SEMI EUROPE RECOMMENDATIONS FOR THE 2024-2029 LEGISLATIVE TERM

Background

Following the 2024 European elections, SEMI Europe – a global industry association representing **3,000+ member companies and 300+ European companies** from across the **microelectronics manufacturing and design supply chain** – would like to share its recommendations for the forthcoming legislative term, outlining how these can strengthen the **competitiveness and resilience** of the European semiconductor industry, and why this is essential for achieving **Europe's broader, long-term goals.** The past legislative term (2019-2024) has been marked by an unprecedented political momentum towards our industry both in Europe and globally, stemming from **rising geopolitical tensions** across the world and from an ongoing **global technological race for semiconductors** and the ground-breaking technologies that they enable.

In this context, the European semiconductor ecosystem has taken center stage across numerous initiatives aimed at promoting Europe's industrial competitiveness and supply chain resilience, including but not limited to the **European Chips Act**, the **European Economic Security Strateg**y and the **Critical Raw Materials Act**. Besides the aforementioned legislative efforts, the recent publication of the **Report on the Future of European Competitiveness – 'Draghi Report'** – has brought forth a number of insightful policy proposals that would undoubtedly contribute to a favorable business environment by **reducing bureaucratic red tape and avoids over-regulation** of the semiconductor industry, ultimately fostering innovation and enabling significant private investments at the European level. Henceforth, SEMI Europe has warmly welcomed these initiatives and appeals to the incoming policymakers to build **an investor-friendly climate and a vibrant innovative ecosystem**, recognizing the importance of the semiconductor industry in driving **economic growth, technological advancement and societal progress.**

Particularly in recent years, there has been an exponential growth within our industry, which is now poised to reach **a total market value of $1 trillion by 2030**, propelled by the emergence of critical technologies, including **artificial intelligence, renewable energy, electric vehicles and quantum computing**. Consequently, the global semiconductor industry is witnessing an unprecedented expansion production capacity as **109 fabs around the world** are set to begin operations in the 2022-2026 period, and SEMI Europe remains confident that this growth will persist in the longer term.

In light of the multiple technological disruptions and the persistent long-term growth illustrated by the industry outlook above, SEMI Europe would like to present its recommendations for a **successful long-term strategy** for the European semiconductor industry, taking into consideration the following key aspects:

I. Report on the Future of European Competitiveness
II. Building on the European Chips Act
III. Economic Security
IV. Sustainability
V. Talent, Education and R&D

I. Report on the Future of European Competitiveness

Prior to outlining the policy recommendations for this legislative term (2024-29), SEMI Europe would like to take this opportunity to **shed a positive light** on the recently published 'Draghi Report', conserving the multiple policy proposals that we believe would be most beneficial for the future of the European semiconductor industry.

First and foremost, the long-term success of the European semiconductor industry will depend on there being a favorable business environment that reduced red tape and avoid over-regulation, thereby recognizing the **primary role industry players** in fostering innovation. For this reason, over the next legislative term it will be crucial to minimize excessive political interference that can stifle creativity and hinder the industry's innovation cycles, while adopting a vigorous industrial policy that creates the necessary framework conditions **to enhance our competitiveness at the global scale.**

In this regard, SEMI Europe echoes the call to develop a robust, long-**term EU strategy for the semiconductor industry ("Chips Act 2.0"),** which will be crucial for the growth of our industry, and this should remain a top priority of the European Commission going forward. To build on the European Chips Act, the report proposes the creation of a **centralized EU budget** to support ongoing investments towards the European semiconductor ecosystem and suggests a **"fast-track funding procedure"** to help accelerate the approval and implementation of Important Projects of Common European Interest (IPCEI). SEMI Europe sees these steps as essential for a timely delivery of investments and consequent innovation actions.

At this point in time, the report rightly calls on the EU to reduce its strategic dependencies and to enhance its capabilities in the **segments of European excellence,** including but not limited to critical manufacturing equipment, advanced materials, sector-specific chips (Automotive, sensors for I-o-T and photonics) and research capabilities. Maintaining and expanding Europe's existing clusters will be essential to remain **competitive and relevant in the global supply chain.**

Finally, SEMI Europe supports the report's recommendation to address the growing skills gap in Europe's semiconductor industry, by developing a long-term roadmap (**Tech Skills Acquisition programme**) with a holistic approach that combines active labor market, migration and education policies across Europe.

II. Building on the European Chips Act

The European Chips Act represents an important milestone for the European semiconductor ecosystem and the overall industrial policy of the EU, whereby we fully support the EU's ambitions to increase its share of global semiconductor production and to strengthen its role as a key player within the global semiconductor industry.

Recommendations for the European Chips Act Implementation

In the upcoming legislative term, the European Commission will be responsible for carrying out the implementation phase of the Chips Act, for which SEMI Europe would like to advance the following recommendations:

• **Continue and expand funding opportunities** by facilitating the full functioning of the Chips Joint Undertaking and the Chips for Europe Initiative, to ensure adequate research and development funding on par with global partners and competitors.

