Digital sovereignty: Commission proposes Chips Act to confront semiconductor shortages and strengthen Europe’s technological leadership

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Today, the Commission proposes a comprehensive set of measures to ensure the EU’s security of supply, resilience and technological leadership in semiconductor technologies and applications. The European Chips Act will bolster Europe’s competitiveness, resilience and help achieve both the digital and green transition.

Recent global semiconductors shortages forced factory closures in a wide range of sectors from cars to healthcare devices. In the car sector, for example, production in some Member States decreased by one third in 2021. This made more evident the extreme global dependency of the semiconductor value chain on a very limited number of actors in a complex geopolitical context. But it also illustrated the importance of semiconductors for the entire European industry and society.

The EU Chips Act will build on Europe’s strengths – world-leading research and technology organisations and networks as well as host of pioneering equipment manufacturers – and address outstanding weaknesses. It will bring about a thriving semiconductor sector from research to production and a resilient supply chain. It will mobilise more than €43 billion euros of public and private investments and set measures to prevent, prepare, anticipate and swiftly respond to any future supply chains disruption, together with Member States and our international partners. It will enable the EU to reach its ambition to double its current market share to 20% in 2030.

The European Chips Act will ensure that the EU has the necessary tools, skills and technological capabilities to become a leader in this field beyond research and technology in design, manufacturing and packaging of advanced chips, to secure its supply of semiconductors and to reduce its dependencies. The main components are:

- The Chips for Europe Initiative will pool resources from the Union, Member States and third countries associated with the existing Union programmes, as well as the private sector, through the enhanced “Chips Joint Undertaking” resulting from the strategic reorientation of the existing Key Digital Technologies Joint Undertaking. €11 billion will be made available to strengthen existing research, development and innovation, to ensure the deployment of advanced semi-conductor tools, pilot lines for prototyping, testing and experimentation of new devices for innovative real-life applications, to train staff and to develop an in-depth understanding of the semi-conductor ecosystem and value chain.

- A new framework to ensure security of supply by attracting investments and enhanced production capacities, much needed in order for innovation in advanced nodes, innovative and energy efficient chips to flourish. In addition, a Chips Fund will facilitate access to finance for start-ups to help them mature their innovations and attract investors. It will also include a dedicated semiconductor equity investment facility under InvestEU to support scale-ups and SMEs to ease their market expansion.

- A coordination mechanism between the Member States and the Commission for monitoring the supply of semiconductors, estimating demand and anticipating the shortages. It will monitor the semiconductor value chain by gathering key intelligence from companies to map primary weaknesses and bottlenecks. It will draw together common crisis assessment and coordinate actions to be taken from a new emergency toolbox. It will also react swiftly and decisively together by making full use of national and EU instruments.

The Commission also proposes an accompanying Recommendation to Member States. It is a tool with immediate effect to enable the coordination mechanism between the Member States and the Commission to commence straight away. This will allow as from now to discuss and decide on timely and proportionate crisis response measures.

Members of the College said:
Commission President Ursula von der Leyen said: “The European Chips Act will be a game changer for the global competitiveness of Europe’s single market. In the short term, it will increase our resilience to future crises, by enabling us to anticipate and avoid supply chain disruptions. And in the mid-term, it will help make Europe an industrial leader in this strategic branch. With the European Chips Act, we are putting out the investments and the strategy. But the key to our success lies in Europe’s innovators, our world-class researchers, in the people who have made our continent prosper through the decades.”

Margrethe Vestager, Executive Vice-President for a Europe Fit for the Digital Age, added: "Chips are necessary for the green and digital transition - and for the competitiveness of European industry. We should not rely on one country or one company to ensure safety of supply. We must do more together - in research, innovation, design, production facilities - to ensure that Europe will be stronger as a key actor in the global value chain. It will also benefit our international partners. We will work with them to avoid future supply issues.”

Thierry Breton, Commissioner for Internal Market, elaborated: “Without chips, no digital transition, no green transition, no technological leadership. Securing the supply in the most advanced chips has become an economic and geopolitical priority. Our objectives are high: doubling our global market share by 2030 to 20%, and producing the most sophisticated and energy-efficient semiconductors in Europe. With the EU Chips Act we will strengthen our research excellence and help it move from lab to fab – from the laboratory to manufacturing. We are mobilising considerable public funding which is already attracting substantial private investment. And we are putting everything in place to secure the entire supply chain and avoid future shocks to our economy like we are seeing with the current supply shortage in chips. By investing in lead markets of the future and rebalancing global supply chains, we will allow European industry to remain competitive, generate quality jobs, and cater for growing global demand.”

Mariya Gabriel, Commissioner for Innovation, Research, Culture and Youth, complemented: “The Chips for Europe Initiative is closely linked to Horizon Europe and will rely on continuous research and innovation to develop the next generation of smaller and more energy-efficient chips. The future initiative will offer a great opportunity for our researchers, innovators, and startups to lead on the new wave of innovation that will develop deep tech solutions based on hardware. Chips development and production in Europe will benefit our economic actors in key value chains and will help us attain our ambitious objectives in construction, transport, energy and digital.”

**Next Steps**

Member States are encouraged to immediately start coordination efforts in line with the Recommendation to understand the current status state of the semiconductor value chain across the EU, to anticipate potential disturbances and take corrective measures to overcome the current shortage until the Regulation is adopted. The European Parliament and the Member States will need to discuss the Commission’s proposals on a European Chips Act in the ordinary legislative procedure. If adopted, the Regulation will be directly applicable across the EU.

**Background**

Chips are strategic assets for key industrial value chains. With the digital transformation, new markets for the chip industry are emerging such as highly automated cars, cloud, IoT, connectivity (5G/6G), space/defence, computing capacities and supercomputers. Semiconductors are also at the centre of strong geopolitical interests, conditioning countries capacity to act (militarily, economically, industrially) and drive digital.

In her 2021 State of the Union speech, Commission President Ursula von der Leyen set the vision for Europe’s chip strategy, to jointly create a state-of-the-art European chip ecosystem, including production, as well as link together the EU’s world-class research, design and testing capacities. The President also visited ASML, one of Europe’s major player in the global value chain for semiconductors, based in Eindhoven.

In July 2021, the European Commission launched the Industrial Alliance on Processors and Semiconductors with the objective to identify current gaps in the production of microchips and the technology developments needed for companies and organisations to thrive, no matter their size. The Alliance will help foster collaboration across existing and future EU initiatives as well as playing an important advisory role and providing a strategic roadmap for the Chips for Europe Initiative, along with other stakeholders.

To date, 22 Member State committed in a joint declaration signed in December 2020 to working together towards bolstering Europe’s electronics and embedded systems value chain and strengthen leading-edge manufacturing capacity.
The new measures will help Europe achieve its 2030 Digital Decade targets of having 20% of global chips market share by 2030.

Together with the Chips Act, the Commission today also published a targeted stakeholder survey in order to gather detailed information on current as well as future chip and wafer demand. Results of this survey will help to better understand how the shortage of chips is affecting European industry.

For More Information
European Chips Act: Questions & Answers
European Chips Act: Online Factpage
European Chips Act: Factsheet
A European Chips Act Communication
Chips Act: Regulation establishing a framework of measures for strengthening Europe’s semiconductor ecosystem
Commission Recommendation to Member States on a Common Union toolbox to address the semiconductor shortage crisis and an EU mechanism for monitoring the semiconductor ecosystem
Targeted stakeholder survey

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