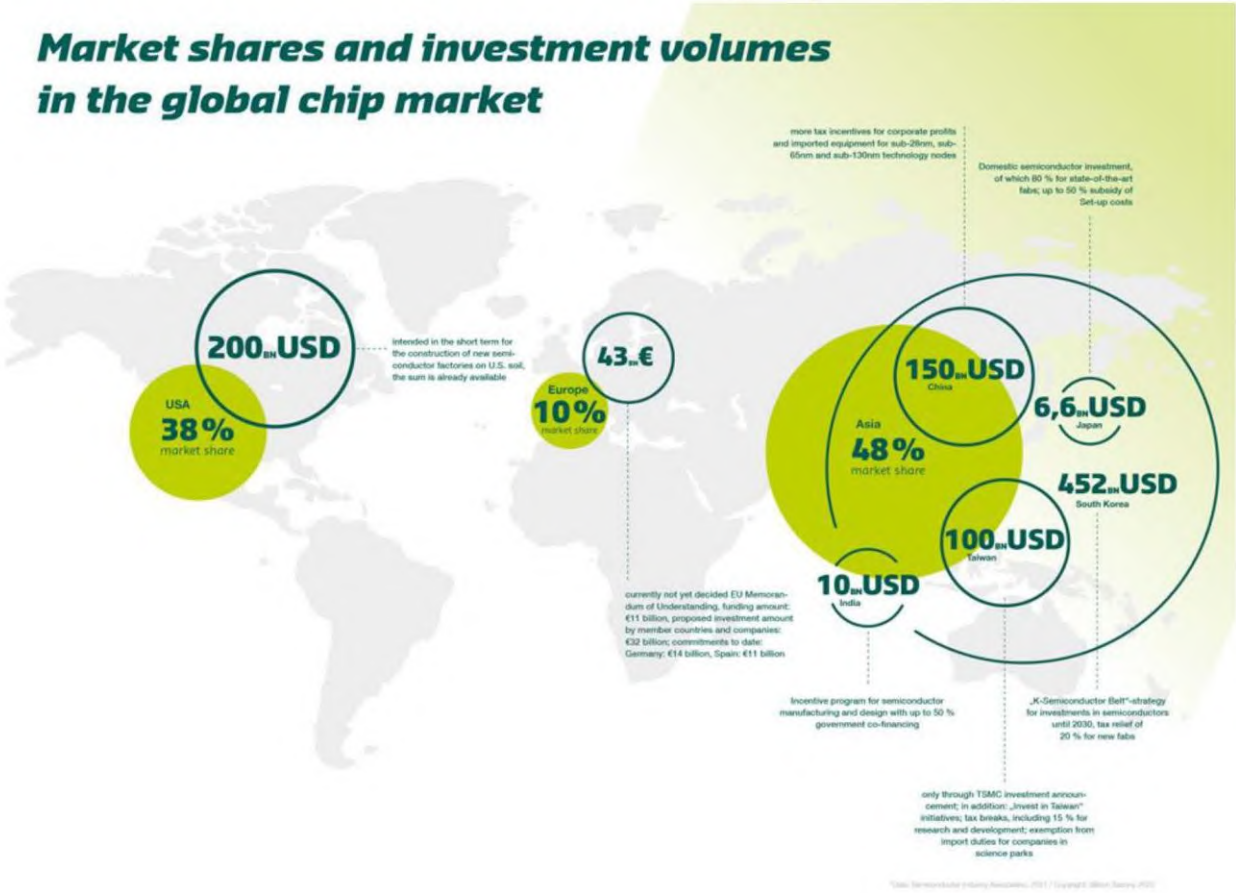

Chips = Chips? No!

- Different market segments
- In some of them – 0 EU players

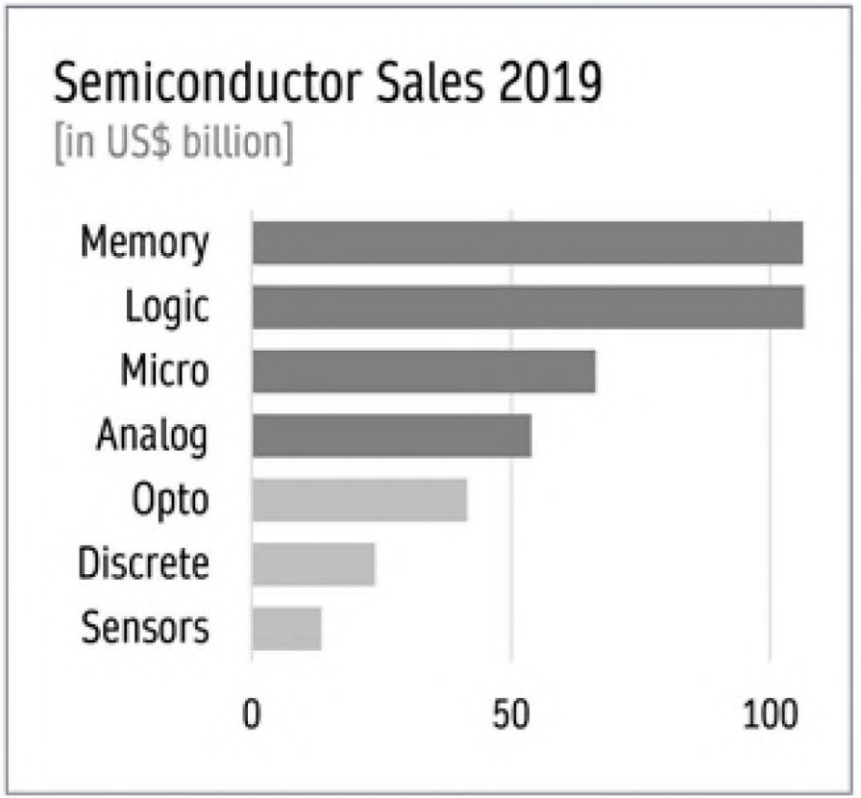

Figure 1

Conclusions

- EU Chips Act 2.0 -> based on aligned EU strategy incl. International cooperation
- Chip market will continue to grow – danger of being outinvested, in particular wrt China
- Consideration of EU SMEs -> less beaurocracy, but regional supply chains
- Consideration of demand side -> good example defence, room for improvement at AI and telco
- Check entire value chain when discussing souvereignty (e.g. raw materials) -> choke points
- Make or buy -> international cooperation required!

- „There is no digital without chips“ -> There is (almost) nothing without chips!
- Investments into semiconductor industry pay off!


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