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From: General Secretariat of the Council
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Subject: 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)
- Presidency text

Delegations will find attached a Presidency text on the above-mentioned proposal with a view to the meeting of the Working Party on Competitiveness and Growth (Industry) on 16 May 2022.

Changes in comparison to the Commission proposal (doc. 6170/22) are marked in **bold underline** for additions and in ~~strikethrough~~ for deletions.

General scrutiny reservation: All delegations.

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 Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the ordinary legislative procedure,

¹ OJ C , , p. .

² OJ C , , p. .

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.

- (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 Council³ (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 Council⁴ (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.

³ 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).

⁴ 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).

- (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.
- (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 Council⁵, 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.

⁵ 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).

- (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 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 Council⁶ 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.

⁶ 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).

(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 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 Undertaking⁷.
- (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.

⁷ [...].

- (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 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/EEC⁸ and Directive 2000/60/EC of the European Parliament and Council⁹, 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 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.

⁸ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

⁹ 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.

- (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 Union¹⁰, 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 428/2009¹¹, including semiconductors.

¹⁰ 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).

¹¹ 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).

- (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 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 Council¹². 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 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.

¹² 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).

- (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 entities¹³. 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.

¹³ COM(2020) 829. 16.12.2020.

- (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.
- (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 1985¹⁴, 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.

¹⁴ 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).

- (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.
- (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-Making¹⁵. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the 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 Council¹⁶ of the European Parliament and of the Council.

¹⁵ OJ L 123, 12.5.2016, p. 1.

¹⁶ 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).

(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 **and the resilience** of **the** semiconductors **ecosystem** 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:
 - (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~~ **transistor gate** 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 **and processed** materials, manufacturing equipment, research, **development and innovation**, design, fabrication, testing, assembly and packaging to embedding and ~~validation~~ **integration** 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, **validate** 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/EC¹⁷;
- (9) ‘middle capitalisation company’ or ‘mid-cap’ means an enterprise that is not a SME and that employs a maximum of ~~1 500~~ **3 000** 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, **processing of raw and** substrate materials, ~~such as silicon carbide and gallium nitride,~~ and other product innovation that can offer better performance, process innovation or energy and environmental performance **or related to measures to increase the level of security, safety and reliability of components;**
- (11) ‘next generation chips’ and ‘next generation semiconductor technologies’ means chips and semiconductor technologies that go beyond the state of the art in offering significant improvements in computing power or energy efficiency as well as other significant energy and environmental gains;
- (11a) ‘cutting-edge chips’ and ‘cutting-edge semiconductor technologies’ means the most advanced level of innovation in chips and semiconductor technologies;**

¹⁷ Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (OJ L 124, 20.5.2003, p. 36).

- (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~~a 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's **semiconductor value chain** to enable development and deployment of cutting-edge and next generation semiconductor and quantum ~~technologies~~ **chips** 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 transitions.

2. The Initiative shall have the following five operational objectives:

(a) **operational objective 1:** 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) **operational objective 2:** 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) **operational objective 3:** building advanced technology and engineering capacities for accelerating the innovative development of **cutting-edge and next generation chips and advanced technologies such as** quantum chips.;
- (d) **operational objective 4:** 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~~ **operational objective 5:** facilitate **ing** access to debt financing and equity by start-ups, scale-ups and, SMEs and other companies **mid-caps** in the semiconductor value chain, through a blending facility under the InvestEU Fund and via the European Innovation Council **(the ‘Chips Fund’)**.; 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 Content of the Initiative¹⁸

1. The Initiative shall ~~have the following five components:~~
 - (a) ~~design capacities for integrated semiconductor technologies;~~ **under operational objective 1:**
 - (1) **build 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) **extend the design capacity by fostering innovative developments, such as processor architectures based on the open-source Reduced Instruction Set Computer Architecture (RISC-V), and architectures that are built by “security by design”;**
 - (3) **enlarge the semiconductor ecosystem by vertically integrating sectors, such as health, mobility, energy and telecommunication, contributing to the green, digital and innovation agendas of the Union.**

¹⁸ Elements transferred from Article 4 are underlined with double lines.

