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Proposal for a

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**establishing a framework of measures for strengthening Europe's semiconductor ecosystem (Chips Act)**

(Text with EEA relevance)

## EXPLANATORY MEMORANDUM

### 1. CONTEXT OF THE PROPOSAL

#### • Reasons for and objectives of the proposal

Semiconductor chips are central to the digital economy. They make digital products work: from smartphones and cars, to critical applications and infrastructures in health, energy, communications and automation to most other industry sectors. They are also key to the technologies of the future, including artificial intelligence (AI) and 5G/6G communication. There is no “digital” without chips.

Within the past year, Europe has witnessed disruptions in the supply of chips, causing shortages across multiple economic sectors and potentially serious societal consequences. Many European sectors, including automotive, energy, communication and health as well as strategic sectors such as defence, security, and space are under threat by such supply disruptions. At the same time, fake chips start appearing on the market, compromising the security of electronic devices and systems.

The current crisis has revealed structural vulnerabilities of the European value chains. The global semiconductor shortage has exposed European dependency on supply from a limited number of companies and geographies, and its vulnerability to third country export restrictions and other disruptions in the present geopolitical context. Furthermore, this dependency is exacerbated by the extremely high barriers to entry and capital intensity of the sector. For example, the most computationally powerful chips require manufacturing to a precision of a few nanometres (nm).<sup>1</sup> Building such facilities entails an upfront investment of at least EUR 15 billion<sup>2</sup> and requires three years to achieve production-readiness with adequate yields<sup>3</sup>. The expenditures to design such chips can range from EUR 0.5 billion to well over EUR 1.0 billion. Research and development (R&D) intensity in the sector is high and more than 15%.<sup>4</sup>

Today, European players invest mainly in R&D, but not enough in translating its results into industrial benefits. Such R&D is a key enabler of miniaturisation in semiconductor technologies required for the production of the next generation computationally powerful chips. Europe is home to world-leading research and technology organisations (RTOs). However, many results of European R&D are industrially deployed outside the Union.

The Union is strong in the design of semiconductor components for power electronics, radio frequency and analogue devices, sensors and microcontrollers that have a widespread use in the automotive and manufacturing industries today. It is less strong in the design of digital logic (processors and memory), which become essential as data, AI and connectivity become increasingly pervasive.

The Union is also very well positioned in terms of the materials and equipment needed to run large chip manufacturing plants, with many companies playing essential roles along the supply chain. It has strong and diversified industrial user sectors, e.g. automotive, industrial

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<sup>1</sup> In semiconductor manufacturing, the process technology has traditionally been correlated with the transistor dimension. The process “node” is measured in nanometres (nm); 1 nanometre = 1 billionth of a meter. Smaller process nodes produce smaller transistors, which are faster and more power-efficient. The state of the art process node is 5 nm today, with 3 nm in pre-production, and 2 nm under development.

<sup>2</sup> <https://news.samsung.com/global/samsung-electronics-announces-new-advanced-semiconductor-fab-site-in-taylor-texas>, 24.11.2021.

<sup>3</sup> <https://semianalysis.substack.com/p/tsmc-3nm-wafer-shipments-pushed-into>, 14.10.2021

<sup>4</sup> <https://min.news/en/tech/def29226dea2b06f47efea4aae13e8f3.html>, 22.01.2022

automation, healthcare, energy, communication, etc. However, collaboration along the value chain is weak.

The Union's overall global semiconductors market share is 10% in value<sup>5</sup>, well below its economic weight. Despite its strong global position in materials and equipment manufacturing, the Union is heavily dependent on third-country suppliers for the design, manufacturing, packaging, testing and assembly of chips.

Today, semiconductors are at the centre of strong geostrategic interests and at the core of the global technological race. Countries are keen to secure their supply in the most advanced chips as it will condition their capacity to act (economically, industrially and militarily) and drive digital transformation. All major world regions are heavily investing and rolling out support measures to innovate and strengthen their production capabilities.

The Union has the assets to become an industrial leader in the chips market of the future. Its ambition is to double its world production share today to 20% in value by 2030<sup>6</sup>. The goal is not only to reduce dependencies, but also to seize the economic opportunities as the global market for semiconductors is expected to double before the end of the decade, increasing competitiveness of the semiconductor ecosystem, and of industry at large, through innovative products for European citizens.

New market trends and opportunities are emerging. Semiconductor companies increasingly co-design customised chips with end-user companies to improve system performance through hardware-software optimisation. AI, edge cloud and the digital transformation of industrial sectors offer new opportunities for future competitiveness of European technology and industry leadership.

At the same time, technology is constantly evolving. Further miniaturisation continues, towards smaller node dimensions in the mainstream process technologies (FinFET and FDSOI) along the lines of Moore's law<sup>7</sup>, while more energy-efficient solutions are in high demand to ensure that the ever-growing processing footprint remains sustainable. Emerging computing paradigms, such as neuromorphic computing and quantum technologies are promising technologies for new application areas. New materials such as Silicon Carbide (SiC) and Gallium Nitride (GaN) are essential for power management, e.g. the optimal use of battery power, in particular for electric vehicles of all kinds and renewable energy generation.

This explanatory memorandum accompanies the proposal for a **Regulation of the European Parliament and Council establishing a framework of measures for strengthening the semiconductor ecosystem in the Union (Chips Act)**.

This proposal delivers on the political commitment by President von der Leyen, who announced in her 2021 State of the Union speech that the aim is to jointly create a state-of-the-art European chip ecosystem, including production<sup>8</sup>. The proposal's underlying strategic

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<sup>5</sup> Strengthening the Global Semiconductor Supply Chain in an uncertain era, BCGxSIA, April 2021. <https://www.bcg.com/publications/2021/strengthening-the-global-semiconductor-supply-chain>

<sup>6</sup> The Digital Compass fixed as an objective that by 2030 “the production of cutting-edge and sustainable semiconductors in Europe including processors is at least 20% of world production in value” (COM(2021) 118, 9.3.2021). The Proposal for the 2030 Policy Programme “Path to the Digital Decade” has reaffirmed this ambition (see footnote 15).

<sup>7</sup> Moore's law is the observation that the number of transistors in an integrated circuit doubles about every two years.

<sup>8</sup> State of the Union address 2021. [https://ec.europa.eu/info/sites/default/files/soteu\\_2021\\_address\\_en\\_0.pdf](https://ec.europa.eu/info/sites/default/files/soteu_2021_address_en_0.pdf)

vision for strengthening Europe's semiconductor ecosystem is explained in the accompanying Communication.<sup>9</sup>

To fulfil this vision, the European Chips Strategy is articulated around five strategic objectives:

- Europe should strengthen its research and technology leadership;
- Europe should build and reinforce its own capacity to innovate in the design, manufacturing and packaging of advanced chips, and turn them into commercial products;
- Europe should put in place an adequate framework to increase substantially its production capacity by 2030;
- Europe should address the acute skills shortage, attract new talent and support the emergence of a skilled workforce;
- Europe should develop an in-depth understanding of global semiconductor supply chains.

The proposal aims at reaching the strategic objective of increasing the resilience of Europe's semiconductor ecosystem and increasing its global market share. It also aims at facilitating early adoption of new chips by European industry and increasing its competitiveness. For this, it needs to attract investment in innovative production facilities, have a skilled workforce, but also be in the position to design and produce the most advanced chips that will define the markets of tomorrow, develop capabilities and have the possibility to test and prototype innovative designs through pilot lines in close collaboration with its industrial vertical sectors. These are necessary steps, but not sufficient unless the Union has the analytical capability of increasing the knowledge of the policy makers of the value chain and is capable to benefit from increased capacity to serve the common interest of the single market in case of crisis. The objective is not to become self-sufficient, which is not an achievable target. We must strengthen our strengths, develop new strengths and work with third countries in a supply chain where interdependencies will remain strong.

In terms of delivering on these objectives, the proposal will aim to:

- **Set up the Chips for Europe Initiative**, to support large-scale technological capacity building and innovation throughout the Union to enable the development and deployment of cutting-edge and next generation semiconductor and quantum technologies that will reinforce the Union's advanced design, systems integration, chips production capabilities and skills, including emphasis on start-ups and scale-ups (pillar 1, "Chips for Europe Initiative").

In particular, the Initiative will build an innovative virtual design platform to reinforce Europe's design capacity, which will be accessible on open, non-discriminatory and transparent terms. The platform will stimulate a wide cooperation of user communities with design houses, start-ups and SMEs, intellectual property (IP) and tool suppliers, designers and RTOs, and will integrate existing and new design facilities with extended libraries and EDA<sup>10</sup> tools.

The Initiative will support pilot lines that provide the means for third parties under open, transparent, and non-discriminatory terms to test, validate and further develop their product designs. The development of new advanced pilot lines will prepare for the next generation of production capabilities and their validation.

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<sup>9</sup> COM(2022) 45, 08.02.2022. A Chips Act for Europe.

<sup>10</sup> Electronic Design Automation tools, i.e. software tools for designing integrated circuits.

Furthermore, the Initiative will contribute to building advanced technology and engineering capacities for accelerating the innovative development of quantum chips, e.g. in the form of design libraries for quantum chips, pilot lines, and testing and experimentation facilities.

The Initiative will support a network of competence centres across the Union that will provide expertise to stakeholders, including end-user small and medium-sized enterprises (SMEs), start-ups as well as vertical sectors, and improve their skills. Competence centres will facilitate open, transparent, and non-discriminatory access to and effective use of the design infrastructure and the pilot lines. They will become poles of attraction for innovation and for new, highly skilled talent.

Additionally to the Initiative, activities to facilitate access to debt financing and equity in the semiconductor value chain, to be described collectively as the ‘Chips Fund’, should support the development of a dynamic and resilient semiconductor ecosystem by providing opportunities for increased availability of funds to support the growth of start-ups, scale-ups and SMEs as well as investments across the value chain, including for companies in the semiconductor value chains potentially with blending provided by the Initiative.

- **Create a framework to ensure security of supply** by attracting investments and enhanced production capacities in semiconductor manufacturing as well as advanced packaging, test, and assembly via first-of-a-kind Integrated Production Facilities and Open EU Foundries (pillar 2, “Security of supply”).

In particular, the proposal defines criteria for facilitating the implementation of specific projects that contribute to the security of supply of semiconductors in the Union. To this end, it distinguishes between two types of first-of-a-kind facilities<sup>11</sup>, namely Integrated Production Facilities and Open EU Foundries<sup>12</sup>. If an application by a facility to be recognised as one of the two types of first-of-a-kind facilities is successful, the proposal requires Member States to ensure efficient processing of administrative applications related to the planning, construction and operation of a recognised first-of-a-kind facility.

In response to increasing need for cyber-resilient supply chains<sup>13</sup> the Commission will work with Member States and private actors to identify sectorial requirements for trusted chips with a view to establishing common standards and certification, as well as common requirements for procurement, to be developed with the support of the European standardisation organisations where appropriate and bearing in mind the principles of the New Legislative Framework for conformity assessment and market surveillance.

- **Set up a coordination mechanism between the Member States and the Commission** for strengthening collaboration with and across Member States, monitoring the supply of semiconductors, estimate demand, anticipate shortages, trigger the activation of a crisis stage and act through a dedicated toolbox of measures (pillar 3, “Monitoring and Crisis Response”).

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<sup>11</sup> ‘First-of-a-kind facility’ means an industrial facility capable of semiconductor manufacturing, including front-end or back-end, or both, that is not substantively already present or committed to be built within the Union, for instance with regard to the technology node, substrate material, such as silicon carbide and gallium nitride, and other product innovation that can offer better performance, process innovation or energy and environmental performance.

<sup>12</sup> Integrated Production Facilities are first-of-a-kind semiconductor design and manufacturing facilities, including front-end or back-end, or both, in the Union that contribute to the security of supply for the internal market. Open EU Foundries are first-of-a-kind semiconductor front-end or back-end, or both, manufacturing facilities in the Union that offer production capacity to unrelated undertakings and thereby contribute to the security of supply for the internal market.

<sup>13</sup> 31 % of cyber-attacks in 2020 targeted the EU. <https://www.ibm.com/security/data-breach/threat-intelligence>

- **Consistency with existing policy provisions in the policy area**

This proposal is coherent with the Commission’s overall digital vision, targets, and avenues for a successful digital transformation of the European Union by 2030 as presented in the Commission Communication “The 2030 Digital Compass: the European way for the Digital Decade” (‘Digital Compass Communication’)<sup>14</sup> and the subsequent Commission’s proposal for the Digital Decade Policy Programme<sup>15</sup>, with the particular target on semiconductors. This proposal is intended to help equip the Union with the capabilities that will be needed to deliver on its 2030 target.

This proposal is consistent with the Commission’s Communication updating the 2020 new industrial strategy<sup>16</sup> in May 2021 that identifies areas of strategic dependencies that could lead to vulnerabilities such as supply shortages. The proposal addresses the design, manufacturing, packaging, testing and assembly challenges identified in the Communication and accompanying staff working document. The Communication announces the Industrial Alliance on Processors and Semiconductor technologies (Alliance)<sup>17</sup> to identify gaps in the production of microchips and the technology developments needed for companies and organisations to thrive, help the competitiveness of companies, increase Europe’s digital sovereignty, and address the demand for the next generation of secure, energy-efficient, powerful chips and processors. In the context of this Regulation, the Alliance will play an advisory role.

This proposal is consistent also with the Commission’s standardisation strategy<sup>18</sup> and the 2022 Annual Union Work Programme for European standardisation<sup>19</sup> that were adopted on 2 February 2022. They envisage the development of standards for the certification of chips in terms of security, authenticity and reliability.

This proposal also takes account of the objectives of the Observatory for Critical Technologies<sup>20</sup>, which aims to help identify the Union’s current and possible future digital strategic dependencies and contribute to strengthening its digital sovereignty.

This proposal addresses the sector-specific and unique challenges of the semiconductors supply chain and is a separate initiative from the planned “Single Market Emergency Instrument” that the Commission announced in its updated industrial strategy.

This proposal contributes to the implementation of the Declaration on A European Initiative on Processors and semiconductor technologies, signed by 22 Member States on 7 December 2020.<sup>21</sup> In the declaration, the 22 Member States agreed to “undertake particular efforts to

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<sup>14</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 2030 Digital Compass: the European way for the Digital Decade, COM(2021) 118, 9.3.2021.

<sup>15</sup> COM(2021) 574 final. Proposal for a Decision of the European Parliament and of the Council establishing the 2030 Policy Programme “Path to the Digital Decade”. 15.9.2021.

<sup>16</sup> Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, “Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe’s recovery” COM(2021) 350 final.

<sup>17</sup> The Commission launched the Alliance on Processors and Semiconductor technologies in July 2021. <https://digital-strategy.ec.europa.eu/en/policies/alliance-processors-and-semiconductor-technologies>.

<sup>18</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “An EU Strategy on Standardisation - Setting global standards in support of a resilient, green and digital EU single market”, COM(2022) 31.

<sup>19</sup> C(2022) 546 Commission Notice - The 2022 annual Union work programme for European standardisation.

<sup>20</sup> COM(2021) 70, Action Plan on synergies between civil, defence and space industries.

<sup>21</sup> Joint declaration on processors and semiconductor technologies. 7 December 2020.

reinforce the semiconductor ecosystem and to expand industrial presence across the supply chain.” Member States also agreed to “work towards common standards and, where appropriate, certification for trusted electronics, as well as common requirements for procurement of secure chips and embedded systems in applications that rely on or make extensive use of chip technology.” This proposal is consistent with these objectives.

Furthermore, the proposal is in line with the recent Communication “A competition policy fit for new challenges”, where the Commission acknowledges that it may “envisage approving public support to fill possible funding gaps in the semiconductor ecosystem for the establishment in particular of European first-of-a-kind facilities in the Union, based on Article 107(3) TFEU. Such aid would have to be subject to strong safeguards to ensure aid is necessary, appropriate and proportionate, undue competition distortions are minimised, and that benefits are shared widely and without discrimination across the European economy.”<sup>22</sup>

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.

The actions under the Chips for Europe Initiative will be primarily implemented through the Chips Joint Undertaking, i.e. the amended and renamed current Key Digital Technologies Joint Undertaking<sup>23</sup>. This Joint Undertaking currently provides extensive support for industrially driven research, technology development, and innovation in the area of electronic components and systems, and related software and systems technologies. These activities will become part of the Chips for Europe Initiative.

The Chips for Europe Initiative builds on and complements the five specific objectives of the Digital Europe programme (DEP)<sup>24</sup>, which support digital capacity building in key digital domains where semiconductor technology underpins performance gains, including High Performance Computing, Artificial Intelligence, and Cybersecurity, together with skills development and the deployment of digital innovation hubs. The Chips for Europe Initiative through new Specific Objective 6, which should have a thematic focus on semiconductor technologies, will invest in capacity building to reinforce advanced research, design, production and systems integration capabilities in cutting-edge and next generation semiconductor technologies.

The Chips for Europe Initiative also builds on and complements Horizon Europe programme (HE)<sup>25</sup>, which in the area of semiconductors provides support for academically driven research, technology development and innovation. The Initiative will focus on supporting investment into cross-border and openly accessible research, development and innovation infrastructures set up in the Union to enable the development of semiconductor technologies across Europe. New semiconductor technologies from research and innovation actions supported by Horizon Europe may be progressively taken up and deployed by the capacity

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<sup>22</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A competition policy fit for new challenges, COM(2021) 713, 18 November 2021.

<sup>23</sup> Regulation (EU) 2021/2085 of the Council of 19 November 2021 establishing the Joint Undertakings under Horizon Europe and repealing Regulations (EC) No 219/2007, (EU) No 557/2014, (EU) No 558/2014, (EU) No 559/2014, (EU) No 560/2014, (EU) No 561/2014 and (EU) No 642/2014, OJ L 427, 30.11.2021, p. 17.

<sup>24</sup> Regulation (EU) 2021/694 of the European Parliament and of the Council of 29 April 2021 establishing the Digital Europe Programme and repealing Decision (EU) 2015/2240, OJ L 166, 11.5.2021, p. 1.

<sup>25</sup> Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013, OJ L 170, 12.5.2021, p. 1.

building parts of the Chips for Europe Initiative. Conversely, the technology capacities of the Initiative will be made available to the research and innovation community, including for actions supported through Horizon Europe.

This proposal is provided in light of the opportunities offered by the InvestEU<sup>26</sup> programme and the significant contribution to digital transformation provided by the Recovery and Resilience Facility<sup>27</sup>, for which at least 20% of funds must contribute to digital objectives. This proposal is also consistent with the Security Union Strategy<sup>28</sup>.

In order to accelerate the implementation of the actions, the Chips for Europe Initiative provides for a new legal instrument – the European Chips Infrastructure Consortium (ECIC) – that is specifically developed to simplify and structure the legal relationships between the private-public consortium members, including particularly RTOs, and provide a structural dialogue with the Commission for the implementation of the actions under the Initiative. This new legal instrument is voluntary and will complement the Union’s toolbox of various other legal instruments, including European Digital Infrastructure Consortium<sup>15</sup>, that allow to combine funding from Member States, the Union budget, and private investments. Legal entities, when forming a public-private consortium for the purpose of the implementing actions under the Initiative, will have a choice among the available Union’s legal instruments that better fits the specific purpose, composition and set-up of a particular consortium. The Chips Joint Undertaking entrusted with the overall implementation of the certain actions under this Initiative, may under the conditions provided in the Article 134 of the Commission’s Proposal for a Council Regulation amending Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe, as regards the Chips Joint Undertaking<sup>29</sup> provide that certain actions may be carried out only by legal entities cooperating within a consortium that may be structured in a form of European Chips Infrastructure Consortium, or any other available Union legal instruments available for forming a consortium.

- **Consistency with other Union policies**

The proposed measures can support some of the main policies of the Union, such as the Green Deal<sup>30</sup>. The application of semiconductor technologies, and digital technologies in general, are powerful enablers for the sustainability transition and can lead to new products and more efficient and effective ways of working that contribute to the Green Deal objectives.

Semiconductor supply disruptions and dependencies on other regions can slow down the sustainability transition of European sectors benefiting from digital solutions. To address the disruptions and dependencies, the proposal strengthens Europe’s semiconductor production capacity. Where applicable, facilities should be fully compliant with requirements stemming from Union legislation such as related to environmental impact assessment, emissions to air, water and soil, including the risk and prevention of industrial accidents, and seek to ensure high energy and resource and water efficiency. Strengthening the production capacity requires quick set-up of semiconductor manufacturing facilities, which may exceptionally be

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<sup>26</sup> Regulation (EU) 2021/523 of the European Parliament and of the Council of 24 March 2021 establishing the InvestEU Programme and amending Regulation (EU) 2015/1017, OJ L 107, 26.3.2021, p. 30.

<sup>27</sup> Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, OJ L 57, 18.2.2021, p. 17.

<sup>28</sup> Communication on the EU Security Union Strategy. COM(2020) 605 final.

<sup>29</sup> COM(2022) 47, 08.02.2022.

<sup>30</sup> Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. The European Green Deal. COM(2019) 640, 11.12.2019.



considered as being of overriding public interest where necessary for derogations in permit granting procedures, including in certain environmental assessments, provided that the remaining other conditions set out in the relevant provisions are fulfilled. At the same time, the first-of-a-kind concept includes possible qualification also based on the facility's envisaged energy or environmental performance.

Digital technologies, both when manufactured and used have their own environmental footprint, including from the release of fluorinated greenhouse gases during manufacturing to their significant energy consumption for their production and during their use. The information and communications technology (ICT) sector is responsible for 5-9% of the world's total electricity use and more than 2% of all emissions<sup>31</sup>. Data centres alone accounted for 2.7% of electricity demand in 2018 in the Union and will reach 3.21% by 2030, if development continues on the current trajectory<sup>32</sup>. Such energy consumption needs to be reduced. The proposal, and in particular the setting up design facilities and pilot lines under pillar 1, will lead to the design, testing and validation of new, low power processors. Processors are the core components of servers that handle the computational workload in data centres. Larger data centres contain millions of such servers and improvements in the power consumption of processors can have a significant bearing on the overall power consumption of a data centre. Such chips with a low-energy footprint contribute also to positioning the Union as a leader in sustainable digital technologies.

The proposal contributes to the objectives of parts of the Fit for 55 package that focus on promoting cleaner vehicles and fuels in a technologically neutral way<sup>33</sup>. The revision of the CO<sub>2</sub> emission standards for new cars and vans aims at further reducing the greenhouse gas emissions of these vehicles, providing a clear and realistic pathway towards zero-emission mobility. Consumer demand for zero emission vehicles, such as electrically chargeable vehicles, is increasing already<sup>34</sup>. Electrically chargeable vehicles typically have more than twice the amount of semiconductor content per vehicle than cars with internal-combustion engines<sup>35</sup>. Advanced packaging technologies are increasingly important to address increasing power and energy-efficiency requirements by electrical vehicles. It follows that this is consistent with the objectives of the Fit for 55 package.

The proposal is in line with the Circular Economy Action Plan<sup>36</sup>, which identifies electronics and ICT as a key value chain and announces a Circular Electronics Initiative to encompass “regulatory measures for electronics and ICT including mobile phones, tablets and laptops under the Ecodesign Directive so that devices are designed for energy efficiency and durability, reparability, upgradability, maintenance, reuse and recycling”.

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<sup>31</sup> Proposal for a Directive of the European Parliament and of the Council on energy efficiency (recast). COM(2021) 558, 14.7.2021.

<sup>32</sup> <https://digital-strategy.ec.europa.eu/en/library/energy-efficient-cloud-computing-technologies-and-policies-eco-friendly-cloud-market>

<sup>33</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality. COM(2021) 550, 14.7.2021.

<sup>34</sup> For instance, the share of electric cars in new sales in Europe is increasing and is expected to make up 14% in 2021. <https://think.ing.com/articles/slow-start-for-electric-vehicles-in-the-us-but-times-are-changing>

<sup>35</sup> <https://www.idtechex.com/en/research-article/ev-power-electronics-driving-semiconductor-demand-in-a-chip-shortage/24820>

<sup>36</sup> COM(2020) 98 final, 11.03.2020.

Keeping electronic products in use for longer, through design for durability and upgrading services, will reduce replacement rates and the need for new products. Microchip materials can be recovered from electronic waste; it is, for instance, technically possible to recycle compound semiconductor materials, although currently only in very small quantities. The Sustainable Product Initiative, based on expansion of the scope of the Ecodesign Directive, will provide a potential vehicle for such requirements. The Commission is also investigating various possibilities for take-back and sell-back schemes for consumer electronics, to boost the supply of functional used devices.

With digitalisation and electrification increasing, energy-efficient chips contribute to other policies as well, including policies on industrial manufacturing, transport and energy, e.g. the upcoming Digitalisation of Energy Action Plan<sup>37</sup>. The demand for semiconductor technologies is expected to double in a decade. More and more chips are embedded in robots and manufacturing machines, in industry and in agriculture, but also in transport vehicles and other devices. Because the proposal aims at smart use of chips and other digital technologies, and production of more energy-efficient chips, it is consistent with and contributes to several sectoral policies.

## **2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY**

### **• Legal basis**

This Regulation pursues two separate specific objectives, which form essential parts of its general objective to establish a coherent framework for strengthening the Union's semiconductor ecosystem. The first specific objective of the Regulation, underlying pillar 1, is creating large innovation capacities and the adequate technological capabilities in the semiconductor industry to accelerate and adjust to innovation. In addition, underlying pillars 2 and 3, the Regulation aims to increase the Union's resilience and security of supply in the field of semiconductor technologies by supporting and coordinating investment in advanced semiconductor manufacturing (pillar 2) and enabling coordinated monitoring and crisis response (pillar 3).

The appropriate legal basis for the first objective are Articles 173(3), 182(1) and 183 of the Treaty on the Functioning of the European Union (TFEU). Article 173(3) provides that the European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the European Economic and Social Committee, may decide on specific measures in support of actions taken in the Member States to secure the conditions necessary for the competitiveness and innovation capacity of the Union and ensure the adjustment of the industry to structural changes due to fast innovation cycles. This legal basis, with regard to most activities undertaken under the Initiative, is appropriate given that pillar 1 of this Regulation aims to accelerate the semiconductor production of the Union's industry, reinforce sovereignty in the semiconductor supply chain, boost industrial capacities, facilitate the development of innovative start-ups and SMEs, and encourage new investments in innovation and technological development. In view of the broad nature of the Initiative, it is also based on the TFEU Title 'Research and technological development and space' (Articles 182(1) and 183).

The appropriate legal basis for the second objective, underlying pillars 2 and 3, is Article 114 TFEU. Pillars 2 and 3 of this proposal aim to create a harmonised legal framework for

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<sup>37</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13141-Digitalising-the-energy-sector-EU-action-plan\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13141-Digitalising-the-energy-sector-EU-action-plan_en)

increasing the Union's resilience and security of supply. The use of semiconductors is critical for multiple economic sectors and societal functions in the Union and therefore, a resilient supply is essential for the functioning of the internal market. Thus, any supply disruption must be anticipated and addressed without delay in order to preserve the stable functioning of strategic downstream sectors. In light of the significant economic impact of the current semiconductor shortage, it is likely that Member States initiate regulatory measures to address the structural vulnerabilities of the sector that have led to the current shortage or to respond to and mitigate future shortages in crisis situations<sup>38</sup>. While adequate with a view to addressing deficiencies at a national level, such regulatory measures could entail an incoherent response to the need to strengthen resilience and to address possible crises in the internal market, thereby leading to fragmentation of the sector. With a view to enabling coordinated measures for building resilience, harmonised rules for facilitating the implementation of specific projects that contribute to the security of supply of semiconductors in the Union (pillar 2) are necessary. The proposed monitoring and crisis response mechanism (pillar 3) should be uniform to enable a coordinated approach to crisis preparedness for the cross-border semiconductor value chain. The proposal provides for the appropriate governance structure and cooperation between Member States at Union level, hence supporting trust, innovation and growth in the internal market. Article 114 TFEU is therefore a pertinent legal basis for pillars 2 and 3 in order to ensure the proper functioning of the internal market.

