European Committee of the Regions

ECON-VII/023

151st plenary session, 10-12 October 2022

OPINION

European Chips Act for strengthening the European semiconductor ecosystem

THE EUROPEAN COMMITTEE OF THE REGIONS

- insists that the success of the European Chips Act (ECA) is crucial for the EU as a whole, the Member States and all local and regional authorities, as securing industrial production in all regions of Europe depends on having a secure supply of semiconductors;
- recommends setting up a Knowledge and Innovation Community (KIC) on Semiconductors, and proposes creating a Semiconductor Academy, along the lines of the Battery Academy, involving industry and research institutions;
- takes the view that more, new money should be deployed for the implementation of the ECA, and therefore also calls on the Council, the Parliament and the Commission to provide the relevant EU and national subsidies and amend the Multiannual Financial Framework accordingly;
- believes that the EIB can make a decisive contribution to the success of the ECA;
- calls for LRAs to be included in the "semiconductor coordination mechanism", as they can make a valuable contribution to achieving the sought-after network through their local knowledge of research, industry and semiconductor clusters;
- suggests that instead of an "emergency toolbox", a "prevention toolbox" should be set up, since intervention in semiconductor production at short notice is not possible because of its complexity in terms of combinations of different ICs in the final products and of its widespread international supply chain, and is therefore unsuitable as a crisis response. Particular attention should be paid to maintaining semiconductor production and the necessary availability of precursors and sub-products;
- recommends the swift adoption and implementation of the ECA, and calls on the European Commission, the Council of the European Union and the European Parliament to take into account the CoR's recommendations.

Rue Belliard/Belliardstraat 101 | 1040 Bruxelles/Brussel | BELGIQUE/BELGIË | Tel. +32 22822211
www.cor.europa.eu | @EU_CoR | /european.committee.of.the.regions | /european-committee-of-the-regions | @EU_regions_cities

Rapporteur

Thomas Gottfried Schmidt (DE/EPP)
Minister for Regional Development, Free State of Saxony

Reference documents

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)
COM(2022) 46 final

Annex to the Proposal for a Regulation of the European Parliament and of the Council establishing a framework of measures for strengthening Europe's semiconductor ecosystem (Chips Act)
COM(2022) 46 final, Annexes 1 to 3

Proposal for a Council Regulation amending Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe, as regards the Chips Joint Undertaking
COM(2022) 47 final

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A Chips Act for Europe
COM(2022) 45 final

Commission Recommendation on a common Union toolbox to address semiconductor shortages and an EU mechanism for monitoring the semiconductor ecosystem
COM(2022) 782 final

Opinion of the European Committee of the Regions –
European Chips Act for strengthening the European semiconductor ecosystem

I. RECOMMENDATIONS FOR AMENDMENTS

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)
COM(2022) 46 final

Amendment 1
Amendment to Recital 1

Text proposed by the European Commission	*CoR amendment*
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.	Semiconductors are at the core of any digital device: from smartphones***, electric bicycles*** 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***, the goal of a green transition,*** 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.

Reason
Industries and technologies that are key to the green transition require chips. For example, modern electric bicycles and photovoltaic inverters incorporate chips in their motors, controllers and displays. There will be no green transition without chips.

Amendment 2
Amendment to Recital 3

Text proposed by the European Commission	*CoR amendment*
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	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.	industry to structural changes ***in various sectors and affected regional ecosystems, taking into account the sustainability criteria (SDGs),*** 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.

Reason
Compliance with the SDGs is a key aspect and should be included.

Amendment 3

Amendment to Recital 13

Text proposed by the European Commission	***CoR amendment***
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	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 ***at*** and ***between all levels of government as well as*** closer synergies between the existing funding programmes at Union and national levels ***(including centrally managed EU programmes and EU programmes subject to joint management)***, 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, ***the regions,*** 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

Initiative, specifically the 'Chips Fund' activities, should also be supported through a blending facility under the InvestEU Fund.	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.

Reason
To include the regional dimension.

Amendment 4

Amendment to Recital 15

Text proposed by the European Commission	***CoR amendment***
The Initiative should build upon the strong knowledge base and enhance synergies with actions currently supported by the Union ***and*** Member States through programmes and actions in research and innovation in semiconductors and in developments of part of the supply chain, in particular Horizon Europe and the Digital Europe programme established by Regulation (EU) 2021/694 of the European Parliament and of the Council 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.	The Initiative should build upon the strong knowledge base and enhance synergies with actions currently supported by the Union***, the*** Member States ***and the regions*** through programmes and actions in research and innovation in semiconductors and in developments of part of the supply chain, in particular Horizon Europe and the Digital Europe programme established by Regulation (EU) 2021/694 of the European Parliament and of the Council 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***, as well as with the Smart Specialisation strategies at regional level***.