(b) pilot lines for preparing innovative production, and testing and experimentation facilities;under operational objective 2:

(1) strengthen technological capabilities in next generation chips production technologies, by integrating research and innovation activities and preparing the development of future technology nodes, such as leading-edge nodes below two nanometres, Fully Depleted Silicon on Insulator (FD-SOI) at 10 nanometres and below, new semiconductors materials or 3D heterogeneous systems integration and advanced packaging, including for low- and medium-volume chip production;

(2) support large scale innovation through access to new or existing pilot lines for experimentation, test, validation, process control 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, cyber security, functional safety, 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, technological solutions for increased sustainability and circularity of electronic components and systems;

(3) provide support to Integrated Production Facilities and Open EU Foundries through preferential access to the new pilot lines.

(c) under operational objective 3: build advanced technology and engineering capacities for next generation chips, including notably quantum chips;

(d) a network of competence centres and skills development;under operational objective 4:

(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 and mismatch by attracting and mobilising new talent and supporting the emergence of a suitably skilled workforce for strengthening the semiconductor sector, including student orientation, reskilling and upskilling of workers.

(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 **under operational objective 5:**

(1) improve the leverage effect of the Union budget spending and achieve a higher multiplier effect in terms of attracting private-sector financing;

(2) provide support to companies facing difficulties in accessing finance, and address the need to underpin the economic resilience of the Union and its Member States;

(3) accelerate investment in the field of chip design, semiconductor manufacturing and integration technologies, and leverage funding from both the public and the private sectors, while increasing the security of supply and the resilience of the semiconductor ecosystem for the whole semiconductor value chain.

Article 95a

Implementation and reporting

1. The components listed in points (a) to (d) of Article 5 **operational objectives 1 to 4** under the Initiative ~~may~~ **shall** be entrusted to the Chips Joint Undertaking referred to in Council Regulation XX/XX amending Council Regulation (EU) 2021/2085 and implemented **by actions set out** 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~~ **annual activity report of the Chips Joint Undertaking shall include information on matters related to operational objectives 1 to 4, on the basis of** 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~~ **Annex II**.
- 4. The Commission shall inform the European Semiconductor Board on progress in the implementation of operational objective 5 on a regular basis.**

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 of the Initiative~~ **that are implemented through the Chips Joint Undertaking, a legal entity may be established in the form of a** European Chips Infrastructure Consortium ('ECIC') ~~may be established under the conditions set out in this Article.~~ **More than one ECIC may be established under the conditions set out in this Article.**
2. ~~The~~ **An** 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~~ **be set up by** at least three **members ('founding members'), which can be Member States, public or private** 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,~~ **or a combination thereof;**
 - (d) ~~appoint the~~ **have a** coordinator.

3. The coordinator **of a potential ECIC, on behalf of all the founding members,** shall submit an application to the Commission in writing which shall contain the following:
- (a) a request to the Commission to set up ~~the~~ **an ECIC,** including a list of ~~the proposed legal entities that are forming the ECIC consortium~~ **founding members;**
 - (b) the draft Statutes of the ECIC that shall include at least ~~the provisions on: the procedure for setting up,~~ **legal form, duration, statutory seat,** membership, budget **including the arrangements by which the respective financial contributions from its members will be called upon,** ~~legal seat, applicable law and jurisdiction, ownership of the results, governance, including decision making procedures~~ **and specific role and if applicable voting rights of Member States and the Commission,** winding-up, reporting and liability.
4. The Commission shall ~~review~~ **assess** the applications ~~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's **founding members** ~~and of the legal entities forming it on the semiconductors~~ **and those to be acquired, developed or assigned to the proposed ECIC;**
 - (b) the appropriate ~~foreseen~~ management capacity, staff and ~~infrastructure~~ **resources** necessary to carry out ~~the eligible actions under the Initiative~~ **its statutory purpose;**
 - (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~~ **accounting documents and bank statements;**