Other articles of the TFEU or each article on its own cannot justify both of the above objectives. Article 122 TFEU is not pertinent, as it does not provide for a basis for both objectives and is not compatible with either of Articles 114 and 173 TFEU. The proposed elements are provided in one act, as all the measures constitute a coherent approach to address, in different ways, the need for strengthening of the Union's semiconductor ecosystem.

- **Subsidiarity (for non-exclusive competence)**

The objectives of the proposal cannot be achieved by Member States acting alone, as the problems are of a cross-border nature, and not limited to single Member States or to a subset of Member States. The proposed actions focus on areas where there is a demonstrable value added in acting at Union level due to the scale, speed and scope of the efforts needed.

Providing a comprehensive response to the semiconductor crisis requires a rapid and coordinated joint action from a variety of stakeholders, and in cooperation with Member States. No single Member State is capable of achieving this alone. Moreover, given the complexity of the semiconductor ecosystem, the consequence of the Union's structural dependencies and supply shortages are so far-reaching that intervention at the level of the Union is best placed to address such issues.

Action at Union level can clearly best drive European actors towards a common vision and implementation strategy. This is key to generate economies of scale and of scope and generate critical mass necessary for cutting-edge capacities, limiting, if not avoiding, fragmentation of efforts, subsidy races, and suboptimal national solutions.

Union action is needed in relation to the areas that this proposal addresses through its three pillars.

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<sup>38</sup> For instance, it has been announced that Spain intends to reform its National Security Law (Ley de Seguridad Nacional) in this sense.

- With regard to the first pillar (“Chips for Europe Initiative”), the Initiative will support large scale technological capacity building and innovation through the Union to enable the development and deployment of cutting-edge and next generation semiconductor and quantum technologies and to address Europe’s chronic structural weaknesses in design and production. Member States set up a first ‘Important Project of Common European Interest’ (IPCEI) in 2018, supporting cross-border innovative projects across the microelectronics value chain, with a second IPCEI in this field being planned.<sup>39</sup> While such initiatives are of strategic importance for the sector, at this stage it is likely that they alone would not sufficiently address the capacity building in the form of pilot lines and design infrastructures that need to be made widely available to all interested third parties across Europe and which will also enable the Union to play a stronger role in a global and interdependent ecosystem. Such large-scale facilities can only be delivered at Union level due to the scale of investments and know-how necessary.
- Regarding the second pillar (“Security of supply”), actions aimed at accelerating investment in semiconductor manufacturing can only be adequately designed and implemented at Union level, given the scale of the investments needed and because such manufacturing facilities will, by definition, serve the full internal market, strengthen the whole ecosystem, and guarantee security of supply in crises.
- In relation to the third pillar (“Monitoring and Crisis Response”), enhanced Union cooperation will ensure the necessary and comparable intelligence gathering. Together, Member States and Commission will be able to anticipate shortages, activate the crisis stage in a situation of severe shortage and put in place the necessary measures to address such a crisis in more effective ways than through a patchwork of national measures.

- **Proportionality**

The proposal is designed to strengthen Europe’s semiconductor ecosystem via short-term preparedness and monitoring to increase transparency of semiconductor supply chains, mid-term security of supply actions to enhance semiconductor production capacity in Europe, and longer-term technology and innovation leadership actions to set up design and production facilities for advanced and emerging semiconductor technologies.

In this context, the proposal focuses on those parts of the semiconductor ecosystem that contribute most to the resilience of the Union’s supply chain. The focus on the semiconductor ecosystem itself, rather than the larger electronics components and systems domain, or application areas using semiconductors and/or electronics components and systems, is intended to limit actions to one of today’s most crucial pain points for the European economy and society at large.

The Chips for Europe Initiative in pillar 1 puts in place the mechanisms necessary for ensuring longer-term competitiveness and innovation capacity of European industry via research and design capabilities, pilot lines for testing and experimentation, capacities for quantum chips, competence centres, and a fund for start-ups, scale-ups and SMEs.

The security of supply actions to enhance the Union’s semiconductor production capacity in pillar 2 may recognise a certain facility as an Integrated Production Facility or as an Open EU Foundry. With such recognition, Member States are required to ensure permits for such facilities and foundries are granted through fast procedures.

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<sup>39</sup> Four Member States (France, Germany, Italy, and Austria) and the United Kingdom participated in the first IPCEI. It features 32 companies, with EUR 1.9 billion public support and a contribution by industry of roughly EUR 6 billion.

The preparedness actions in pillar 3 are based on monitoring and information exchange by Member States and the Union to anticipate disruptions in the supply chain. In case of (anticipated) disruptions, coordinated measures may be taken to mitigate or prevent semiconductor shortages and other disruptions.

- **Choice of the instrument**

The proposal takes the form of a Regulation of the European Parliament and of the Council. This is the most suitable legal instrument for pillar 1 of the proposal setting up the Chips for Europe Initiative, as only a Regulation, with its directly applicable legal provisions, can provide the necessary degree of uniformity needed for the establishment and operation of a Union Initiative aiming at supporting an industrial sector across the internal market. The choice of a Regulation as a legal instrument for pillar 2 is justified by the need for a uniform application of the new rules, in particular the definition of Integrated Production Facilities and Open EU Foundries, as well as a uniform procedure for their recognition and support. Additionally, a Regulation is the most suitable instrument for pillar 3, as this part should provide for a mechanism to anticipate and address serious disruptions of the supply of semiconductors in the Union. The mechanism does not require the transposition through national measures and is directly applicable.

### **3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS**

- **Stakeholder consultations**

In her speech at the World Economic Forum in January 2022, President von der Leyen mentioned that “we will propose our European Chips Act in early February” and that “we have no time to lose”<sup>40</sup>. Leading economies are keen to secure their supply in the most advanced chips as this increasingly conditions their capacity to act (economically, industrially, militarily) and drives digital transformation. They are already heavily investing and rolling out support measures to innovate and strengthen their production capacities, or expect to do so soon<sup>41</sup>. There are indications that Union companies and RTOs may be attracted to move to other regions. International players are less likely to expand existing facilities or set up new production facilities in the Union without full clarity on investment conditions, possibilities for public support, public investments in skills, infrastructure, and advanced R&D, etc.

Given the urgent need to act, no impact assessment was carried out and no online public consultation was foreseen. The analysis and all supporting evidence will be set out in a staff working document published at the latest within three months of the proposal’s publication.

Nevertheless, ad-hoc workshops with industry stakeholders on specific topics related to pillar 1 indicated the need to consider facilities for upcoming technologies, such as photonics, neuromorphic computing, and quantum technologies, as well as new materials<sup>42</sup>. In addition,

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<sup>40</sup> ‘State of the World’ Special Address by President von der Leyen at the World Economic Forum. [https://ec.europa.eu/commission/presscorner/detail/en/speech\\_22\\_443](https://ec.europa.eu/commission/presscorner/detail/en/speech_22_443)

<sup>41</sup> For instance: USA: <https://www.congress.gov/bill/117th-congress/senate-bill/1260?s=1&r=52>

China: <https://crsreports.congress.gov/product/pdf/R/R46767>

Japan: <https://www.reuters.com/technology/japan-create-scheme-subsidise-domestic-chip-output-nikkei-2021-11-07/>

South Korea: <https://spectrum.ieee.org/south-koreas-450billion-investment-latest-in-chip-making-push>

<sup>42</sup> <https://ecscollaborationtool.eu/ecs-sria-workshops.html>

these workshops emphasised the need for due consideration of alternative instruction set architectures, such as RISC-V.

Furthermore, in the context of the ECSEL Joint Undertaking – the predecessor of the Key Digital Technologies Joint Undertaking – meetings with industry representatives and public authorities took place in summer 2021, where the Digital Compass objectives, the update of the industrial strategy, the Industrial alliance, and the European Chips Act were discussed.

Regular meetings with Member States took place monthly in 2021 to prepare the planned second IPCEI on Microelectronics. The Member States provided inputs for the definition and assessment of Integrated Production Facilities and Open EU Foundries in pillar 2, as well as for the definition of specific facilities under pillar 1.

A meeting with CEOs representing key stakeholders in the European semiconductor sector took place on 10 January 2022. Key takeaways from that meeting were: the need to build on European strengths, e.g. R&D and equipment manufacturing; clear support for pilot lines and design infrastructures; support for start-ups and scale-ups; the need to increase Europe's manufacturing capacity for both mature and advanced technologies; and the need for a worldwide level playing field<sup>43</sup>.

There were also numerous meetings with representatives of CEOs on the need to strengthen the European semiconductors sector, following Commissioner Breton's meetings with the CEOs of the main semiconductor players and RTOs. These provided inputs particularly to pillar 1.

The European Forum for Electronic Components and Systems (EFECS), in November 2021, with over 500 participants, provided a large platform for discussion on industrial needs. Further input was provided in meetings with industry associations and their members, such as SEMI, ESIA, and Digital Europe.

Moreover, long-standing and regular contacts with industry stakeholders, Member States, trade associations and user associations enabled the collection of a fair amount of information and feedback relevant to the proposal.

Many reports have been published since end-2019 on the semiconductor sector describing trends and providing facts and figures, and served to inform the proposal<sup>44</sup>.

- **Impact assessment**

This proposal is not accompanied by a formal impact assessment. Considering the urgency as explained above, an impact assessment could not have been delivered in the timeframe available prior to the adoption of the proposal. The analysis and all supporting evidence will

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<sup>43</sup> <https://digital-strategy.ec.europa.eu/en/news/ceo-roundtable-semiconductors-10-january-2022>

<sup>44</sup> A non-exhaustive list: Measuring distortions in international markets: The semiconductor value chain OECD 2019; The Geopolitics of Semiconductors, prepared by EURASIA group, Sept 2020; The global semiconductor value chain, Stiftung Neue Verantwortung, Oct 2020; The Weak Links in China's Drive for Semiconductors, Montaigne institute, Jan 2021; Strengthening the Semiconductor supply chain in an uncertain Era, BCGxSIA, April 2021; SIA Factbook, May 2021; Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth, A Report by the White House, June 2021; Mapping China's semiconductor ecosystem in global context, Stiftung Neue Verantwortung, June 2021; Semiconductors Global Policy Review Access Partnership, Sept 2021; Semiconductors: U.S. Industry, Global Competition, and Federal Policy, Congressional Report Service October 2021; Semiconductor Strategy for Germany and Europe, ZVEI, Oct 2021; A semiconductor strategy for the European Union, Bundesagentur für Sprunginnovationen (SPRIN-D), 2021; Understanding the global chip shortage Stiftung Neue Verantwortung, Nov 2021.

be set out in a staff working document published at the latest within three months of the proposal's publication.

- **Fundamental rights**

Article 16 of the Charter of Fundamental Rights of the European Union ('the Charter') provides for the freedom to conduct a business. The measures under pillars 1 and 2 of this proposal create innovation capacity and foster the security of supply of semiconductors, which can reinforce the freedom to conduct a business in accordance with Union law and national laws and practices. Nevertheless, some measures under pillar 3 needed to address serious disruptions to of the semiconductor supply in the Union may temporarily limit the freedom to conduct a business and the freedom of contract, protected by Article 16 and the right to property, protected by Article 17 of the Charter. Any limitation of those rights in this proposal will, in accordance with Article 52(1) of the Charter, be provided for by law, respect the essence of those rights and freedoms, and comply with the principle of proportionality.

The obligation to disclose specific information to the Commission, provided that certain conditions are met, respects the essence of and will not disproportionately affect the freedom to conduct a business (Article 16 of the Charter). Any information request serves the objective of general interest of the Union to enable the identification of potential mitigation measures to a semiconductor shortage crisis. These information requests are appropriate and effective to attain the objective by providing information necessary to assess the crisis at hand. The Commission in principle only requests the desired information from representative organisations and may issue requests to individual undertakings only if it is necessary in addition. Since information on the supply situation is not available otherwise, there is not any equally effective measure to attain the information necessary to enable European decision-makers to take mitigation action. In light of the serious economic and societal consequences of semiconductor shortages and the respective importance of mitigation measures, information requests are proportionate to the desired aim. Furthermore, the limitation to the freedom to conduct a business and the right to property are offset by appropriate safeguards. Any request to information may only be launched in a situation of crisis in which the Commission has activated the crisis stage through an implementing act.

The obligation to accept and prioritise priority rated orders respects the essence of and will not disproportionately affect the freedom to conduct a business and the freedom of contract (Article 16 of the Charter) and the right to property (Article 17 of the Charter). This obligation serves the objective of general interest of the Union to ensure critical sectors affected by supply disruptions on account of a semiconductor shortage continue to operate. The obligation is appropriate and effective to attain this objective by ensuring the available resources are preferentially utilised for products supplied to these sectors. There is no equally effective measure. It is proportionate to oblige in a situation of crisis semiconductor manufacturing facilities that have applied to be recognised as "Integrated Production Facilities" and "Open EU Foundries", other semiconductor manufacturing facilities which have accepted such possibility in the context of receiving public support, or undertakings along the semiconductor supply chain which have been subjected to a priority rated order from a third country to the extent this impacts significantly the security of supply to critical sectors, to accept and prioritise certain orders. Appropriate safeguards ensure that any negative impact of the prioritisation obligation on the freedom to conduct a business, the freedom of contract and the right to property does not amount to a violation of these rights. Any obligation to prioritise certain orders may only be launched in a situation of crisis in which the Commission has activated the crisis stage through an implementing act. The undertaking concerned may request the Commission to review the priority rated order if it is unable to perform the order or performing the order would place unreasonable economic



burden on them and entail particular hardship. Furthermore, the subject of the obligation is exempt from any liability for damages for the violation of contractual obligations resulting from compliance with the obligation.

#### 4. BUDGETARY IMPLICATIONS

The proposal establishes the Chips for Europe Initiative, which will not have a separate financial envelope, but will be supported by funding from the HE, and the DEP, to be enlarged by a new Specific Objective 6. The Regulation 2021/2085 establishing the Joint Undertakings under HE is amended and expanded to allow the Key Digital Technologies Undertaking, renamed as a Chips Joint Undertaking (Chips JU) to implement the increased contribution from HE and contributions from DEP under the Specific Objective 6. The financial consequences of the proposal on the Union budget are presented in the financial statement accompanying the proposal and will be met from the available resources of the Multiannual financial framework 2021-2027.

The EU budget will support the Chips for Europe Initiative with a total of up to EUR 3.3 billion, including EUR 1.65 billion via HE and EUR 1.65 billion via DEP. Out of this total amount, EUR 2.875 billion will be implemented through the Chips Joint Undertaking, EUR 125 million through InvestEU (to be complemented with other by 125 million under InvestEU itself) and EUR 300 million through the EIC. This comes in addition to the budget already dedicated to activities in microelectronics under this MFF to reach almost 5 billion.

In particular, an amount of up to EUR 1.65 billion will be implemented under HE in favour of the Chips for Europe Initiative: EUR 900 million under Cluster 4 EUR 150 million from Cluster 3, EUR 300 million from Cluster 5 and EUR 300 million under the European Innovation Council (EIC). In addition, the Commission proposes to reduce the budget of HE by an amount of EUR 400 million to increase the amounts available for DEP. In order to compensate for this reduction of EUR 400 million, the Commission proposes to make available again, for the benefit of the HE programme, a further amount of EUR 400 million (in current prices) of commitment appropriations over the period 2023-2027, resulting from total or partial non-implementation of projects belonging to that programme or its predecessor. This amount will be in addition to the EUR 0.5 billion (in 2018 prices) already mentioned in the Joint Declaration by the European Parliament, the Council and the Commission on the re-use of decommitted funds in relation to the research programme<sup>45</sup>. The Commission therefore invites the European Parliament and Council to supplement this Joint Declaration with a mention of the additional amount to make available again.

Under DEP, a new Specific Objective 6 is proposed for the purposes of the Chips for Europe Initiative. This Specific Objective 6, covers components a to d of Article 5, and it is to be implemented by the Chips JU. A total of up to EUR 1.65 billion will be allocated to this new Specific Objective 6 of the programme: EUR 600 million reallocated from the existing objectives of the DEP, a reduction of EUR 400 million of the Connecting Europe Facility Programme (CEF), including EUR 150 million from CEF-Digital and EUR 250 million from CEF-Transport<sup>46</sup>, the reduction of EUR 400 million of cluster 4 of the HE programme (as

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<sup>45</sup> OJ C 444I, 22.12.2020, p. 3–3.

<sup>46</sup> In line with the conclusion above on consistency of the EU Chips Act with other Union policies, in particular the European Green Deal and the Fit for 55 package, this should not negatively affect the overall CEF Transport objectives and the deployment of sustainable transport infrastructure.



mentioned in the above paragraph, compensated by the reuse of decommitments), and EUR 250 million from the unallocated margin of heading 1 to finance the Initiative under the DEP.

The Commission proposes to handle the reductions of the financial envelopes of CEF and HE within the 15% variation provided by Point 18 of the Interinstitutional Agreement of 16 December 2020 between the European Parliament, the Council of the European Union and the European Commission on budgetary discipline, on cooperation in budgetary matters and on sound financial management, as well as on new own resources, including a roadmap towards the introduction of new own resources<sup>47</sup>. The Commission invites the European Parliament and Council to refer to these variations, which are required for the efficient implementation of the Chips for Europe Initiative, in the Joint Declaration referred to in the previous paragraph.

Further details are provided in the Legislative Financial Statement annexed to this proposal.

## 5. OTHER ELEMENTS

### • Implementation plans and monitoring, evaluation and reporting arrangements

The Commission will evaluate the output, results and impact of this proposal three years after the date on which it becomes applicable and every four years thereafter. The main findings of the evaluation will be presented in a report to the European Parliament and the Council, which will be made public. In order to conduct the evaluation, the European Semiconductor Board, the Member States and national competent authorities will provide information to the Commission on its request.

### Detailed explanation of the specific provisions of the proposal

#### 1.1. Chapter I – General Provisions

**Chapter I** lays out the subject matter of the Regulation. It also sets out the definitions used throughout the instrument. The Regulation establishes a framework, consisting of three “pillars”, for strengthening Europe’s semiconductor ecosystem. In particular, the Regulation establishes the Chips for Europe Initiative that creates the conditions necessary to strengthen the Union’s industrial innovation capacity (pillar 1), includes the definition and criteria of first-of-a-kind Integrated Production Facilities and Open EU Foundries (pillar 2) and a coordination mechanism for monitoring and crisis response (pillar 3).

#### 1.2. Chapter II – Chips for Europe Initiative

**Chapter II** sets up the Chips for Europe Initiative that will reinforce the Union’s competitiveness, resilience and innovation capacity. Through investments into the Chips for Europe Initiative, the Union should increase its effectiveness in turning its research and technology developments into demand-oriented, application-driven, secure and energy-efficient semiconductor technologies of the highest quality. At the same time, the Union should provide an opportunity for its supply industry to leverage on such investments.

To this end, this Chapter includes the general provisions and objectives of the Chips for Europe Initiative. The Initiative aims to support large-scale capacity building throughout the Union in existing and cutting-edge and next generation semiconductor technologies. The Initiative comprises five components: design capacities for integrated semiconductor technologies, pilot lines for preparing innovative production, and testing and experimentation facilities, advanced technology and engineering capacities for accelerating the development of

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<sup>47</sup> OJ L 433I, 22.12.2020, p. 28–46.

quantum chips, a network of Competence Centres and skills development and the ‘Chips Fund’ activities for access to capital by start-ups, scale-ups and SMEs.

The Initiative shall be supported by funding from HE and DEP, and in particular its new Specific Objective 6 thereof, and implemented in accordance with the Regulations establishing those programmes.

The Regulation provides for a procedural framework to facilitate combined funding from Member States, investment without prejudice with State aid rules, the Union budget and private investment. This will take the form of a new instrument with legal personality, the European Chips Infrastructure Consortium (‘ECIC’), which can be used by legal entities to structure their collaborative work within a consortium, on a voluntary basis. In addition, Section 1 sets up a mechanism for establishing a European network of Competence Centres for the purpose of implementing actions on competence centres and skills under the Chips for Europe Initiative.

The Chapter also includes provisions on the implementation. The primary implementation of the Initiative will be entrusted to the Chips Joint Undertaking as proposed in the Commission’s Proposal for a Council Regulation amending Regulation (EU) 2021/2085 . The technical description of the actions is provided in Annex I. Annex II includes measurable indicators to monitor the implementation and to report on the progress of the Initiative towards the achievement of its objectives. The Commission is enabled to adopt delegated acts to amend the list of measurable indicators. The Initiative builds on Europe’s existing strengths in the global semiconductor value chain and enhances synergies with actions currently supported by the Union and Member States. Therefore, in order to maximise its positive impacts, the Initiative should enable synergies with Union programmes described in Annex III.

### 1.3. Chapter III – Security of Supply

**Chapter III** sets out the framework for Integrated Production Facilities and Open EU Foundries. Integrated Production Facilities and Open EU Foundries are manufacturing facilities providing semiconductor manufacturing capabilities that are “first-of-a-kind” in the Union and contribute to the security of supply and to a resilient ecosystem in the internal market. In particular, in order to qualify as Integrated Production Facilities and Open EU Foundries, the facility should have a clear positive impact on the semiconductor value chain in the Union.

While Integrated Production Facilities are vertically integrated production facilities, Open EU Foundries offer a significant degree of their production capacity to other industrial players, such as fabless semiconductor companies (i.e. companies that design but do not manufacture chips). Investment in these facilities facilitates the development of semiconductor manufacturing in the Union. Hence, upon recognition as an Integrated Production Facility or Open EU Foundry by the Commission, these facilities shall be considered to contribute to the security of supply of semiconductors in the Union and therefore in the public interest. In order to reach security of supply, Member States may, without prejudice to State aid rules, apply support schemes and shall provide for administrative support, including fast tracking of administrative application procedures related to their planning, construction and operation. The Commission will recognise a facility as an Integrated Production Facilities or Open EU Foundries if they fulfil the criteria set out in this Chapter. The Commission may repeal its decision if the recognition was based on incorrect information or the facility no longer fulfils the criteria.

#### 1.4. Chapter IV – Monitoring and Crisis Response

**Chapter IV** contains a mechanism for coordinated monitoring of the semiconductor value chain and responding to disruptions of the supply of semiconductors that have an impact on the proper functioning of the internal market.

**Section 1** (Monitoring) sets out a monitoring and alerting system of the semiconductor value chain. The system is based on regular monitoring activities of Member States consisting of, in particular, the observation of early warning indicators and the availability and integrity of the services and goods provided by key market actors. The Commission provides the basis for the monitoring activities through a Union risk assessment in which it identifies the early warning indicators. To ensure industry participation, the Member States will invite relevant stakeholders and industry associations to inform about significant fluctuations in demand and disruptions of their supply chain. Member States should provide regular updates and exchange their findings in the European Semiconductor Board. If Member States become aware of a potential semiconductor crisis or the occurrence of a relevant risk factor in the frame of their monitoring activities or through an update from stakeholders, they shall alert the Commission. Upon this alert, or upon an alert through other sources including information from international partners, the Commission shall convene an extraordinary meeting of the European Semiconductor Board. The meeting will serve to assess the need to activate the crisis stage and discuss potential coordinated procurement ahead of a shortage. Furthermore, the Commission shall enter into consultations or cooperation, on behalf of the Union, with relevant third countries with a view to seeking cooperative solutions to address supply chain disruptions.

**Section 2** (Crisis Stage) provides the rules to activate the semiconductor crisis stage and details the emergency measures that can be used to respond to the crisis.

The Commission is enabled to activate the crisis stage by means of an implementing act when there is concrete, serious, and reliable evidence of a semiconductor crisis. Such a semiconductor crisis occurs when there are serious disruptions in the supply of semiconductors leading to significant shortages, which involve significant negative effects on one or more important sectors of the Union, or prevent the supply, repair and maintenance of essential products used by critical sectors. The implementing act will specify the duration of the crisis stage or its prolongation. Before the expiry of the crisis stage, the Commission shall assess, taking into account the opinion of the European Semiconductor Board, whether the activation of the crisis stage should be prolonged. During the crisis stage, the European Semiconductor Board will hold extraordinary meetings to allow for Member States to work closely with the Commission and coordinate any national measures taken with regard to the semiconductor supply chain.

When the crisis stage is activated, the Commission may take certain emergency measures set out in this Regulation. The Commission may request representative organisations of undertakings, or, if need be, individual undertakings operating along the semiconductor supply chain for information necessary for assessing the semiconductor crisis and identifying potential mitigation measures. These entities are obliged to provide the Commission with the requested information. The requested information can consist of information regarding their production capabilities, production capacities, current primary disruptions or any other existing data necessary to assess the nature of the semiconductor crisis or to identify and assess potential mitigation or emergency measures at national or Union level. Where appropriate, the Commission may oblige IPFs, OEFs, semiconductor manufacturing facilities which have previously accepted this possibility in the context of receiving public support, or undertakings along the semiconductor supply chain which have been subjected to a priority

rated order request from a third country to an extent that significantly impacts the operation of critical sectors, to accept and prioritise the production of crisis-relevant products for critical sectors. Additionally or alternatively, upon the request of two or more Member States, the Commission may, on their behalf, act as a central purchasing body in order to procure crisis-relevant products for critical sectors. The Commission will, in consultation with the European Semiconductor Board, assess the utility, necessity and proportionality of the request. For the definition of critical sectors, this Regulation refers to the sectors enlisted in Annex of the Commission proposal for a Directive of the European Parliament and of the Council on the resilience of critical entities<sup>48</sup>, and additionally the defence sector and other activities that are relevant for public safety and security, and provides that the Commission may limit these emergency measures to certain sectors within this list.

#### 1.5. Chapter V – Governance

**Chapter V** sets up the governance systems at Union and national level. At Union level, the proposal establishes a European Semiconductor Board, composed of representatives from the Member States and chaired by the Commission. The European Semiconductor Board will provide advice on the Initiative to the Public Authorities Board of the Chips Joint Undertaking (pillar 1); provide advice and assistance to the Commission in order to exchange information on the functioning of the IPF and OEF (pillar 2); discuss and prepare the identification of specific critical sectors and technologies, address monitoring and crisis response issues (pillar 3), and to provide support in the consistent application of the proposed Regulation and facilitate cooperation among Member States. The European Semiconductor Board shall support the Commission in international cooperation. It shall also coordinate and exchange information with relevant crisis structures established under Union law. The European Semiconductor Board will meet in different compositions and hold separate meetings for its tasks under pillar 1 and for its tasks under pillars 2 and 3. The Commission may establish standing or temporary sub-groups of the European Semiconductor Board and invite organisations representing the interests of the semiconductor industry and other stakeholders to such sub-groups as observers.

At national level, Member States will designate one or more national competent authorities and, among them, a national single point of contact for the purpose of implementing the Regulation.

#### 1.6. Chapter VI, VII, VIII – Final Provisions

**Chapter VI** emphasizes the obligation of all parties to respect the confidentiality of sensitive business information and trade secrets. The obligation applies to the Commission, the national competent authorities and other authorities of the Member States, as well as all representatives and experts attending meetings of the European Semiconductor Board and the Committee. The Chapter also establishes rules on effective, proportionate, and dissuasive penalties and fines for noncompliance with the obligations under this Regulation, subject to appropriate safeguards. The Commission may impose periodic penalty payments for failure of the relevant undertakings to accept and prioritise certain orders in a semiconductor crisis. Furthermore, the Commission may impose fines on an undertaking that provides incorrect, incomplete or misleading information, or does not supply the information within the prescribed time limit.

