

Chips Act 2.0

supporting demand creation, empowering industry, securing an ambitious budget

Executive summary

The Chips Act 2.0 is an opportunity to turn Europe's semiconductor ambitions into stronger industrial capabilities, greater resilience, and sustainable technological leadership. To deliver on these objectives, ESIA calls on four strategic imperatives to be fulfilled.

Industry must be involved in Chips Act 2.0 decisions

The proposal rightly focusses on demand, industrial deployment, faster permitting, and the semiconductor value chain. Industry must have a decisive and structured role with voting rights in designing and implementing its instruments. Funding and project selection must follow economically and technically viable business cases.

Chips Act 2.0 must drive demand and industrial deployment

Demand accelerators, public procurement, and grand challenges must involve end-users and build scalable commercial markets around Europe's capabilities without adding administrative burden. Chip design transfers into European fabs should be co-funded to support demand-backed investment and security of supply.

Europe must match its ambition with a dedicated semiconductor budget

Semiconductors should receive an ambitious, dedicated funding envelope within the next Multiannual Financial Framework's *European Competitiveness Fund (ECF)*. EU support must complement national funding, facilitate access to finance, and mobilise private capital. Funding must be demand-driven, predictable, and accessible across mature, specialty, and advanced technologies, from research to industrial deployment. Product development activities for materials and equipment, including components and component development, should be equally incorporated in *first-of-a-kind (FOAK)* and *European Semiconductor Technology Initiatives (ESTIs)*. Eligibility rules must recognise companies investing, innovating, and manufacturing in Europe.

Chips Act 2.0 must make Europe competitive for investment and manufacturing

ESIA calls for coordinated tax incentives to reduce Europe's manufacturing cost premium and for faster, simpler permitting through a Europe-wide digital one-stop shop and a six-month target. Energy, water, and infrastructure policies must support investment. Supply chain monitoring must protect commercially sensitive data and impose proportionate obligations.

I. Introduction

The revised Chips Act is welcome and necessary. A successful Chips Act 2.0 should serve as a new strategic industrial policy instrument that enables demand-driven investment across the European semiconductor value chain by connecting end-market demand, technology development, manufacturing capacity, and product commercialisation. It must be embedded in a broader European technology strategy covering semiconductors, artificial intelligence, robotics, defence, automotive, energy, industrial automation, and critical infrastructure, while addressing the framework conditions that determine Europe's long-term competitiveness.

Hence, the Chips Act 2.0 must follow a holistic, balanced, and coherent policy strategy aligned with closely linked policy areas. This includes, among others, permitting, public procurement, state-aid implementation, and sustainability. Furthermore, energy prices, infrastructure availability, and administrative burden are core determinants of whether semiconductor manufacturing remains investable in Europe.

EU Chips Act

The EU Chips Act 1.0 has supported the strengthening of the semiconductor ecosystem in Europe by reinforcing research capabilities and enabling public-private investments in manufacturing capacity growth. The next iteration must now move beyond capacity expansion and directly address value capture, demand creation, product industrialisation, application speed, and capability building across the semiconductor value chain. Without this upgrade, Europe risks further value leakage and loss of strategic industrial assets.

ESIA welcomes the EU's Chips Act 2.0 proposal as the beginning of a shift from a predominantly supply-side approach towards a broader ecosystem strategy based on demand creation, faster permitting, industrial deployment, and resilience. However, ambiguities around eligibility, governance, project selection, and the Commission's implementing role must be resolved; otherwise, the legislation risks missing the needs of industry at a decisive moment.

II. Put industry at the centre of Chips Act 2.0 governance

ESIA welcomes a stronger focus on demand creation, market deployment, and industry involvement. The *demand forum* and *demand accelerators* are useful steps, but they must not become top-down instruments led in isolation by the European Commission or the Chips Joint Undertaking. Their design, prioritisation, and execution must be co-owned by industry and linked to concrete business cases, technology roadmaps, and end-market demand.

ESIA acknowledges the progress made with the establishment of the Industrial Alliance for Semiconductors' Steering Committee and its potential working groups, representing the broader semiconductor ecosystem. However, the precise functioning of this new governance structure in relation to the European Semiconductor Board¹ (ESB) needs to be further clarified. The governance of these two bodies should be closely coordinated to ensure industry's full

¹ [Chips Act 2.0 Proposal](#), page 91 et seq.

participation and encourage a structured dialogue between the industry, the European Commission and Member States.

