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Towards a European Chips Act 2.0

Position paper

1 Executive Summary

As a timely response to the COVID-19 crisis, the European Chips Act has achieved remarkable results. However, its implementation and growing geopolitical tensions revealed shortcomings. For the **necessary extension of the Chips Act to a long-term strategic framework**, we recommend:

- **Objectives and Governance:** Set ambitious yet realistic, market-driven objectives and back them up with clear implementation roadmaps, budgets; and responsibilities.
- **Processes:** Simplify and accelerate public funding processes and increase flexibility.
- **FOAK:** Broaden the scope of "First of a Kind" projects to the entire value chain.
- **Budget:** Dedicate a semiconductor budget within the European Competitiveness Fund, harmonized funding across Member States, and tie all funding to innovation for industrial use.
- **Technological priorities:** Build on Europe's strengths and transfer them to other areas of strategic importance (e.g. apply strength in power, edge, security, and photonics to AI). And maintain or build a minimum level of capacity in areas relevant for resilience (e.g. backend, PCB, EMS).
- **Preconditions:** Support Member States in improving conditions for faster approval, promoting of R&D and CAPEX investment expenditures via tax credits, improving infrastructure and training skilled workers.
- **International Cooperation:** Deepening cooperations with reliable international partners (especially in APAC and EFTA countries), coordinating export controls and FDI screening at EU-level.
- **Industry Participation:** Improving and institutionalising industry participation – in the European Semiconductor Board and in pillar I-activities.
- **Mapping and reporting:** Do not impose reporting requirements on supply chains and pursue pragmatic approaches to build on existing expertise (e.g. service provider for pillar III)

2 State of play

2.1 The European Chips Act 1.0 was a crisis response with focus on resilience

The first European Chips Act (ECA) was introduced during the COVID-19 crisis. Critical value chains were disrupted, leading to calls for greater resilience in Europe, as semiconductors are fundamental components for multiple industries and infrastructures.
The Chips Act has been an important measure by the European Commission and Member States to establish an industrial policy for semiconductors, which has achieved several positive results: It laid important foundations by raising awareness of the importance of the semiconductor industry in politics. Five pilot lines, six quantum chip pilots, over 27 competence centres, and a design platform were launched (pillar I). Moreover, the ECA enabled state aid for strategic projects and the introduction of the FOAK (first-of-a-kind) framework (pillar II). Overall, political investments amounting to €43 billion private investments of the same amount are expected by 2030. This could mean an expected total investment of at least €86 billion.

2.2 Global dynamics reveal shortcomings of ECA 1.0

Since the COVID-19 crisis and the initial implementation of the ECA, global geoeconomic and geopolitical challenges have intensified. Other parts of the world have developed ambitious strategies and made significant investments to promote their entire microelectronic ecosystems. The European semiconductor industry has increased its turnover, but not its market share. Furthermore, Europe lags behind the US and Asia in

terms of investment.[1] These investments are necessary to remain competitive in the global race for technological leadership, in both the short and long term. Moreover, due to trade policy, a reliable European demand for semiconductors has become more important to the semiconductor industry in Europe as a mechanism for mitigating geopolitical tensions and distortions in access to end market in third country. These developments reveal several shortcomings of the Chips Act:

- The demand from key vertical industry (such as aerospace, automotive/transportation, defence, industrial, IoT, medical/health, power/energy, smart home, telecoms) has not always been considered sufficiently. Strengthening Europe's 'horizontals' remains highly relevant.
- The Chips Act places too much emphasis on front-end manufacturing. This is particularly evident in the overly narrow scope of FOAK. Important parts of the microelectronics ecosystem – like materials, chip design, equipment, packaging capacities, PCBs, or EMS/systems integration – have not been considered (including innovative SME's and scale-ups).
- Public funding is fragmented and is significantly lower than in other economic regions – especially when additional tax credits and incentives in other regions are considered.
- The Processes in all three pillars of the Act have been too complex, too bureaucratic, and not fast enough (e.g. design platform, state aid via FOAK, supply chain mapping or crisis mechanism).
- It also became clear that state aid alone is not enough to stimulate private investment as long as serious locational disadvantages remain, such as high electricity costs, grid congestion, a shortage of technical specialists and expertise, the lack of a fully integrated single market and lengthy approval procedures that make business activities more expensive.
- Efforts to build trusting partnerships with third countries – to address vulnerabilities in the supply chain and pursue joint R&D goals – have failed in the face of heightened geopolitical and trade tensions.
- The semiconductor industry has not been insufficiently consulted, particularly on the establishing of the pilot lines, the design platform and competence centres (pillar I), and is not represented on the European Semiconductor Board.
- Some progress has been made in strategic mapping and the establishment of crisis response mechanisms. However, we still are a long way from having a knowledge base that can serve as the foundation for short-term crisis prevention and long-term strategies. And pragmatic crisis response mechanisms are not yet ready for use. Overall, the objectives were very ambitious (achieving a 20% market share), but they were not sufficiently operationalised (no SMART objectives, no roadmap) and were not backed up with sufficient resources. There was no clear ownership in the execution, no clear distribution of responsibilities and insufficient coordination (between EU Commission, Member States, and Industry). This made it difficult to implement the ECA.

2.3 The need for a European Chips Act 2.0 as a long-term strategic framework

The ECA was drafted quickly by the Commission in response to an acute crisis. The results of the ECA are remarkable given the circumstances surrounding its creation. The EU Commission has provided some important and sustained impetus (see first paragraph). However, the ECA also has some glaring shortcomings. The strategies of other economic sectors, critical parts of the microelectronics ecosystem and interdependencies with related topics (user industries, etc.) have not been considered sufficiently. Terms such as resilience and sovereignty have taken on a life of their own in political debates and contradict the market economy and technological realities of the industry. There is a lack of clear responsibilities among the players and a lack of a concrete roadmap that translates strategic goals into operational tasks. These shortcomings of ECA 1.0, as well as new geopolitical and technological developments (trade conflicts, growing scarcity of critical raw materials, AI boom) call for a European Chips Act 2.0, that meets the requirements of a strategy and lays the foundation for a thriving European semiconductor industry.

[1] See: KPMG 2025: https://kpmg.com/kpmg-us/content/dam/kpmg/pdf/2025/global-semiconductor-industry-outlook-2025.pdf rev. 2025-11-05. And Yole (2023): https://www.yolegroup.com/strategy-insights/global-semiconductor-players-prepare-to-cash-in-the-chips-and-invest-to-secure-supply-atreg-yole-group/, rev. 2025-11-05.

3 Recommendations for the European Chips Act 2.0

3.1 Strategic approach, interdependencies, and areas of political action

Strategic Objectives: Resilience and sovereignty are important objectives. Europe needs a minimum level of capabilities at all parts of the value chain to ensure supply to user industries and act in a sovereign manner. However, Europe must also achieve competitiveness and technological leadership. To build a sustainable semiconductor industry, Europe must leverage its unique capabilities to take the technology lead in critical areas of tomorrow's market and become indispensable (for example next wave of AI innovation: edge AI, powering AI or chiplets and advanced packaging). Production capacities in Europe can only guarantee a resilient supply for European user industries if they manufacture products that are globally competitive in terms of technology and price. Second- and third-rate microelectronics from Europe would only degrade the European products of European end market industries in which they are installed or tempt end market industries from Europe and the rest of the world to source their supplies abroad. Furthermore, only technological leadership and indispensability will enable Europe to compete with global players on equal terms.