**Chapter VII** sets out rules and conditions for the exercise of delegation and implementing powers. The proposal empowers the Commission to adopt, where appropriate, implementing

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<sup>48</sup> COM(2020) 829. 16.12.2020.

acts to allow for procedural specification and ensure uniform application of the Regulation and delegated acts to amend Annex I (the activities set out therein in a manner consistent with the objectives of the Initiative) and Annex II (the measurable indicators and the provisions on the establishment of a monitoring and evaluation framework to supplement this Regulation).

**Chapter VIII** contains amendments to other acts, including the Digital Europe programme, and an obligation for the Commission to prepare regular reports for the evaluation and review of the Regulation to the European Parliament and to the Council.

Proposal for a

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**establishing a framework of measures for strengthening Europe's semiconductor ecosystem (Chips Act)**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular **Articles** 173(3), 182(1), 183 and 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee<sup>49</sup>,

Having regard to the opinion of the Committee of the Regions<sup>50</sup>,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) Semiconductors are at the core of any digital device: from smartphones and cars, through critical applications and infrastructures in health, energy, communications and automation to most other industry sectors. While semiconductors are essential to the functioning of our modern economy and society, the Union has witnessed unprecedented disruptions in their supply. The current supply shortage is a symptom of permanent and serious structural deficiencies in the Union's semiconductor value and supply chain. The disruptions have exposed long-lasting vulnerabilities in this respect, notably a strong third-country dependency in manufacturing and design of chips.
- (2) A framework for increasing the Union's resilience in the field of semiconductor technologies should be established, stimulating investment, strengthening the capabilities of the Union's semiconductor supply chain, and increasing cooperation among the Member States and the Commission.
- (3) This framework pursues two objectives. The first objective is to ensure the conditions necessary for the competitiveness and innovation capacity of the Union and to ensure the adjustment of the industry to structural changes due to fast innovation cycles and the need for sustainability. The second objective, separate and complementary to the first one, is to improve the functioning of the internal market by laying down a uniform Union legal framework for increasing the Union's resilience and security of supply in the field of semiconductor technologies.

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<sup>49</sup> OJ C , , p. .

<sup>50</sup> OJ C , , p. .

- (4) It is necessary to take measures to build capacity and strengthen the Union's semiconductor sector in line with Article 173(3) of the Treaty. These measures do not entail the harmonisation of national laws and regulations. In this regard, the Union should reinforce the competitiveness and resilience of the semiconductor technological and industrial base, whilst strengthening the innovation capacity of its semiconductor sector, reducing dependence on a limited number of third country companies and geographies, and strengthening its capacity to design and produce advanced components. The Chips for Europe Initiative (the 'Initiative') should support these aims by bridging the gap between Europe's advanced research and innovation capabilities and their sustainable industrial exploitation. It should promote capacity building to enable design, production and systems integration in next generation semiconductor technologies, enhance collaboration among key players across the Union, strengthening Europe's semiconductor supply and value chains, serving key industrial sectors and creating new markets.
- (5) The use of semiconductors is critical for multiple economic sectors and societal functions in the Union and therefore, a resilient supply is essential for the functioning of the internal market. Given the wide circulation of semiconductor products across borders, the resilience and security of supply of semiconductors can be best addressed through Union harmonising legislation based on Article 114 of the Treaty. With a view to enabling coordinated measures for building resilience, harmonised rules for facilitating the implementation of specific projects that contribute to the security of supply of semiconductors in the Union are necessary. The proposed monitoring and crisis response mechanism should be uniform to enable a coordinated approach to crisis preparedness for the cross-border semiconductor value chain.
- (6) The achievement of these objectives will be supported by a governance mechanism. At Union level, this Regulation establishes a European Semiconductor Board, composed of representatives of the Member States and chaired by the Commission. The European Semiconductor Board will provide advice to and assist the Commission on specific questions, including the consistent application of this Regulation, facilitating cooperation among Member States and exchanging information on issues relating to this Regulation. The European Semiconductor Board should hold separate meetings for its tasks under the different chapters of this Regulation. The different meetings may include different compositions of the high-level representatives and the Commission may establish subgroups.
- (7) Given the globalised nature of the semiconductor supply chain, international cooperation with third countries is an important element to achieve a resilience of the Union's semiconductor ecosystem. The actions taken under this Regulation should also enable the Union to play a stronger role, as a centre of excellence, in a better functioning global, interdependent semiconductors ecosystem. The Commission, assisted by the European Semiconductor Board, should cooperate and build partnerships with third countries with a view to seeking solutions to address, to the extent possible, disruptions of the semiconductor supply chain.
- (8) The semiconductor sector is characterised by very high development and innovation costs and very high costs for building state of the art testing and experimentation facilities to support the industrial production. This has direct impact on the competitiveness and innovation capacity of the Union industry, as well as on the security and resilience of the supply. In light of the lessons learnt from recent shortages in the Union and worldwide and the rapid evolution of technology challenges and innovation cycles affecting the semiconductor value chain, it is

necessary to strengthen the Union's competitiveness, resilience and innovation capacity by setting up the Initiative.

- (9) Member States are primarily responsible for sustaining a strong Union industrial, competitive, sustainable and innovative base. However, the nature and scale of the innovation challenge in the semiconductor sector requires action to be taken collaboratively at Union level.
- (10) The Horizon Europe Framework programme established by Regulation (EU) 2021/695 of the European Parliament and of the Council<sup>51</sup> (Horizon Europe) – the Framework Programme for Research and Innovation, has the objective to strengthen the European research area (ERA), encouraging it to become more competitive, including in its industry, while promoting all research and innovation (R&I) activities to deliver on the Union's strategic priorities and commitments, which ultimately aim to promote peace, the Union's values and the well-being of its peoples. As a major priority of the Union, the total financial resources allocated to the programme should not be reduced and the reduction of the financial resources of the programme, aimed to reinforce the financial envelope of the Digital Europe programme with the aim of contributing to the Chips initiative, should be compensated by another source. Consequently, without prejudice to the institutional prerogatives of the European Parliament and of the Council, an amount of commitment appropriations equivalent to the reduction should be made available to Horizon Europe over the period 2023-2027, resulting from total or partial non-implementation of projects belonging to that programme or its predecessor, as provided for in Article 15(3) of Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council<sup>52</sup> (the Financial Regulation). This amount will be in addition to the EUR 0.5 billion (in 2018 prices) already mentioned in the Joint Declaration by the European Parliament, the Council and the Commission on the re-use of decommitted funds in relation to the research programme.
- (11) In order to equip the Union with the semiconductor technology research and innovation capacities needed to maintain its research and industrial investments at a leading edge, and bridge the current gap between research and development and manufacturing, the Union and its Member States should better coordinate their efforts and co-invest. To achieve this, the Union and Member States, should take into consideration the twin digital and green transition goals. The Initiative throughout all components and actions, to the extent possible, should mainstream and maximise the benefits of application of semiconductor technologies as powerful enablers for the sustainability transition that can lead to new products and more efficient, effective, clean and durable use of resources, including energy and materials necessary for production and the whole lifecycle use of semiconductors.

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<sup>51</sup> Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013. (OJ L 170, 12.5.2021, p. 1).

<sup>52</sup> Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012 (OJ L 193, 30.7.2018, p. 1).



- (12) In order to achieve its general objective, and address both the supply and demand side challenges of the current semiconductor ecosystem, the Initiative should include five main components. First, to reinforce Europe’s design capacity, the Initiative should support actions to build a virtual platform that is available across the Union. The platform should connect the communities of design houses, SMEs and start-ups, intellectual property and tool suppliers, with research and technology organisations to provide virtual prototype solutions based on co-development of technology. Second, in order to strengthen the security and resilience of supply and reducing the Union’s dependency on third country production, the Initiative should support development and access to pilot lines. The pilot lines should provide for the industry a facility to test, experiment and validate semiconductor technologies and system design concepts at the higher technology readiness levels beyond level 3 but under level 8 while reducing environmental impacts as much as possible. Union investments along Member States investment and with the private sector in pilot lines is necessary to address the existing structural challenge and market failure where such facilities are not available in the Union hindering innovation potential and global competitiveness of the Union. Third, in order to enable investments in alternative technologies, such as quantum technologies, conducive to the development of the semiconductors sector, the Initiative should support actions including on design libraries for quantum chips, pilot lines for building quantum chips and testing and experimentation facilities for quantum components. Fourth, in order to promote the use of the semiconductor technologies, to provide access to design and pilot line facilities, and to address skills gaps across the Union, the Initiative should support establishment of the competence centres on semiconductors in each Member State. Access to publicly funded infrastructure, such as pilot and testing facilities, and to the competence network, should be open to a wide range of users and must be granted on a transparent and non-discriminatory basis and on market terms (or cost plus reasonable margin basis) for large undertakings, while SMEs can benefit from preferential access or reduced prices. Such access, including for international research and commercial partners, can lead to broader cross-fertilisation and gains in know-how and excellence, while contributing to cost recovery. Fifth, The Commission should set-up a dedicated semiconductor investment facility support (as part of the investment facilitation activities described collectively as the ‘Chips Fund’) proposing both equity and debt solutions, including a blending facility under the InvestEU Fund established by Regulation (EU) 2021/523 of the European Parliament and Council<sup>53</sup>, in close cooperation with the European Investment Bank Group and together with other implementing partners such as national promotional banks and institutions. The ‘Chips Fund’ activities should support the development of a dynamic and resilient semiconductor ecosystem by providing opportunities for increased availability of funds to support the growth of start-ups and SMEs as well as investments across the value chain, including for other companies in the semiconductor value chains. In this context, the European Innovation Council will provide further dedicated support through grants and equity investments to high risk, market creating innovators.
- (13) In order to overcome the limitations of the current fragmented public and private investments efforts, facilitate integration, cross-fertilisation, and return on investment on the ongoing programmes and to pursue a common strategic Union vision on

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<sup>53</sup> Regulation (EU) 2021/523 of the European Parliament and of the Council of 24 March 2021 establishing the InvestEU Programme and amending Regulation (EU) 2015/1017 (OJ L 107, 26.3.2021, p. 30).

semiconductors as a means to realising the ambition of the Union and of its Member States to ensure a leading role in the digital economy, the Chips for Europe Initiative should facilitate better coordination and closer synergies between the existing funding programmes at Union and national levels, better coordination and collaboration with industry and key private sector stakeholders and additional joint investments with Member States. The implementation set up of the Initiative is built to pool resources from the Union, Member States and third countries associated with the existing Union Programmes, as well as the private sector. The success of the Initiative can therefore only be built on a collective effort by Member States, with the Union, to support both the significant capital costs and the wide availability of virtual design, testing and piloting resources and diffusion of knowledge, skills and competences. Where appropriate, in view of the specificities of the actions concerned, the objectives of the Initiative, specifically the ‘Chips Fund’ activities, should also be supported through a blending facility under the InvestEU Fund.

- (14) Support from the Initiative should be used to address market failures or sub-optimal investment situations in a proportionate manner, and actions should not duplicate or crowd out private financing or distort competition in the internal market. Actions should have a clear added value for the Union.
- (15) The Initiative should build upon the strong knowledge base and enhance synergies with actions currently supported by the Union and Member States through programmes and actions in research and innovation in semiconductors and in developments of part of the supply chain, in particular Horizon Europe and the Digital Europe programme established by Regulation (EU) 2021/694 of the European Parliament and of the Council<sup>54</sup> with the aim by 2030, to reinforce the Union as global player in semiconductor technology and its applications, with a growing global share in manufacturing. Complementing those activities, the Initiative would closely collaborate with other relevant stakeholders, including with the Industrial Alliance on Processors and Semiconductor Technologies.
- (16) With a view to accelerating implementation of the actions of the Initiative, it is necessary to provide an option of implementing some of the Initiative actions, in particular on pilot lines, through a new legal instrument, the European Chips Infrastructure Consortium (ECIC). The ECIC should have legal personality. This means that when applying for the actions to be funded by the Initiative, the ECIC itself, and not individual entities forming the ECIC, can be the applicant. The main aim of the ECIC should be to encourage effective and structural collaboration between legal entities, including Research and Technology Organizations. For this reason, the ECIC has to involve the participation of at least three legal entities from three Member States and be operated as a public-private sector consortium for a specific action. The setting up of ECIC should not involve the actual setting up of a new Union body and should not be targeted at one specific action under the Initiative. It should address the gap in the Union’s toolbox to combine funding from Member States, the Union budget and private investment for the purposes of implementing actions of the Initiative. In particular, strong synergies can be attained through combined development of the different pilot lines in an ECIC, pooling the Union’s contribution with the collective resources of the Member States and other participants. The budget of the ECIC that would be made available by Member States and private sector participants over its

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<sup>54</sup> Regulation (EU) 2021/694 of the European Parliament and of the Council of 29 April 2021 establishing the Digital Europe Programme and repealing Decision (EU) 2015/2240. (OJ L 166, 11.5.2021, p. 1).

projected period of operation should respect the timeframes of the actions implemented under this Initiative. The Commission should not be directly a party in the Consortium.

- (17) The primary implementation of the Initiative should be entrusted to the Chips Joint Undertaking as established by Council Regulation XX/XX amending Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe, as regards the Chips Joint Undertaking<sup>55</sup>.
- (18) In order to encourage the establishment of the necessary manufacturing and related design capabilities, and thereby ensure the security of supply in the Union, public support may be appropriate. In that respect, it is necessary to set out the criteria for facilitating the implementation of specific projects that contribute to achieving the objectives of this Regulation and distinguish between two types of facilities, namely: Integrated Production Facilities and Open EU Foundries.
- (19) Integrated Production Facilities and Open EU Foundries should provide semiconductor manufacturing capabilities that are “first-of-a-kind” in the Union and contribute to the security of supply and to a resilient ecosystem in the internal market. The qualifying factor for the production of a first-of-a-kind facility could be with regard to the technology node, substrate material, such as silicon carbide and gallium nitride, and other product innovation that can offer better performance, process technology or energy and environmental performance. A facility of a comparable capability on an industrial scale should not yet substantively be present or committed to be built within the Union, excluding facilities for research and development or small-scale production sites.
- (20) Where an Open EU Foundry offers production capacity to undertakings not related to the operator of the facility, the Open EU Foundry should establish, implement and maintain adequate and effective functional separation in order to prevent the exchange of confidential information between internal and external production. This should apply to any information gained in the design and in the front-end or back-end manufacturing processes.
- (21) In order to qualify as Integrated Production Facilities or Open EU Foundries, the establishment and operation of the facility should have a clear positive impact on the semiconductor value chain in the Union, in particular with regard to providing a resilient supply of semiconductors to users on the internal market. The impact on several Member States, including cohesion objectives, should be considered as one of the indicators of a clear positive impact of an Integrated Production Facility and Open EU Foundry on the semiconductor value chain in the Union.
- (22) It is important that Integrated Production Facilities and Open EU Foundries are not subject to extraterritorial application of public service obligations imposed by third countries that could undermine their ability to use their infrastructure, software, services, facilities, assets, resources, intellectual property or knowhow needed to fulfil the obligation on priority rated orders under this Regulation, which they would have to guarantee.
- (23) In light of the fast development of semiconductor technologies and to strengthen the future industrial competitiveness of the Union, Integrated Production Facilities and Open EU Foundries should commit to continued and efficient investment into the next

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generations of semiconductors, including by testing and experimenting new developments through priority access to the pilot lines set up by the Chips for Europe Initiative, without prejudice to effective access by others.

- (24) To allow for a uniform and transparent procedure to attain recognition as an Integrated Production Facility and Open EU Foundry, the recognition decision should be adopted by the Commission following the application by an individual undertaking or a consortium of several undertakings. To account for the importance of a coordinated and cooperated implementation of the planned facility, the Commission should take into account in its assessment the readiness of the Member State or Member States where the applicant intends to establish its facilities to support the set-up. Furthermore, when assessing the viability of the business plan, the Commission could take into account the overall record of the applicant. In light of the privileges attached to recognition as an Integrated Production Facility or Open EU Foundry, the Commission should monitor whether facilities that have been granted this status continue to comply with the criteria set out in this Regulation.
- (25) In light of their importance for ensuring the security of supply and enabling a resilient semiconductor ecosystem, Integrated Production Facilities and Open EU Foundries should be considered to be in the public interest. Ensuring the security of supply of semiconductors is important also for digitalisation that enables the green transition of many other sectors. To contribute towards security of supply of semiconductors in the Union, Member States may apply support schemes and provide for administrative support in national permit granting procedures. This is without prejudice to the competence of the Commission in the field of State aid under Article 107 and 108 of the Treaty, where relevant. Member States should support the set-up of Integrated Production Facilities and Open EU Foundries in accordance with Union law.
- (26) It is necessary that Integrated Production Facilities and Open EU Foundries are set-up as quickly as possible, while keeping the administrative burden to a minimum. For that reason, Member States should treat applications related to the planning, construction and operation of Integrated Production Facilities and Open EU Foundries in the most rapid manner possible. They should appoint an authority which will facilitate and coordinate the permit granting processes and appoint a coordinator, serving as a single point of contact for the project. Moreover, where necessary for granting a derogation under Council Directive 92/43/EEC<sup>56</sup> and Directive 2000/60/EC of the European Parliament and Council<sup>57</sup>, the establishment and operation of these facilities may be considered as being of overriding public interest within the meaning of the aforementioned legal texts, provided that the remaining other conditions set out in these provisions are fulfilled.
- (27) The internal market would greatly benefit from common standards for green, trusted and secure chips. Future smart devices, systems and connectivity platforms will have to rely on advanced semiconductor components and they will have to meet green, trust and cybersecurity requirements which will largely depend on the features of the underlying technology. To that end, the Union should develop reference certification

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<sup>56</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

<sup>57</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

procedures and require the industry to jointly develop such procedures for specific sectors and technologies with potential high social impact.

- (28) In light of this, the Commission, in consultation with the European Semiconductor Board, should prepare the ground for a certification of green, trusted and secure chips and embedded systems that rely on or make extensive use of semiconductor technologies. In particular, they should discuss and identify the relevant sectors and products in need of such certification.
- (29) In light of the structural deficiencies of the semiconductor supply chain and the resulting risk of future shortages, this Regulation provides instruments for a coordinated approach to monitoring and effectively tackling possible market disruptions.
- (30) Due to the complex, quickly evolving and interlinked semiconductor value chains with various actors, a coordinated approach to regular monitoring is necessary to increase the ability to mitigate risks that may negatively affect the supply of semiconductors. Member States should monitor the semiconductor value chain focusing on early warning indicators and the availability and integrity of the services and goods provided by key market actors, in such a way that it would not represent an excessive administrative burden for undertakings.
- (31) Any relevant findings, including information provided by relevant stakeholders and industry associations, should be provided to the European Semiconductor Board to allow for a regular exchange of information between high-level representatives of Member States and for integration of the information into a monitoring overview of the semiconductor value chains.
- (32) It is important to take into account the specific insights into the supply situation of users of semiconductors. Therefore, Member States should identify and regularly exchange with the main user categories on their national markets. Furthermore, Member States should offer the possibility for relevant stakeholder organisations, including industry associations and representatives of the main user categories, to provide information regarding significant changes in demand and supply, and known disruptions of their supply chain, this could include the unavailability of critical semiconductors or raw materials, longer than average lead-time, delays in delivery and exceptional price surges.
- (33) In order to carry out these monitoring activities, the competent authorities of Member States may need certain information, which may not be publicly accessible, such as information on the role of an individual undertaking along the semiconductor value chain. In those limited circumstances in which it is necessary and proportionate for the purpose of carrying out the monitoring activities, the competent authorities of Member States should be able to request this information from the undertaking in question.
- (34) Member States should alert the Commission if relevant factors indicate a potential semiconductor crisis. In order to ensure a coordinated response to address such crises, the Commission should upon the alert by a Member State or through other sources, including information from international partners, convene an extraordinary meeting of the European Semiconductor Board for assessing the need to activate the crisis stage and for discussing whether it may be appropriate, necessary and proportionate for Member States to carry out coordinated joint procurement. The Commission should engage in consultations and cooperation with relevant third countries with a view to addressing any disruptions in the international supply chain, in compliance

with international obligations and without prejudice to procedural requirements under the Treaty on international agreements.

- (35) As part of the monitoring, national competent authorities should also do a mapping of undertakings operating in the Union along the semiconductor supply chain established in their national territory and notify this information to the Commission.
- (36) In order to facilitate effective monitoring, in-depth assessment of the risks associated with different stages of the semiconductor value chain is needed, including on the origins and sources of supplies beyond the Union. Such risks may be related to critical inputs and equipment for the industry, including digital products that may be vulnerable, possible impact of counterfeit semiconductors, manufacturing capacities and other risks that may disrupt, compromise or negatively affect the supply chain. Those risks could include supply chains with a single point of failure or which are otherwise highly concentrated. Other relevant factors could include the availability of substitutes or alternative sources for critical inputs and resilient and sustainable transport. The Commission should, assisted by the European Semiconductor Board and taking also into account information received from the main user categories, develop a Union level risk assessment.
- (37) In order to forecast and prepare for future disruptions of the different stages of the semiconductor value chain in the Union, the Commission should, assisted by the European Semiconductor Board, identify early warning indicators in the Union risk assessment. Such indicators could include the availability of raw materials, intermediate products and human capital needed for manufacturing semiconductors, or appropriate manufacturing equipment, the forecasted demand for semiconductors on the Union and global markets, price surges exceeding normal price fluctuation, the effect of accidents, attacks, natural disasters or other serious events, the effect of trade policies, tariffs, export restrictions, trade barriers and other trade related measures, and the effect of business closures, delocalisations or acquisitions of key market actors. Member States should monitor these early warning indicators.
- (38) A number of undertakings providing semiconductor services or goods are assumed to be essential for an effective semiconductor supply chain in the Union's semiconductor ecosystem, due to the number of Union undertakings relying on their products, their Union or global market share, their importance to ensure a sufficient level of supply or the possible impact of the disruption of supply of their products or services. The Member States should identify those key market actors in their territory.
- (39) Under Article 4 of Regulation (EU) 2019/452 establishing a framework for the screening of foreign direct investments into the Union<sup>58</sup>, in determining whether a foreign direct investment is likely to affect security or public order, Member States and the Commission may consider its potential effects on critical technologies and dual use items as defined in point 1 of Article 2 of Council Regulation (EC) No 428/2009<sup>59</sup>, including semiconductors.
- (40) As part of the monitoring, Member States could specifically consider the availability and integrity of the services and goods of key markets actors. Such issues could be

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<sup>58</sup> Regulation (EU) 2019/452 of the European Parliament and of the Council of 19 March 2019 establishing a framework for the screening of foreign direct investments into the Union (OJ L 79I, 21.3.2019, p. 1–14).

<sup>59</sup> Council Regulation (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items (OJ L 134, 29.5.2009, p. 1–269).

brought to the attention of the European Semiconductor Board by the Member State concerned.

- (41) For a rapid, efficient and coordinated Union response to a semiconductor crisis it is necessary to provide timely and up-to-date information to the decision-makers on the unfolding operational situation as well as by ensuring that effective measures to secure the supply of semiconductors to affected critical sectors can be taken.
- (42) The semiconductor crisis stage should be triggered in the presence of concrete, serious, and reliable evidence of such a crisis. A semiconductor crisis occurs in case of serious disruptions to the supply of semiconductors leading to significant shortages which entail significant delays and negative effects on one or more important economic sectors in the Union, either directly or through ripple effects of the shortage, given that the Union's industrial sectors represent a strong user base of semiconductors. Alternatively or in addition, a semiconductor crisis also occurs when serious disruptions of the supply of semiconductors lead to significant shortages which prevent the supply, repair and maintenance of essential products used by critical sectors, for instance medical and diagnostic equipment.
- (43) In order to ensure an agile and effective response to such a semiconductor crisis, the Commission should be empowered to activate the crisis stage by means of an implementing acts and for a predetermined duration period, taking into account the opinion of the European Semiconductor Board. The Commission should assess the need for prolongation and prolong the duration of the crisis stage for a predetermined period, should such a necessity be ascertained, taking into account the opinion of the European Semiconductor Board.
- (44) Close cooperation between the Commission and the Member States and coordination of any national measures taken with regard to the semiconductor supply chain is indispensable during the crisis stage with a view to addressing disruptions with the necessary coherence, resiliency and effectiveness. To this end, the European Semiconductor Board should hold extraordinary meetings as necessary. Any measures taken should be strictly limited to the duration period of the crisis stage.
- (45) Appropriate, effective and proportionate measures should be identified and implemented when the crisis stage is activated without prejudice to possible continued international engagement with relevant partners with the view to mitigating the evolving crisis situation. Where appropriate, the Commission should request information from undertakings along the semiconductor supply chain. Furthermore, the Commission should be able to, where necessary and proportionate, oblige Integrated Production Facilities and Open EU Foundries to accept and prioritise an order of the production of crisis-relevant products, and to act as a central purchasing body when mandated by Member States. The Commission could limit the measures to certain critical sectors. In addition, the European Semiconductor Board may advise on the necessity of introducing an export control regime pursuant to Regulation (EU) 2015/479 of the European Parliament and of the Council<sup>60</sup>. The European Semiconductor Board may also assess and advise on further appropriate and effective measures. The use of all these emergency measures should be proportionate and restricted to what is necessary to address the significant disturbances at stake insofar as this is in the best interest of the Union. The Commission should regularly inform

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<sup>60</sup> Regulation (EU) 2015/479 of the European Parliament and of the Council of 11 March 2015 on common rules for exports (OJ L 83, 27.3.2015, p. 34).

the European Parliament and the Council of the measures taken and the underlying reasons. The Commission may, after consulting with the Board, issue further guidance on the implementation and use of the emergency measures.

- (46) A number of sectors are critical for the proper functioning of the internal market. Those critical sectors are the sectors listed in the Annex of the Commission proposal for a Directive of the European Parliament and of the Council on the resilience of critical entities<sup>61</sup>. For the purposes of this Regulation, defence and other activities that are relevant for public safety and security should be additionally considered as a critical sector. Certain measures should only be enacted for the purpose of securing supply to critical sectors. The Commission may limit the emergency measures to certain of these sectors or to certain parts of them when the semiconductor crisis has disturbed or is threatening to disturb their operation.
- (47) The purpose of requests for information from undertakings along the semiconductor supply chain established in the Union in the crisis stage is an in-depth assessment of the semiconductor crisis in order to identify potential mitigation or emergency measures at Union or national level. Such information may include production capability, production capacity and current primary disruptions and bottlenecks. These aspects could include the typical and current actual stock of crisis-relevant products in its production facilities located in the Union and third country facilities which it operates or contracts or purchases supply from; the typical and current actual average lead time for the most common products produced; the expected production output for the following three months for each Union production facility; reasons that prevent the filling of production capacity; or other existing data necessary to assess the nature of the semiconductor crisis or potential mitigation or emergency measures at national or Union level. Any request should be proportionate, have regard for the legitimate aims of the undertaking and the cost and effort required to make the data available, as well as set out appropriate time limits for providing the requested information. Undertakings should be obliged to comply with the request and may be subject to penalties if they fail to comply or provide incorrect information. Any information acquired should be subject to confidentiality rules. Should an undertaking be subject to a request for information related to its semiconductor activities from a third country, it should inform the Commission so to enable an assessment whether an information request by the Commission is warranted.
- (48) In order to ensure that critical sectors can continue to operate in a time of crisis and when necessary and proportionate for this purpose, Integrated Production Facilities and Open EU Foundries could be obliged by the Commission to accept and prioritise orders of crisis-relevant products. This obligation may also be extended to semiconductor manufacturing facilities which have accepted such possibility in the context of receiving public support. The decision on a priority rated order should be taken in accordance with all applicable Union legal obligations, having regard to the circumstances of the case. The priority rating obligation should take precedence over any performance obligation under private or public law while it should have regard for the legitimate aims of the undertakings and the cost and effort required for any change in production sequence. Undertakings may be subject to penalties if they fail to comply with the obligation for priority rated orders.

