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Quintauris Position on the European Commission's Chips Act Consultation

Introduction

Semiconductor chips are the foundation of modern technology. They power a variety of embedded applications, like household appliances, medical devices, and mobility solutions up to high-performance compute. Innovations in these industries depend on reliable access to semiconductors, from microcontrollers to high-performance compute. The European Chips Act has made important progress, including investments in projects such as ESMC, yet Europe's share of global semiconductor production remains at approximately eight percent, far from the twenty percent target. To close this gap, Chips Act 2 must not only invest in technology but also create structures that enable innovation to reach the market.

Building Sovereignty Through Strategic Capabilities

The semiconductor value chain is globally interdependent, with critical expertise concentrated in a few companies worldwide. Europe cannot duplicate every link in this chain; instead, it should focus on building essential capabilities where it can lead. This requires understanding where Europe's key advantages lie and where it has the chance to build, strengthen, and master new technology capabilities.

Europe's Strengths and Missed Opportunities

Europe has strong application industries such as automotive and industrial automation and excels in innovation. However, it often fails to capture commercial value from its innovations. In semiconductors, long product cycles, especially in automotive, mean startups must survive five or more years before reaching market adoption. Without targeted support, promising technologies risk being commercialized abroad.

A clear example is the RISC-V space. Several European startups have developed competitive solutions, yet they struggle to enter commercial projects because established corporations are slow to adopt new technologies. Chips Act 2 should create mechanisms that incentivize integration of new technologies into real products, reducing the "valley of death" between laboratory innovation and market deployment.

Value lies in Europe's application industries. We have strong system-level understanding, and collaboration projects between semiconductor companies and application industries foster growth for both sectors. Successful innovation requires collaboration across the value chain. Key to such structures is to have a manageable number of project partners that actually carry the project into market products.

Funding Structures That Work for Startups

Startups and SMEs drive technological innovation in Europe's semiconductor industry but face barriers in current public funding models. Multi-year projects with heavy administrative requirements

are unrealistic for small companies that must prioritize resources. Funding needs to be agile, iterative, and aligned with product roadmaps.

Chips Act 2 should introduce milestone-based funding with shorter cycles and simplified reporting. To participate in funding projects, startups need realistic payoff chances and alignment with their actual roadmap with minimal administrative effort. For startups the effort and approach needs to be as easy and fast as getting VC funding. Iterative and agile projects create a more realistic framework, as funding projects can be aligned with roadmaps to bring products into the commercial stage.

Where Investments Should Be Focused

Europe cannot mitigate risk by duplicating the entire supply chain. Instead, it should build strategic capabilities in areas where it has strengths or can achieve leadership. Design has already been recognized as a key capability. However, no fabrication facility will help if Europe does not have the architecture to fill it, and design depends on architecture. Other markets heavily invest into commercial RISC-V projects. If Europe loses the RISC-V market, it will face dependency at the very first point of semiconductor development.

Europe has a strong footprint in microcontrollers and application understanding. RISC-V can drive sovereignty at the front end of microcontroller development and ensure Europe maintains control over critical design capabilities.

Recommendations for Chips Act 2

Chips Act 2 should prioritize architecture sovereignty through RISC-V and design platforms. It should create startup/SME-friendly funding instruments with agile cycles and milestone-based payments. It should support application-driven projects that guarantee integration into automotive, industrial, or energy systems. Finally, it should diversify investments across multiple smaller projects to spread risk and foster innovation.

Conclusion

Europe has the talent, research strength, and application industries to lead in semiconductors. Chips Act 2 must build on these advantages by focusing on strategic capabilities, enabling startups to thrive, and ensuring innovation reaches the market. By doing so, Europe can move closer to its twenty percent global share target and secure technological sovereignty.