The strategic objectives of the European Chips Act 2.0 should be

1. **Resilience** – in terms of minimum EU-share in each part of the value chain
2. **Competitiveness** – in terms of price and technological leadership
3. **Sovereignty** – in terms of indispensability in strategic parts of the value chain

Interdependencies: To achieve these strategic objectives, several factors influencing the competitiveness of the European semiconductor industry must be considered, including foreign (non-market) policies, access to raw materials, energy costs and environmental standards and developments in end markets.

Areas of political action: Innovative companies should be established, grow, expand, and invest in Europe, this makes Europe a crucial player in the global semiconductor industry. To this end, the European Union and its Member States must create the right framework conditions, promote private investment and innovation (including public funding from basic research to industrial application) and ensure fair trade within the framework of international cooperation. To accomplish these tasks, good and participatory governance with meaningful industry involvement is required. The momentum of the Semicon Coalition should be capitalised on to drive a robust revision of the Act and bring about real change for the European microelectronics ecosystem. A European Chips Act 2.0 will have achieved its goals when entire value chains in Europe are more competitive at an international level, more resilient to geopolitical shocks and better suited to meet the demands of industry verticals.

3.2 Strategic funding programs

Simpler application and faster approvals: The lengthy approval times for publicly funded projects under the EU Chips Act pillar II (FOAK) and IPCEIs remain a competitive disadvantage compared to other regions. It can take up to two years from the initial submission of documents to the grant notification. In the semiconductor industry, which is characterised by ever-shorter innovation cycles, these bureaucratic hurdles risk delaying innovation and manufacturing projects by years, resulting in a loss of competitiveness.[2] Therefore, information about public funding programmes must be more transparent and accessible, especially for SME and mid-cap companies. The requirements for planning depth and technical details must be reduced to a reasonable level. The processes must be flexible to take changing conditions into account. Furthermore, shorter and transparent timelines from application to grant notification must be implemented (max. 7 to 9 month real time to grant). In this context, the Net-Zero Industry Act[3] is a good example of clarity, as Articles 9 and 16 set explicit timelines for approval procedures.
The process of providing information and the procedure for IPCEIs are inconsistent. In other countries, information on the schedule and amount of funding for the current IPCEI-AST is available earlier than in Germany. There is a particular need for more coordination and harmonisation in this area. The Joint European Forum for IPCEI (JEF-IPCEI) could play a stronger role in this regard (see proposal in the Draghi report on internal market).

[2] EU Commission already plans to have simpler and more inclusive IPCEI; see Competitiveness Compass for the EU (29.01.2025), https://commission.europa.eu/document/download/10017eb1-4722-4333-add2-e0ed18105a34_en, rev. 2025-11-05.
[3] See Regulation (EU) 2024/1735 (1306.2024): https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202401735, rev. 2025-11-05.

Dedicated budget for European scale: The ECA concludes that the amount of funding currently may not be sufficient to achieve the targets set by the Chips Act.[4] A dedicated Semicon Budget in the proposed European Competitiveness Fund (ECF) is needed to ensure bold funding for semiconductors, covering the entire continuum from basic research to industrialisation. Close links should be established with all thematic areas under the ECF, including resilience, defence industry and security, positioning semiconductors as driving dual-use technologies.

Harmonised funding: For a stronger European approach, a larger share of the funding should come from the European level, and more coordination between Member States is desirable – but without delaying the *time to grant* (see above). This could, for example, be achieved within IPCEI AST by using the proposed IPCEI top-up in the European Competitiveness Fund, but procedures should not be slowed down by the involvement of the Commission. Moreover, this requires a strong Pillar 1 and co-financing of the Commission under Pillar II.