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<sup>61</sup> COM(2020) 829. 16.12.2020.



- (49) The undertaking concerned should be obliged to accept and prioritise a priority rated order. In exceptional and duly justified cases, the undertaking could request the Commission to review the imposed obligation. This applies either where the facility is unable to fulfil the order even if prioritised, be it due to insufficient production capability or production capacity, or because this would place an unreasonable economic burden and entail particular hardship on the facility.
- (50) Under the exceptional circumstance that an undertaking operating along the semiconductor supply chain in the Union receives a priority rated order request from a third country, it should inform the Commission of this request, so as to inform an assessment of whether, if there is a significant impact on the security of supply to critical sectors, and the other requirements of necessity, proportionality and legality are satisfied in the circumstances of the case, the Commission should likewise enact a priority rated order obligation.
- (51) In light of the importance to ensure the security of supply to critical sectors that perform vital societal functions, compliance with the obligation to perform a priority rated order should not entail liability for damages towards third parties for any breach of contractual obligations that may result from the necessary temporary changes of the operational processes of the concerned manufacturer, limited to the extent the violation of contractual obligations was necessary for compliance with the mandated prioritisation. Undertakings potentially within scope of a priority rated order should anticipate this possibility in the conditions of their commercial contracts. Without prejudice to the applicability of other provisions, the liability for defective products, as provided for by Council Directive 85/374/EEC of 25 July 1985<sup>62</sup>, is not affected by this liability exemption.
- (52) The obligation to prioritise the production of certain products respects the essence of and will not disproportionately affect the freedom to conduct a business and the freedom of contract laid down in Article 16 of the Charter of Fundamental Rights of the European Union ('the Charter') and the right to property laid down in Article 17 of the Charter. Any limitation of those rights in this Regulation will, in accordance with Article 52(1) of the Charter, be provided for by law, respect the essence of those rights and freedoms, and comply with the principle of proportionality.
- (53) When the crisis stage is activated, two or more Member States could mandate the Commission to aggregate demand and act on their behalf for their public procurement in the public interest, in accordance with existing Union rules and procedures, leveraging its purchasing power. The mandate could authorise the Commission to enter into agreements concerning the purchase of crisis-relevant products for certain critical sectors. The Commission should assess for each request the utility, necessity and proportionality in consultation with the Board. Where it intends to not follow the request, it should inform the concerned Member States and the Board and give its reasons. Furthermore, the participating Member States should be entitled to appoint representatives to provide guidance and advice during the procurement procedures and in the negotiation of the purchasing agreements. The deployment and use of purchased products should remain within the remit of the participating Member States.

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<sup>62</sup> Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products (85/374/EEC) (OJ L 210, 7.8.1985, p. 29).

- (54) During a semiconductor shortage crisis, it might become necessary that the Union considers protective measures. The European Semiconductor Board may express its views to inform the Commission's assessment of whether the market situation amounts to a significant shortage of essential products pursuant to Regulation (EU) 2015/479.
- (55) In order to facilitate a smooth, effective and harmonised implementation of this Regulation, cooperation and the exchange of information, the European Semiconductor Board should be established. The European Semiconductor Board should provide advice to and assist the Commission on specific questions. These should include providing advice on the Chips for Europe Initiative to the Public Authorities Board of the Chips Joint Undertaking; exchanging information on the functioning of the Integrated Production Facilities and Open EU Foundries; discussing and preparing the identification of specific sectors and technologies with potential high social impact and respective security significance in need of certification for trusted products and addressing coordinated monitoring and crisis response. Furthermore, the European Semiconductor Board should ensure the consistent application of this Regulation, facilitate cooperation between Member States as well as exchange of information on issues relating to this Regulation. The European Semiconductor Board should support the Commission in international cooperation in line with international obligations, including in information gathering and crisis assessment. In addition, the European Semiconductor Board should coordinate, cooperate and exchange information with other Union crisis response and crisis preparedness structures with a view to ensure a coherent and coordinated Union approach as regards crisis response and crisis preparedness measures for semiconductor crises.
- (56) A representative of the Commission should chair the European Semiconductor Board. Each Member State's national single point of contact should appoint at least one high-level representative to the European Semiconductor Board. They could also appoint different representatives in relation to different tasks of the European Semiconductor Board, for example, depending on which Chapter of this Regulation is discussed in the meetings of the European Semiconductor Board. The Commission may establish sub-groups and should be entitled to establish working arrangements by inviting experts to take part in the meetings on an ad hoc basis or by inviting organisations representing the interests of the Union semiconductors industry, such as the Industrial Alliance on Processors and Semiconductor Technologies, in its sub-groups as observers.
- (57) The European Semiconductor Board will hold separate meetings for its tasks under Chapter II and for its tasks under Chapter III and IV. Member States should endeavour to ensure effective and efficient cooperation in the European Semiconductor Board. The Commission should be able to facilitate exchanges between the European Semiconductor Board and other Union bodies, offices, agencies and advisory groups. In light of the importance of the supply of semiconductors for other sectors and the resulting need for coordination, the Commission should ensure participation by other Union institutions and bodies as observers in meetings of the European Semiconductor Board where relevant and appropriate in relation to the monitoring and crisis response mechanism established under Chapter IV. In order to continue and make use of the work following the implementation of Commission Recommendation on a common Union toolbox to address semiconductor shortages, the European Semiconductor Board should carry out the tasks of the European Semiconductor Expert Group. Once

the European Semiconductor Board is operational, this expert group should cease to exist.

- (58) Member States hold a key role in the application and enforcement of this Regulation. In this respect, each Member State should designate one or more national competent authorities for the purpose of effective implementation of this Regulation and ensure that those authorities are adequately empowered and resourced. Member States could designate an existing authority or authorities. In order to increase organisation efficiency in the Member States and to set an official point of contact vis-a-vis the public and other counterparts at Member State and Union levels, including the Commission and the European Semiconductor Board, each Member State should designate, within one of the authorities it designated as competent authority under this Regulation, one national single point of contact responsible for coordinating issues related to this Regulation and cross-border cooperation with competent authorities of other Member States.
- (59) In order to ensure trustful and constructive cooperation of competent authorities at Union and national level, all parties involved in the application of this Regulation should respect the confidentiality of information and data obtained in carrying out their tasks. The Commission and the national competent authorities, their officials, servants and other persons working under the supervision of these authorities as well as officials and civil servants of other authorities of the Member States should not disclose information acquired or exchanged by them pursuant to this Regulation and of the kind covered by the obligation of professional secrecy. This should also apply to the European Semiconductor Board and the Semiconductor Committee established in this Regulation. Where appropriate, the Commission should be able to adopt implementing acts to specify the practical arrangements for the treatment of confidential information in the context of information gathering.
- (60) Compliance with the obligations imposed under this Regulation should be enforceable by means of fines and periodic penalty payments. To that end, appropriate levels of fines and periodic penalty payments should also be laid down for non-compliance with the obligations. Limitation periods should apply for the impositions of fines and periodic penalty payments, in addition to limitation periods for the enforcement of penalties. In addition, the Commission should give the concerned undertaking or representative organisations of undertakings the right to be heard.
- (61) The power to adopt acts in accordance with Article 290 of the Treaty should be delegated to the Commission in order to amend Annex I to this Regulation to reflect technological change and market developments, with regard to the actions set out therein in a manner consistent with the objectives of this Regulation and to amend Annex II thereto with regard to the measurable indicators where considered to be necessary as well as to supplement this Regulation with provisions on the establishment of a monitoring and evaluation framework. It is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making<sup>63</sup>. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the

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<sup>63</sup> OJ L 123, 12.5.2016, p. 1.

same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

- (62) In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission as regards the selection of ECICs and as regards the procedure for establishing and defining the tasks of competence centres and the procedure for establishing the network, so that the objectives of the Initiative are achieved. Furthermore, implementing powers should be conferred on the Commission as regards activating the crisis stage in a semiconductor crisis, to allow a rapid and coordinated response, and for specifying the practical arrangements for the treatment of confidential information. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council<sup>64</sup> of the European Parliament and of the Council.
- (63) Since the objective of this Regulation cannot be sufficiently achieved by the Member States and can rather, by reason of the scale or effects of the action, be better achieved at Union level, the Union may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective.

HAVE ADOPTED THIS REGULATION:

## CHAPTER I

### GENERAL PROVISIONS

#### *Article 1*

##### *Subject matter*

1. This Regulation establishes a framework for strengthening the semiconductor sector at Union level, in particular through the following measures:
  - (a) establishment of the Chips for Europe Initiative (the 'Initiative');
  - (b) setting the criteria to recognise and to support first-of-a-kind Integrated Production Facilities and Open EU Foundries that foster the security of supply of semiconductors in the Union;
  - (c) setting up a coordination mechanism between the Member States and the Commission for monitoring the supply of semiconductors and crisis response to semiconductor shortages.

#### *Article 2*

##### *Definitions*

1. For the purposes of this Regulation, the following definitions shall apply:
  - (1) 'semiconductor' means one of the following:

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<sup>64</sup> Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers, (OJ L 55, 28.2.2011, p. 13).

- (a) a material, either elemental, such as Silicon, or compound, such as Silicon Carbide, whose electrical conductivity can be modified, or
  - (b) a component consisting of a series of layers of semiconducting, insulating and conducting materials defined according to a predetermined pattern, and intended to perform well-defined electronic or photonic functions or both;
- (2) ‘chip’ means an electronic device comprising various functional elements on a single piece of semiconductor material, typically taking the form of memory, logic, processor and analogue devices, also referred to as ‘integrated circuit’;
  - (3) ‘technology node’ means the structure on a semiconductor serving as transiting element and providing a measure for manufacturing method in nanometres;
  - (4) ‘semiconductor supply chain’ means the system of activities, organisations, actors, technology, information, resources and services involved in the production of semiconductors, including raw materials, manufacturing equipment, design, fabrication, assembly, testing and packaging;
  - (5) ‘semiconductor value chain’ means the set of activities in relation to a semiconductor product from its conception to its end use, including raw materials, manufacturing equipment, research, design, fabrication, testing, assembly and packaging to embedding and validation in end products;
  - (6) ‘pilot line’ means an experimental project or action addressing higher technology readiness levels from levels 3 to 8 to further develop an enabling infrastructure necessary to test, demonstrate and calibrate a product or system with the model assumptions;
  - (7) ‘coordinator’ means a legal entity which is a member of a European Chips Infrastructure Consortium created in accordance with Article 7 and has been appointed by all the members of that consortium to be the principal point of contact for the purpose of the consortium’s relations with the Commission;
  - (8) ‘small and medium-sized enterprises’ or ‘SMEs’ means small and medium-sized enterprises as defined in Article 2 of the Annex to Commission Recommendation 2003/361/EC<sup>65</sup>;
  - (9) ‘middle capitalisation company’ or ‘mid-cap’ means an enterprise that is not a SME and that employs a maximum of 1 500 persons, where the headcount of staff is calculated in accordance with Articles 3 to 6 of the Annex to Recommendation 2003/361/EC;
  - (10) ‘first-of-a-kind facility’ means an industrial facility capable of semiconductor manufacturing, including front-end or back-end, or both, that is not substantively already present or committed to be built within the Union, for instance with regard to the technology node, substrate material, such as silicon carbide and gallium nitride, and other product innovation that can offer better performance, process innovation or energy and environmental performance;
  - (11) ‘next generation chips’ and ‘next generation semiconductor technologies’ means chips and semiconductor technologies that go beyond the state of the art

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<sup>65</sup> Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (OJ L 124, 20.5.2003, p. 36).

in offering significant improvements in computing power or energy efficiency as well as other significant energy and environmental gains;

- (12) ‘front-end’ means the entire processing of a semiconductor wafer;
- (13) ‘back-end’ means the packaging, assembly and test of each individual integrated circuit;
- (14) ‘user of semiconductors’ means an undertaking that produces products in which semiconductors are incorporated;
- (15) ‘key market actors’ means undertakings in the Union semiconductor sector, the reliable functioning of which is essential for the semiconductor supply chain;
- (16) ‘critical sector’ means any sector referred to in the Annex of the Commission proposal for a Directive of the European Parliament and of the Council on the resilience of critical entities, the defence sector and other activities that are relevant for public safety and security;
- (17) ‘crisis-relevant product’ means semiconductors, intermediate products and raw materials required to produce semiconductors or intermediate products, that are affected by the semiconductor crisis or of strategic importance to remedy the semiconductor crisis or economic effects thereof;
- (18) ‘production capability’ means the potential output of a semiconductor manufacturing facility under optimal resources, typically the amount of wafers of a certain size that can be processed in a given time;
- (19) ‘production capacity’ means the output of a semiconductor manufacturing facility, typically the amount of wafers of a certain size that is usually processed in a given time.

## **CHAPTER II**

### **CHIPS FOR EUROPE INITIATIVE**

#### **SECTION 1**

##### **GENERAL PROVISIONS**

###### *Article 3*

###### *Establishment of the Initiative*

1. The Initiative is established for the duration of the Multiannual Financial Framework 2021-2027.
2. The Initiative shall be supported by funding from the Horizon Europe programme and the Digital Europe programme, and in particular Specific Objective 6 thereof, for a maximum indicative amount of EUR 1.65 billion and EUR 1.65 billion respectively. This funding shall be implemented in accordance with Regulation (EU) No 2021/695 and Regulation (EU) No 2021/694.

*Article 4*  
*Objectives of the Initiative*

1. The general objective of the Initiative is to support large-scale technological capacity building and innovation throughout the Union to enable development and deployment of cutting-edge and next generation semiconductor and quantum technologies that will reinforce the Union advanced design, systems integration and chips production capabilities, as well as contribute to the achievement of the twin digital and green transition.
2. The Initiative shall have the following five operational objectives:
  - (a) building up advanced large-scale design capacities for integrated semiconductor technologies. This operational objective shall be achieved through:
    - (1) building up an innovative virtual platform, available across the Union, integrating existing and new design facilities with extended libraries and Electronic Design Automation (EDA) tools;
    - (2) upgrading the design capacity with ongoing innovative developments, such as processor architectures based on the open-source Reduced Instruction Set Computer Architecture (RISC-V);
    - (3) enlarging the semiconductor ecosystem by integrating the vertical market sectors, contributing to the green, digital and innovation agendas of the Union.
  - (b) enhancing existing and developing new advanced pilot lines. This operational objective shall be achieved through:
    - (1) strengthening technological capabilities in next generation chips production technologies, by integrating research and innovation activities and preparing the development of future technology nodes, including leading-edge nodes below two nanometres, Fully Depleted Silicon on Insulator (FD-SOI) at 10 nanometres and below, and 3D heterogeneous systems integration and advanced packaging;
    - (2) supporting large scale innovation through access to new or existing pilot lines for experimentation, test, and validation of new design concepts integrating key functionalities, such as novel materials and architectures for power electronics fostering sustainable energy and electro mobility, lower energy consumption, security, higher levels of computing performance or integrating breakthrough technologies such as neuromorphic and embedded artificial intelligence (AI) chips, integrated photonics, graphene and other 2D material based technologies;
    - (3) providing support to Integrated Production Facilities and Open EU Foundries through priority access to the new pilot lines.
  - (c) building advanced technology and engineering capacities for accelerating the innovative development of quantum chips.
  - (d) creating a network of competence centres across the Union, in order to
    - (1) strengthen capacities and offer a wide range of expertise to the stakeholders, including end-user SMEs and start-ups, facilitating access to and effective use of the above capacities and facilities;

- (2) address the skills shortage, attracting and mobilising new talent and supporting the emergence of a suitably skilled workforce for strengthening the semiconductor sector, including via reskilling and upskilling of workers.
- (e) undertaking activities, to be described collectively as a ‘Chips Fund’ activities to facilitate access to debt financing and equity by start-ups, scale-ups and SMEs and other companies in the semiconductor value chain, through a blending facility under the InvestEU Fund and via the European Innovation Council, with a view to:
  - (1) improving the leverage effect of the Union budget spending and achieving a higher multiplier effect in terms of attracting private-sector financing.
  - (2) providing support to companies facing difficulties in accessing finance, and addressing the need to underpin the economic resilience of the Union and its Member States;
  - (3) accelerating investment in the field of semiconductor manufacturing technologies and chip design and to leveraging funding from both the public and the private sectors, while increasing the security of supply for the whole semiconductor value chain.

*Article 5*  
*Components of the Initiative*

1. The Initiative shall have the following five components:
  - (a) design capacities for integrated semiconductor technologies;
  - (b) pilot lines for preparing innovative production, and testing and experimentation facilities;
  - (c) advanced technology and engineering capacities for quantum chips;
  - (d) a network of competence centres and skills development;
  - (e) ‘Chips Fund’ activities for access to debt financing and equity to start-ups, scale-ups, SMEs and other companies in the semiconductor value chain.

*Article 6*  
*Synergies with Union programmes*

1. The Initiative shall enable synergies with Union programmes, as referred to in Annex III. The Commission shall ensure that the achievement of the objectives is not hampered when leveraging the complementary character of the Initiative with Union programmes.

*Article 7*  
*European Chips Infrastructure Consortium*

1. For the purpose of implementing eligible actions and other related tasks funded under the Initiative a European Chips Infrastructure Consortium (‘ECIC’) may be established under the conditions set out in this Article.



2. The ECIC shall
  - (a) have legal personality from the date of entry into force of the Commission decision referred to in paragraph 6;
  - (b) have one or more statutory seats, which shall be located on the territory of one or more Member States;
  - (c) consist of at least three legal entities from at least three Member States and be operated as a public-private sector consortium with the participation of the Member States, and private legal entities;
  - (d) appoint the coordinator.
3. The coordinator shall submit an application to the Commission in writing which shall contain the following:
  - (a) a request to the Commission to set up the ECIC, including a list of the proposed legal entities that are forming the ECIC consortium;
  - (b) the draft Statutes of the ECIC that shall include at least the provisions on: the procedure for setting-up, membership, budget, legal seat, applicable law and jurisdiction, ownership of the results, governance, including decision making procedure and specific role and if applicable voting rights of Member States and the Commission, winding-up, reporting and liability.
4. The Commission shall review the application to set up the ECIC on the basis of all of the following criteria:
  - (a) the appropriate competences, know-how and capabilities of the proposed ECIC and of the legal entities forming it on the semiconductors;
  - (b) the appropriate management capacity, staff and infrastructure necessary to carry out the eligible actions under the Initiative;
  - (c) the operational and legal means to apply the administrative, contractual and financial management rules laid down at Union level;
  - (d) the appropriate financial viability corresponding to the level of Union funds it will be called upon to manage and demonstrated, where appropriate, through guarantees issued preferably by a public authority;
  - (e) the budget that would be made available by Member States and private sector participants for the financing of the ECIC, and related modalities;
  - (f) the appropriate ability of the ECIC to ensure coverage of the needs of industry.
5. The Commission by means of an implementing act and based on the criteria set out in paragraph 4, shall adopt one of the following decisions:
  - (a) setting up the ECIC after it has concluded that the requirements laid down in paragraphs 3 and 4 are met;
  - (b) rejecting the application if it concludes that the requirements laid down in paragraphs 3 and 4 are not met.

The implementing act shall be adopted in accordance with the examination procedure referred to in Article 33(2).
6. The decision referred to in paragraph 5 shall be notified to the applicants.

7. The decision setting up the ECIC shall be published in the Official Journal of the European Union.
8. The ECIC shall have substantial overall autonomy to lay down its membership, governance, funding, budget and the modalities by which the respective financial contributions from the members are called upon, voting rights and working methods. However, the organisation, composition and working methods of the ECIC, including any amendments to the Statutes, shall be in accordance with and contribute to the aims and objectives of this Regulation and the Chips for Europe Initiative and shall be notified to the Commission.
9. The ECIC shall produce an annual activity report, containing a technical description of its activities and financial statement. The annual activity report shall be transmitted to the Commission and made publicly available. The Commission may provide recommendations regarding the matters covered in the annual activity report.

#### *Article 8*

##### *European network of competence centres in semiconductors*

1. For the purpose of implementing actions under the Initiative's component referred to in Article 5, point (d), a European network of competence centres in semiconductors (the 'network') may be established.
2. With respect to the implementation of actions under the Initiative's component referred to in Article 5, point (d), the network may perform all or some of the following activities to the benefit of the Union industry, in particular SMEs and mid-caps, as well as the public sector:
  - (a) providing access to design services and design tools under the Initiative's component referred to in Article 5, point (a), as well as to the pilot lines supported under the Initiative's component referred to in Article 5, point (b);
  - (b) raising awareness and providing the necessary knowhow, expertise and skills to the stakeholders for helping them accelerate the development and integration of new semiconductor technologies, design options and system concepts by using effectively the infrastructure;
  - (c) raising awareness and providing or ensuring access to expertise, knowhow and services, including system design readiness, new and existing pilot lines and supporting actions necessary to build skills and competences capacities supported by this Initiative;
  - (d) facilitating the transfer of expertise and knowhow between Member States and regions encouraging exchanges of skills, knowledge and good practices and encouraging joint programmes;
  - (e) developing and managing specific training actions on semiconductor technologies to support the development of the talent pool in the Union.
3. Member States shall designate candidate competence centres in accordance with its national procedures, administrative and institutional structures through an open and competitive process. The Commission shall, by means of implementing acts, set the procedure for establishing competence centres, including selection criteria, and further tasks and functions of the centres with respect to the implementation of the

actions under the Initiative, the procedure for establishing the network as well to adopt decisions on the selection of entities forming the network. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 33(2).

4. The network shall have substantial overall autonomy to lay down its organisation, composition and working methods. However, the organisation, composition and working methods of the network shall be in accordance with and contribute to the aims and objectives of this Regulation and the Initiative.

#### *Article 9* *Implementation*

1. The components listed in points (a) to (d) of Article 5 under the Initiative may be entrusted to the Chips Joint Undertaking referred to in Council Regulation XX/XX amending Council Regulation (EU) 2021/2085 and implemented in the work programme of the Chips Joint Undertaking.
2. In order to reflect technological change and market developments, the Commission is empowered to adopt delegated acts in accordance with Article 32 to amend Annex I with regard to the activities set out therein in a manner consistent with the objectives of the Initiative, as set out in Article 4.
3. In order to ensure effective implementation and evaluation of the Initiative, the Commission is empowered to adopt delegated acts in accordance with Article 32 to amend Annex II with regard to the measurable indicators to monitor the implementation and to report on the Initiative towards the achievement of its objectives as set out in Article 4.

### **CHAPTER III**

#### **SECURITY OF SUPPLY**

##### *Article 10* *Integrated Production Facilities*

1. Integrated Production Facilities are first-of-a-kind semiconductor design and manufacturing facilities, including front-end or back-end, or both, in the Union that contribute to the security of supply for the internal market.
2. An Integrated Production Facility shall meet the following criteria:
  - (a) it qualifies as a first-of-a-kind facility;
  - (b) its establishment and operation have a clear positive impact on the Union's semiconductor value chain with regard to ensuring the security of supply and increasing qualified workforce;
  - (c) it guarantees not to be subject to the extraterritorial application of public service obligations of third countries in a way that may undermine the undertaking's ability to comply with the obligations set out in Article 21(1) and commits to inform the Commission when such obligation arises;
  - (d) it commits to invest in the next generation of chips.

3. For the purpose of investing in the next generation of chips according to paragraph 2, point (d), the Integrated Production Facility shall have priority access to the pilot lines set up in accordance with Article 5, point (b). Any such priority access shall be without prejudice to effective access to the pilot lines by other interested undertakings.

*Article 11*  
*Open EU Foundries*

1. Open EU Foundries are first-of-a-kind semiconductor front-end or back-end, or both, manufacturing facilities in the Union that offer production capacity to unrelated undertakings and thereby contribute to the security of supply for the internal market.
2. An Open EU Foundry shall meet the following criteria:
  - (a) it qualifies as a first-of-a-kind facility;
  - (b) its establishment and operation have a clear positive impact on the Union's semiconductor value chain with regard to ensuring the security of supply and increasing qualified workforce, taking into account in particular the extent to which it offers front-end or back-end, or both, production capacity to undertakings not related to the facility, if there is sufficient demand;
  - (c) it guarantees not to be subject to the extraterritorial application of public service obligations of third countries in a way that may undermine the undertaking's ability to comply with the obligations set out in Article 21(1) and commits to inform the Commission when such obligation arises;
  - (d) it commits to invest in the next generation of chips.
3. Where an Open EU Foundry offers production capacity to undertakings not related to the operator of the facility, it shall establish and maintain adequate and effective functional separation of the design and manufacturing processes in order to ensure the protection of information gained at each stage.
4. For the purpose of investing in the next generation of chips according to paragraph 2, point (d), the Open EU Foundry shall have priority access to the pilot lines set up in accordance with Article 5, point (b). Any such priority access shall be without prejudice to effective access to the pilot lines by other interested undertakings.

*Article 12*  
*Application and recognition*

1. Any undertaking or any consortium of undertakings ('applicant') may submit an application to the Commission to recognise the applicant's planned facility as an Integrated Production Facility or Open EU Foundry.
2. The Commission shall, in consultation with the European Semiconductor Board, assess the application through a fair and transparent process based on the following elements:
  - (a) compliance with the criteria set out in Article 10(2) or in Article 11(2) respectively;
  - (b) a business plan evaluating the financial viability of the project, including information on any planned public support;

- (c) proven experience of the applicant in installing and operating similar facilities;
- (d) provision of an appropriate supporting document proving the readiness of the Member State or Member States where the applicant intends to establish its facility to facilitate the set-up of such a facility.

The Commission shall process the application and adopt its decision in a timely manner and notify the applicant thereof.

3. The Commission shall monitor the activities of the Integrated Production Facilities and the Open EU Foundries. Where the Commission finds that a facility no longer fulfils the criteria set out in Articles 10(2) or in Article 11(2) respectively, it shall notify the findings to the European Semiconductor Board. After consulting the European Semiconductor Board and after hearing the facility, the Commission may repeal the decision granting a facility the status of Integrated Production Facility or Open EU Foundry.
4. The Commission may, after consulting the European Semiconductor Board, repeal a decision recognising the status of an Integrated Production Facility or an Open EU Foundry if the recognition was based on an application containing incorrect information.
5. Facilities which are no longer Integrated Production Facilities and Open EU Foundries shall lose all rights linked to the recognition of this status arising from this Regulation.

### *Article 13*

#### *Public interest and public support*

1. Integrated Production Facilities and Open EU Foundries shall be considered to contribute to the security of supply of semiconductors in the Union and therefore to be in the public interest.
2. In order to reach security of supply in the Union, Member States may, without prejudice to Articles 107 and 108 of the Treaty, apply support schemes and provide for administrative support to Integrated Production Facilities and Open EU Foundries in accordance with Article 14.