ESIA urges policymakers to adapt the governance structure of the Chips Act 2.0 so that industry has a decisive and structured role, including voting rights, in the identification, prioritisation, design, and implementation of *grand challenges*, *demand accelerators* and *fora*, *strategic projects*, *European semiconductor technology initiatives (ESTIs)*, pilot lines, the *Business-to-Business Semiconductor Supply Chain Platform* (hereinafter the *Platform*), and the identification of critical technologies. Thus, all funding-related decisions must be backed by a credible business case and by evidence of industrial demand, scalability, and contribution to Europe's competitiveness.

III. No resilience and technological leadership without a dedicated semiconductor budget

In the past ten years, major competing economies have committed dozens of billions of euros to semiconductor support through successive multiannual programmes, combining direct subsidies, tax incentives, preferential financing, public investment, and infrastructure support. This scale of investment illustrates the urgency for Europe to step up its efforts if it is to compete in the global race for technological leadership. The next Multiannual Financial Framework (MFF) 2028-2034 must therefore recognise the strategic importance of semiconductors for Europe's technological sovereignty. ESIA urges policymakers to establish an ambitious, dedicated semiconductor funding envelope within the ECF to support the Chips Act 2.0, including *strategic projects*, *ESTIs*, advanced packaging projects, leading edge, projects driving mature and specialty technologies, demand instruments, product development, and industrial deployment.

The Chips Act 2.0 must build industrial capabilities through a demand-driven approach, supported by sound business cases. The ambitious, dedicated budget should provide capital for market-backed investments that strengthen Europe's competitiveness and deliver returns, while supporting mature and advanced technologies on an equal footing. Ever-shorter innovation cycles also require agile funding instruments that can provide the speed and flexibility needed along the industrialisation path. Competitive manufacturing must be underpinned by strong technology research and product development capabilities.

EU funding should complement and stimulate national funding, including through top-ups and synergies for *Important Projects of Common European Interest (IPCEIs)* – as stipulated in the ECF proposal of the European Commission –, *FOAK projects*, *strategic projects*, and *ESTIs*. It should be predictable, additional, and aligned with national instruments, enabling companies to be able to build viable investment cases in Europe, while avoiding additional bureaucratic barriers.

The Chips Act 2.0 should also create a framework that facilitates and accelerates access to finance and mobilise private capital, i.e., by de-risking strategic investments and crowding-in private equity through long-term financing. Adequate and sustained access to capital is essential for high-risk innovations and ventures scaling domestic industrial capacities to build a stronger and a more capable semiconductor ecosystem in Europe.

Finally, to create a level playing field with competing regions, the Chips Act 2.0 should encourage coordinated tax incentives to reduce Europe's manufacturing cost premium. Member States should introduce targeted incentives as part of the proposed semiconductor regional investment plans covering capital expenditure, operational costs, and high energy costs, helping to narrow Europe's manufacturing cost gap with leading Asian locations and strengthening the business case for semiconductor investments in Europe.

IV. Pillar I: Chips for Europe 2.0 initiative

The Chips Act 2.0 proposal builds on the *Chips for Europe Initiative*, which has been an important element to boost research and innovation. ESIA welcomes this continuation and, for example, the addition of building and strengthening advanced design and industrial deployment capacities for photonic technologies. The initiative should also explicitly support industrial deployment pathways for edge/physical AI, robotics, advanced packaging, specialty technologies, power semiconductors, materials, equipment, and component development.

The Chips Act 2.0 must support the development and production of materials needed for semiconductor manufacturing, including high-purity chemicals and gases, wafers, photoresists, materials used in equipment, and advanced packaging materials. Their purity, performance, and consistent quality affect chip quality, production yields, and the development of new technologies. ESIA calls for funding for materials research, pilot production, testing, and qualification, helping bring materials developed in Europe into industrial production. Support must cover materials used in existing processes and those needed for next-generation chips, as well as purification and recycling. Industry must help set priorities so that funding meets manufacturing needs and market demand. EU materials and chemicals policies must also provide clear, predictable rules that support investment and the continued use of essential materials.