- (e) the budget contributions of the members of the ECIC that would be made available by Member States and private sector participants for the financing of to the ECIC, and related modalities arrangements;
- (f) the ~~appropriate~~ ability of the ECIC to ensure coverage of the needs of ~~industry~~ the Union's semiconductor value chain.
5. The Commission ~~by means of~~ shall adopt 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.~~
- to either recognise the applicant as an ECIC or reject the application, and notify the founding members. Those implementing acts 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~~ **Any modification of an ECIC's** 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 **governance or membership shall require an amendment to the Statutes. Any substantial** amendments to the Statutes **of an ECIC** 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 **and should enter into force only if the Commission does not object within a period of two months following the notification.**
9. ~~The~~ **An** 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)~~ **operational objective 4**, a European network of competence centres in semiconductors, **integration technologies and system design** (the 'network') ~~may~~ **shall** be established.
2. ~~With respect to the implementation of actions under the Initiative's component referred to in Article 5, point (d),~~ ~~t~~ **The network shall** perform all or some of the following activities to the benefit of the Union industry, in particular SMEs and mid-caps, as well as **Research and Technology Organisations and** the public sector:

- (a) providing access to design services and design tools under the Initiative's ~~component referred to in Article 5, point (a)~~**operational objective 1**, as well as to the pilot lines supported under the Initiative's ~~component referred to in Article 5, point (b)~~**operational objective 2**;
- (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~~ **available resources of the network**;
- (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 **and on their applications** 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). **Member States and the Commission shall maximise synergies and avoid duplication with existing competence centres established under other EU initiatives such as the European Digital Innovation Hubs.**
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]

[transferred to Article 5a]

CHAPTER III

SECURITY OF SUPPLY AND RESILIENCE

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 **and the resilience of the semiconductor ecosystem** ~~for~~ **within** 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 the resilience of the semiconductor ecosystem** 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~~ **preferential** access to the pilot lines set up in accordance with ~~Article 5, point (b)~~ **operational objective 2**. Any such ~~priority~~ **preferential** access shall ~~be without prejudice to~~ **neither exclude nor prevent** 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 **and the resilience of the semiconductor ecosystem** ~~for~~ **within** 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 the resilience of the semiconductor ecosystem** 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~~ **preferential** access to the pilot lines set up in accordance with Article 5, point (b) **operational objective 2**. Any such ~~priority~~ **preferential** access shall ~~be without prejudice to~~ **neither exclude nor prevent** effective access to the pilot lines by other interested undertakings.

Article 12

~~Application and recognition~~ **Status procedure**

1. Any undertaking or any consortium of undertakings ('applicant') may submit an application to the Commission to recognise ~~the applicant's~~ **its** planned facility as an Integrated Production Facility or Open EU Foundry.
2. The Commission shall, ~~in consultation with~~ **taking into account the views of** 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, **covering its entire amortisation period,** 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.

2a. The Commission shall ~~process~~ **decide on** the application and **This decision shall determine the duration of the status. The Commission shall** adopt its decision ~~in a timely manner and~~ notify the applicant thereof **within six months after receipt of the complete application.** **Where the Commission considers that information provided by the application is incomplete, it shall request all necessary additional information.**

3. The Commission shall monitor the activities of **progress achieved in the establishment and operation of** the Integrated Production Facilities and the Open EU Foundries **and inform the European Semiconductor Board on a regular basis.**
- 3a.** 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~~ **the Commission shall give the facility the opportunity to comment and to propose appropriate measures.**
4. The Commission may, ~~after consulting~~ **taking into account the views of** 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, **or if, despite completing the procedure in paragraph 2a, the facility does not fulfil the criteria set out in Articles 10(2) or 11(2) respectively.**
5. Facilities which are no longer Integrated Production Facilities ~~and or~~ Open EU Foundries shall lose all rights linked to the recognition of this status arising from this Regulation. **However, facilities which are no longer Integrated Production Facilities or Open EU Foundries shall remain subject to the obligation set out in Article 21(1) for the period equivalent to the period until the foreseen expiry of the duration referred to in paragraph 2a.**