### *Article 14*

#### *National fast-tracking of permit granting procedures*

1. Member States shall ensure that administrative applications related to the planning, construction and operation of Integrated Production Facilities and Open EU Foundries are processed in an efficient and timely manner. To that end, all national authorities concerned shall ensure that the most rapid treatment legally possible is given to these applications.
2. Where such status exists in national law, Integrated Production Facilities and Open EU Foundries shall be allocated the status of the highest national significance possible and be treated as such in permit granting processes, including those relating to environmental assessments and if national law so provides, in spatial planning.
3. The security of supply of semiconductors may be considered an imperative reason of overriding public interest within the meaning of Article 6(4) and Article 16(1)(c) of Directive 92/43/EEC and of overriding public interest within the meaning of Article 4(7) of Directive 2000/60. Therefore, the planning, construction and operation of

Integrated Production Facilities and Open EU Foundries may be considered of overriding public interest, provided that the remaining other conditions set out in these provisions are fulfilled.

4. For each Integrated Production Facility and Open EU Foundry, the Member State concerned shall nominate an authority responsible for facilitating and coordinating administrative applications related to planning, construction and operation. The authority shall appoint a coordinator who shall serve as the single point of contact for the Integrated Production Facility or Open EU Foundry. The authority may establish a working group where all authorities involved in the administrative applications are represented in order to draw up a permit granting schedule and to monitor and coordinate its implementation. If the setting up of an Integrated Production Facility or an Open EU Foundry requires decisions to be taken in two or more Member States, the respective authorities shall take all necessary steps for efficient and effective cooperation and coordination among themselves.

## **CHAPTER IV**

### **MONITORING AND CRISIS RESPONSE**

#### **SECTION 1 MONITORING**

##### *Article 15 Monitoring and alerting*

1. Member States shall carry out regular monitoring of the semiconductor value chain. In particular, they shall:
  - (a) monitor early warning indicators identified pursuant to Article 16;
  - (b) monitor the availability and integrity of the services and goods provided by the key market actors identified pursuant to Article 17.Member States shall provide relevant findings to the European Semiconductor Board in the form of regular updates.
2. Member States shall invite the main users of semiconductors and other relevant stakeholders to provide information regarding significant fluctuations in demand and known disruptions of their supply chain. To facilitate the exchange of information, Member States shall provide for a mechanism and administrative set-up for these updates.
3. National competent authorities designated pursuant to Article 26(1) may request information from representative organisations of undertakings or individual undertakings operating along the semiconductor supply chain where necessary and proportionate for the purpose of paragraph 1. National competent authorities in such case will pay particular attention to SMEs to minimise administrative burden resulting from the request and will privilege digital solutions for obtaining such information. Any information obtained pursuant to this paragraph shall be treated in compliance with the confidentiality obligations set out in Article 27.

4. Where a Member State becomes aware of a potential semiconductor crisis, a significant fluctuation in demand or has concrete and reliable information of any other risk factor or event materialising, it shall immediately alert the Commission ('early warning').
5. Where the Commission becomes aware of a potential semiconductor crisis, a significant fluctuation in demand or has concrete and reliable information of any other risk factor or event materialising, based on an alert by a Member State provided in accordance with paragraph 4, or through other sources, including information from international partners, it shall without undue delay:
  - (a) convene an extraordinary meeting of the European Semiconductor Board to coordinate the following actions:
    - (1) assessing whether the activation of the crisis stage referred to in Article 18 is warranted;
    - (2) discussing whether it may be appropriate, necessary and proportionate for Member States to jointly purchase semiconductors, intermediate products or raw materials affected or at threat of being affected by a potential semiconductor crisis ('coordinated procurement');
  - (b) enter into consultations or cooperation, on behalf of the Union, with relevant third countries with a view to seeking cooperative solutions to address supply chain disruptions, in compliance with international obligations. This may involve, where appropriate, coordination in relevant international fora.
6. The coordinated procurement referred to in paragraph 5, point (a)(ii), shall be carried out by Member States in accordance with the rules set out in Article 38 of Directive 2014/24/EU of the European Parliament and of the Council<sup>66</sup>.
7. National competent authorities designated pursuant to Article 26(1) shall map undertakings operating along the semiconductor supply chain in their national territory, including non-confidential information on the services or goods, and contact information. They shall notify this list and any subsequent update to the Commission. The Commission may issue guidance, after consulting the European Semiconductor Board, to further specify the information to be gathered and define the technical specifications and formats.

#### *Article 16*

##### *Union risk assessment and early warning indicators*

1. The Commission shall, after consulting the European Semiconductor Board, assess risks that may disrupt, compromise or negatively affect the supply of semiconductors (Union risk assessment). In the Union risk assessment, the Commission shall identify early warning indicators.
2. The Commission shall review the Union risk assessment including the early warning indicators as necessary.
3. When monitoring the semiconductor value chain pursuant to Article 15, Member States shall monitor the early warning indicators identified by the Commission.

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<sup>66</sup> Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65).

*Article 17*  
*Key market actors*

1. Member States shall identify key market actors along the semiconductor supply chains in their national territory, taking into account the following elements:
  - (a) the number of other Union undertakings relying on the service or good provided by a market actor;
  - (b) the Union or global market share of the key market actor in the market for such services or goods;
  - (c) the importance of a market actor in maintaining a sufficient level of supply of a service or good in the Union, taking into account the availability of alternative means for the provision of that service or good;
  - (d) the impact a disruption of supply of the service or good provided by the market actor may have on the Union's semiconductor supply chain and dependent markets.
2. When monitoring the semiconductor value chain pursuant to Article 15, Member States shall, after consulting the European Semiconductor Board, monitor the availability and integrity of the services or goods which those key market actors provide.

**SECTION 2**  
**SEMICONDUCTOR SUPPLY CRISIS STAGE**

*Article 18*  
*Activation of the crisis stage*

1. A semiconductor crisis shall be considered to occur when there are serious disruptions in the supply of semiconductors leading to significant shortages, which:
  - (a) entail significant delays or significant negative effects on one or more important economic sectors in the Union, or
  - (b) prevent the supply, repair and maintenance of essential products used by critical sectors.
2. Where an assessment of the Commission provides concrete, serious, and reliable evidence of a semiconductor crisis, the Commission may activate the crisis stage by means of implementing acts in accordance with Article 33(2). The duration of the activation shall be specified in the implementing act. Where, in view of the scope and gravity of the semiconductor crisis, duly justified imperative grounds of urgency so require, the procedure provided for in Article 33(3) shall apply to implementing acts adopted pursuant to this Article.
3. Before the expiry of the duration for which the crisis stage was activated, the Commission shall, after consulting the European Semiconductor Board, assess whether the activation of the crisis stage should be prolonged. Where the assessment concludes that a prolongation is appropriate, the Commission may prolong the activation by means of implementing acts. The duration of the prolongation shall be specified in the implementing acts adopted in accordance with Article 33(2). The



Commission may repeatedly decide to prolong the activation of the crisis stage where this is appropriate.

4. During the crisis stage, the Commission shall, upon request from a Member State or on its own initiative, convene extraordinary meetings of the European Semiconductor Board as necessary. Member States shall work closely with the Commission and coordinate any national measures taken with regard to the semiconductor supply chain within the European Semiconductor Board.
5. Upon expiry of the duration for which the crisis stage is activated, the measures taken in accordance with Articles 20, 21 and 22 shall cease to apply. The Commission shall review the Union risk assessment pursuant to Article 16(2) no later than six months after the expiry of the duration of the crisis stage.

*Article 19*  
*Emergency toolbox*

1. Where the crisis stage is activated and where appropriate in order to address the semiconductor crisis in the Union, the Commission shall take the measure provided for in Article 20 under the conditions laid down therein. In addition, the Commission may take the measures provided for in Article 21 or Article 22, or both, under the conditions laid down therein.
2. The Commission may, after consulting the European Semiconductor Board, limit the measures provided for in Articles 21 and 22 to certain critical sectors the operation of which is disturbed or under threat of disturbance on account of the semiconductor crisis.
3. Where the crisis stage is activated and where appropriate in order to address the semiconductor crisis in the Union, the European Semiconductor Board may:
  - (a) assess the impact of the possible imposition of protective measures, including in particular whether the market situation corresponds to a significant shortage of an essential product pursuant to Regulation 2015/479 and provide an opinion to the Commission;
  - (b) assess and advise on further appropriate and effective emergency measures.
4. The use of the measures referred to in paragraph 1 shall be proportionate and restricted to what is necessary for addressing serious disruptions of vital societal functions or economic activities in the Union and must be in the best interest of the Union. The use of these measures shall avoid placing disproportionate administrative burden on SMEs.
5. The Commission shall regularly inform the European Parliament and the Council of any measures taken in accordance with paragraph 1 and explain the reasons of its decision.
6. The Commission may, after consulting the European Semiconductor Board, issue guidance on the implementation and the use of the emergency measures.

*Article 20*  
*Information gathering*

1. The Commission shall, after consulting the European Semiconductor Board, request representative organisations of undertakings or, if necessary, individual undertakings operating along the semiconductor supply chain to inform the Commission about their production capabilities, production capacities, current primary disruptions and provide other existing data necessary to assess the nature of the semiconductor crisis or to identify and assess potential mitigation or emergency measures at national or Union level.
2. The request for information shall state its legal basis, be proportionate in terms of the granularity and volume of the data and frequency of access to the data requested, have regard for the legitimate aims of the undertaking and the cost and effort required to make the data available, and set out the time limit within which the information is to be provided. It shall also indicate the penalties provided for in Article 28.
3. The owners of the undertakings or their representatives and, in the case of legal persons, companies or firms, or associations having no legal personality, the persons authorised to represent them by law or by their constitution shall supply the information requested on behalf of the undertaking or the association of undertakings concerned. Lawyers duly authorised to act may supply the information on behalf of their clients. The latter shall remain fully responsible if the information supplied is incomplete, incorrect or misleading.
4. Should an undertaking supply incorrect, incomplete or misleading information in response to a request made pursuant to this Article, or not supply the information within the prescribed time limit, it shall be subject to fines set in accordance with Article 28.
5. Should an undertaking established in the Union be subject to a request for information related to its semiconductor activities from a third country, it shall inform the Commission in such a manner as to enable the Commission to request similar information. The Commission shall inform the European Semiconductor Board of the existence of such request from a third country.

*Article 21*  
*Priority rated orders*

1. Where necessary and proportionate to ensure the operation of all or certain critical sectors, the Commission may oblige Integrated Production Facilities and Open EU Foundries to accept and prioritise an order of crisis-relevant products ('priority rated order'). The obligation shall take precedence over any performance obligation under private or public law.
2. The obligation under paragraph 1 can also be imposed to other semiconductor undertakings which have accepted such possibility in the context of receiving public support.
3. When a semiconductor undertaking established in the Union is subject to a third country priority rated order measure, it shall inform the Commission. Should that obligation significantly impact the operation of certain critical sectors, the Commission may oblige that undertaking to accept and prioritise orders of crisis relevant products in line with paragraph 4, 5 and 6.

4. The obligations under paragraph 1, 2 and 3 shall be enacted by the Commission via decision. The decision shall be taken in accordance with all applicable Union legal obligations, having regard to the circumstances of the case, including the principles of necessity and proportionality. The decision shall in particular have regard for the legitimate aims of the undertaking concerned and the cost and effort required for any change in production sequence. In its decision, the Commission shall state the legal basis of the priority rated order, fix the time-limit within which the order is to be performed, and, where applicable, specify the product and quantity, and state the penalties provided for in Article 28 for non-compliance with the obligation. The priority rated order shall be placed at fair and reasonable price.
5. The undertaking concerned shall be obliged to accept and prioritise a priority rated order. The undertaking may request the Commission to review the priority rated order where it considers it to be duly justified based on one of the following grounds:
  - (a) if the undertaking is unable to perform the priority rated order on account of insufficient production capability or production capacity, even under preferential treatment of the order;
  - (b) if acceptance of the order would place an unreasonable economic burden and entail particular hardship for the undertaking.
6. Where an undertaking is obliged to accept and prioritise a priority rated order, it shall not be liable for any breach of contractual obligations that is required to comply with the priority rated orders. The liability shall be excluded only to the extent the violation of contractual obligations was necessary for compliance with the mandated prioritisation.

#### *Article 22*

#### *Common purchasing*

1. The Commission may, upon the request of two or more Member States, establish a mandate to act as a central purchasing body on behalf of the participating Member States ('participating Member States') for their public procurement of crisis-relevant products for certain critical sectors ('common purchasing').
2. The Commission shall, in consultation with the European Semiconductor Board, assess the utility, necessity and proportionality of the request. Where the Commission intends not to follow the request, it shall inform the Member States concerned and the European Semiconductor Board and give reasons for its refusal.
3. The Commission shall draw up a proposal for a framework agreement to be signed by the participating Member States. This framework agreement shall organise in detail the common purchasing referred to in paragraph 1.
4. Procurement under this Regulation shall be carried out by the Commission in accordance with the rules set out in the Financial Regulation for its own procurement. The Commission may have the ability and responsibility, on behalf of all participating Member States, to enter into contracts with economic operators, including individual producers of crisis-relevant products, concerning the purchase of such products or concerning the advance financing of the production or the development of such products in exchange for a priority right to the result.

5. Where the procurement of crisis-relevant products includes financing from the Union budget, specific conditions may be set out in specific agreements with economic operators.
6. The Commission shall carry out the procurement procedures and conclude the contracts with economic operators on behalf of the participating Member States. The Commission shall invite the participating Member States to appoint representatives to take part in the preparation of the procurement procedures. The deployment and use of the purchased products shall remain the responsibility of the participating Member States.

## **CHAPTER V**

### **GOVERNANCE**

#### **SECTION 1 EUROPEAN SEMICONDUCTOR BOARD**

##### *Article 23*

##### *Establishment and tasks of the European Semiconductor Board*

1. The European Semiconductor Board is established.
2. The European Semiconductor Board shall provide the Commission with advice and assistance pursuant to this Regulation and, in particular, by:
  - (a) providing advice on the Initiative to the Public Authorities Board of the Chips Joint Undertaking;
  - (b) exchanging information on the functioning of the Integrated Production Facilities and Open EU Foundries;
  - (c) discussing and preparing the identification of specific sectors and technologies with potential high social impact and respective security significance in need of certification for trusted products;
  - (d) addressing monitoring and crisis response issues;
  - (e) providing advice regarding the consistent application of this Regulation, facilitate cooperation among Member States and exchange of information on issues relating to this Regulation.
3. The European Semiconductor Board shall support the Commission in international cooperation, including information gathering and crisis assessment, in line with international obligations.
4. The European Semiconductor Board shall ensure coordination, cooperation and information exchange, where appropriate, with the relevant crisis response and crisis preparedness structures established under Union law.

##### *Article 24*

##### *Structure of the European Semiconductor Board*

1. The European Semiconductor Board shall be composed of representatives of the Member States and shall be chaired by a representative of the Commission.

2. Each national single point of contact, referred to in Article 26(3), shall appoint a high-level representative to the European Semiconductor Board. Where relevant as regards the function and expertise, a Member State may have more than one representative in relation to different tasks of the European Semiconductor Board. Each member of the European Semiconductor Board shall have an alternate.
3. On a proposal by and in agreement with the Commission, the European Semiconductor Board shall adopt its rules of procedure by a simple majority of its members.
4. The Commission may establish standing or temporary sub-groups for the purpose of examining specific questions. Where appropriate, the Commission may invite organisations representing the interests of the semiconductor industry, including the Industrial Alliance on Processors and Semiconductor Technologies and users of semiconductors at Union level, to such sub-groups in the capacity of observers. A sub-group including Union Research and Technology Organisations shall be established for the purpose of examining specific aspects on strategic technology directions and reporting on this to the European Semiconductor Board.

#### *Article 25*

##### *Operation of the European Semiconductor Board*

1. The European Semiconductor Board shall hold ordinary meetings at least once a year. It may hold extraordinary meetings at the request of the Commission or a Member State and as referred to in Article 15 and Article 18.
2. The European Semiconductor Board shall hold separate meetings for its tasks referred to in Article 23(2), point (a), and for its tasks referred to in Article 23(2), points (b), (c) and (d).
3. The Chair shall convene the meetings and prepare the agenda in accordance with the tasks of the European Semiconductor Board pursuant to this Regulation and with its rules of procedure. The Commission shall provide administrative and analytical support for the activities of the European Semiconductor Board pursuant to Article 23.
4. The Commission may appoint observers to take part in the meetings, as appropriate. The Commission may invite experts with specific expertise, including from relevant stakeholder organisations, with respect to a subject matter on the agenda to take part in the meetings of the European Semiconductor Board on an ad hoc basis. The Commission may facilitate exchanges between the European Semiconductor Board and other Union bodies, offices, agencies and advisory groups. The Commission shall invite a representative from the European Parliament as an observer to the European Semiconductor Board. The Commission shall ensure the participation of relevant other Union institutions and bodies as observers to the European Semiconductor Board with respect to meetings concerning Chapter IV on *monitoring and crisis response*. Observers and experts shall not have voting rights and shall not participate in the formulation of opinions, recommendations or advice of the European Semiconductor Board and its sub-groups.
5. The European Semiconductor Board shall take the necessary measures to ensure the safe handling and processing of confidential information.

## SECTION 2 NATIONAL COMPETENT AUTHORITIES

### *Article 26*

#### *Designation of national competent authorities and single points of contact*

1. Each Member State shall designate one or more national competent authorities for the purpose of ensuring the application and implementation of this Regulation at national level.
2. Where Member States designates more than one national competent authority, they shall clearly set out the respective responsibilities of the authorities concerned and ensure that they cooperate effectively and efficiently to fulfil their tasks under this Regulation, including with regard to the designation and activities of the national single point of contact referred to in paragraph 3.
3. Each Member State shall designate one national single point of contact to exercise a liaison function to ensure cross-border cooperation with national competent authorities of other Member States, with the Commission and with the European Semiconductor Board ('single point of contact'). Where a Member State designates only one competent authority, that competent authority shall also be the single point of contact.
4. Each Member State shall notify the Commission of the designation of the national competent authority and, where applicable, the reasons for designating more than one national competent authority, and the national single point of contact, including their precise tasks and responsibilities under this Regulation, their contact information and any subsequent changes thereto.
5. Member States shall ensure that national competent authorities, including the single point of contact designated, exercise their powers impartially, transparently and in a timely manner and that they are provided with the powers and the adequate technical, financial and human resources to fulfil their tasks under this Regulation.
6. Member States shall ensure that national competent authorities, whenever appropriate, and in accordance with Union and national law, consult and cooperate with other relevant national authorities, as well as with relevant interested parties. The Commission shall facilitate the exchange of experience between national competent authorities.

## CHAPTER VI

### CONFIDENTIALITY AND PENALTIES

#### *Article 27*

##### *Treatment of confidential information*

1. The Commission and the national competent authorities, their officials, servants and other persons working under the supervision of these authorities as well as officials and civil servants of other authorities of the Member States shall not disclose information acquired or exchanged by them pursuant to this Regulation and of the kind covered by the obligation of professional secrecy. They shall respect the confidentiality of information and data obtained in carrying out their tasks and activities in such a manner as to protect in particular intellectual property rights and sensitive business information or trade secrets. This obligation shall apply to all representatives of Member States, observers, experts and other participants attending meetings of the European Semiconductor Board pursuant to Article 23 and the members of the Committee pursuant to Article 33(1).
2. The Commission and Member States may exchange, where necessary, confidential information with competent authorities of third countries with which they have agreed on bilateral or multilateral confidentiality arrangements to provide an adequate level of confidentiality.
3. The Commission may adopt implementing acts, as necessary following experience gained in information gathering, to specify the practical arrangements for the treatment of confidential information in the context of exchange of information pursuant to this Regulation. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 33(2).

#### *Article 28*

##### *Penalties and fines*

1. The Commission may, by decision, where deemed necessary and proportionate:
  - (a) impose fines, where a representative organisations of undertakings or an undertaking, intentionally or through gross negligence, supplies incorrect, incomplete or misleading information in response to a request made pursuant to Article 20, or does not supply the information within the prescribed time limit;
  - (b) impose fines, where an undertaking, intentionally or through gross negligence, does not comply with the obligation to inform the Commission of a third country obligation pursuant to Article 20(5) and Article 21(3);
  - (c) impose periodic penalty payments, where an undertaking, intentionally or through gross negligence, does not comply with an obligation to prioritise the production of crisis-relevant products pursuant to Article 21.
2. Fines imposed in the cases referred to in paragraph 1 (a) and (b) shall not exceed 300 000 EUR.

3. Periodic penalty payments imposed in the cases referred to in paragraph 1 (c) shall not exceed 1.5 % of the average daily turnover in the preceding business year for each working day of non-compliance with the obligation pursuant to Article 21 calculated from the date established in the decision.
4. In fixing the amount of the fine or periodic penalty payment, regard shall be had to the nature, gravity and duration of the infringement, taking due account of the principles of proportionality and appropriateness.
5. Where the undertaking has satisfied the obligation which the periodic penalty payment was intended to enforce, the Commission may fix the definitive amount of the periodic penalty payment at a figure lower than that which would arise under the original decision.
6. The Court of Justice of the European Union shall have unlimited jurisdiction to review decisions whereby the Commission has fixed a fine or a periodic penalty payment. It may cancel, reduce or increase the fine or periodic penalty payment imposed.

#### *Article 29*

##### *Limitation period for the imposition of fines and periodic penalty payments*

1. The powers conferred on the Commission by Article 28 shall be subject to the following limitation periods:
  - (a) two years in the case of infringements of provisions concerning requests of information pursuant to Article 20;
  - (b) two years in the case of infringements of provisions concerning information obligation pursuant to Article 20(5) and Article 21(3);
  - (c) three years in the case of infringements of provisions concerning the obligation to prioritise the production of crisis-relevant products pursuant to Article 21.
2. The time shall begin to run on the day on which the infringement is committed. However, in case of continuous or repeated infringements, time shall begin to run on the day on which the infringement ceases.
3. Any action taken by the Commission or the competent authorities of the Member States for the purposes of ensuring compliance with the provisions of this Regulation shall interrupt the limitation period.
4. The interruption of the limitation period shall apply for all the parties which are held responsible for the participation in the infringement.
5. Each interruption shall start the time running afresh. However, the limitation period shall expire at the latest on the day in which a period equal to twice the limitation period has elapsed without the Commission having imposed a fine or a periodic penalty payment. That period shall be extended by the time during which the limitation period is suspended because the decision of the Commission is the subject of proceedings pending before the Court of Justice of the European Union.



*Article 30*  
*Limitation period for the enforcement of penalties*

1. The power of the Commission to enforce decisions taken pursuant to Article 28 shall be subject to a limitation period of three years.
2. Time shall begin to run on the day on which the decision becomes final.
3. The limitation period for the enforcement of fines and periodic penalties payments shall be interrupted:
  - (a) by notification of a decision varying the original amount of the fine or periodic penalty payment or refusing an application for variation;
  - (b) by any action of the Commission or of a Member State, acting at the request of the Commission, designed to enforce payment of the fine or periodic penalty payment.
4. Each interruption shall start time running afresh.
5. The limitation period for the enforcement of fines and periodic penalty payments shall be suspended for so long as:
  - (a) time to pay is allowed;
  - (b) enforcement of payment is suspended pursuant to a decision of the Court of Justice.

*Article 31*  
*Right to be heard for the imposition of fines or periodic penalty payments*

1. Before adopting a decision pursuant to 28, the Commission shall give the undertaking or representative organisations of undertakings concerned the opportunity of being heard on:
  - (a) preliminary findings of the Commission, including any matter to which the Commission has taken objections;
  - (b) measures that the Commission may intend to take in view of the preliminary findings pursuant to point (a) of this paragraph.
2. Undertakings and representative organisations of undertakings concerned may submit their observations to the Commission's preliminary findings within a time limit which shall be fixed by the Commission in its preliminary findings and which may not be less than 14 days.
3. The Commission shall base its decisions only on objections on which undertakings and representative organisations of undertakings concerned have been able to comment.
4. The rights of defence of the undertaking or representative organisations of undertakings concerned shall be fully respected in any proceedings. The undertaking or representative organisations of undertakings concerned shall be entitled to have access to the Commission's file under the terms of a negotiated disclosure, subject to the legitimate interest of undertakings in the protection of their business secrets. The right of access to the file shall not extend to confidential information and internal documents of the Commission or the authorities of the Member States. In particular, the right of access shall not extend to correspondence between the Commission and the authorities of the Member States. Nothing in this paragraph shall prevent the

Commission from disclosing and using information necessary to prove an infringement.

## CHAPTER VII

### DELEGATION OF POWER AND COMMITTEE PROCEDURE

#### *Article 32*

#### *Exercise of the delegation*

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Article 9(2) and (3) shall be conferred on the Commission for an indeterminate period of time from the date of entry into force of the legislative act.
3. The delegation of power referred to in Article 9(2) and (3) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein it shall not affect the validity of any delegated acts already in force.
4. Before adopting a delegated act the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016.
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to Article 9(2) and (3) shall enter into force only if no objection has been expressed by either the European Parliament or the Council within a period of two months of notification of that act to the European Parliament or the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

#### *Article 33*

#### *Committee*

1. The Commission shall be assisted by a committee ('the Semiconductor Committee'). That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.
3. Where reference is made to this paragraph, Article 8 of Regulation (EU) No 182/2011, in conjunction with Article 5 thereof, shall apply.

## CHAPTER VIII

### FINAL PROVISIONS

#### *Article 34*

*Amendments to Regulation (EU) 2021/694 establishing the Digital Europe Programme and repealing Decision (EU) 2015/2240*

1. Regulation (EU) No 2021/694 is amended as follows:
  - (1) in **Article 3 (2)** the following point (f) is added:  
‘(f) Specific Objective 6 – Semiconductors’;
  - (2) the following Article 8a is inserted:  
‘Article 8a  
Specific Objective 6 – Semiconductors  
The financial contribution from the Union under Specific Objective 6 – Semiconductors shall pursue the objectives laid down in points (a) to (d) of Article 4 of Regulation XX/XX of the European Parliament and of the Council.’;
  - (3) **Article 9 (1) and (2)** are amended as follows:  
‘Article 9  
Budget  
1. The financial envelope for the implementation of the Programme for the period from 1 January 2021 to 31 December 2027 shall be EUR 8 638 000 000 EUR in current prices.  
2. The indicative distribution of the amount referred to in paragraph 1 shall be:  
EUR 2 076 914 000 for Specific Objective 1 – High Performance Computing;  
EUR 1 841 956 000 for Specific Objective 2 – Artificial Intelligence;  
EUR 1 529 566 000 for Specific Objective 3 – Cybersecurity and Trust;  
EUR 517 347 000 for Specific Objective 4 – Advanced Digital Skills;  
EUR 1 022 217 000 for Specific Objective 5 – Deployment and Best Use of Digital Capacities and Interoperability;  
EUR 1 650 000 000 billion for Specific Objective 6 – Semiconductors.’;
  - (4) in **Article 11**, paragraph 2 is replaced by the following:  
‘2. Cooperation with third countries and organisations as referred to in paragraph 1 of this Article with respect to Specific Objectives 1, 2, 3 and 6 shall be subject to Article 12.’