Focus on innovation leading to industrial deployment: First-of-a-Kind Facilities (FOAKs) have proven effective under the current Chips Act. The scope of FOAK projects should be expanded to strategic suppliers, equipment manufacturers, materials, chip design, equipment, packaging capacities, PCBs. EMS/systems integration and strategic joint ventures with end-user industries and start-ups/scale-ups should be included in the scope of FOAK.
To close funding gaps in the EU Chips Act, a new category for capacity expansion and modernisation of existing technologies should be introduced under Pillar 2. ECA instruments should be able to build on the IPCEI results if they enhance the EU's resilience and serve strategic markets. Avoid strict regulations on full cleanroom utilisation as a prerequisite for receiving 100% of the granted funding. While such thresholds may be appropriate for front-end factories, they are counterproductive for advanced packaging and heterogeneous integration, where maintaining available cleanroom capacity is essential to enable the development of innovative technology and rapid customer acquisition.

Close cooperation with industry verticals is crucial to align demand and supply and strengthen European value chains. Currently, a study is being conducted on the business case for semiconductor production and development in Europe regarding end market needs, building on the industry endorsement of the Semicon Coalition. Policies and investments should be aligned with the results of this study. A global perspective should be maintained, and global market developments should be considered, as the semiconductor industry is inherently part of international value chains. The Chips Act should create the right conditions and should seek strategic cooperation with end markets, also at European level. To promote value chain innovation and industrialisation, industry partnerships integrating semiconductor industries and industry verticals should be established.

Build on strengths and expand technological leadership. Europe's strengths lie in materials, R&D, equipment (including EUV lithography, metrology, and smart manufacturing), system design, microcontrollers, sensors, power semiconductors, secure electronics, edge AI, photonics, and quantum technologies. The Chips Act 2.0 should help to expand these strengths and transfer them to other strategically critical areas. Power semiconductors, secure electronics, edge solutions, photonics, and quantum technologies give Europe the opportunity to participate in the growing AI market without having to catch up in technological areas (e.g. GPUs), where other economic regions are miles ahead. Instead, Europe can focus on differentiation in innovation and develop complementary technological areas where it is well positioned.
In other areas, Europe should maintain or build up a minimum level of capacity for reasons of resilience – e.g. backend manufacturing processes (such as advanced packaging, printed circuit boards, and electronic manufacturing services). Some of the technological areas mentioned should be examined in more detail:

- **Chip design and tools for chip design** are of paramount importance: Chip design is a high-value activity in the semiconductor value chain, generating significant intellectual property and economic returns. Innovative chip designs integrated into system design directly drives these next-generation technologies and systems, as they form the basis for enabling downstream-industries. Therefore, chip design should be a part of FOAK and the Design centres as well as the design platform should be advanced rapidly. Chip design IP as a fundamental element is a perfect fit for investments in open-source projects, whereas EDA tools – especially for the physical stages of the chip design flow – are subject for continuous innovation of commercial offerings resulting from decades of large investments. Available subsidies even at European level would allow limited innovation for the non-physical stages of the chip design flow only.
- **Europe remains strong in the field of Quantum chip technologies:** To maintain Europe's competitiveness in quantum chip technologies, the Commission should ensure the support for pilot lines well beyond initial funding. To achieve systems with 100 error-corrected qubits by 2030, Europe needs a scalable

[4] European Court of Auditors (2025). Special report 12/2025: The EU's strategy for microchips, p. 11, rev. 2025-11-05.

public-private infrastructure and dedicated funding for start-ups and SMEs developing quantum chips. This should be considered in the existing funding tools. The Quantum Chips Industrialisation Roadmap, due in 2026, should focus on targeted support for scale-ups and pave the way for quantum-specialised fabs. Coordination with Chips Act 2.0 is essential to align funding instruments and ensure long-term growth for European quantum developers.