Article 13

Public Union interest and public support

1. Integrated Production Facilities and Open EU Foundries shall ~~be considered to, by~~ contribute~~ing~~ to the security of supply of semiconductors **and the resilience of the semiconductor ecosystem** in the Union, ~~and therefore be considered~~ to be in the ~~public~~ **Union** interest.
2. In order to ~~reach~~ **contribute to the** security of supply **and the resilience of the semiconductor ecosystem** 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 ~~f~~Fast-tracking of permit granting procedures

1. ~~Member States shall ensure that~~ **When processing** 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~~ **Member States'** authorities concerned shall ensure that the most rapid treatment legally possible is given to these applications **in full respect of the Member States' law and procedures**.
2. Where such status ~~the distinction of highest possible national significance~~ 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 **and the resilience of the semiconductor ecosystem** 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~~ **each** Member State concerned shall ~~may~~ ~~nominate~~ **designate** an authority responsible for facilitating and coordinating administrative applications related to planning, construction and operation. ~~The~~ **Each designated** authority shall ~~may~~ 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 **designated** authorities shall ~~may~~ 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, **in cooperation with the Commission**, shall carry out regular monitoring of the semiconductor value chain. ~~In particular, they shall, **focussing on**:~~
 - (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, **in cooperation with the Commission**, shall provide relevant findings to the European Semiconductor Board in the form of regular updates.

- ~~71a.~~ National competent authorities designated pursuant to Article 26(1) shall ~~map~~ **set up and maintain a database of** undertakings operating along the semiconductor supply chain **established** in their national territory, including non-confidential information on the services or goods, and contact information. They shall ~~notify~~ **update** this ~~list~~ **database** and any subsequent update to **share it with** the Commission **when necessary**. 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. **The Commission shall provide for a mechanism and administrative set-up for these updates, based on a common IT system that ensures confidentiality, business secrecy and cybersecurity.**
2. Member States ~~National competent authorities~~ shall ~~may~~ invite the main users ~~actors~~ of ~~the~~ semiconductors **value chain** and other relevant stakeholders to provide information ~~regarding~~ significant fluctuations in demand and known disruptions of their supply chain **when necessary and proportionate for the purposes of paragraph 1, with due regard to minimising the administrative burden on SMEs.** ~~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. Transferred to Article 15a, paragraph 1]
- [5. Transferred to Article 15a, paragraph 2]
- [6. Transferred to Article 15a, paragraph 3]
- [7. Transferred to paragraph 1a]

Article 15a

Alerting

~~41.~~ Where a Member State ~~national competent authority designated pursuant to Article 26(1)~~ 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 early warning indicator or through other means**, it shall ~~immediately~~ alert the Commission ('early warning').

~~52.~~ 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 ~~41~~, or through other ~~sources~~ **means**, including information from international partners, it shall without undue delay:

(-a) carry out an assessment of the risk potential and evaluate whether the situation amounts to a semiconductor crisis pursuant to Article 18(1);

- (a) convene an extraordinary meeting of the European Semiconductor Board to coordinate the following actions:

- (1) ~~assessing~~ **discussing** whether the activation of the crisis stage referred to in Article 18(2) is warranted;
 - (2) **where relevant**, 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~~ **related to** 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.

63. The coordinated procurement referred to in paragraph 52, point (a)(ii), shall be carried out by Member States in accordance with the rules set out in Article 39 of Directive 2014/24/EU of the European Parliament and of the Council¹⁹.

Article 16

Union risk assessment and early warning indicators

1. The Commission shall, ~~after consulting the European Semiconductor Board~~, **carry out an assessment risks of the resilience of the semiconductor value chain in the Union and identify factors** that may disrupt, compromise or negatively affect the supply of semiconductors (Union risk assessment) **on a regular basis**. ~~In the Union risk assessment, the Commission shall identify early warning indicators.~~

¹⁹ 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).