- (5) in **Article 12**, paragraph 6 replaced by the following:  
‘6. If duly justified for security reasons, the work programme may also provide that legal entities established in associated countries and legal entities that are established in the Union but are controlled from third countries may be eligible to participate in all or some actions under Specific Objectives 1, 2 **and 6** only if they comply with the requirements to be fulfilled by those legal entities to guarantee the protection of the essential security interests of the Union and the Member States and to ensure the protection of classified documents information. Those requirements shall be set out in the work programme.’;
- (6) in **Article 13** the following paragraph 3 is added:  
‘3. The synergies of the Specific Objective 6 with other Union Programme, are described in Article 6 and Annex III of Regulation XX/XX.’;
- (7) **Article 14** is amended as follows:  
Paragraph 1 is replaced by the following
- (8) ‘1. The Programme shall be implemented under direct management, in accordance with the Financial Regulation, or under indirect management by entrusting certain implementation tasks to the bodies referred to in point (c) of the first subparagraph of Article 62(1) of the Financial Regulation, in accordance with Articles 4 to 8a of this Regulation. Bodies entrusted with the implementation of the Programme may depart from the rules on participation and dissemination laid down in this Regulation only where such departure is provided for in the legal act that establishes those bodies or entrusts budget implementation tasks to them or, for the bodies referred to in point (c)(ii), (iii) or (v) of the first subparagraph of Article 62(1) of the Financial Regulation, where such departure is provided for in the contribution agreement and the specific operating needs of such bodies or the nature of the action so require.’;
- (9) in **Article 14**, the following paragraph is added:  
‘4. Where the conditions set in Article 22 of Regulation XX/XX are fulfilled, the provisions of that Article shall apply.’;
- (10) in **Article 17**, paragraph 1 is replaced by the following:  
‘1. Only actions contributing to the achievement of the objectives laid down in Articles 3 to 8a shall be eligible for funding.’;
- (11) in **Annex I** the following paragraph is added:  
‘Specific Objective 6 – Semiconductors  
Actions under Specific Objective 6 are provided in Annex I to Regulation XX/XX.’;
- (12) in **Annex II** the following paragraph is added:

‘Specific Objective 6 – Semiconductors

Measurable indicators to monitor the implementation and to report on the progress of the Specific Objective 6 are provided Annex II of the Regulation XX/XX.’;

(13) in **Annex III** the following paragraph is added:

‘Specific Objective 6 – Semiconductors Synergies with Union Programmes for the Specific Objective 6 are provided in Annex III of Regulation XX/XX.’

*Article 35*

*Evaluation and review*

1. By three years after the date of application of this Regulation and every four years thereafter, the Commission shall submit a report on the evaluation and review of this Regulation to the European Parliament and to the Council. The reports shall be made public.
2. For the purpose of the evaluation and review, the European Semiconductor Board, the Member States and national competent authorities shall provide the Commission with information on its request.
3. In carrying out the evaluation and review the Commission shall take into account the positions and findings of the European Semiconductor Board, of the European Parliament, of the Council, and of other relevant bodies or sources.

*Article 36*

*Entry into force*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

*For the European Parliament*  
*The President*

*For the Council*  
*The President*

## LEGISLATIVE FINANCIAL STATEMENT

1. FRAMEWORK OF THE PROPOSAL/INITIATIVE
  - 1.1. Title of the proposal/initiative
  - 1.2. Policy area(s) concerned
  - 1.3. The proposal/initiative relates to:
  - 1.4. Objective(s)
    - 1.4.1. General objective(s)
    - 1.4.2. Specific objective(s)
    - 1.4.3. Expected result(s) and impact
    - 1.4.4. Indicators of performance
  - 1.5. Grounds for the proposal/initiative
    - 1.5.1. Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative
    - 1.5.2. Added value of Union involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this point 'added value of Union involvement' is the value resulting from Union intervention which is additional to the value that would have been otherwise created by Member States alone.
    - 1.5.3. Lessons learned from similar experiences in the past
    - 1.5.4. Compatibility with the Multiannual Financial Framework and possible synergies with other appropriate instruments
    - 1.5.5. Assessment of the different available financing options, including scope for redeployment
  - 1.6. Duration and financial impact of the proposal/initiative
  - 1.7. Management mode(s) planned
2. MANAGEMENT MEASURES
  - 2.1. Monitoring and reporting rules
  - 2.2. Management and control system(s)
    - 2.2.1. Justification of the management mode(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed
    - 2.2.2. Information concerning the risks identified and the internal control system(s) set up to mitigate them
    - 2.2.3. Estimation and justification of the cost-effectiveness of the controls (ratio of "control costs ÷ value of the related funds managed"), and assessment of the expected levels of risk of error (at payment & at closure)
  - 2.3. Measures to prevent fraud and irregularities
3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

- 3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected
- 3.2. Estimated financial impact of the proposal on appropriations
  - 3.2.1. Summary of estimated impact on operational appropriations
  - 3.2.2. Estimated output funded with operational appropriations
  - 3.2.3. Summary of estimated impact on administrative appropriations
  - 3.2.4. Compatibility with the current multiannual financial framework
  - 3.2.5. Third-party contributions
- 3.3. Estimated impact on revenue

This LFS introduces the budgetary consequences of the proposal for a Regulation of the European Parliament and of the Council establishing a framework of measures for strengthening Europe’s semiconductor ecosystem (Chips Act) and the proposal for a Council Regulation amending Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe. It comes in addition to the Legislative Financial Statement introduced for the Key Digital Technologies Joint Undertaking (KDT JU), which is part of the Proposal for a Council Regulation establishing the Joint Undertakings under Horizon Europe (COM(2021) 87, 23 February 2021).

The budgetary consequences mentioned in this LFS are two-fold:

Expenditure for the Chips for Europe Initiative (with the exception of the Chips Fund) and ongoing activities under the KDT JU, to be managed by the Chips JU. The total expenditure to be managed by the Chips Joint Undertaking, formerly known as the ‘Key Digital Technologies Joint Undertaking’, is EUR 4.175 billion, of which EUR 1.8 billion was committed under the KDT JU before.

Expenditure for European Commission staff to cope with the new tasks entrusted to the Commission to supervise the Chips JU, to review and decide on European Chips Infrastructure Consortium applications, to review and decide on applications for an Integrated Production Facility or Open EU Foundry, to support the European Semiconductor Board, and – together with Member States – to monitor semiconductor supply chains and decide on actions, where appropriate. A total of 9 full time equivalent units is foreseen for these activities.

## **1. FRAMEWORK OF THE PROPOSAL/INITIATIVE**

### **1.1 Title of the proposal/initiative**

Regulation of the European Parliament and of the Council establishing a framework of measures for strengthening Europe’s semiconductor ecosystem (Chips Act)

### **1.2 Policy area(s) concerned**

A Europe fit for the Digital Age  
European Strategic Investments

Activity: Shaping Europe's digital future.

**1.1. The proposal/initiative relates to:**

a new action

a new action following a pilot project/preparatory action<sup>67</sup>

the extension of an existing action

a merger or redirection of one or more actions towards another/a new action

**1.2. Objective(s)**

*1.2.1. General objective(s)*

The European Chips Act aims to establish a coherent framework for strengthening the Union's semiconductor ecosystem. It will enlarge the resilience of Europe's semiconductor ecosystem and increase its global market share. It will facilitate early adoption of new chips by European industry and increase its competitiveness.

*1.2.2. Specific objective(s)*

Set up the Chips for Europe Initiative, to support large-scale technological capacity building throughout investment into cross-border and openly accessible innovative infrastructures set up in the Union to enable the development of cutting-edge and next-generation semiconductor technologies that will reinforce the EU's advanced design, systems integration, and chips production capabilities (pillar 1, "Chips for Europe Initiative").

Create a framework to ensure security of supply by attracting investments and enhanced production capacities in semiconductor manufacturing as well as advanced packaging, test, and assembly via first-of-a-kind Integrated Production Facilities and Open EU Foundries (pillar 2, "Security of supply").

Set up a coordination mechanism between the Member States and the Commission for strengthening collaboration with and across Member States, monitoring the supply of semiconductors, estimate demand, anticipate shortages, trigger situations of crisis and act through a dedicated toolbox of measures (pillar 3, "Preparedness and Monitoring").

*1.2.3. Expected result(s) and impact*

*Specify the effects which the proposal/initiative should have on the beneficiaries/groups targeted.*

The Union's semiconductor industry should benefit from support to large-scale technological capacity building in cutting-edge and next-generation semiconductor technologies that will reinforce the EU's advanced design, systems integration, and chips production capabilities. Semiconductor facilities will benefit from more effective permit granting processes.

<sup>67</sup> As referred to in Article 58(2)(a) or (b) of the Financial Regulation.



The Union's semiconductor users in all sectors should benefit from increased security of supply of semiconductors without disruptions. In addition, critical sectors should benefit from enhanced security of supply of semiconductors.

End-users of products with semiconductors should benefit from increased security of supply, against more attractive market prices.

The competitiveness of the European semiconductor ecosystem will improve.

#### 1.2.4. *Indicators of performance*

*Specify the indicators for monitoring progress and achievements.*

Performance indicators are mostly relevant for the Chips for Europe Initiative. Annex II gives first versions of measurable indicators to monitor the implementation and to report on the progress of the Initiative towards the achievement of its objectives:

1. The number of legal entities involved (subdivided by size, type and country of establishment) in the actions supported by the Initiative.
2. The number of design tools developed or integrated under the Initiative.
3. The total amount co-invested in design capacities and pilot lines under the Initiative.
4. The number of users or user communities getting access to design capacities and pilot lines under the Initiative.
5. The number of businesses, which have used the services of national competence centres supported by the Initiative.
6. The number of persons who have received training to acquire advanced skills and training on semiconductor and quantum technologies supported by the Initiative.
7. The number of start-ups, scale-ups and SMEs who have received venture capital from the Chips Fund and the total amount of capital investments made.
8. The amount of investment by companies operating in the EU, taking into consideration the segment of the value chain in which they operate

### 1.3. **Grounds for the proposal/initiative**

#### 1.3.1. *Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative*

The Regulation should be fully applicable shortly after its adoption, i.e. the day following that of its publication in the Official Journal of the European Union. However, initial elements should be in place before, supported by the Recommendation by the Commission, adopted at the same time as the proposed Regulation.

The European Semiconductor Board should be set up and Member States should have appointed a point of contact to its meeting. By the time of applicability the European Semiconductor Board should be fully operative.

Information gathering from representative organisations of semiconductor undertakings should already be on-going and Member States should have already discussed a number of possible measures in the crisis toolbox and carried out monitoring of the semiconductor value chain.

- 1.3.2. *Added value of Union involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this point 'added value of Union involvement' is the value resulting from Union intervention which is additional to the value that would have been otherwise created by Member States alone.*

Semiconductor chips are central to the digital economy. The global semiconductor shortage has exposed Europe's dependency on supply from a limited number of companies and geographies, and its vulnerability to third country export restrictions and other disruptions in the present geopolitical context. Furthermore, this dependency is exacerbated by the extremely high barriers to entry and capital intensity of the sector. For example, the most computationally powerful chips require manufacturing to a precision of a few nanometers (nm). Building such facilities entails an upfront investment of at least EUR 15 billion and requires three years to achieve production-readiness with adequate yields. The expenditures to design such chips can range from EUR 0.5 billion to well over EUR 1.0 billion. R&D intensity in the sector is high and more than 15%. No single Member State is capable of achieving this alone.

Intervention at the level of the Union is best placed to address the challenges deriving from the complexity of the semiconductor ecosystem, from the Union's structural dependencies and from far-reaching supply chain disruptions.

The Chips for Europe Initiative, should be set as a Union-wide initiative for supporting an industrial sector across Europe. A Union level initiative can provide the necessary degree of uniformity needed for the effective operation of funding programmes aimed at strengthening the European semiconductor ecosystem.

For the security of supply, Union level action is justified by the need for a uniform application of the new rules, in particular the definition of Integrated Production Facilities and Open EU Foundries, as well as a uniform procedure for their recognition and support.

Furthermore, a key element of this proposal is to provide for measures to address serious disruptions to vital societal functions or economic activities at Union level. Important coordination gains should arise from setting up a mechanism for coordination between Member States and the Commission for monitoring and crisis response to semiconductor shortages.

### 1.3.3. *Lessons learned from similar experiences in the past*

The Commission published a Communication in 2013 on “A European Strategy for Micro- and Nanoelectronic Components and Systems”<sup>68</sup>. It proposed an industrial strategy to ensure return to growth and reach, in a decade, a level of production in the EU that is closer to its share of world GDP. In more detail, it aimed to:

- Ensure the availability of micro- and nanoelectronics that are needed for the competitiveness of key industries in Europe.
- Attract higher investment in advanced manufacturing in Europe and reinforce industrial competitiveness across the value chain from design to manufacturing.
- Maintain leadership in equipment and material supply and in areas such as “more than Moore” and energy-efficient components.
- Build leadership in the design of chips in high growth markets, notably in the design of complex components.

Clearly, the Union was not entirely successful in reaching the objectives of this industrial strategy.

One reason is that EU actions following the Communication largely focused on supporting R&D, for example via the ECSEL Joint Undertaking. However, capacity building in the microelectronics sector was not well addressed.

Furthermore, the Communication mentioned demand-side actions to be addressed. However, the actions undertaken did not adequately address such demand-side actions. More emphasis on demand-side actions, e.g. actions addressing design activities, is needed.

Finally, related to the first point, the 2013 Communication had few instruments at its disposal. Currently, more instruments are available, an opening in the competition policy has been provided, and the political momentum is now clearer.

### 1.3.4. *Compatibility with the Multiannual Financial Framework and possible synergies with other appropriate instruments*

In order to maximise its positive impacts, the Chips for Europe Initiative (pillar 1) will build upon the strong knowledge base and enhance synergies with actions currently supported by the Union and Member States through programmes and actions in research and innovation in semiconductors and in developments of part of the supply chain. These include, in particular, the Horizon Europe Framework Programme and the Digital Europe Programme, with the aim to reinforce Europe as global player in semiconductor technology and its applications, with a growing global share in manufacturing by 2030. Complementing those activities, the Chips for Europe Initiative would closely collaborate with the Industrial Alliance on Processors and Semiconductor Technologies.

<sup>68</sup> [https://ec.europa.eu/transparency/documents-register/api/files/COM\(2013\)298\\_0/de00000000485396?rendition=false](https://ec.europa.eu/transparency/documents-register/api/files/COM(2013)298_0/de00000000485396?rendition=false)

Furthermore, the Regulation provides for a procedural framework to facilitate combined funding from Member States, the EU budget and private investment.

The proposed initiative can be set in the context of a number of recently announced European policies and priorities:

- Industrial Strategy;
- Recovery Plan for Europe;
- Green Deal;
- Artificial Intelligence;
- Research and Innovation under the proposed Horizon Europe programme, Pillar II Cluster “Digital, Industry and Space” aims to make concrete contributions to three overarching EU policies: ‘A Europe fit for the Digital Age’, ‘An economy that works for people’, and ‘A European Green Deal’.
- Recovery and Resilience Facility

As regards possible synergies with other appropriate instruments, the role of competent authorities at national level can be performed by national authorities fulfilling similar functions under other Union law. See also Chapter 1 of the Explanatory Memorandum.

1.3.5. *Assessment of the different available financing options, including scope for redeployment*

#### 1.4. **Duration and financial impact of the proposal/initiative**

**limited duration**

in effect from date of adoption of the proposal for a Regulation of the European Parliament and of the Council establishing a framework of measures for strengthening Europe’s semiconductor ecosystem (Chips Act)

Financial impact from 2023 to 2027 for commitment appropriations and from 2023 to 2031 for payment appropriations.

**unlimited duration**

1 Implementation with a start-up period from YYYY to YYYY,

2 followed by full-scale operation.

#### 1.5. **Management mode(s) planned**

**Direct management** by the Commission

by its departments, including by its staff in the Union delegations;

by the executive agencies

**Shared management** with the Member States

**Indirect management** by entrusting budget implementation tasks to:

third countries or the bodies they have designated;

- international organisations and their agencies (to be specified);
- the EIB and the European Investment Fund;
- bodies referred to in Articles 70 and 71 of the Financial Regulation;
- public law bodies;
- bodies governed by private law with a public service mission to the extent that they provide adequate financial guarantees;
- bodies governed by the private law of a Member State that are entrusted with the implementation of a public-private partnership and that provide adequate financial guarantees;
- persons entrusted with the implementation of specific actions in the CFSP pursuant to Title V of the TEU, and identified in the relevant basic act.

*If more than one management mode is indicated, please provide details in the 'Comments' section.*

#### Comments

With the exception of a) activities and budgets related to the Chips Fund and b) activities and budgets earmarked under the European Innovation Council, the Chips for Europe Initiative will be implemented under indirect management by entrusting the implementation of tasks to the Key Digital Technologies Joint Undertaking, to be renamed to 'Chips Joint Undertaking'. Member States and other Participating States are co-funding indirect actions.

Other parts, such as the activities under pillar 2 and 3, are under direct management. These concern tasks entrusted to the Commission to supervise the Chips JU, to review and decide on European Chips Infrastructure Consortium applications, to review and decide on applications for an Integrated Production Facility or Open EU Foundry, to support the European Semiconductor Board, and – together with Member States – to monitor semiconductor supply chains and decide on actions, where appropriate.

## 2. MANAGEMENT MEASURES

### 2.1. Monitoring and reporting rules

*Specify frequency and conditions.*

As a Union body, the Chips Joint Undertaking functions under strict monitoring rules. Monitoring is performed through:

- its own internal audit capacity and the audit service of the Commission;
- the supervision of the Governing Board. The Executive Director will supervise the Joint Undertaking's operations internally;
- a set of quantitative and qualitative performance indicators which will be established to monitor the implementation of the programme and to measure its impact;
- mid-term and final evaluations of the programme by external experts, under the supervision of the Commission;
- the Joint Undertaking's Work Programme and its Annual Activity Report.

### 2.2. Management and control system(s)

#### 2.2.1 *Justification of the management mode(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed*

The Regulation introduces a new policy framework with regard to attracting investment in and enhancing advanced semiconductor manufacturing in the Union and introduces harmonised rules for a coordinated approach to monitoring and preparedness for semiconductor shortages.

These new rules require a consistency mechanism for the cross-border application of the obligations under this Regulation and coordination of the activities of national authorities and of the Commission through a new advisory group, the European Semiconductor Board.

These tasks under direct management. In order to face these new tasks under pillar 2 and 3 and related to the Chips Fund, it is necessary to appropriately resource the Commission's services.

For other parts, indirect management is justified because the Chips Joint Undertaking is a public private partnership with part of the co-financing brought in via contributions from Participating States and via in-kind contributions by private members.

Each year, the decision on the EU contribution to the Chips Joint Undertaking will be taken by virtue of the EU Budget adopted for that year.

A Framework Financial Partnership Agreement signed between the European Commission and the Chips Joint Undertaking will indicate that for the tasks to be carried out each year the Commission will pay a contribution upon conclusion of a Contribution agreement with the Chips Joint Undertaking, and the issuing, by the Joint Undertaking, of corresponding payment requests to the members other than the Union.

The Commission will ensure that the rules applicable to the Chips Joint Undertaking fully comply with the requirements of the Financial Regulation. In compliance with Article 71 of Regulation (EU, Euratom) 2018/1046 the Joint Undertaking will respect the principle of sound financial management. The Chips Joint Undertaking shall also comply with the provisions of the Model Financial Regulation applicable to the Joint Undertaking. Any departure from this Model Financial Regulation, required for the purpose of the Joint Undertaking's specific needs, shall be subject to the Commission's prior consent.

Monitoring arrangements, including through the Union representation in the Governing Board and Public Authorities Board of the Chips Joint Undertaking, as well as reporting arrangements will ensure that the Commission services can meet the accountability requirements both to the College and to the Budgetary Authority.

The internal control framework for the Chips Joint Undertaking is built on:

- the implementation of the Internal Control Standards offering at least equivalent guarantees to those of the Commission;
- procedures for selecting the best projects through independent evaluation, and for translating them into legal instruments;
- project and contract management throughout the lifetime of every project;
- ex-ante checks on 100% of claims, including receipt of audit certificates and ex-ante certification of cost methodologies;
- ex-post audits on a sample of claims as part of the Horizon Europe ex-post audits;
- scientific evaluation of project results.

*2.2.1. Information concerning the risks identified and the internal control system(s) set up to mitigate them*

Various measures have been established to mitigate the inherent risk of conflict of interest within the Chips Joint Undertaking, especially:

- equal votes (one third) for the Commission, Participating States (collectively) and for private members (collectively) in the Governing Board; equal votes (one half) for the Commission and Participating States (collectively) in the Public Authorities Board;
- high-level decisions on the activities/budgets dedicated to the activities of the chips initiative (capacity building in upcoming work programmes) are taken by the Public Authorities Board with Member States only,
- the part of the work programme dealing with capacity building activities is adopted by the Public Authorities Board with Member States only,
- selection of the Executive Director by the Governing Board based on a proposal by the Commission,
- independence of staff,
- evaluations by independent experts based on published evaluation criteria together with appeal mechanisms and full declarations of any interests,

-a requirement for the Governing Board to adopt rules for the prevention, avoidance and management of conflicts of interest in the Joint Undertaking in accordance with the financial rules of the Joint Undertaking and with the Staff Regulations in respect of staff.

The establishment of ethical and organisational values will be one of the key roles of the Joint Undertaking, and will be monitored by the Commission.

The Executive Director of the Chips Joint Undertaking, as Authorising Officer, will be required to introduce a cost-effective system of internal control and management. They will be required to report to the Commission on the internal control framework adopted.

The Commission will monitor the risk of non-compliance through the reporting system that it will develop, as well as by following the results of ex post audits on the recipients of EU funds from the Chips Joint Undertaking, as part of ex post audits covering the whole of the Horizon Europe.

There is a clear need to manage the budget in an efficient and effective manner, and to prevent fraud and waste. However, the control system needs to strike a fair balance between attaining an acceptable error rate and the control burden required and avoid lowering the attractiveness of the Union's Research programme.

*2.2.3 Estimation and justification of the cost-effectiveness of the controls (ratio of "control costs ÷ value of the related funds managed"), and assessment of the expected levels of risk of error (at payment & at closure)*

As the rules for participation of Horizon Europe and the Digital Europe programme applicable to the Chips Joint Undertaking are similar to those that the Commission will use in its work programmes, and with a population of beneficiaries with a similar risk profile to those of programmes under direct management, it can be expected that the error margin will be similar to that foreseen by the Commission for Horizon Europe and the Digital Europe programme, i.e. to give reasonable assurance that the risk of error over the course of the multiannual expenditure period is, on an annual basis, within a range of 2-5 %, with the ultimate aim to achieve a residual error rate as close as possible to 2 % at the closure of the multi-annual programmes, once the financial impact of all audits, correction and recovery measures have been taken into account.

**2.3. Measures to prevent fraud and irregularities**

*Specify existing or envisaged prevention and protection measures, e.g. from the Anti-Fraud Strategy.*

The Commission will ensure that procedures to fight against fraud at all stages of the management process are applied by the Chips Joint Undertaking.

The Commission will ensure that appropriate measures are in place to ensure that, when actions financed under this Regulation are implemented, the financial interest of the Union is protected by the application of preventive measures against fraud, corruption and any other illegal activities, by effective checks and, if irregularities are detected, by the recovery of the amounts wrongly paid and, where appropriate, by effective, proportionate and deterrent penalties.



The Court of Auditors shall have the power of audit, on the basis of documents and on-the-spot checks, over all grant beneficiaries, contractors and subcontractors who have received Union funds under the Programme.

The European Anti-fraud Office (OLAF) may carry out on-the-spot checks and inspections on economic operators concerned directly or indirectly by such funding in accordance with the procedures laid down in Regulation (Euratom, EC) No 2185/96 with a view to establishing whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the Union in connection with a grant agreement or grant decision or a contract concerning Union funding. The Joint Undertakings will also need to accede to the Interinstitutional Agreement of 25 May 1999 between the European Parliament, the Council of the European Union and the Commission of the European Communities concerning internal investigations by the European Anti-fraud Office (OLAF).

The European Public Prosecutor's Office (EPPO) may carry out investigations in accordance with the provisions and procedures laid down in Council Regulation (EU) 2017/193923, with a view to investigating criminal offences affecting the financial interests of the Union.

### 3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

#### 3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected

Existing budget lines

*In order of multiannual financial framework headings and budget lines.*

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff. <sup>69</sup>	from EFTA countries <sup>70</sup>	from candidate countries <sup>71</sup>	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
1	01 02 02 30 – Cluster Civil Security for Society	Diff.	YES	YES	YES	NO
1	01 02 02 40 - Cluster Digital, Industry and Space	Diff.	YES	YES	YES	NO
1	01 02 02 42 Horizon Europe Programme — Key Digital Technologies joint undertaking	Diff	YES	YES	YES	NO
1	01 02 02 50 – Cluster Climate, Energy and Mobility	Diff	YES	YES	YES	NO
1	01 02 03 01 - European Innovation Council	Diff.	YES	YES	YES	NO
1	02 03 01 - Connecting Europe Facility (CEF) — Transport	Diff.	NO	YES	YES	NO
1	02 03 03 01 - Connecting Europe Facility (CEF) — Digital	Diff.	NO	YES	YES	NO
1	02 04 01 10 - Digital Europe programme - Cybersecurity	Diff.	YES	YES	YES	NO
1	02 04 01 11 - Digital Europe programme - European Cybersecurity Industrial, Technology and Research Competence Centre	Diff	YES	YES	YES	NO
1	02 04 02 11 - Digital Europe programme - High-Performance Computing joint undertaking (EuroHPC)	Diff	YES	YES	YES	NO
1	02 04 03 - Digital Europe programme - Artificial intelligence	Diff.	YES	YES	YES	NO

<sup>69</sup> Diff. = Differentiated appropriations / Non-diff. = Non-differentiated appropriations.

<sup>70</sup> EFTA: European Free Trade Association.

<sup>71</sup> Candidate countries and, where applicable, potential candidates from the Western Balkans.

1	02 04 04 - Digital Europe programme – Skills	Diff.	YES	YES	YES	NO
1	02 04 05 01 - Digital Europe programme - Deployment	Diff.	YES	YES	YES	NO
1	02 04 05 02 - Digital Europe programme - Deployment / Interoperability	Diff.	YES	YES	YES	NO
1	Unallocated margin – Heading 1	Diff.	NO	NO	NO	NO

New budget lines requested

*In order of multiannual financial framework headings and budget lines.*

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff.	from EFTA countries	from candidate countries	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
1	02 04 06 10 - Digital Europe programme – Chips	Diff.	YES	YES	YES	NO
1	02 04 06 11 - Digital Europe Programme — Chips joint undertaking	Diff	YES	YES	YES	NO

### 3.2. Estimated financial impact of the proposal on appropriations

#### 3.2.1. Summary of estimated impact on operational appropriations

- The proposal/initiative does not require the use of operational appropriations
- The proposal/initiative requires the use of operational appropriations, as explained below:

EUR million (to three decimal places)

<b>Heading of multiannual financial framework</b>	<b>1</b>	<b>Single Market, Innovation and Digital</b>
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The proposal will not increase the total level of expenditure programmed under Heading 1 of the Multiannual Financial Framework 2021-2027. Indeed, the contribution from the EU Budget to the Chips for Europe Initiative will be pooled from the Horizon Europe Programme and the Digital Europe Programme and, with the exception of the action under the European Innovation Council, channelled to the Key Digital Technologies (future Chips) Joint Undertaking for implementation. To this end, a sixth specific objective will be created under the Digital Europe Programme.

This sixth specific objective will be financed by

- i an internal redeployment of the current envelope of the Digital Europe Programme,
- ii a use of unallocated margin of Heading 1, and
- iii a reduction from the envelopes of the Connecting Europe Facility – Transport and the Connecting Europe Facility – Digital.

The summary table under section 3.2.4 provides a full overview of all sources of funding.