- Europe has an opportunity to become a global leader in **sustainable semiconductor manufacturing:** The EU should provide funding for green technologies, including energy-efficient chip production, water conservation, recyclable and sustainable materials, circularity, and safer substances. A key priority should be innovative substitution of material and advanced recycling to reduce dependence on rare earths from third countries. Support should also cover semiconductors and components that enable the green transition, such as integrated photonics, heterogeneous integration, and chips for renewable energy applications.
- **Productivity and industrial AI** are of foremost importance for Europe as a business location with high labour costs and an aging population. Companies should use (industrial) AI to increase productivity and quality and to ensure clean production. The EU should promote investments for the use of industrial GenAI at European fabs to increase productivity.
- **Chips for Artificial Intelligence:** Given the growing importance of AI for the economy, security and defence, as well as ongoing geopolitical tensions, the European Commission is sticking to its goal of **2nm-Logic-Chips** made in Europe. ZVEI supports this goal and understands the political rationale behind it. However, many **essential questions for a viable business case** remain unanswered in the concepts currently circulating. They should be **answered by an independent, trusted industry expert group**:
  - What are the exact costs of 2nm production capacity and what is the demand in Europe? Any investment in leading-edge capacity should be carefully aligned with actual demand in the European market to ensure a solid business case that benefits European user industries. If pursued, priority should be given to expanding established and capable manufacturers (e.g., TSMC in Dresden), as this approach enables faster ramp-up and comparatively lower costs, than building greenfield facilities.
  - How comprehensive should sovereignty be? Even with its own 2nm manufacturing, Europe would still be dependent on chip-design and an extensive software- and AI-platform-ecosystem. Not to mention backend processes, fab equipment, raw materials, chemicals, and many other components required for the production and use of advanced logic chips.
  - How will competitiveness be ensured? European advanced logic chips must be internationally competitive in terms of price and quality. Otherwise, European (and non-European) user industries will have to continue to rely on other solutions to remain competitive themselves.
  - Which European players are ready for this task? Europe currently lacks the technical experts and the financiers for such a project.

  Europe cannot produce 2nm chips on its own. Europe must a) work closely with international partners to ensure supply and b) build on Europe's strengths to secure a place in the markets of the future. Europe's semiconductor industry has **unique strengths in edge AI** solutions. In turn, European user industries—such as automotive, industrial, and home IoT—need innovative technologies to enable the transition to intelligent systems. While cloud-based AI plays a role, these applications are predominantly based on edge AI architectures, which support compact LLM processing and lightweight ML capabilities for on-device intelligence, neural processing units (NPUs) for efficient AI inference in sensing, autonomous systems or robotics, and microcontrollers (MCUs) delivering low power consumption, high functional safety and robust cybersecurity. This combination ensures real-time performance, energy efficiency, and secure operation, which is crucial for Europe's industrial and automotive ecosystems. Europe is also a leader in hardware components increasing energy efficiency of data centres and AI systems including power semiconductors, power management ICs and ASICs based on silicon, silicon carbide, and gallium nitride technology. "Powering AI" will to be another major opportunity for Europe to enable cloud-based GPUs developments. These European strengths must be reflected in pillar II of the ECA 2.0 and in the upcoming IPCEI AST.

3.3 Necessary preconditions

Targeted support for critical parts of the value chain and for future technologies is essential. However, it is equally important to **attract private investment** and innovation in the semiconductor industry in Europe **by creating favourable conditions**. Innovation and Investment should be promoted throughout the entire value chain, all the way to end markets and industry verticals.

Simpler regulation and faster approvals: The approval of large-scale projects in Europe takes too long and involves considerable risks for investors. A friendly EU-adapted permitting regime for all semiconductor

projects is needed. Firstly, Europe should maintain high social, environmental and governance standards for the industry, but within reasonable limits. Environmental assessments should be but simplified (overriding public interest framework). Secondly, developers of large-scale projects should have a single-point-of-contact with a “can-do”-attitude, who prioritises and coordinates the approval procedure between state, federal and European level.

Improving tax and deprecation conditions: Taxation remains a core competence of each Member State. However, the EU can coordinate and promote best practices in tax credits and targeted tax relief for innovation and capital expenditures (CAPEX) throughout the entire microelectronic value chain. These incentives are proven instruments to unlock large-scale private investment, as demonstrated by the crucial role of tax credits in the success of the US Chips Act, and Taiwanese and South Korean programmes.[5] European countries should use similar tools to remain competitive and attractive for semiconductor manufacturing and R&D.