Reason
To include the regional dimension.

Amendment 5

Amendment to Recital 19

Text proposed by the European Commission	***CoR amendment***
Integrated Production Facilities and Open EU Foundries should provide semiconductor manufacturing capabilities that are "first-of-a-	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.	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, indium phosphide, silicon*** nitride, and other ***related*** product ***and material innovations*** 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

Reason
Silicon nitride (SiN) is the ideal platform for photonic integrated circuit (PIC) applications, which have a vast spectral range and ultralow-loss waveguide. This makes them highly suited to detectors, spectrometers, biosensors, and quantum computers. For consistency reasons, it is better to also include indium phosphide.

Amendment 6

Amendment to Article 2.1 (10)

Text proposed by the European Commission	***CoR amendment***
'first-of-a-kind facility' means an industrial facility capable of semiconductor manufacturing, including front-end or back-end, or both, that is not substantively already present or committed to be built within the Union, for instance with regard to the technology node, substrate material, such as silicon carbide and gallium nitride, and other product ***innovation*** that can offer better performance, process innovation or energy and environmental performance;	'first-of-a-kind facility' means an industrial facility capable of semiconductor manufacturing, including front-end or back-end, or both, that is not substantively already present or committed to be built within the Union, for instance with regard to the technology node, substrate material, such as silicon carbide, and gallium nitride, ***indium phosphide***, ***silicon nitride*** and other ***related*** product ***and material innovations*** that can offer better performance, process innovation or energy and environmental performance;

Reason
Silicon nitride (SiN) is the ideal platform for photonic integrated circuit (PIC) applications, which have a vast spectral range and ultralow-loss waveguide. This makes them highly suited to detectors, spectrometers, biosensors, and quantum computers. For consistency reasons, it is better to also include indium phosphide.

Amendment 7

Amendment to Article 3(1)

Text proposed by the European Commission	*CoR amendment*
(1) ***The*** Initiative is established for the duration of the Multiannual Financial Framework 2021-2027.	(1) ***As a first step, the*** Initiative is established for the duration of the Multiannual Financial Framework 2021-2027. ***An extension under the Multiannual Financial Framework 2028-2034 is required.***

Reason
The period until the end of the current MFF in 2027 is not sufficient to achieve the objectives set out in the ECA itself. An extension should already be laid down here.

Amendment 8

Amendment to Article 4 (2) point (b) 1

Text proposed by the European Commission	*CoR amendment*
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;	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; ***this shall include the production of chips that are more than 10 nanometres in size, for which there is demand from the EU user industry;***

Reason
The Commission's focus on chips that are below 10 nanometres in size is too narrow and fails to meet the needs of the EU user industry.

Amendment 9

Amendment to Article 8(2), point (d)

Text proposed by the European Commission	*CoR amendment*
facilitating the transfer of expertise and knowhow between Member States and regions encouraging exchanges of skills, knowledge and good practices ***and*** encouraging joint programmes;	facilitating the transfer of expertise and knowhow between Member States and regions encouraging exchanges of skills, knowledge and good practices**,** encouraging joint programmes**,** ***and improving cooperation among universities as well as between universities, businesses, and***

	education and research institutions, for example through an EU-wide system for exchanges between researchers and laboratories, in order to train and retain teaching and professional staff;

Reason
The European network of competence centres for semiconductor technology should also cover the issues of training and teaching.

Amendment 10

Amendment to Article 8(3)

Text proposed by the European Commission	***CoR amendment***
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 shall designate candidate competence centres in accordance with its national procedures, administrative and institutional structures through an open and competitive process ***involving regional and local authorities. The aim shall be to achieve synergies with the European Digital Innovation Hubs and to support the creation of competence centres in the regions of the EU. These should be integrated into their regional industrial ecosystem, provide access to all relevant players across the EU, and enable enhanced interregional cooperation.*** 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).

Reason
All SMEs and start-ups in the EU should have access to these centres. This can be facilitated by the regional level, which supports regional industrial ecosystems.