- Operational appropriations earmarked or reallocated within **Horizon Europe** for being used for the purpose of the Chips for Europe Initiative

Operational appropriations under <b>Horizon Europe</b>			2021	2022	2023	2024	2025	2026	2027	<i>Post 2027</i>	TOTAL
Operational appropriations <b>earmarked</b> under <b>Horizon Europe</b>											
01 02 02 42- Horizon Europe Programme — Key Digital Technologies joint undertaking	Commitments	(1a)			108.850	112.609	97.470	91.781	89.290		500.000

01 02 03 01 - European Innovation Council <sup>72</sup>	Commitments	(1a)			75.251	55.054	55.501	56.499	57.696		300.000
<b>Operational appropriation reallocated within Horizon Europe</b>											
01 02 02 30 – Cluster Civil Security for Society	Commitments	(1a)			40.800	47.400	41.400	10.200	10.200		150.000
01 02 02 40 - Cluster Digital, Industry and Space	Commitments	(1a)			108.800	126.400	110.400	27.200	27.200		400.000
01 02 02 50 Cluster Climate, Energy and Mobility	Commitments	(1a)			81.600	94.800	82.800	20.400	20.400		300.000
<b>TOTAL appropriations under Horizon Europe</b>	Commitments				<b>415.302</b>	<b>436.263</b>	<b>387.570</b>	<b>206.080</b>	<b>204.785</b>	-	<b>1,650.000</b>

- Operational appropriations to be pooled under a sixth specific objective of the **Digital Europe Programme** for the purpose of the Chips for Europe Initiative to be implemented by the future Chips Joint Undertaking:

Operational appropriations under <b>Digital Europe</b> – sixth objective			2021	2022	2023	2024	2025	2026	2027	Post 2027	TOTAL
<b>Operational appropriations redeployed from other programmes (Horizon Europe, Connecting Europe Facility)</b>											
01 02 02 40 – Horizon Europe - Cluster Digital, Industry and Space	Commitments	(1a)			80.000	80.000	80.000	80.000	80.000		400.000
02 03 01 - Connecting Europe Facility (CEF) — Transport	Commitments	(1a)				96.000	86.000	34.000	34.000		250.000

<sup>72</sup> Up to 300.000 EUR million will be earmarked under the EIC for being used for the purpose of the Chips Europe Initiative. The yearly programming of the envelope is indicative.

02 03 03 01 - Connecting Europe Facility (CEF) — Digital	Commitments	(1a)				57.600	51.600	20.400	20.400		150.000
Operational appropriation <b>reallocated</b> within the <b>Digital Europe</b> programme											
02 04 01 10 - Digital Europe programme – Cybersecurity	Commitments	(1a)			16.320	18.960	16.560	4.080	4.080		60.000
02 04 01 11 - Digital Europe programme - European Cybersecurity Industrial, Technology and Research Competence Centre	Commitments	(1a)			16.320	18.960	16.560	4.080	4.080		60.000
02 04 02 11 - Digital Europe programme - High-Performance Computing joint undertaking (EuroHPC)	Commitments	(1a)			40.800	47.400	41.400	10.200	10.200		150.000
02 04 03 - Digital Europe programme - Artificial intelligence	Commitments	(1a)			59.840	69.520	60.720	14.960	14.960		220.000
02 04 04 - Digital Europe programme - Skills	Commitments	(1a)			16.320	18.960	16.560	4.080	4.080		60.000
02 04 05 01 - Digital Europe programme – Deployment	Commitments	(1a)			10.880	12.640	11.040	2.720	2.720		40.000
02 04 05 02 - Digital Europe programme - Deployment / Interoperability	Commitments	(1a)			2.720	3.160	2.760	0.680	0.680		10.000
Contribution from the available <b>margin</b> under <b>Heading 1</b> of the Multiannual Financial Framework											
Unallocated margin Heading 1	Commitments	(1a)			50.000	50.000	50.000	50.000	50.000		250.000
<b>TOTAL appropriations pooled to Digital Europe</b>	Commitments	=1a			<b>293.200</b>	<b>473.200</b>	<b>433.200</b>	<b>225.200</b>	<b>225.200</b>	-	<b>1,650.000</b>

**For information purposes: overview of the implementation by the European Innovation Council and the Chips Joint Undertaking**

**A Horizon Europe**

**Implementation by the European Innovation Council**

Operational appropriations “earmarked” under Horizon Europe - EIC			2021	2022	2023	2024	2025	2026	2027	Post 2027	TOTAL
01 02 03 01 - European Innovation Council <sup>73</sup>	Commitments	(1a)			75.251	55.054	55.501	56.499	57.696		300.000
	Payments	(2a)			45.151	48.082	51.836	58.030	56.973	39.928	300.000

**Implementation by the Chips Joint Undertaking**

EUR 500 million earmarked for the purposes of the Chips for Europe Initiative within the pre-existing financial envelope of the Key Digital Technologies Joint Undertaking will be implemented by the Chips joint undertaking:

Operational appropriations “earmarked” under Horizon Europe - KDT			2021	2022	2023	2024	2025	2026	2027	Post 2027	TOTAL
01 02 02 42- Horizon Europe Programme — Key Digital Technologies joint undertaking	Commitments	(1a)			108.850	112.609	97.470	91.781	89.290		500.000
	Payments	(2a)			60.897	74.926	83.997	83.126	79.271	117.783	500.000

The EUR 850 million reallocated under Horizon Europe –will be implemented by the Key Digital Technologies (future Chips) joint undertaking and split between operational and support expenditure as follows:

Appropriations reallocated within Horizon Europe – to the Chips JU			2021	2022	2023	2024	2025	2026	2027	Post 2027	TOTAL

<sup>73</sup> Up to 300.000 EUR million will be earmarked under the EIC for being used for the purpose of the Chips for Europe Initiative. The yearly profiling of the envelope is purely indicative.

Operational appropriations											
01 02 02 42 Horizon Europe Programme — Key Digital Technologies joint undertaking - Operational expenditure	Commitments	(1a)			230.809	267.842	233.371	56.546	52.897		841.465
	Payments	(2a)			138.329	206.642	216.371	130.326	95.281	54.516	841.465
Appropriations of an administrative nature financed from the envelope of specific programmes <sup>74</sup>											
01 02 02 42 Horizon Europe Programme — Key Digital Technologies joint undertaking - Support expenditure	Commitments	(1b)			0.391	0.758	1.229	1.254	4.903		8.535
	Payments	(2b)			0.391	0.758	1.229	1.254	1.279	3.624	8.535
<b>TOTAL additional appropriations for the Chips Joint Undertaking under Horizon Europe</b>	Commitments	=1a+1b +3			<b>231.200</b>	<b>268.600</b>	<b>234.600</b>	<b>57.800</b>	<b>57.800</b>	-	<b>850.000</b>
	Payments	=2a+2b +3			<b>138.720</b>	<b>207.400</b>	<b>217.600</b>	<b>131.580</b>	<b>96.560</b>	<b>58.140</b>	<b>850.000</b>

The consolidated appropriations of the Key Digital Technologies (future Chips) joint undertaking under the Horizon Europe, including appropriations covering former activities of the KDT Joint Undertaking that are not part of the Chips for Europe Initiative, will be as follows:

Chips Joint Undertaking				2021	2022	2023	2024	2025	2026	2027	<i>Post 2027</i>	TOTAL
Operational appropriations												
01 02 02 42 Horizon Europe Programme — Key Digital Technologies joint undertaking - Operational expenditure	Commitments	(1a)		207.637	247.490	518.207	565.170	490.661	298.788	287.185		2,615.139
	Payments	(2a)		51.909	113.782	334.342	447.834	486.757	397.896	350.073	432.545	2,615.139
Appropriations of an administrative nature financed from the envelope of specific programmes												
01 02 02 42 Horizon Europe Programme — Key Digital Technologies joint undertaking	Commitments	(1b)		2.363	2.510	2.993	3.430	3.939	4.012	15.615		34.861
	Payments	(2b)		2.363	2.510	2.993	3.430	3.939	4.012	4.076	11.539	34.861

<sup>74</sup> Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.



- Support expenditure											
<b>TOTAL appropriations for Chips Joint Undertaking under the Horizon Europe programme</b>	Commitments	=1a+1 b +3	<b>210.000</b>	<b>250.000</b>	<b>521.200</b>	<b>568.600</b>	<b>494.600</b>	<b>302.800</b>	<b>302.800</b>		<b>2,650.000</b>
	Payments	=2a+2 b+3	<b>54.272</b>	<b>116.292</b>	<b>337.335</b>	<b>451.264</b>	<b>490.696</b>	<b>401.908</b>	<b>354.149</b>	<b>444.083</b>	<b>2,650.000</b>

## B Digital Europe programme

Under the Digital Europe Programme, except for EUR 125 million to be implemented under InvestEU, EUR 1 525 million will be implemented by the Key Digital Technologies (future Chips) joint undertaking and split between operational and support expenditure as follows:

Chips Joint Undertaking			2021	2022	2023	2024	2025	2026	2027	Post 2027	TOTAL
Operational appropriations											
02 04 06 11 - Digital Europe Programme — Chips joint undertaking - Operational expenditure	Commitments	(1a)			258.498	432.340	396.494	214.450	207.904		1,509.687
	Payments	(2a)			154.818	310.700	349.674	276.800	254.305	163.389	1,509.687
Appropriations of an administrative nature financed from the envelope of specific programmes											
02 04 06 11 - Digital Europe Programme — Chips joint undertaking- Support expenditure	Commitments	(1b)			0.702	1.360	2.206	2.250	8.796		15.313
	Payments	(2b)			0.702	1.360	2.206	2.250	2.295	6.501	15.313
<b>TOTAL appropriations for Chips Joint Undertaking</b>	Commitments	=1a+1b +3			<b>259.200</b>	<b>433.700</b>	<b>398.700</b>	<b>216.700</b>	<b>216.700</b>		<b>1,525.000</b>
	Payments	=2a+2b +3			<b>155.520</b>	<b>312.060</b>	<b>351.880</b>	<b>279.050</b>	<b>256.600</b>	<b>169.890</b>	<b>1,525.000</b>

The total **additional** appropriations pooled under Heading 1 to be implemented by the future Chips Joint Undertaking for the purpose of the Chips for Europe Initiative amounts to EUR 2 375 million, of which EUR 850 million under Horizon Europe and EUR 1 525 million under Digital Europe. It will split between operational (Title 3) and support (Title 1 and Title 2) expenditure as follows:

			2021	2022	2023	2024	2025	2026	2027	Post 2027	TOTAL
Title 1	Commitments	(4)			0.792	1.535	2.489	2.538	9.924		17.277
	Payments	(5)			0.792	1.535	2.489	2.538	2.589	7.335	17.277
Title 2	Commitments	(4)			0.301	0.584	0.947	0.966	3.775		6.572
	Payments	(5)			0.301	0.584	0.947	0.966	0.985	2.790	6.572
Title 3	Commitments	(4)			489.307	700.182	629.865	270.996	260.801		2,351.152
	Payments	(5)			293.147	517.342	566.045	407.126	349.586	217.905	2,351.152
<b>TOTAL appropriations</b>	Commitments	=4+ 6			<b>490.400</b>	<b>702.300</b>	<b>633.300</b>	<b>274.500</b>	<b>274.500</b>		<b>2,375.000</b>
	Payments	=5+ 6			<b>294.240</b>	<b>519.460</b>	<b>569.480</b>	<b>410.630</b>	<b>353.160</b>	<b>228.030</b>	<b>2,375.000</b>

The **total appropriations** to be implemented by the future **Chips Joint Undertaking** under Horizon Europe and Digital Europe, including appropriations covering former activities of the KDT Joint Undertaking that are not part of the Chips for Europe Initiative amount to EUR 4 175 million. It will be split between operational (Title 3) and support (Title 1 and Title 2) expenditure as follows:

			2021	2022	2023	2024	2025	2026	2027	Post 2027	TOTAL
Title 1	Commitments	(4)	1.804	1.861	2.732	3.516	4.508	4.595	18.011	-	37.027
	Payments	(5)	1.804	1.861	2.732	3.516	4.508	4.595	4.685	13.326	37.027
Title 2	Commitments	(4)	0.559	0.649	0.963	1.274	1.637	1.666	6.399	-	13.147
	Payments	(5)	0.559	0.649	0.963	1.274	1.637	1.666	1.685	4.714	13.147
Title 3	Commitments	(4)	207.637	247.490	776.705	997.510	887.155	513.238	495.090		4,124.826
	Payments	(5)	51.909	113.782	489.161	758.534	836.432	674.696	604.378	595.933	4,124.826

<b>TOTAL appropriations</b>	Commitments	=4+ 6	<b>210.000</b>	<b>250.000</b>	<b>780.400</b>	<b>1,002.300</b>	<b>893.300</b>	<b>519.500</b>	<b>519.500</b>		<b>4,175.000</b>
	Payments	=5+ 6	<b>54.272</b>	<b>116.292</b>	<b>492.855</b>	<b>763.324</b>	<b>842.576</b>	<b>680.958</b>	<b>610.749</b>	<b>613.973</b>	<b>4,175.000</b>

<b>Heading of multiannual financial framework</b>	<b>7</b>	<b>'Administrative expenditure'</b>
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This section should be filled in using the 'budget data of an administrative nature' to be firstly introduced in the [Annex to the Legislative Financial Statement](#) (Annex V to the internal rules), which is uploaded to DECIDE for interservice consultation purposes.

EUR million (to three decimal places)

	2021	2022	2023	2024	2025	2026	2027	TOTAL
DG CNECT								
<input type="radio"/> Human resources			1.125	1.125	1.125	1.125	1.125	<b>5.625</b>
<input type="radio"/> Other administrative expenditure								
<b>TOTAL DG CNECT</b>			1.125	1.125	1.125	1.125	1.125	<b>5.625</b>

<b>TOTAL appropriations under HEADING 7 of the multiannual financial framework</b>	(Total commitments = Total payments)			1.125	1.125	1.125	1.125	1.125	<b>5.625</b>
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EUR million (to three decimal places)

		2021	2022	2023	2024	2025	2026	2027	<i>Post 2027</i>	TOTAL
<b>TOTAL appropriations under HEADINGS 1 to 7 of the multiannual financial framework</b>	Commitments			709.627	910.588	821.895	432.405	431.110	-	<b>3,305.625</b>
	Payments			421.813	674.093	738.438	572.261	504.728	394.291	<b>3,305.625</b>

### 3.2.2. Estimated output funded with operational appropriations

The indicative objects and outputs in the table below are first drafts, largely based on the indicators provided in Annex II of the proposed Regulation. More refined definitions are expected to become available in a later stage.

Commitment appropriations in EUR million (to three decimal places)

Indicate objectives and outputs ↓	Type <sup>75</sup>	Average cost	Year 2023		Year 2024		Year 2025		Year 2026		Year 2027		Total No	TOTAL Total cost
			No	Cost	No	Cost	No	Cost	No	Cost	No	Cost		
SPECIFIC OBJECTIVE No 1 “Chips for Europe Initiative”														
- Output	Number of legal entities involved in actions			154.241		198.938		179.800		96.679		96.383		726.041
- Output	Number of design tools developed/integrated			76.811		99.070		89.539		48.145		47.998		361.563
- Output	Amount co-invested in design capacities and pilot lines			117.984		152.174		137.534		73.953		73.726		555.370
- Output	Number of users accessing design capacities and pilot lines			95.818		123.584		111.695		60.059		59.875		451.030

<sup>75</sup>

Outputs are products and services to be supplied (e.g.: number of student exchanges financed, number of km of roads built, etc.).

- Output	Number of businesses using services of competence centres			65.080		83.939		75.864		40.792		40.667		306.343
- Output	Number of persons receiving training			43.914		56.639		51.191		27.525		27.441		206.710
- Output	Amount of investment in the EU by semiconductor companies			120.654		155.618		140.648		75.627		75.395		567.942
- Output	Amount of investment in the EU by semiconductor companies			34.000		39.500		34.500		8.500		8.500		125.000
Subtotal for specific objective No 1				708.502		909.463		820.770		431.280		429.985		<b>3,300.000</b>
SPECIFIC OBJECTIVE No 2 “Security of supply”														
- Output	Number of applications for IPF/OEF assessed			0.500		0.500		0.500		0.500		0.500		<b>2.500</b>
Subtotal for specific objective No 2				0.500		0.500		0.500		0.500		0.500		<b>2.500</b>
SPECIFIC OBJECTIVE No 3 “Preparedness and Monitoring”														
- Output	Number of organisations for which supply chain data is gathered			0.625		0.625		0.625		0.625		0.625		<b>3.125</b>
Subtotal for specific objective No 3				0.625		0.625		0.625		0.625		0.625		<b>3.125</b>
<b>TOTALS</b>				<b>709.627</b>		<b>910.588</b>		<b>821.895</b>		<b>432.405</b>		<b>431.110</b>		<b>3,305.625</b>

### 3.2.3. Summary of estimated impact on administrative appropriations

The proposal/initiative does not require the use of appropriations of an administrative nature

The proposal/initiative requires the use of appropriations of an administrative nature, as explained below:

EUR million (to three decimal places)

	2021	2022	2023	2024	2025	2026	2027	TOTAL
--	------	------	------	------	------	------	------	-------

<b>HEADING 7 of the multiannual financial framework</b>								
Human resources			1.125	1.125	1.125	1.125	1.125	<b>5.625</b>
Other administrative expenditure								
<b>Subtotal HEADING 7 of the multiannual financial framework</b>			1.125	1.125	1.125	1.125	1.125	<b>5.625</b>

<b>Outside HEADING 7<sup>76</sup> of the multiannual financial framework</b>								
Human resources								
Other expenditure of an administrative nature								
<b>Subtotal outside HEADING 7 of the multiannual financial framework</b>								

<b>TOTAL</b>			1.125	1.125	1.125	1.125	1.125	<b>5.625</b>
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As this is a new initiative, there are no staff from the DG who are already assigned to management of the action and who could therefore be redeployed within the DG. The human resources required should therefore be met with an additional allocation which should be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

<sup>76</sup> Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

### 3.2.3.1. Estimated requirements of human resources

- The proposal/initiative does not require the use of human resources.
- The proposal/initiative requires the use of human resources, as explained below:

The table below is the additional staff for the Chips JU as a result of the proposed Regulation.

*Estimate to be expressed in full time equivalent units*

				2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
				<b>○ Establishment plan posts (officials and temporary staff)</b>										
Other budget lines (specify): JU staff (TA)						3	5	8	8	8	8	5	4	2
				<b>○ External staff (in Full Time Equivalent unit: FTE)<sup>77</sup></b>										
Other budget lines (specify): JU staff (CA)						3	7	10	10	10	10	10	10	4
Other budget lines (specify): JU staff (END)						0	0	1	1	1	1	0	0	0
<b>TOTAL</b>						<b>6</b>	<b>12</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>15</b>	<b>14</b>	<b>6</b>

**XX** is the policy area or budget title concerned.

As this is a new initiative, there are no staff from the DG who are already assigned to management of the action and who could therefore be redeployed within the DG. The human resources required should therefore be met with an additional allocation which should be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

The table below is the total staff for the Chips JU as a result of the proposed Regulation.

<sup>77</sup> AC= Contract Staff; AL = Local Staff; END= Seconded National Expert; INT = agency staff; JPD= Junior Professionals in Delegations.



*Estimate to be expressed in full time equivalent units*

				2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
				<b>○ Establishment plan posts (officials and temporary staff)</b>										
Other budget lines (specify): JU staff (TA)				14	14	14	17	19	22	22	22	22	13	10
				<b>○ External staff (in Full Time Equivalent unit: FTE)<sup>78</sup></b>										
Other budget lines (specify): JU staff (CA)				16	16	16	19	23	26	26	26	26	26	26
Other budget lines (specify): JU staff (END)				0	0	0	1	1	2	2	2	2	0	0
<b>TOTAL</b>				<b>30</b>	<b>30</b>	<b>30</b>	<b>37</b>	<b>43</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>39</b>	<b>36</b>

Additional Commission staff as a result of the proposed Regulation consists of 5 FTEs Officials and 4 FTEs Contractual Agents for every year of the period 2023-2027.

				2021	2022	2023	2024	2025	2026	2027
				<b>• Establishment plan posts (officials and temporary staff)</b>						
20 01 02 01 (Headquarters and Commission's Representation Offices)						5	5	5	5	5
				<b>• External staff (in Full Time Equivalent unit: FTE)<sup>79</sup></b>						
Other budget lines (specify): Commission staff (CA)						4	4	4	4	4
<b>TOTAL</b>						<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>

<sup>78</sup> AC= Contract Staff; AL = Local Staff; END= Seconded National Expert; INT = agency staff; JPD= Junior Professionals in Delegations.

<sup>79</sup> AC= Contract Staff; AL = Local Staff; END= Seconded National Expert; INT = agency staff; JPD= Junior Professionals in Delegations.

As this is a new initiative, there are no staff from the DG who are already assigned to management of the action and who could therefore be redeployed within the DG. The human resources required should therefore be met with an additional allocation which should be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

Description of tasks to be carried out:

Officials and temporary staff	<p>Officials:</p> <ul style="list-style-type: none"> <li>- Supervision of the Chips Joint Undertaking</li> <li>- Supervision of the correct implementation of the obligations set by the Regulation for private companies and Member States</li> <li>- Preparation and drafting of implementing and delegated acts, in compliance with this Regulation</li> <li>- Conducting investigations, audits and other analysis, including data analytics</li> <li>- Administrative support to the European Semiconductor Board and organisation of meetings, preparation of opinions and other support to the European Semiconductor Board</li> </ul> <p>Temporary agents are staff of the joint undertaking:</p> <ul style="list-style-type: none"> <li>- See article 19 of the Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe</li> </ul>
External staff	<p>External staff at the European Commission:</p> <ul style="list-style-type: none"> <li>- Supervision of the Chips Joint Undertaking</li> <li>- Conducting investigations, audits and other analysis</li> <li>- Administrative support to the European Semiconductor Board and organisation of meetings, preparation of opinions and other support to the European Semiconductor Board</li> </ul> <p>External staff at the joint undertaking:</p> <ul style="list-style-type: none"> <li>- See article 19 of the Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe</li> </ul>

### 3.2.4. Compatibility with the current multiannual financial framework

The proposal/initiative:

can be fully financed through redeployment within the relevant heading of the Multiannual Financial Framework (MFF).

From line		Amount (EUR million)	To Line
01 02 03 01	European Innovation Council	300.000	earmarked
01 02 02 30	Cluster Civil Security for Society	150.000	01 02 02 42
01 02 02 40	Cluster Digital, Industry and Space	400.000	01 02 02 42
01 02 02 40	Cluster Digital, Industry and Space	400.000	02 04 06 11
01 02 02 42	Horizon Europe Programme — Key Digital Technologies joint undertaking	500.000	earmarked
01 02 02 50	Cluster Climate, Energy and mobility	300.000	01 02 02 42
<b>Subtotal HE</b>	<b>Horizon Europe Programme</b>	<b>2,050.000</b>	
02 03 01	Connecting Europe Facility (CEF) — Transport	250.000	02 04 06 11
02 03 03 01	Connecting Europe Facility (CEF) — Digital	150.000	02 04 06 11
<b>Subtotal CEF</b>	<b>Connecting Europe Facility (CEF)</b>	<b>400.000</b>	
02 04 01 10	Digital Europe programme - Cybersecurity	60.000	02 04 06 11
02 04 01 11	Digital Europe programme - European Cybersecurity Industrial, Technology and Research Competence Centre	60.000	02 04 06 11
02 04 02 11	Digital Europe programme - High-Performance Computing joint undertaking (EuroHPC)	150.000	02 04 06 11
02 04 03	Digital Europe programme - Artificial intelligence	220.000	02 04 06 11
02 04 04	Digital Europe programme - Skills	60.000	02 04 06 11
02 04 05	Digital Europe programme - Deployment	50.000	02 04 06 11
<b>Subtotal DEP</b>	<b>Digital Europe programme</b>	<b>600.000</b>	
	<b>Total</b>	<b>3,050.000</b>	

requires use of the unallocated margin under the relevant heading of the MFF and/or use of the special instruments as defined in the MFF Regulation.

Explain what is required, specifying the headings and budget lines concerned, the corresponding amounts, and the instruments proposed to be used.

		Amount (EUR)	To Line

		million)	
-	Unallocated margin Heading 1	<b>250.000</b>	02 04 06 11

requires a revision of the MFF.

Explain what is required, specifying the headings and budget lines concerned and the corresponding amounts.
---

EUR million (to three decimal places)

### 3.2.5. *Third-party contributions*

The proposal/initiative:

does not provide for co-financing by third parties

provides for the co-financing by third parties estimated below:

Appropriations in EUR million (to three decimal places)

	2021	2022	2023	2024	2025	2026	2027	Total
Participating States			489.307	700.182	629.865	270.996	260.801	<b>2,351.152</b>
TOTAL appropriations co-financed			489.307	700.182	629.865	270.996	260.801	<b>2,351.152</b>

Participating States are expected to contribute an amount to the additional operational expenditure that is commensurate to the Union contribution.

Members other than the Union are not expected to contribute to the additional administrative costs of the JU.

**3.3. Estimated impact on revenue**

- The proposal/initiative has no financial impact on revenue.
- The proposal/initiative has the following financial impact:
  - on own resources
  - on other revenue

please indicate, if the revenue is assigned to expenditure lines

EUR million (to three decimal places)

Budget revenue line:	Appropriations available for the current financial year	Impact of the proposal/initiative <sup>80</sup>				
		Year N	Year N+1	Year N+2	Year N+3	Enter as many years as necessary to show the duration of the impact (see point 1.6)
Article .....						

For assigned revenue, specify the budget expenditure line(s) affected.

[...]

Other remarks (e.g. method/formula used for calculating the impact on revenue or any other information).

[...]

**ANNEX**  
**to the LEGISLATIVE FINANCIAL STATEMENT**

Name of the proposal/initiative:

Proposal for a Regulation of the European Parliament and of the Council establishing a framework of measures for strengthening Europe’s semiconductor ecosystem (Chips Act) and the proposal for a Council Regulation amending Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe

- 1 NUMBER and COST of HUMAN RESOURCES CONSIDERED NECESSARY
- 2.COST of OTHER ADMINISTRATIVE EXPENDITURE
- 3 TOTAL ADMINISTRATIVE COSTS
- 4 METHODS of CALCULATION USED for ESTIMATING COSTS

<sup>80</sup> As regards traditional own resources (customs duties, sugar levies), the amounts indicated must be net amounts, i.e. gross amounts after deduction of 20 % for collection costs.

- 4.1 Human resources
- 4.2 Other administrative expenditure

*This annex must accompany the legislative financial statement when the inter-services consultation is launched.  
The data tables are used as a source for the tables contained in the legislative financial statement. They are strictly for internal use within the Commission.*

# 1 COST OF HUMAN RESOURCES CONSIDERED NECESSARY

- The proposal/initiative does not require the use of human resources  
 The proposal/initiative requires the use of human resources, as explained below:

EUR million (to three decimal places)

HEADING 7 of the multiannual financial framework		Year 2021		Year 2022		Year 2023		Year 2024		Year 2025		Year 2026		Year 2027		TOTAL	
		FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations
<b>• Establishment plan posts (officials and temporary staff)</b>																	
20 01 02 01 - Headquarters and Representation offices	AD					5	0.785	5	0.785	5	0.785	5	0.785	5	0.785		3.925
	AST																
20 01 02 03 - Union Delegations	AD																
	AST																
<b>• External staff <sup>81</sup></b>																	
20 02 01 and 20 02 02 – External personnel – Headquarters and Representation offices	AC					4	0.340	4	0.340	4	0.340	4	0.340	4	0.340		1.700
	END																
	INT																
20 02 03 – External personnel - Union Delegations	AC																
	AL																
	END																
	JPD																
Other HR related budget lines ( <i>specify</i> )																	
<b>Subtotal HR – HEADING 7</b>						<b>9</b>	<b>1.125</b>	<b>9</b>	<b>1.125</b>	<b>9</b>	<b>1.125</b>	<b>9</b>	<b>1.125</b>	<b>9</b>	<b>1.125</b>		<b>5.625</b>

The human resources required will be met by staff from the DG who are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

<sup>81</sup> AC = Contract Staff; AL = Local Staff; END = Seconded National Expert; INT= agency staff; JPD= Junior Professionals in Delegations.