ESIA urges policymakers to cooperate closely with industry in implementing the *Chips for Europe Initiative 2.0*. The business perspective is crucial for its added value. This is particularly important for pilot lines: existing and new pilot lines require simplified rules for the handling of intellectual property for the uptake of newly developed technology, a bottom-up selection process with industry co-decision power, clear key performance indicators, access rules that support scale-up and a direct link to industrialisation, roadmaps, and market demand.

Grand challenges: Market deployment must accelerate, and end-user industries should be closely involved

ESIA acknowledges the new *grand challenges* provision, as closer cooperation between semiconductor companies, end-user industries, and vertical markets is necessary to boost demand and accelerate market deployment. The instrument should focus on areas where Europe can build strategic indispensability, including robotics, automotive, industrial automation, energy, aerospace, defence, critical infrastructure, and edge/physical AI. Industry and end-user sectors must play a key role both in determining the focus of *grand challenges* and their implementation. They must also be backed by credible commercialisation pathways.

Furthermore, these initiatives should not add further administrative burdens or lengthy permitting procedures. They should be linked explicitly to funding from the *ECF* or other instruments

where appropriate, and their success should be measured by deployment, scale-up, European value capture, and private investment mobilisation.

Demand accelerators and demand forum: Closely cooperate with the industry

Industry must have a leading role in designing and executing the *demand accelerators* and *demand fora* so that they create concrete added value for the semiconductor ecosystem, its customers, and the European economy as a whole. Duplication with the Industrial Alliance should be avoided and actionable technology roadmaps, co-design projects, demand aggregation, qualification pathways, and customer commitments should be promoted.

Using the demand-related tools in the proposal will be essential, but demand drivers should also be embedded across *strategic projects*, *ESTIs*, pilot lines, *grand challenges*, and public procurement. The explicit demand tools alone are not sufficient to ensure that European demand translates into value creation and capabilities in Europe. The objective should be to connect existing and future demand with manufacturing, design, materials, equipment, and packaging strengths.

This also includes design porting, which is another tool to drive demand by enabling the transfer of existing chip designs to European fabs. Such a process requires complete re-engineering (re-layout, re-verification, new IP, photomask, and libraries, etc.) for each chip design, amounting to sizeable one-off costs of several millions of euros per design. Such amounts can be deterring. Design porting should be recognised as a strategic, fundable cost category, and co-funding the one-time cost of moving existing, strategically important designs into EU fabs, covering design migration, IP and mask sets, and re-qualification as a concrete demand-side instrument under the *Chips for Europe Initiative 2.0*.

ESIA would also like to point to the German Electro and Digital Industry Association's (ZVEI) study "*Europe's semiconductor business case*"² that highlights the expected growth of semiconductor demand in Europe and recommends supporting actions.

Finally, the innovation procurement mechanism is a positive signal for demand-oriented instruments in the Chips Act 2.0. However, public procurement alone cannot substantiate demand. It must be combined with *demand accelerators*, co-design programmes, qualification support, standardisation work, and predictable funding, and it must avoid formalistic requirements that create administrative burden without delivering scalable commercial markets.

² [ZVEI-Study: 'Europe's Semiconductor Business Case'](#).

V. Pillar II: Security of supply and demand

Manufacturing capabilities: Cooperate with industry to make strategic tools work for the semiconductor ecosystem in Europe

European semiconductor technology initiatives and strategic projects

Product development is a prerequisite for a competitive manufacturing strategy. Hence, ESIA welcomes the expansion of the *FOAK*'s scope and the introduction of *ESTIs* and *strategic projects*. This new toolbox will close a significant gap in Europe's current support landscape, allowing for projects beyond manufacturing facilities to be funded.

ESTIs and *strategic projects* have the potential to support competitiveness, provided they give legal certainty, are industry-led, and based on a sound business-case. Industry must, therefore, play a key role in defining and implementing *ESTIs* and *strategic projects* in consultation with policymakers. Selection based solely on political criteria will not boost competitiveness. In addition, ESIA does not support the proposal to task the Chips Joint Undertaking with the implementation of strategic projects. *Strategic projects* must be handled with highest business confidentiality and follow the *FOAK*'s governance. Implementation should also be simple and fast, reflecting the short innovation cycles of the semiconductor industry, which are time-critical and do not allow for lengthy administrative procedures.