• **Accelerate the rollout of Pilot Lines, Competence Centers and Design Platforms**, including a research roadmap that actively facilitates the participation of SMEs in research and development processes, to support their vital role in strengthening the overall European semiconductor ecosystem.

• **Structured and regular dialogue** between the European Commission, the European Semiconductor Board and relevant industry stakeholders, including but not limited to an empowered Alliance on Processors and Semiconductor Technologies, to discuss concrete implementation steps, potentially including European and international end-users of semiconductors.

• **Fast-track funding procedures** and further simplify state-aid assessments that create favorable investment conditions at the national level, enabling all industry players to exploit these funding opportunities to their highest possible extent, particularly SMEs, for whom minimizing bureaucratic burden and red tape are essential factors.

• **Provide actionable policy objectives** and evaluate existing ones through an in-depth and forward-looking 2026 mid-term review of the Chips Act, actively involving industry stakeholders in the evaluation processes, to improve upon the existing legislative framework.

Recommendations for a 'European Chips Act 2.0'

The European Chips Act has created a strong political momentum for our industry in Europe, which will need to be complemented by the incoming European Commission, especially if the EU wants to reach its intended target of 20% of market share by 2030. This will require a strengthening of the legislative framework with additional measures that culminate in a 'Chips Act 2.0' process based on the following recommendations:

• **Streamline existing funding instruments** through in-depth assessments of the Chips for Europe Initiative and the IPCEI (Important Project of Common European Interest) and develop a common vision to coordinate funding opportunities between the EU, the member states and the private sector.

• **Provide additional funding** as part of the European Chips Act 2.0 to continue the development of the European semiconductor industry and its overall ecosystem, including but not limited to production capabilities in the EU.

• **Support a positive approach to economic security** that recognizes semiconductors as a core element of foreign trade and technology policy, fosters international collaboration on key transnational issues and works to enhance supply chain resilience with like-minded partners.

• **Build an ecosystem based on Europe's strengths** by explicitly integrating semiconductors in the policies of the European Green Deal and by allocating incentives to support rapidly developing technologies in the semiconductor supply chain (Wafer fab equipment, photomasks and photonics), which are increasingly important for the success of Europe's green transition.

• **Future-proof' the European semiconductor ecosystem** through a holistic policy strategy that reduces operating and energy costs, addresses the increasing talent gap in Europe's workforce, and ultimately strengthens Europe's competitive edge in research and innovation, to support the crucial role of SMEs in the European landscape.

III. Economic Security

SEMI Europe welcomes the European Economic Security Strategy as a positive step towards the creation of an independent European approach to protecting EU economic interests, especially considering the rising geopolitical tensions and strategic dependencies that characterize the European semiconductor industry. A framework that can enhance Europe's economic security while building resilience and preserving its competitiveness and technological leadership is essential for the long-term success of the semiconductor industry.

Recommendations for the European Economic Security Strategy

While the European Economic Security Strategy is a positive step, a comprehensive approach to economic security inevitably requires a widespread, unified support and provision of incentives at the European level, as well as international cooperation globally. Since protective measures often result in declining revenue and subsequently lower R&D investments, we advocate for stronger measures that promote the industry at the international level, based on the following recommendations:

• **Complement existing protective measures with additional promote-side measures** and proposals focusing on the strengthening of the European high-tech ecosystem, including wafer-fab equipment, materials and their suppliers, and the competitiveness of the EU on the global stage.

• **Focus on dimensions that capitalize on strengths of the high-tech and semiconductor ecosystems** through funding and facilitation programs such as the EU Chips Act, while consciously considering the role of industrial resilience in strengthening both economic and geopolitical resilience alike.

• **Creating a favorable business climate in Europe** to enhance economic resilience, through structural funding programs and credible commitments to streamlining collaboration between industry and science in the relevant fields.

• **Increase efforts to strengthen international cooperation** in the field of semiconductors and related high-tech industries, including free-trade and collaborative agreements and additional dedicated international technology partnerships.

• **Swift and pragmatic mechanisms to improve coordination and further harmonization** of EU export control policies amongst stakeholders to protect EU strategic interests and to assert a strong EU voice on the global stage.

• **Robustly enforce Intellectual Property protection at the global level** to protect European know-how and intellectual property, through both regulation, foreign policy, and support for cybersecurity measures, particularly for SMEs.

• **Establish a continuous, structured dialogue with industry to reduce administrative burden for companies** otherwise caused by abundant requests risk management and reporting obligations – these obligations, where relevant, should be strategic and well-calculated to prevent unnecessary costs for companies that enhance administrative burden for companies.

IV. Sustainability

SEMI Europe's members are strongly committed to reduce their environmental footprint and to enhance sustainability across their supply chains. The successful development and application of sustainable net-zero technologies will be crucial for the EU to effectively achieve the green transition, and semiconductors will play a fundamental and irreplaceable function for these technologies. SEMI Europe's members recognize and assume their role in realizing these necessary sustainability goals.