Ensure supporting infrastructures and competitive electricity prices: The semiconductor industry relies on extremely stable infrastructures. A highly stable power grid, consistently low electricity prices, a reliable water supply and a good logistics infrastructure (airports, rail connections) are important. Unfortunately, compared to China and the USA, Europe not only very high electricity prices, but also a high level of volatility and unpredictability of prices (see Draghi-Report. P. 6ff). The EU must provide international competitive electricity prices, an excellent infrastructure and a level playing field within Europe.

Targeted and differentiated regulatory approach for PFAS: The environmental and health problems caused by the improper use of PFAS are undisputed. However, an indiscriminate ban on the research and production sites of the European microelectronics industry and its suppliers would seriously jeopardise their global competitiveness and contradict the objectives of the ECA. Regulation should therefore aim to enable the safe use of PFAS as far as possible, while preventing emissions into the environment and maintaining the competitiveness of the industry through targeted regulation rather than blanket measures.

Access to talent: Access to talent is a crucial factor for the growth and competitiveness of the European semiconductor industry. It is essential to explicitly include semiconductor talent into the implementation of the STEM Education Strategic Plan. This requires targeted initiatives to develop technical skills that meet changing needs of the sector, to ensure a supply of highly qualified engineers and technicians.
Member States should be encouraged to close the skills gap and promote lifelong learning in engineering and technology. Coordinated efforts among Member States should focus on creating education programmes to address talent gaps in key industries such as semiconductors, and on promoting knowledge sharing between Member States. Therefore, the STEM education system should adapt quickly to technological progress and sectoral demands, particularly in semiconductors.
To further support the industry, faster and more efficient procedures for recruiting skilled workers from third countries are crucial. Simplified visa and recognition procedures will enable European companies to hire international experts more quickly, supporting innovation and maintaining Europe’s competitiveness.

3.4 International cooperation

The growing importance for numerous user industries, combined with the experiences of supply bottlenecks during the pandemic and increasing geopolitical tensions, has brought microelectronics to the forefront of economic and security policy considerations for many political actors. In order to achieve their economic and security policy goals, political actors are increasingly resorting to interventionist instruments that in some cases run counter to the basic principles of fair and open competition in global trade. Access to markets (both US and China) is increasingly difficult due to geopolitical tensions, but the semiconductor industry is characterised by specialisation and complex value chains. To strengthen Europe's resilience and growth in microelectronics, **international partnerships** with reliable partners must be deepened.

Keep markets open but insist on fair treatment: It is important to keep markets open to as many international partners as possible. Access to sales markets and reliable supplies of goods and services from partner countries are the best way to promote the competitiveness of industry in Europe. Cooperation on raw materials, skilled workers and complementary skills is crucial. At the same time, however, Europe must not shy away from taking its own measures to protect itself in the event of unjustified market interventions by third parties – prudently, appropriately and with the involvement of industry and international partners.

[5] See ZVEI (2024): https://www.zvei.org/fileadmin/user_upload/Presse_und_Medien/Publikationen/2025/Februar/2025-005-Studie-Von-Chips-zu-Chancen-HL-ME/ZVEI-Mikroelektronik-Studie-EN-2025-02-19.pdf

Harmonise export controls for dual-use goods, FDI screening and local sourcing in the EU: A common approach and coordinated implementation between EU Member States is required for export controls of high-tech products. Such a coordinated practice strengthens planning and legal certainty for companies and makes a significant contribution to Europe's economic resilience in geopolitically sensitive technology areas. When screening foreign direct investment (FDI), Europe needs a harmonized, balanced approach that promotes strategic capital inflows and value-adding international cooperation in order to maintain and expand its technological leadership. FDI screening must only be carried out in areas of critical technologies, which must be clearly defined within the framework of the European Economic Security Strategy. At present, the technologies listed under “Advanced Semiconductors” do not yet reflect a sufficiently clear and targeted delineation, and can affect virtually any part of a very broad product portfolio. Uniform guidelines—including for greenfield investments—should primarily serve the goal of creating a level playing field across Europe and promoting investments.
When assessing a potential future Outbound Investment Screening Mechanism (OIS) the EU should exercise extreme caution to avoid increasing the regulatory burden for European technology industries and to prevent overlap, and conflicting requirements with existing export control and sanctions regimes.