ESIA equally welcomes the expansion of *FOAK* to the whole semiconductor value chain, including materials production and manufacturing. Policymakers should also explicitly incorporate product development activities for materials and equipment, including components, and component development to *FOAK* and *ESTIs*. The semiconductor industry depends on a broad ecosystem of enabling technologies, including semiconductor manufacturing equipment, their components, and advanced materials. Given the sector's rapidly evolving technology requirements and exceptionally demanding standards for precision, performance, reliability, and yield, the continuous and timely development of these enabling technologies is essential to expanding semiconductor manufacturing capacity, maintaining technological leadership, and strengthening security of supply.

The equipment, components, and materials sectors incur a significant share of their capital expenditure (CAPEX) and operating expenditure (OPEX) during the product development phase, when research results are transformed into manufacturing-ready solutions through engineering, prototyping, testing, validation, and qualification activities. Given the strategic importance of these development activities for enabling more advanced semiconductor manufacturing, they should be explicitly recognised within the *FOAK* definition and be eligible for the full range of *ESTI* benefits, including state aid support. *FOAK* should also support the expansion of existing facilities and, therefore, be accessible to both established and new facilities.

Finally, ESIA recommends clarifying the definition and application of the concept of 'domestic undertaking', which determines eligibility for *ESTIs*, *strategic projects*, and other instruments. Given Europe's position in globally integrated semiconductor value chains, the definition should preserve openness to inward investment that builds, employs, innovates, and strengthens manufacturing capacity in Europe.

The proposal of the Chips Act 2.0 allows the assessment of ownership and control to look through a Europe-established manufacturer to its ultimate shareholder. This could mean that a company investing, building, and employing in Europe is treated as non-domestic solely because of upstream, non-operational shareholding. To avoid excluding significant Europe-based manufacturers, domestic status should be assessed at the level of establishment in Europe of the operating entity and its direct controlling undertaking.

Advanced semiconductor manufacturing

ESIA welcomes the provision for *advanced semiconductor manufacturing*, recognising Europe's need to reduce dependencies. However, such projects should be industry-led and based on a clear business case. They should not be controlled through governance bodies primarily designed for research programmes or become the only priority within the *strategic projects* portfolio of the Chips Act 2.0.

Advanced semiconductor manufacturing (i.e., <5nm lithography) should be balanced against other *strategic projects*. The priority placed on establishing an advanced manufacturing facility is understandable from the perspective of improving Europe's security of supply, but the project must be pursued through gradual capacity-building and based on a clear business case to ensure its long-term sustainability within the European ecosystem. Europe should build domestic capabilities while attracting new ones through partnerships with like-minded partners. This is essential to strengthen Europe's overall technological capabilities and strategic position in global semiconductor value chains.

The setup, planning, and financing of any *open foundry* for 5nm and below should not crowd out other *strategic projects* across the semiconductor value chain. A balanced portfolio should include mature and specialty nodes, power semiconductors, advanced packaging, materials, equipment, components, design, and industrial deployment.

Mature and specialty technology nodes, advanced packaging, and power technologies underpin Europe's automotive, industrial, energy, defence, aerospace, and critical infrastructure applications, as well as emerging demand for physical and edge AI. They should therefore have *strategic project* status, appropriate funding and priority treatment on an equal footing with leading-edge manufacturing where they contribute to resilience, competitiveness, and market demand.

Finally, areas for *strategic projects* in the annexes of the Chips Act 2.0 proposal should be considered tentative, as technologies and innovations continue to evolve. They should be updated accordingly in close cooperation with the industry.

Permitting: Procedures should be simplified, not only shortened

ESIA strongly supports the shortening of permit-granting procedures, as speed and predictability are essential for a competitive investment environment. Additionally, timelines for approval and notification processes should also be shortened. ESIA urges policymakers to establish a single Europe-wide digital one-stop shop for permitting and information on available public funding and investment opportunities and to simplify the procedures themselves, not merely shorten the formal timeline. Furthermore, ESIA calls on policymakers to take the process one step further and shorten the timeline to six months as a means of making the permitting environment the most competitive globally.