Recommendations for for Driving the Green Transition

SEMI Europe will continue advocating for a policy framework that effectively supports our industry in producing clean innovations and enabling sustainable growth across the EU and globally, thereby striking a balance between technological innovation and sustainability. On this matter, we advocate the following recommendations:

• **The European Green Deal** and its associated policies must explicitly integrate semiconductors, to focus on specific risks and objectives while avoiding disproportionate, negative effects on our industry without demonstrating concrete gains in sustainability and public health.

• **Environmental regulations** should account for the significant technological efforts advanced by our industry in the development of sustainable net-zero technologies needed for the green transition – regulations should be well-calculated to provide the necessary space for industry to develop societal solutions for the green transition, while following through on its commitments to improve sustainability efforts.

• **Water resilience** should be addressed through enhanced public-private collaboration, increased funding and deployment of innovative solutions across industries, aiming to tackle water challenges in a global manner and ensuring the sustainable use of this vital resource.

• **Supply of affordable renewable energy** will require the mobilization of public-private actors, investments and other resources to effectively leverage the competitive advantage of Europe's energy mix vis-a-vis other producing regions of the world.

• **Tackling the rising energy costs in Europe** by complementing the Repower EU plan and the Energy Union to increase energy autonomy and to boost clean energy production under favorable market conditions.

Recommendations for the EU Chemical Legislations

SEMI Europe is strongly committed to achieving ambitious standards for environmental protection and human health while advocating for a legislative framework that fosters innovation and preserves Europe's competitiveness at a global stage, considering the following recommendations:

• Review of the REACH regulation should establish the necessary legal framework to ensure the continued responsible and regulated use of the necessary chemicals and materials while recognizing the essential role that semiconductors play towards energy efficiency and sustainability.

• Essential uses of PFAS (Per- and PolyFluoroAlkyl Substances) in controlled industrial environments, with defined procedures (Closed loop management system) that prevent leakage of PFAS, should remain possible, where no viable alternatives are available for the foreseeable future.

• Avoid blanket regulations that cause widespread supply chain disruptions at the global level, targeting areas where PFAS cannot be replaced, to ensure the supply chain security of the European semiconductor industry and to not jeopardize competitiveness and economic security in the longer term.

• Ensure a holistic approach towards the entire European semiconductor ecosystem including wafer fab equipment and materials suppliers – the European Commission, Member States, and industry should collaborate closely to ensure evidence-based regulations on PFAS.

• The European Commission and Member States should actively support the entire value chain in their research and development efforts to find alternative substances for the largest possible number of applications.

V. Talent, Education and R&D

Europe is home to a world-leading ecosystem of universities, research institutions and industry leaders across the entire semiconductor supply chain, ranging from materials and wafer fab equipment to manufacturing technologies, which requires further strengthening through targeted policy measures in the field of workforce development, education and research and innovation.

Recommendations for Skills and Workforce Development

SEMI Europe estimates that, to reach the goals of the Chips Act, an additional 350,000 people will be required by 2030. Addressing the increasing talent gap in Europe's workforce should be a key priority for the European Commission in the upcoming legislative term, through the construction of a strategic vision that stimulates public-private collaboration and designs structural measures to enhance the talent pool available in Europe, through the following recommendations:

• **Develop Chips Competence Centers** as described in the Chips Act to gather all relevant industry players to identify, quantify and address the talent gaps across the semiconductor supply chain and the wider semiconductor ecosystem in Europe.

• **Structured collaboration between the European Commission and trade associations** to locate the multiple talent gaps that exist at the European level and identify the short- and long-term needs of the labor market

• **Create a platform for Member States** to share and adopt best practices in the field of STEM education and to establish transnational partnerships for secondary and tertiary education programs.

• **Deepen facilitation efforts for collaboration** with educational institutions and industry to promote education and specialized training in fields that support the growth of the industry. The ambitions of the EU in growing its semiconductor industry and strengthening competitiveness can only be achieved if there is a sufficient, talented workforce able to populate the industry.

• **Reforming European migration legislation** to facilitate access and mobility of highly talented individuals from non-EU countries, significantly building upon the existing proposal for an EU Talent Pool is essential, alongside European and national efforts to grow talent locally.

Recommendations for Research and Innovation

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Recommendations for Skills and Workforce Development

Alongside the crucial aspects of talent and workforce development, another overarching theme for the EU should be the development of a long-term research and innovation agenda that facilitates public-private partnerships at the global level and accurately reflects the concrete needs of industry and society:

• **Shape the next Multi-Annual Financial Framework** and its next key funding programme for research and innovation **(FP10)** to create dedicated funding programmes that meet industry needs and reinforce the Chips for Europe Initiative and Chips Joint Undertaking, by expanding funding and making it more accessible.

• **Strengthen research and innovation cooperation** at European and global level to leverage the capabilities of like-minded partners to effectively tackle cross-industry issues related to sustainability and the industrial use of PFAS.

• **Capitalize on the research and innovation activities** financed under the Chips for Europe Initiative to protect Europe's competitive advantage.

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