In the wake of increasing geopolitical tensions, non-price-related criteria are being considered in public procurement. However, Europe must avoid hasty “Local content requirements”. Specific local content requirements should only be considered as a last resort in a limited number of strictly defined sensitive areas such as critical infrastructure, cybersecurity, or defence and security equipment. Policy makers must keep in mind that not all components, especially in critical infrastructure and defence equipment, can be manufactured in Europe. In many areas, intellectual property, expertise, and production capacities are lacking. Europe should find a unified approach here and involve international partners in the process.

Deepen partnership with APAC countries: Special focus should be placed on APAC countries such as Japan, India, Indonesia, Malaysia, Singapore, South Korea, Thailand, and Vietnam. These countries offer complementary strengths in technology and industry, particularly in microelectronics. Their growing markets, competitive ecosystems, and integration into regional value chains make them ideal partners. While FTAs remain central to EU trade policy, delays in negotiations are hampering progress. Therefore, alternative formats like OECD or G7+ should be used to promote technology partnerships. Collaborating with microelectronics clusters in these countries could further strengthen the sector in both the EU and partner states – for example through joint R&D projects, talent mobility schemes and coordinated approaches to standards and export control compliance. India deserves particular attention due to its ambitions and achievements in global value chains, particularly in microelectronics. Germany and Europe can benefit from India’s chip design expertise, its back-end capabilities, its large engineering talent pool, its dynamic tech start-up scene, and its increasing activity in the field critical raw materials. A Memorandum of Understanding between the EU and India on semiconductor cooperation has been in place since 2024. A comprehensive FTA should be finalised by the end of 2025 to expand cooperation in microelectronics. Finally, the EU should use the EU-Japan Strategic Partnership Agreement (SPA)[6] – entered into force on 1. January 2025 – to deepen the cooperation on leading-edge-logic-chips. Japan’s advancements in this area offer an opportunity to reduce existing dependencies through strategic collaboration.[7]

3.5 Governance

When it comes to ECA 2.0 decision-making authority is distributed across multiple interconnected levels – local, regional, national, and supranational. Policymaking and implementation must be coordinated among diverse actors. Therefore, a clear definition of the respective roles and responsibilities is essential for the success of the revised Chips Act.

Setting up tools for clear strategy and a successful implementation: The special report by the European Court of Auditors criticises that there is only one very ambitious and hardly applicable objective in the ECA: the 2030 Digital Decade objective of delivering 20 % by value of the world’s cutting-edge and sustainable microchip production (see Special Report, § 27f). In fact, many elements of a strategy are missing in the ECA. The ECA 2.0 should evolve from a one-time impulse to a long-term industrial policy tool and formulate strategic objectives that consider not only the strategies of Member States but also those of other economic areas. The strategic high-level objectives should be translated into SMART objectives. These **S**pecific,

[6] See European Union (2025): https://eur-lex.europa.eu/EN/legal-content/summary/eu-japan-strategic-partnership-agreement.html, rev. 2025-01-28.
[7] For more analysis and recommendations on international cooperations and economic security see ZVEI-Paper (2025): https://www.zvei.org/en/subjects/microelectronics?showPage=3218753&cHash=841f793d3a3705d85343dbe480480afb.

Measurable, **A**chievable, **R**elevant and **T**ime-bound goals should be assigned to a specific stakeholder and regularly reviewed by the European Semiconductor Board to ensure they are achieved.