Amendment 11

Amendment to Article 9(1)

Text proposed by the European Commission	*CoR amendment*
The components listed in points (a) to (d) of Article 5 under the Initiative may be entrusted to the Chips Joint Undertaking referred to in Council Regulation XX/XX amending Council Regulation (EU) 2021/2085 and implemented in the work programme of the Chips Joint Undertaking.	The components listed in points (a) to (d) of Article 5 under the Initiative may be entrusted to the Chips Joint Undertaking referred to in Council Regulation XX/XX amending Council Regulation (EU) 2021/2085 and implemented in the work programme of the Chips Joint Undertaking. ***Member States shall be required to include relevant semiconductor regions in the Chips Joint Undertaking.***

Reason
Self-explanatory.

Amendment 12

Amendment to Article 10(2) – new point (e)

Text proposed by the European Commission	*CoR amendment*
	e) it supports industrial supply chains in the EU.

Reason
Integrated production facilities should contribute to strengthening EU industry; the semiconductor needs of industry should play a role here.

Amendment 13

Amendment to Article 11(2) – new point (e)

Text proposed by the European Commission	*CoR amendment*
	e) it supports industrial supply chains in the EU.

Reason
Open production facilities should also contribute to strengthening EU industry; the semiconductor needs of industry should play a role here.

Amendment 14

Amendment to Article 12(1), new second sentence

Text proposed by the European Commission	*CoR amendment*
(1) Any undertaking or any consortium of undertakings ('applicant') may submit an	(1) Any undertaking or any consortium of undertakings ('applicant') may submit an

application to the Commission to recognise the applicant's planned facility as an Integrated Production Facility or Open EU Foundry.	application to the Commission to recognise the applicant's planned facility as an Integrated Production Facility or Open EU Foundry. ***This shall also apply to businesses that are indispensable for the manufacture of semiconductors or that produce novel precursors or production units. The criteria set out in Articles 11 and 12 shall apply mutatis mutandis.***

Reason
In order to achieve the objectives of the ECA, the manufacture of precursors, such as wafers, or of production units in the EU should also be considered eligible. The criteria should be applied mutatis mutandis.

Amendment 15

Amendment to Article 15(2)

Text proposed by the European Commission	***CoR amendment***
Member States shall invite the main users of semiconductors and other relevant stakeholders to provide information regarding significant fluctuations in demand and known disruptions of their supply chain. To facilitate the exchange of information, Member States shall provide for a mechanism and administrative set-up for these updates.	Member States shall invite the main users of semiconductors and other relevant stakeholders***, including those from like-minded countries,*** to provide information regarding significant fluctuations in demand and known disruptions of their supply chain. To facilitate the exchange of information, Member States shall provide for a mechanism and administrative set-up for these updates.

Reason
An assessment of the situation on the basis of European and US data alone is incomplete and therefore inconclusive. Businesses from like-minded countries in Asia should therefore be included.

Amendment 16

Amendment to Article 19(2)

Text proposed by the European Commission	***CoR amendment***
The Commission may, after consulting the European Semiconductor Board, limit the measures provided for in Articles 21 and 22 to ***certain*** critical sectors the operation of which is disturbed or under threat of disturbance on account of the semiconductor crisis.	***Based on the results of*** the European Semiconductor Board ***consultation, the Commission shall be required to*** limit the measures provided for in Articles 21 and 22 to ***those*** critical sectors the operation of which is disturbed or under threat of disturbance on account of the semiconductor crisis.

Reason
Any intervention measures undertaken by the Commission should always be kept to the bare minimum.

Amendment 17

Amendment to Article 19(4)

Text proposed by the European Commission	*CoR amendment*
The use of the measures referred to in paragraph 1 shall be proportionate and restricted to what is necessary for addressing serious disruptions of vital societal functions or economic activities in the Union and must be in the best interest of the Union. The use of these measures shall avoid placing disproportionate administrative burden on SMEs.	The use of the measures referred to in paragraph 1 shall be proportionate and restricted to what is necessary for addressing serious disruptions of vital societal functions or economic activities in the Union and must be in the best interest of the Union. The use of these measures shall avoid placing disproportionate administrative burden on SMEs. ***These measures may only be applied selectively and as a last resort.***

Reason
The emergency toolbox poses the significant risk of hampering investment and the establishment of new businesses. The European Commission must clearly state that these measures are intended as a last resort and will be avoided as far as possible.

