



ESIA feedback to the public consultation on the European Chips Act package

Brussels, 9 May 2022

ESIA welcomes the Chips for Europe Initiative. However, it ought to be emphasised that the programme is targeting European industry needs adequately. ESIA calls on the EU to focus on IP design in EU's key verticals in automotive, industrial, telecommunication infrastructure (6G), health, personal electronics as well as smart home and energy, keeping them in mind during budget negotiations for the Chips Joint Undertaking. The Chips JU should allow for innovations across a wide range of technologies since "leading edge" varies strongly based on applications, meaning that node shrinkage should not be the only denominator for defining innovation.

ESIA deems following an "*R&D ecosystem*" approach as consequential and proper; however, a balance between research & technology organisations, universities and industry must be ensured. R&D&I programmes should take rapid commercialisation into account. ESIA believes that fast-track and/or *ad hoc* funding instruments are needed to focus on a limited amount of well-defined EU priorities.

The definition of "*first-of-a-kind* in the Union" is a positive example for enabling facilities for Europe for which it today depends on other regions. This will develop the ecosystem in the EU in an accelerated manner, enhancing innovation and supply chain resilience. ESIA welcomes that the scope is not restricted to certain technologies and/or node sizes, allowing for projects serving the EU economy's particular mid- and long-term demands, e.g., chips in the 40/28-12 nanometre range as well as other important technology fundamentals for the electronic systems such as memory.

Pillar 3 of the EU Chips Act suggests far-reaching and unprecedented market interventions. The definition of "*crisis*" raises questions. It is important to understand that the current chip shortage is not caused by a crisis in semiconductor production due to production stops of semiconductor factories or disruptions in raw material supply. The shortage is a consequence of rising demand for semiconductor needed during the pandemic response, coupled with significant fluctuations in chip demand of important sectors such as automotive and industrial. It triggered a rippling supply-demand imbalance felt across the world. The shortage, contrary to Recital (1) of the Chips Act, is not a symptom of permanent and serious structural

deficiencies in the Union's semiconductor value chain. In fact, the current shortage is a global phenomenon and cannot be solely attributed to one region's chip ecosystem. The shortage is experienced across the world, including in regions with the largest chip manufacturing facilities.

The proposed "Toolbox" measures do not reflect the complexity and uniqueness of the semiconductor supply chain, the requirements of the users (downstream) and the manifold reasons why a shortage may occur: e.g. from raw and ultrapure materials to gas and chemicals, tools and equipment's shortage, worldwide logistics' outage among the FE and BE facilities, etc. The suggested, static measures – mandatory sharing of numerous market information with unclear definition and subject to sanctions, priority-rated orders, joint procurement of chips and export controls – will not be effective in preventing supply disruptions. Today, a car comprises approximately 1000, a smartphone ca. 160 different chips. In most cases chips are not "off-the-shelf" or "one-size-fits-all" products. In addition, chip factories are not homogeneous and only able to manufacture a specific range of node sizes and transistor technologies. This means that Open EU Foundries (OEF) and Integrated Production Facilities (IPF) in the EU would only be able to manufacture and supply a very limited number of the chips required. "Just-in-time" supply chains of downstream sectors increase the risk of disruptions since they do not reflect the long lead times for chip production (4-6 months). The focus of a toolbox should shift to instruments that can effectively help chip users to enhance their security of business continuity. Therefore, Pillar 3 should be revised entirely.

For further information:

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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 the most R&D-intensive sector by the European Commission, the European semiconductor ecosystem supports approx. 200.000 jobs directly and up to 1.000.000 induced jobs 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.