Robert Bosch GmbH Position Paper

on the European Commission's "Chips Act" Consultation

Introduction: Completing the European Semiconductor Building

The European Union's semiconductor strategy is at a critical juncture. The initial Chips Act was a necessary and largely successful step towards strengthening Europe's position in the global semiconductor landscape. However, as the envisioned 20% EU market share goal remains unmet, it is clear that a successful EU semiconductor policy requires a more comprehensive approach. The challenge lies not in a failure of the initial Act itself, but in the need to broaden its scope. To truly secure Europe's future in this vital sector, we must complete the semiconductor "building," completing it with additional elements rather than the existing three pillars alone. This position paper outlines our recommendations for strengthening and expanding the Chips Act 2, ensuring a robust and resilient European semiconductor ecosystem.

Chips Act in a Larger Policy and Semiconductor Strategy Context

A comprehensive EU semiconductor strategy must integrate industrial policy, business models and financing tools, as well as sovereignty considerations. Beyond the current Chips Act's three pillars of R&D, investment support, and crisis management, we advocate for additional foundational elements: a robust regulatory and business environment, effective semiconductor demand generation Europe, and the robust involvement of third-party private capital and venture capital. A successful strategy must prioritize risk mitigation, including public sourcing, increase of European semiconductor content, incentivized, e.g., through cost compensation (OPEX), secure raw material access, alongside continuous risk monitoring and awareness. Standards may also play a role in this holistic framework.

1. Research and Development (Pillar 1)

Europe's R&D efforts are fundamental to its long-term competitiveness. R&D for the strategic semiconductor field must be sufficiently financed by the upcoming ECF and HEU, however the Chips Act offers a critical and targeted additional funding source, including capital investments in R&D. We recommend the following:

- **Unified Governance and Industry Involvement:** Maintain governance under the Chips Joint Undertaking (JU), but unify fragmented programs like "Chips for Europe" and "ECS." Crucially, industry stakeholders must be granted full voting rights to ensure alignment with market needs and technological realities.
- **Industry-Led Program Development:** Stakeholders close to the market (industry, consortia, SME, Start-ups) need to be consulted *before* establishing new R&D investment programs, such as pilot lines and design centers. This ensures that investments are strategically directed towards areas of highest impact and relevance.
- **Integrating Resilience into R&D:** The concept of resilience should be explicitly embedded within R&D strategies, fostering innovation that addresses potential supply chain disruptions and strengthens Europe's self-sufficiency, especially in the field of raw-material dependency and topics concerning safety, security and defense.

2. Investment (Pillar 2)

Strategic investment is paramount for building critical capacities. The "first-of-a-kind" (FOAK) criterion could remain as a core principle, encompassing both leading-edge and legacy chips. We suggest complementing FOAK with a "sovereignty" criterion. This would prioritize investments that enhance value chain resilience or demonstrably serve local demand, thereby strengthening Europe's strategic autonomy

- **Strengthening Foundational Semiconductors:** The existing industrial base and technologies, particularly in "foundational semiconductors" or "legacy chips," are vital. The Chips Act must continue to support their innovation and production, addressing also upstream supply, fabless business models, and chip design to foster a complete ecosystem and a strong European position in a global context.
- **Addressing Advanced Chip Manufacturing:** While "advanced" (<10nm) chip manufacturing in Europe is a legitimate political objective, it requires novel approaches. This necessitates addressing European demand, facilitating chip design, technology transfer, joint ventures, and robust supply-chain partnerships, alongside innovative business and financing models.

Alongside grants, we strongly advocate for considering tax incentives as an additional, low-overhead mechanism to stimulate investment, thereby increasing the attractiveness of Europe as a manufacturing hub.

3. Monitoring and Crisis Management (Pillar 3)

Effective monitoring and crisis management are vital for mitigating future supply chain disruptions. Measures in this pillar must be pragmatic and avoid undue administrative burden on European companies.

- **Establishing a "Chips Office":** We endorse the establishment of a dedicated "Chips Office" within the European Commission, fostering a permanent build-up of expertise in chip technology, markets, and trade rules. This entity could closely interact with the emerging Industry Advisory Group, which would serve as a crucial interface for strategic dialogue with industry regarding risk management and strategy development.
- **Trust-Based Information Exchange:** Forced or formalized information gathering is less effective than a trust-based dialogue. Reducing administrative burden is key to making the EU an attractive investment location. Any new measures or reporting obligations should not impose additional administrative burdens on European companies, which could detract from their competitiveness and investment in the EU
- **Contractual Obligations for Crisis Measures:** The current labeling procedures (IPF, OEF) should be discontinued as they add administrative burden without contributing transparently to the Chips Act's goals. Obligations related to crisis supply, preferred supply, trusted manufacturing, or crisis capacity should be agreed upon on an individual contractual basis and compensated accordingly and be limited to national security requirements.

4. Governance, Finance, and Administration

Transparent, efficient, and swift administrative procedures are critical for successful implementation.

- **EU Fund for Financing:** An expansion or replacement of financing sources by an EU fund is advisable only if it provides additional funds, accelerates decision-making processes, and reduces administrative overhead.
- **Streamlined Administrative Procedures:** All administrative procedures, especially for FOAK facilities, must be made more transparent, simpler to access, faster to process, and implemented more swiftly. Clear timelines for permitting, as demonstrated, e.g., in the Net-Zero Industry Act, are essential for long-term planning and legal certainty for

5. Framework Conditions ("Foundation and Roof over Pillars")

To realize Europe's semiconductor ambitions, fundamental boundary conditions must be established:

- **Attractive Investment Location:** Europe must become a highly attractive location for semiconductor investments. This requires low energy costs, reliable and swift permit processes, and reasonable, predictable legislation concerning PFAS, CO2 emissions, and other economical factors.
- **Promote Public Local Sourcing:** Governments should actively promote local semiconductor sourcing in public procurement, particularly for defense, critical infrastructure, automotive, health/medical, data hosting, and data centers. This could be a visible sign and implementable measure to increase semiconductor demand from the EU, which in turn will make investments in local design and manufacturing more attractive.
- **Incentivize Private Local Sourcing:** Incentives must be provided to private entities to increase local semiconductor sourcing, effectively equalizing cost differences (Opex, e.g., arising from energy, personnel, and tariffs) in order to generate European demand.
- **Secure Supply Chains:** Governments must play a proactive role in securing supply chains, particularly for cross-industry dependencies and where it is beyond the capabilities of individual enterprises. This includes ensuring access to raw materials, fostering international partnerships, and pursuing bilateral trade agreements.

By addressing these critical areas, the European Union can move beyond the foundational Chips Act 1 and truly complete the "building" of a robust, resilient, and competitive European semiconductor ecosystem, securing its strategic freedom-to-act in the digital age.

Conclusion

At Bosch we remain available for further dialogue and support on the future design and structure of the European Chips Act 2.0 priorities and objectives.

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