Amendment 18

Amendment to Article 21(1)

Text proposed by the European Commission	*CoR amendment*
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.***	Where necessary**,** proportionate ***and technically feasible*** 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’).

Reason
It is almost impossible to adapt semiconductor production at short notice. The decisive criterion should therefore be feasibility. The article on priority contracts should also be drafted in such a way that it does not discourage potential investors from investing in the EU. In addition, there are doubts as to the extent to which this would be legally enforceable.

Amendment 19

Amendment to Article 24(1)

Text proposed by the European Commission	*CoR amendment*
The European Semiconductor Board shall be composed of representatives of the Member States and shall be chaired by a representative of the Commission.	The European Semiconductor Board shall be composed of representatives of the Member States ***with the appropriate professional competence*** and shall be chaired by a representative of the Commission.

Reason
The Semiconductor Board should be a specialised body and not a purely political body.

Amendment 20

Amendment to Article 24(2)

Text proposed by the European Commission	*CoR amendment*
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.	Each national single point of contact, referred to in Article 26(3), shall appoint a ***specialist*** 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. ***The Member States shall be obliged to involve regions with semiconductor ecosystems. The European Committee of the Regions shall appoint a representative to the European Semiconductor Board.***

Reason
Given their role in supporting regional industrial ecosystems, including SMEs, as well as science and research, regions with relevant semiconductor ecosystems (e.g. the members of Silicon Europe) and the European Committee of the Regions should be involved in the work of the Board.

Amendment 21

Amendment to Article 26(6)

Text proposed by the European Commission	*CoR amendment*
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	Member States shall ensure that national competent authorities, whenever appropriate, and in accordance with Union and national law, consult and cooperate with other relevant

authorities, as well as with relevant interested parties. The Commission shall facilitate the exchange of experience between national competent authorities.	national, ***regional and local*** authorities, as well as with relevant interested parties. The Commission shall facilitate the exchange of experience between national competent authorities.

Reason
To include regional and local authorities.

Proposal for a Council Regulation amending Regulation (EU) No 2021/2085 establishing the Joint Undertakings under Horizon Europe, as regards the Chips Joint Undertaking
COM(2022) 47 final

Amendment 22
Amendment to Recital 7

Text proposed by the European Commission	***CoR amendment***
The activities funded by the Chips Joint Undertaking should be covered in one single work programme, which should be adopted by the Governing Board. Before each work programme is prepared, the Public Authorities Board, taking into account the advice of the European Semiconductor Board and input from other relevant stakeholders, including as appropriate, roadmaps produced by the Alliance on Processors and Semiconductor Technologies, should define the part of the work programme related to capacity building activities and research and innovation activities, including their corresponding expenditure estimates. For this purpose, the Public Authorities Board should include only the Commission and public authorities from Member States. Subsequently, on the basis of this definition, the Executive Director should prepare the work programme including capacity building and research and innovation activities and their corresponding expenditure estimates.	The activities funded by the Chips Joint Undertaking should be covered in one single work programme, which should be adopted by the Governing Board. Before each work programme is prepared, the Public Authorities Board, taking into account the advice of ***the Private Members Board and*** the European Semiconductor Board and input from other relevant stakeholders, including as appropriate, roadmaps produced by the Alliance on Processors and Semiconductor Technologies, should define the part of the work programme related to capacity building activities and research and innovation activities, including their corresponding expenditure estimates. For this purpose, the Public Authorities Board should include only the Commission and public authorities from Member States. Subsequently, on the basis of this definition ***and the Strategic Research and Innovation Agenda***, the Executive Director should prepare the work programme including capacity building and research and innovation activities and their corresponding expenditure estimates. ***The budget for the research and innovation activities of the Chips Joint Undertaking should be at least equal to the estimated budget for the Key Digital Technologies Joint Undertaking. The same scope and working methods should also be***

	adopted.

Reason
The Public Authorities Board should not determine the research and innovation agenda in advance, as this would limit the decision-making powers of the Governing Board. The Chips Joint Undertaking should maintain the same research activities, functioning and budget of the Key Digital Technologies Joint Undertaking.