2. The Commission shall, **after consulting the European Semiconductor Board, establish a list of early warning indicators and** review the ~~the~~ Union risk assessment including the early warning indicators as necessary **where appropriate**.
3. ~~When monitoring the semiconductor value chain pursuant to Article 15, Member States shall~~ monitor the **evolution of the** early warning indicators ~~identified by the Commission~~ **on a regular basis for the monitoring pursuant to Article 15**.
4. **The Commission shall carry out the first Union risk assessment and identify the early warning indicators within twelve months after the entry into force of this Regulation.**

Article 17

Key market actors

1. Member States, **in cooperation with the Commission**, shall identify key market actors along the semiconductor supply chains **established** 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~~ **The Commission may, upon a recommendation of the European Semiconductor Board, activate the crisis stage, where the assessment of the Commission pursuant to Article 15a(2), point (-a), provides concrete, serious, and reliable evidence of** 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 **The crisis activation shall be done** by means of implementing acts in accordance with Article 33(2). The duration of the activation shall **be limited and** be specified in the implementing act. **Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 33(2). The Commission shall report on a regular basis to the European Semiconductor Board, and at least every three months.** Where, in view of the scope and gravity of the semiconductor crisis,

On duly justified imperative grounds of urgency so require, **relating to the scope and gravity of the semiconductor crisis, the Commission shall adopt immediately applicable implementing acts in accordance with** 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 **necessary to duly address the semiconductor crisis in the Union**, the Commission may **shall** prolong the activation by means of implementing acts. The duration of the prolongation shall **be limited and** 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 **duly justified, by means of implementing acts.**

- 3a. During the crisis stage, the Commission shall, based upon a recommendation from the European Semiconductor Board or on its own initiative after consulting the European Semiconductor Board, assess the appropriateness of an early termination of the crisis stage. If the Commission considers that an early termination is needed, it shall be done by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 33(2).**
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~~ **inform in a timely manner about** 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 **immediately**. 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 **pursuant to Article 18(2)** 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, **upon a duly motivated recommendation from the European Semiconductor Board**, 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~~ **based on a recommendation from** 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 **pursuant to Article 18(2)** and where appropriate in order to address the semiconductor crisis in the Union, the European Semiconductor Board may:
 - (a) ~~—~~ assess the **expected** 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~~ **affecting important economic sectors or critical sectors** 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. **Where the crisis stage is activated pursuant to Article 18(2),** ~~the~~ Commission may, upon the request of two or more Member States, ~~establish a mandate to~~ act as a central purchasing body, **which shall act** on behalf of ~~the participating~~ **all** Member States **willing to participate** ('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, **taking into account the views of the European Semiconductor Board**. 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 **and recommendations** 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~~ **providing views to the Commission in the assessment of the applications for** 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 **and recommendations** 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. **As far as possible, the European Semiconductor Board shall deliberate by consensus. If consensus cannot be reached, the European Semiconductor Board shall deliberate by a majority of two thirds of the Member States. Each Member State shall have only one vote regardless the number of representatives.**

3. **At its first meeting,** ~~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~~ **Chair** may appoint observers to take part in the meetings, as appropriate. The ~~Commission~~ **Chair** 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, **including upon suggestion from Board members**. The Commission may facilitate exchanges between the European Semiconductor Board and other Union bodies, offices, agencies, **expert** 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 or~~ 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

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.~~

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.

In relation with operational objective 1:

2. The number of design tools developed or integrated under the Initiative.

In relation with operational objective 2:

3. The total amount co-invested **by the private sector** in design capacities and pilot lines under the Initiative.

In relation with operational objective 3:

4. The number of users or user communities ~~getting~~ **seeking** access to design capacities and pilot lines under the Initiative.

In relation with operational objective 4:

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~~ **successfully concluded** training **programmes supported by the Initiative** to acquire advanced skills and training on semiconductor and quantum technologies ~~supported by the Initiative~~.

- 6a. The number of active competence centres in the EU which are part of the European network of competence centres in the context of the Initiative.**

In relation with operational objective 5:

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~~ **including by** segment of the value chain in which they operate.
-

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.
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