Outside HEADING 7 of the multiannual financial framework		Year 2021		Year 2022		Year 2023		Year 2024		Year 2025		Year 2026		Year 2027 and subsequent		TOTAL		
		FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	
<b>• Establishment plan posts (officials and temporary staff)</b>																		
01 01 01 01 Indirect Research <sup>82</sup>		AD																
01 01 01 11 Direct Research Other (please specify)		AST																
<b>• External staff</b> <sup>83</sup>																		
External staff from operational appropriations (former 'BA' lines).	- at Headquarters	AC																
		END																
		INT																
	- in Union delegations	AC																
		AL																
		END																
		INT																
		JPD																
01 01 01 02 Indirect Research 01 01 01 12 Direct research Other (please specify) <sup>84</sup>		AC																
		END																
		INT																
Other budget lines HR related (specify)																		
<b>Subtotal HR – Outside HEADING 7</b>																		

<sup>82</sup> Please choose the relevant budget line, or specify another if necessary; in case more budget lines are concerned, staff should be differentiated by each budget line concerned

<sup>83</sup> AC = Contract Staff; AL = Local Staff; END = Seconded National Expert; INT= agency staff; JPD= Junior Professionals in Delegations.

<sup>84</sup> Please choose the relevant budget line, or specify another if necessary; in case more budget lines are concerned, staff should be differentiated by each budget line concerned



<b>Total HR (all MFF Headings)</b>						<b>9</b>	<b>1.125</b>	<b>9</b>	<b>1.125</b>	<b>9</b>	<b>1.125</b>	<b>9</b>	<b>1.125</b>	<b>9</b>	<b>1.125</b>		<b>5.625</b>
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The human resources required will be met by staff from the DG who are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

**2 COST OF OTHER ADMINISTRATIVE EXPENDITURE**

- The proposal/initiative does not require the use of administrative appropriations
- The proposal/initiative requires the use of administrative appropriations, as explained below:

EUR million (to three decimal places)

HEADING 7 of the multiannual financial framework	Year N <sup>85</sup>	Year N+1	Year N+2	Year N+3	Year N+4	Year N+5	Year N+7	Total
<b>At headquarters or within EU territory:</b>								
20 02 06 01 - Mission and representation expenses								
20 02 06 02 - Conference and meeting costs								
20 02 06 03 - Committees <sup>86</sup>								
20 02 06 04 Studies and consultations								
20 04 – IT expenditure (corporate) <sup>87</sup>								
Other budget lines non-HR related ( <i>specify where necessary</i> )								
<b>In Union delegations</b>								
20 02 07 01 - Missions, conferences and representation expenses								
20 02 07 02 - Further training of staff								
20 03 05 – Infrastructure and logistics								
Other budget lines non-HR related ( <i>specify where necessary</i> )								
<b>Subtotal Other - HEADING 7</b> of the multiannual financial framework								

<sup>85</sup> Year N is the year in which implementation of the proposal/initiative starts. Please replace "N" by the expected first year of implementation (for instance: 2021). The same for the following years

<sup>86</sup> Specify the type of committee and the group to which it belongs.

<sup>87</sup> The opinion of DG DIGIT – IT Investments Team is required (see the Guidelines on Financing of IT, C(2020)6126 final of 10.9.2020, page 7)

EUR million (to three decimal places)

Outside HEADING 7 of the multiannual financial framework	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	Total
Expenditure on technical and administrative assistance (not including external staff) from operational appropriations (former 'BA' lines):								
- at Headquarters								
- in Union delegations								
Other management expenditure for research								
Policy IT expenditure on operational programmes <sup>88</sup>								
Corporate IT expenditure on operational programmes <sup>89</sup>								
Other budget lines non-HR related ( <i>specify where necessary</i> )								
<b>Sub-total Other – Outside HEADING 7</b> of the multiannual financial framework								
<b>Total Other admin expenditure (all MFF Headings)</b>								

<sup>88</sup> The opinion of DG DIGIT – IT Investments Team is required (see the Guidelines on Financing of IT, C(2020)6126 final of 10.9.2020, page 7)

<sup>89</sup> This item includes local administrative systems and contributions to the co-financing of corporate IT systems (see the Guidelines on Financing of IT, C(2020)6126 final of 10.9.2020)

### 3 TOTAL ADMINISTRATIVE COSTS (ALL HEADINGS MFF)

*EUR million (to three decimal places)*

Summary	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026	Year 2027	Total
Heading 7 - Human Resources			1.125	1.125	1.125	1.125	1.125	5.625
Heading 7 – Other administrative expenditure								
<b>Sub-total Heading 7</b>			<b>1.125</b>	<b>1.125</b>	<b>1.125</b>	<b>1.125</b>	<b>1.125</b>	<b>5.625</b>
Outside Heading 7 – Human Resources (Title 1 JU)								
Outside Heading 7 – Other administrative expenditure (Title 2 JU)								
<b>Sub-total Other Headings</b>								
<b>TOTAL HEADING 7 and Outside HEADING 7</b>			<b>1.125</b>	<b>1.125</b>	<b>1.125</b>	<b>1.125</b>	<b>1.125</b>	<b>5.625</b>

The administrative appropriations required will be met by the appropriations which are already assigned to management of the action and/or which have been redeployed, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of existing budgetary constraints.

## 4 METHODS OF CALCULATION USED TO ESTIMATE COSTS

### 4.1 Human resources

*This part sets out the method of calculation used to estimate the human resources considered necessary (workload assumptions, including specific jobs (Sysper 2 work profiles), staff categories and the corresponding average costs)*

<b>HEADING 7</b> of the multiannual financial framework
<u>NB:</u> The average costs for each category of staff at Headquarters are available on BudgWeb: <a href="https://myintracomm.ec.europa.eu/budgweb/EN/pre/legalbasis/Pages/pre-040-020_preparation.aspx">https://myintracomm.ec.europa.eu/budgweb/EN/pre/legalbasis/Pages/pre-040-020_preparation.aspx</a>
<ul style="list-style-type: none"><li>• Officials and temporary staff</li></ul> Full-time equivalents multiplied by average costs (€ 157 000)
<ul style="list-style-type: none"><li>• External staff</li></ul> Full-time equivalents multiplied by average costs (€ 85 000)

<b>Outside HEADING 7</b> of the multiannual financial framework
<ul style="list-style-type: none"><li>• Only posts financed from the research budget</li></ul>
<ul style="list-style-type: none"><li>• External staff</li></ul>

### 4.2 Other administrative expenditure

*Give details of the method of calculation used for each budget line and in particular the underlying assumptions (e.g. number of meetings per year, average costs, etc.)*

<b>HEADING 7</b> of the multiannual financial framework

<b>Outside HEADING 7</b> of the multiannual financial framework



Brussels, 8.2.2022  
COM(2022) 46 final

ANNEXES 1 to 3

**ANNEXES**

*to the*

**PROPOSAL FOR A REGULATION OF THE EUROPEAN PARLIAMENT AND OF  
THE COUNCIL**

**establishing a framework of measures for strengthening Europe's semiconductor  
ecosystem  
(Chips Act)**

## ANNEX I

### ACTIONS

#### *Technical description of the Initiative: scope of actions*

The initial and, where appropriate, subsequent actions of the Initiative shall be implemented in accordance with the following technical description:

1. ***Design capacities for integrated semiconductor technologies***

The Initiative shall build up large-scale innovative design capacities for integrated semiconductor technologies through a virtual platform available across the Union. The platform will consist of new innovative design facilities with extended libraries and tools, integrating a large number of existing and new technologies (including emerging technologies such as integrated photonics, quantum and AI / neuromorphic). In combination with existing EDA design tools, it will allow to design innovative components and new system concepts and demonstrate key functionalities such as new approaches to high performance, low energy, security, new 3D and heterogeneous system architectures, etc.

Working closely with the user industries from a variety of economic sectors, the platform will connect the communities of design houses, IP and tool suppliers, with RTOs to provide virtual prototype solutions based on co-development of technology. Risks and development costs will be shared and new web-based methods of accessing design tools, with flexible cost models (especially for prototyping) and common interface standards will be promoted.

The platform shall be continuously upgraded with new design capabilities as it continuously integrates more and more technologies and designs for low-power processors (including open-source, such as RISC-V). It will offer its services via the cloud, maximising access and openness to the whole community by networking existing and new design centres across the Member States.

2. ***Pilot Lines for preparing for innovative production, and testing and experimentation facilities***

The Initiative shall support pilot lines for production and testing and experimentation facilities bridging the gap from the lab to the fab of advanced semiconductor technologies. Focus areas include:

- (a) Pilot lines to experiment, test, and validate, including through Process Design Kits, the performance of IP blocks, virtual prototypes, new designs and novel integrated heterogeneous systems in an open and accessible way.

The virtual platform above will allow design exploration of new IP blocks and new system concepts to be tested and validated on the pilot lines through early Process Design Kits, providing immediate feedback

to refine and improve the models before transfer to manufacturing. From the start, the Initiative will expand several existing pilot lines, in synergy with the design infrastructure, to enable access for design and (virtual) prototyping projects.

- (b) New pilot lines on semiconductor technologies such as FD-SOI down to 10-7 nm, advanced Gate-All-Around and leading-edge nodes (e.g. below 2 nm), complemented by pilot lines for 3D heterogeneous systems integration and advanced packaging. The pilot lines will be integrating the latest research and innovation activities and their results.

The pilot lines will include a dedicated design infrastructure consisting for example of design models simulating the fabrication process for the design tools used to design circuits and systems-on-chip. This design infrastructure and a user-friendly virtualisation of the pilot lines will be set up that will make them directly accessible throughout Europe via the design platform above. Such link will enable the design community to test and validate technology options before these become commercially available. It will ensure that new chip and system design fully exploit the potential of new technologies and deliver cutting edge innovation.

Together, these pilot lines will advance European IP, skills and innovation in semiconductor manufacturing technology and will reinforce and expand the European position in new manufacturing equipment and materials for advanced semiconductor technology modules, such as e.g. lithography and wafer technologies.

Close concertation and collaboration with industry shall be organised to guide this capacity expansion and the critical inclusion from the start of selected qualified pilot lines involving for example advanced packaging, 3D heterogeneous integration technology and important additional functionalities like e.g., silicon photonics, power electronics, sensing technologies, silicon graphene, quantum technologies, etc. This powerful extended pan-European pilot line infrastructure, intimately connected with the design enablement infrastructure, is fundamental for expanding Europe's knowledge, capacity and capabilities to close the innovation gap from publicly funded research to commercially funded manufacturing, and to increase both demand and manufacturing in Europe by the end of the decade.

### 3. ***Advanced Technology and Engineering Capacities for quantum chips***

The Initiative shall address the specific needs of the future generation of information processing components exploiting non-classical principles, notably chips exploiting quantum effects (i.e. quantum chips) based on research activities. Focus areas include:

- (a) *Innovative design libraries for quantum chips* building on the design and fabrication processes of the well-established processes of the classical semiconductor industry for semiconductor- and photonics-based qubit platforms; complemented by the development of innovative and advanced design libraries and fabrication processes for



the alternative qubit platforms that are not compatible with semiconductors.

- (b) *Pilot lines* for the integration of quantum circuits and control electronics for building quantum chips building on and capitalising on ongoing research; and, for providing access to dedicated clean rooms and foundries for prototyping and production, reducing the entry-barrier for the development and production of small volumes of quantum components and accelerating the innovation cycles.
- (c) *Testing and experimentation facilities* for testing and validating advanced quantum components produced by the pilot lines, closing the innovation feedback loop between designers, producers and users of quantum components.

4. ***A network of competence centres and skills development***

The Initiative shall support:

- (a) The creation of a network of *competence centres* in each Member State to promote the use of these technologies, acting as interfaces to the above-mentioned advanced design platform and pilot lines, facilitating their effective use, and providing expertise and skills to the stakeholders, including end-user SMEs. Competence centres will provide innovative services to industry, with particular attention to SMEs, academia and public authorities delivering tailored solutions to a wide variety of users that will foster wider uptake of design and advanced technology in Europe. They will also assist in growing a highly skilled work force in Europe.
- (b) On *skills*, specific training actions will be organised around design tools and semiconductor technologies at a local, regional or pan-European level. Scholarships for graduate studies will be supported. These actions will complement industrial commitments under the Pact for Skills, increasing the number of internships and apprenticeships, in collaboration with academia. Attention will also be paid to reskilling and upskilling programs for workers transferring from other sectors.

5. ***'Chips Fund' activities for access to capital by start-ups, scale-ups, SMEs and other companies in the semiconductor value chain***

The Initiative shall support the creation of a thriving semiconductor and quantum innovation ecosystem by supporting wide access to venture capital for start-ups, scale-ups and SMEs to grow their business and expand their market presence in a sustainable manner.

## ANNEX II

### MEASURABLE INDICATORS TO MONITOR THE IMPLEMENTATION AND TO REPORT ON THE PROGRESS OF THE INITIATIVE TOWARDS THE ACHIEVEMENT OF ITS OBJECTIVES

1. The number of legal entities involved (subdivided by size, type and country of establishment) in the actions supported by the Initiative.
2. The number of design tools developed or integrated under the Initiative.
3. The total amount co-invested in design capacities and pilot lines under the Initiative.
4. The number of users or user communities getting access to design capacities and pilot lines under the Initiative.
5. The number of businesses, which have used the services of national competence centres supported by the Initiative.
6. The number of persons who have received training to acquire advanced skills and training on semiconductor and quantum technologies supported by the Initiative.
7. The number of start-ups, scale-ups and SMEs who have received venture capital from the 'Chips Fund' activities and the total amount of capital investments made.
8. The amount of investment by companies operating in the EU, taking into consideration the segment of the value chain in which they operate.

**ANNEX III**  
**SYNERGIES WITH UNION PROGRAMMES**

1. Synergies of the Initiative with the Specific Objectives 1 to 5 of the **Digital Europe Programme** shall ensure that:
  - (a) The targeted thematic focus of the Initiative on semiconductor and quantum technologies is complementary;
  - (b) Digital Europe Programme specific objectives 1 to 5 support digital capacity building in the advanced digital technologies including **High Performance Computing, Artificial Intelligence**, and **cybersecurity**; and, it also supports advanced digital skills;
  - (c) The Initiative will invest in capacity building to reinforce advanced design, production and systems integration capabilities in cutting-edge and next-generation **semiconductor and quantum technologies** for innovative business development, strengthening Europe's semiconductor supply and value chains, serving key industrial sectors and creating new markets.
  
2. Synergies with the **Horizon Europe** shall ensure that:
  - (a) although thematic areas addressed by the Initiative and several areas of Horizon Europe converge, the type of actions to be supported, their expected outputs and their intervention logic are different and complementary;
  - (b) Horizon Europe provides extensive support for research, technological development, demonstration, piloting, proof-of-concept, testing and prototyping, including pre-commercial deployment of innovative digital technologies, in particular through:
    - (i) a dedicated budget in the pillar 'Global Challenges and European Industrial Competitiveness' for the cluster 'Digital, Industry and Space' to develop enabling technologies (AI and robotics, Next Generation internet, High Performance Computing and Big Data, key digital technologies (incl. microelectronics), combining digital with other technologies);
    - (ii) support to research infrastructures under the pillar 'Excellent Science';
    - (iii) the integration of digital across all the Global Challenges (health, security, energy and mobility, climate, etc.); and
    - (iv) support for scale-up breakthrough innovations under the pillar 'Innovative Europe' (many of which will combine digital and other technologies).
  - (c) the Initiative is exclusively focusing on building large-scale capacities in semiconductor and quantum technologies across Europe. It will invest in:

- (i) fostering innovation by supporting two closely interlinked technological capacities that enable designing novel system concepts and their testing and validation in pilot lines.
  - (ii) providing targeted support to build training capacity and enhance applied advanced digital competences and skills to support development and deployment of semiconductors by technology development and end-user industries; and
  - (iii) a network of national competence centres, which facilitate access and provide expertise and innovation services to end-user communities and industries, to develop new products and applications and to address market failures.
- (d) the technology capacities of the Initiative will be made available to the research and innovation community, including for actions supported through Horizon Europe;
- (e) as the development of novel digital technologies in the area of semiconductors matures through Horizon Europe, those technologies where possible progressively will be taken up and deployed by the Initiative;
- (f) Horizon Europe programmes for the development of skills and competencies curricula, including those delivered at the co-location centres of the EIT's KICs, are complemented by capacity-building in advanced applied digital skills and competences in semiconductor and quantum technologies supported by the Initiative;
- (g) strong coordination mechanisms for programming and implementation are put in place, aligning all procedures for both the Horizon Europe Programme and the Initiative to the extent possible. Their governance structures will involve all Commission concerned services.
3. Synergies with Union programmes under shared management, including **the ERDF, ESF+, the European Agricultural Fund for Rural Development and the European Maritime, Fisheries and Aquaculture Fund**, shall ensure the development and strengthening of regional and local innovation ecosystems, industrial transformation, as well as the digital transformation of society and of public administrations. This includes support for the digital transformation of industry and the take-up of results, as well as the rolling out of novel technologies and innovative solutions. The Initiative will complement and support the trans-national networking and mapping of capacities it will support and make them accessible to SMEs and end-user industries in all Union regions.
4. Synergies with the **Connecting Europe Facility** shall ensure that:
- (a) the Initiative focuses on large-scale digital capacity and infrastructure building in the areas of semiconductors aiming at the wide uptake and deployment across Europe of critical existing or tested innovative digital solutions within a Union framework in areas of public interest or market failure. The Initiative is mainly to be implemented through coordinated and strategic investments with Member States, in building digital capacities in semiconductor technologies to be shared across

Europe and in Union-wide actions. This is particularly relevant in electrification and autonomous driving, and should benefit and facilitate the development of more competitive end-use industries, particularly in the mobility and transport sectors;

- (b) the capacities and infrastructures of the Initiative are to be made available to testing of innovative new technologies and solutions that can be taken up in the mobility and transport industries. The Connecting Europe Facility is to support the roll-out and deployment of innovative new technologies and solutions in the field of mobility and transport as well as in other domains;
- (c) coordination mechanisms are to be established, in particular through appropriate governance structures.

5. Synergies with **InvestEU Programme** shall ensure that:

- (a) support through market-based financing, including pursuing policy objectives under the Initiative is provided under Regulation (EU) 2021/523; such market-based financing might be combined with the grant support;
- (b) a blending facility under the InvestEU Fund is supported by financing provided by the Horizon Europe Programme or the Digital Europe Programme in the form of financial instruments within blending operations.

6. Synergies with **Erasmus+** shall ensure that:

- (a) the Initiative supports the development and acquisition of the advanced digital skills needed for the development and deployment of cutting-edge semiconductor technologies in cooperation with relevant industries;
- (b) the advanced skills part of Erasmus+ complements the interventions of the Initiative, addressing the acquisition of skills in all domains and at all levels through mobility experiences.

7. Synergies with other Union programmes and initiatives on competencies and skills shall be ensured.

## **Com 46 (2022)**

### **Information Note**

#### **1. Proposal**

*Proposal for a Regulation of the European Parliament and of the Council establishing a framework of measures for strengthening Europe's semiconductor ecosystem (Chips Act)*

#### **2. Date of Commission document**

*08.02.2022*

#### **3. Number of Commission document**

*COM (2022)46*

#### **4. Number of Council document:**

*6170 2022*

#### **5. Dealt with in Brussels by**

*Competitiveness and Growth (Industry)*

#### **6. Department with primary responsibility**

*Department of Enterprise, Trade and Employment*

#### **7. Other Departments involved**

*Department of Further and Higher Education, Research, Innovation and Science  
Department of Housing, Local Government and Heritage*

#### **8. Background to, Short summary and aim of the proposal**

*The EU Chips Act package was proposed by the European Commission on 8 February 2022 and comprises of four documents:*

- 1) Commission Communication on the Chips Act;*
- 2) Commission Recommendation on the Chips Act;*
- 3) Council Regulation amending Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe, as regards the Chips Joint Undertaking; and*
- 4) Proposal for a Regulation on the Chips Act.*

*The main component of this package is the Proposal for a Regulation on the Chips Act. The proposal for a Chips Act delivers on the political commitment by President of the European Commission, Ursula von der Leyen, to jointly create a state-of-the-art European chip ecosystem including production. To fulfil this vision, the European chips strategy is articulated around five objectives:*

- Europe should strengthen its research and technology leadership;*
- Europe should build and reinforce its own capacity to innovate in the design, manufacturing and packaging of advanced chips, and turn them into commercial products;*

- *Europe should put in place an adequate framework to increase substantially its production capacity by 2030;*
- *Europe should address the acute skills shortage, attract new talent and support the emergence of a skilled workforce;*
- *Europe should develop an in-depth understanding of global semiconductor supply chains.*

*The Chips Act is built on three pillars:*

1. *A Chips for Europe Initiative – the Initiative will build infrastructure in synergy with the EU research programmes. In particular the initiative will build a virtual design platform which will be open and non-discriminatory to stimulate wide cooperation among users including design houses, start-ups, SMEs, IP and tool suppliers and research and technology organisations. The Initiative will also support pilot lines which will provide the means for third parties under open, transparent, and non-discriminatory terms to test, validate and further develop their product design. In addition, it will support a network of competence centres across the Union that will provide expertise to stakeholders. A ‘Chips Fund’ will provide increased availability of funds to support the growth of start-ups, scale-ups and SMEs.*
2. *A framework to ensure security of supply – this framework will support the attraction of investments and enhanced production capacities in semiconductor manufacturing as well as advanced packaging, test, and assembly via first-of-a-kind Integrated Production Facilities and Open EU Foundries.*
3. *Monitoring and crisis response –The mechanism will include activities such as monitoring supply and anticipating shortages, a crisis coordination mechanism between Member States and strong Commission powers during times of crisis.*

*In terms of funding under the Chips Act, the Communication on the Chips Act states that the overall level of policy-driven investment in support of the EU Chips Act is estimated to be in excess of €43 billion up to 2030. This includes public investment and leveraged equity support.*

## **9. Legal basis of the proposal**

*Articles 173(3), 182(1), 183 & 114 of the Treaty on the Functioning of the European Union.*

## **10. Voting Method**

*QMV*

## **11. Role of the EP**

*Co-decision*

## **12. Category of proposal**

*Some significance*

## **13. Implications for Ireland & Ireland's Initial View**

*The initial view is that Ireland welcomes the objectives of the proposed EU Chips Act, including increasing Europe’s production of semiconductor chips, building our capacity and*

*skills to innovate the design, manufacture and packing of chips and strengthening Europe's research and development capabilities in this sector, in addition to developing an in-depth understanding of the global semiconductor supply chain. The semiconductor industry is one of importance to Ireland. There are over 20,000 people currently employed in Ireland's semiconductor industry and we have built an extensive semiconductor industry comprising of multinational companies and indigenous enterprises, in addition to a strong research and development ecosystem. The proposal contains provisions to develop the capabilities and capacity of all of these players within the semiconductor sector, including facilitating equity support to start-ups, scale-ups and SMEs.*

*Each Member State is required to designate one or more national competent authority for the purpose of ensuring the application and implementation of this regulation at national level. Each Member State shall also designate one national single point of contact to exercise a liaison function to ensure cross border cooperation with the national authorities of other Member States, the Commission and the European Semiconductor Board.*

*Additionally, the proposal includes national fast-tracking of permit granting procedures to ensure that administrative applications related to the planning, construction and operation of Integrated Production Facilities and Open EU Foundries are processed in an efficient and timely manner. To that end, all national authorities concerned shall ensure that the most rapid treatment legally possible is given to these applications. This may have implications on Ireland's planning application process and may require additional resources.*

*Particular elements of the proposal which may initially be areas of concern are summarised below.*

*It is proposed that funding to support elements of the proposal will be sourced from the Horizon Europe programme and the Digital Europe programme for a maximum indicative amount of €1.65 billion from each programme. As this funding will be administered through a new Joint Undertaking, Member States will be required to provide national funding in order to access EU funding. This will have implications for Ireland in terms of a potential additional funding requirement.*

*To contribute towards security of supply of semiconductors in the Union, Member States may apply support schemes and provide for administrative support in national permit granting procedures. This is without prejudice to the competence of the Commission in the field of State aid under Article 107 and 108 of the Treaty, where relevant.*

*In terms of the monitoring and crisis response, the proposal provides the Commission with an emergency toolbox during times of crisis. One tool available is the use of Regulation 2015/479 on Common Rules for Exports. Ireland will explore how the toolbox mechanism may work in practice, in addition to its implications for Ireland, as negotiations progress.*



**14. Impact on the public.**

*The proposal will have no direct impact on the public. However, the desired outcome of the proposal, that Europe will have a state-of-the-art chip ecosystem including production, will have a positive impact on the public in terms of combatting supply issues, increasing European competitiveness and reducing Europe's reliance on third countries for semiconductor chips, elements which are central to both digitalisation and the green transition.*

**15. Have any consultations with Stakeholders taken place or are there any plans to do so?**

*The Department of Enterprise Trade and Employment is currently holding a public consultation seeking views on the proposal. This consultation is open until 18 March 2022 and has been published on the Department's website.*

**16. Are there any subsidiarity issues for Ireland?**

*No. The objectives of the proposal cannot be achieved by Member States acting alone. The problems are of a cross-border nature and are not limited to single Member States or to a subset of Member States. Providing a comprehensive response to the semiconductor crisis requires a rapid and coordinated joint action from a variety of stakeholders, and in cooperation with Member States. No single Member State is capable of achieving this alone.*

*Research is a shared competence between the EU and its Member States according to the TFEU. Article 4(3) specifies that in the areas of research, technological development and space the EU can carry out specific activities, including defining and implementing programmes, without affecting the member states' freedom to act in the same areas.*

**17. Anticipated negotiating period**

*The Commission and Presidency have indicated an ambition to complete this file within 2022.*

**18. Proposed implementation date**

*The Regulation will enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.*

**19. Consequences for national legislation**

*The Chips Act will not require any national legislation.*

**20. Method of Transposition into Irish law**

*N/A*

**21. Anticipated Transposition date**

*N/A*

**22. Consequences for the EU budget in Euros annually**

*The proposal establishes the Chips for Europe Initiative, which will not have a separate financial envelope, but will be supported by funding from Horizon Europe, and the Digital Europe Programme. The financial consequences of the proposal on the Union budget will be met from the available resources of the Multiannual financial framework 2021-2027. The EU budget will support the Chips for Europe Initiative with a total of up to €3.3 billion, including €1.65 billion via Horizon Europe and €1.65 billion via Digital Europe Programme. Out of*

*this total amount, €2.875 billion will be implemented through the Chips Joint Undertaking, €125 million through InvestEU (to be complemented by €125 million under InvestEU itself) and €300 million through the European Innovation Council.*

**23. Contact name, telephone number and e-mail address of official in Department with primary responsibility**

*Eugene Lennon*

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*087 100 9672*

**Date**

*3rd March 2022*