Amendment 23
Amendment to Article 1(7), point (a)

Text proposed by the European Commission	***CoR amendment***
(7) Article 126 is amended as follows: a) (a) In paragraph 1 point (b) is replaced by the following: "(b) Establish Union scientific excellence and innovation leadership in emerging components and systems technologies, including in activities related to lower TRLs; and promote the active involvement of SMEs, which shall represent at least one third of the total number of participants in indirect actions and at least 20 % of public funding ***dedicated to research and innovation actions should go to them***;	(7) Article 126 is amended as follows: a) (a) In paragraph 1 point (b) is replaced by the following: "(b) Establish Union scientific excellence and innovation leadership in emerging components and systems technologies, including in activities related to lower TRLs; and promote the active involvement of SMEs, which***, in terms of research and innovation actions,*** shall represent at least one third of the total number of participants in indirect actions and ***receive*** at least 20 % of public funding;

Reason
It is not realistic for SMEs to make up one third of the participants in capacity building activities, as described in the new points (g) to (j) of Article 126(1). The SME share of one third of the number of participants should therefore only apply to the portion dedicated to research and innovation actions, the same as for the 20 per cent share of public funding.

Amendment 24
Amendment to Article 1(7), point (c)

Text proposed by the European Commission	***CoR amendment***
c) In paragraph 2 point (f) is replaced by the following: "(f) establish coherence between the Strategic Research and Innovation Agenda of the Chips Joint Undertaking ***inputs from other relevant stakeholders, including as appropriate, roadmaps produced by the Alliance on Processors***	c) In paragraph 2 point (f) is replaced by the following: "(f) establish coherence between the Strategic Research and Innovation Agenda of the Chips Joint Undertaking and Union policies so that electronics components and systems technologies contribute efficiently."

and Semiconductor technologies and Union policies so that electronics components and systems technologies contribute efficiently."	

Reason
The Chips Joint Undertaking is not in a position to ensure the required consistency with the activities of third parties.

Amendment 25
Amendment to Article 1(9)

Text proposed by the European Commission	***CoR amendment***
(9) In Article 129 paragraph 3 is replaced by the following: "3. By way of derogation from Article 28(4), the private members shall make or arrange for their constituent and affiliated entities to make a financial contribution of ***at least*** EUR 26 331 000 for administrative costs of the Chips Joint Undertaking. The share of the total contribution on an annual basis for administrative costs of the Chips Joint Undertaking by the private members shall be 35%."	(9) In Article 129 paragraph 3 is replaced by the following: "3. By way of derogation from Article 28(4), the private members shall make or arrange for their constituent and affiliated entities to make a financial contribution of ***up to*** EUR 26 331 000 for administrative costs of the Chips Joint Undertaking. The share of the total contribution on an annual basis for administrative costs of the Chips Joint Undertaking by the private members shall be ***a maximum of*** 35%."

Reason
The wording could lead to serious ambiguities. It is not clear which limit prevails: the lower limit of at least EUR 26 331 000 or the upper limit of a maximum of 35%. Meanwhile, the Commission has confirmed that the words "at least" in the Commission's proposal were a clerical error. This error was corrected in the compromise text of the Council Presidency of May 25.

Amendment 26
Amendment to Article 1(13)

Text proposed by the European Commission	***CoR amendment***
(13) The following Article 134a is inserted Article 134a Additional tasks of the Executive Director In addition to the tasks listed in Article 19, the Executive Director of the Chips Joint Undertaking shall prepare and, after having taken into account the definition of the Public	(13) The following Article 134a is inserted Article 134a Additional tasks of the Executive Director In addition to the tasks listed in Article 19, the Executive Director of the Chips Joint Undertaking shall prepare and, after having taken into account the definition of the Public

Authorities Board referred to in Article 137(f), ***as well as the inputs from relevant stakeholders including as appropriate, roadmaps produced by the Alliance on Processors and Semiconductor technologies***, submit for adoption to the Governing Board the work programme for the joint undertaking, to implement the Strategic Research and Innovation Agenda.	Authorities Board referred to in Article 137(f), submit for adoption to the Governing Board the work programme for the joint undertaking, to implement the Strategic Research and Innovation Agenda.

Reason
These contributions are already taken into account when the Public Authorities Board sets its part of the work programme and therefore do not need to be submitted again.