Accelerated procedures should cover *ESTIs*, *strategic projects*, and other Chips-Act-relevant investments, including supplier, equipment, materials, infrastructure, and expansion projects.

Public Procurement: Administrative burden should be reduced

In the new provisions for public procurement for critical sectors and risk-prone sectors³, economic operators may be required to prove, among other, their contribution to reinforcing the European semiconductor supply chain (i.e., as *FOAK* or supplier *strategic projects*), diversification of supply, inclusion of domestic companies in their projects, etc.

ESIA strongly supports demand-side measures that strengthen Europe's semiconductor ecosystem, including public procurement where appropriate. Public procurement can reinforce resilience and create demand, but it must be implemented in a scalable, technology-neutral, and administratively light way. Requirements should focus on concrete security-of-supply contributions and European value creation, rather than formalistic ownership tests or obligations that are costly for end-user industries and SMEs.

VI. Pillar III: Monitoring and crisis response

Business-to-Business Semiconductor Supply Chain Platform: Serving a purpose and protect data

The proposed the *Platform* needs a clear purpose to create an added value for the semiconductor ecosystem without creating unnecessary administrative burden. It must be clarified how the platform will operate, which data will be collected and under which frequency, who will access it, how commercially sensitive information will be protected, and how the *Platform* will avoid duplication with existing monitoring and mapping activities. Independent oversight of the platform's data handling should be provided to bolster trust.

ESIA recommends that participation in the platform be open to all semiconductor companies established in Europe and to equivalent undertakings subject to appropriate security safeguards, rather than being limited to domestic undertakings. A narrower scope would exclude major Europe-based manufacturers from the transparency mechanism they are asked to feed and would create a legal tension with Article 14(6)(e), under which production facility *ESTIs* are required to participate.

Finally, it will be important to collaborate closely with industry to ensure that relevant information is available without requiring companies to overshare sensitive data. Information requests should be proportionate, targeted, and addressed to the EU legal entity or its legal representative. They should not impose direct obligations on remote, non-operational, or third-country shareholders, as this could create conflict-of-law, confidentiality, and investment risks.

³[Chips Act 2.0 Proposal](#), page 78-79.

VII. Conclusion

The Chips Act 2.0 proposal represents an important step towards strengthening the semiconductor ecosystem in Europe and recognising semiconductors as a strategic foundation of Europe's competitiveness, resilience, and technological sovereignty. The proposal introduces several positive developments, including a stronger focus on demand creation, broader support for the semiconductor value chain, simplified permitting procedures, and new instruments to reinforce Europe's manufacturing capabilities.

To fully achieve these ambitions, the legislative framework must be grounded in market realities and implemented in close partnership with industry. A successful Chips Act 2.0 should combine industry-centred governance, a dedicated and ambitious semiconductor budget, eligibility rules that preserve trusted investment in Europe-based assets, demand-driven investment decisions based on sound business cases, equal treatment for mature/specialty and advanced technologies where they serve European resilience, tax incentives, and simplified administrative procedures enabling Europe to compete at the pace of global innovation.

Europe must build on its existing strengths across the semiconductor value chain and translate technological excellence into industrial leadership. Achieving this requires policies that create the right framework conditions for companies to invest, innovate, and manufacture in Europe, while fostering strong partnerships with end-user industries and like-minded international partners.

ESIA will continue working closely with policymakers to ensure that the final Chips Act 2.0 provides a competitive, predictable, and innovation-friendly framework that strengthens the semiconductor ecosystem in Europe and enables sustainable growth for decades to come.

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ABOUT ESIA

The European Semiconductor Industry Association (ESIA) is the voice of the semiconductor industry in Europe. Its mission is to represent and promote the common interests of the Europe-based semiconductor industry towards the European institutions and stakeholders in order to ensure a sustainable business environment and foster its global competitiveness. As a provider of key enabling technologies, the industry creates innovative solutions for industrial development, contributing to economic growth and responding to major societal challenges. Being ranked as one of the most R&D-intensive sectors by the European Commission, the European semiconductor ecosystem supports approx. 200.000 jobs directly and up to 1.000.000 jobs indirectly in systems, applications and services in Europe. Overall, micro- and nano-electronics enable the generation of at least 10% of GDP in Europe and the world.