A feasible design for mapping & monitoring: Policy decisions should be based on comprehensive understanding of supply chains, market mechanisms, stakeholders, (future) needs and technology trends. **However, extensive, mandatory reporting by companies is not a viable option.** Such reporting would be a new bureaucratic burden for companies, making Europe even less attractive as a business location. Unresolved issues regarding competition rules would need to be clarified. In addition, data is not enough. The Commission would need sufficient expertise to interpret the "dumb" data. Finally, policymakers might be tempted to intervene in supply chains without being able to fully assess the consequences. **The organisation of value chains must remain the prerogative of industry.** Therefore, the Commission should build (limited) competency and capacity within its staff to guarantee a "market literacy" enabling to design research studies and interpret results. The actual development of the methodology, data collection[8] and in-depth analysis should be conducted by a service provider with a long-term contract. The assignment to a service provider ensures rapid operational readiness, professional excellence, compliance with competition law (clean-room-mechanism), low risks, and high flexibility. The design of research inquiries, and evaluation of data should be carried out in close cooperation with key stakeholders, such as microelectronic research organisations, companies, and Member States (via the European Semiconductor Board – see next section). Such constellations are already common practice in many countries.

Stronger cooperation between Commission, Member States, and Industry: The special report by the European Court of Auditors criticises a mismatch between objectives and responsibilities and the lack of consolidated and transparent overview of all semiconductor investments across the EU. The Commission announced funding for which it is only partially responsible. Therefore, clear ownership of tasks is necessary. Stakeholders can only take on tasks that fall within their own area of responsibility. We propose the following division of labour:

- **European Union:** The EU sets the framework. It ensures flexible and far-reaching funding schemes (FOAK-clause, fast track IPCEI, etc.), an integrated single market and minimal bureaucracy. It also supports Member States in coordinating their activities with the aim of creating added value for Europe and complementarity between projects in the individual Member States. This also includes allowing for different speeds and ambitions. The Semiconductor Coalition should be able to move faster and invest more. If the next MFF allocates an EU budget line for microelectronics production capacity, EU also should provide direct funding.
- **Member States:** Member States provide budgetary resources for targeted support, optimise national framework conditions (approval procedures, etc.) and provide suitable infrastructure so that their regional clusters can continue to grow.
- **Companies and Research and Technology Organisations (RTOs):** Companies and RTOs create competitive products and services and develop the technologies of tomorrow. With their knowledge on markets and technologies, they support politicians and elected officials (via their business associations) in decision-making processes.

Upgrading the ESB and institutionalise Industry Participation: The ECA established the European Semiconductor Board (ESB), which has not fully met its goals "to facilitate a smooth, effective and harmonised implementation of this Regulation, cooperation and the exchange of information […]" (§7 of ECA).[9] The Industrial Alliance for Processors and Semiconductor Technologies has so far not fulfilled the intended advisory function (§8 of ECA). The ESB should be strengthened as the central coordinating body. The following changes are necessary to achieve this:

- **Industry representatives should be part of a renewed European Semiconductor Board with strong bottom-up industry participation, with end market industries included as well.** The board should serve as a platform for **real-time dialogue and consultation** with key stakeholders on priorities, strategic decisions, and investments.
- The ESB should ensure real coordination across Member States and enable the pooling of funds to achieve critical mass for projects of strategic relevance.
- The ESB should track activities within the framework of the ECA through status reports and should jointly decide on improvements if interim targets are not met.

An independent body such as the newly established "Industry Advisory Group" could also play a role but would need to be closely linked to the ESB (e.g. through joint meetings).

[8] Analysts from the semiconductor industry teams at McKinsey, PwC, WSTS, Yole, and other service providers already have data available for many areas of the industry that just needs to be evaluated.
[9] See European Union (2023): European Chips Act, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2023.229.01.0001.01.ENG, rev. 2025-11-05.

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