Amendment 27

Amendment to Article 1(15), point (a)

Text proposed by the European Commission	***CoR amendment***
(15) Article 137 is amended as follows: a) The following points (f) and (g) are added: "(f) before each work programme is prepared, define the part of the work programme related to capacity building activities ***and research and innovation activities***, including the corresponding expenditure estimates, taking into account the advice of the European Semiconductor Board and input from other relevant stakeholders, including as appropriate, roadmaps produced by the Alliance on Processors and Semiconductor Technologies; (g) select proposals corresponding to capacity building activities in accordance with Articles 12(1) and 17(2), point (u);"	(15) Article 137 is amended as follows: a) The following points (f) and (g) are added: "(f) before each work programme is prepared, define the part of the work programme related to capacity building activities, including the corresponding expenditure estimates, taking into account the advice of ***the Private Members Board and*** the European Semiconductor Board and input from other relevant stakeholders, including as appropriate, roadmaps produced by the Alliance on Processors and Semiconductor Technologies; (g) select proposals corresponding to capacity building activities in accordance with Articles 12(1) and 17(2), point (u);"

Reason
The Public Authorities Board should not determine the research and innovation agenda in advance, as this would limit the decision-making powers of the Governing Board. However, the Public Authorities Board should take into account the advice of the Private Members Board on capacity building in order to ensure industrial policy relevance.

II. POLICY RECOMMENDATIONS

THE EUROPEAN COMMITTEE OF THE REGIONS

Importance of the European Chips Act

1. insists that the success of the European Chips Act (ECA) is crucial for the EU as a whole, the Member States and all local and regional authorities, as securing industrial production in all regions of Europe depends on having a secure supply of semiconductors; therefore expressly advocates the EU having a clear position within global competition;

2. welcomes the Commission's proposal for an ECA as a crucial step towards strengthening the EU, its industry and its security. It is important for the Chips Act to address issues of EU strategic autonomy and technological leadership. The EU must remain a global player in the field of semiconductors. The ambitious target of increasing the EU's market share in semiconductors from the current 10% to 20% by 2030 is therefore the right one;

3. shares the objectives of reducing the main strategic dependencies in semiconductor production, supply chains, and the supply of raw materials and precursors through a process of expansion and diversification, by developing semiconductor production in Europe, and by maintaining and strengthening the EU's leading role in research and development. At the same time calls for the production of chips that are more than 10 nanometres in size, for which there is demand from the EU user industry, to be included in the scope of Regulation COM(2022) 46 final; underlines in this respect the importance of know-how protection and patent protection, so that individual countries are not put at a disadvantaged position;

4. also welcomes the proposal for an ECA with a view to ensuring swift and consistent implementation of the European Green Deal: without reliable semiconductors, the EU's ambitious environmental and climate targets, increased energy sovereignty and targets for the development of renewable energy cannot be achieved;

5. points out that strengthening semiconductor production must at the same time be accompanied by steps to reduce energy and resource consumption and harmful environmental impact right along the value chain, as well as steps to ensure compliance with the sustainability criteria (SDGs) and to mainstream the use of renewable energy sources and mechanisms for the efficient use of water resources in production facilities. In this regard, believes that special attention should be given to these energy and environmental effects in innovative next-generation technologies, such as integrated photonics and dedicated heterogeneous systems;

6. points out that, in addition to securing the supply of critical raw materials, it is necessary to fully harness the potential of the circular economy. The recovery of raw materials and materials from devices and installations is essential. This must already be taken into account when developing products using semiconductors. The appropriate skills should be developed in the regions and eligibility criteria should be designed accordingly;

7. Points out that the EU's disadvantage compared to third countries in terms of natural resources, makes the EU heavily dependent on non-EU suppliers for imports of critical raw materials; encourages the European Commission to address this strategic dependency by intensifying its

work and requirements on chips circularity, notably in design and re-use of material, and to further deepen the EU's trade relations with key international partners;

8. in line with its opinion on the *Critical Raw Materials Action Plan*, welcomes new mining activities in the EU with a view to tapping into existing reserves of critical raw materials: stresses that new mining of high technology raw materials in the EU must be based on R&D plans for innovative low-impact mining;

9. notes that local and regional authorities (LRAs) have a strong shared interest in having a secure supply of semiconductors due to their local economies' high, indirect dependence on them; therefore, given their proximity to semiconductor ecosystems, LRAs should be given a key role in implementing the ECA; notes, moreover, that all regions will benefit from the ECA, irrespective of whether or not they have semiconductor businesses located within them;

10. points out, in the light of current events, the importance of the semiconductor industry having a secure energy supply; this concerns, in particular, the necessary quantities of electricity and grid stability; these are a factor in choice of location for existing installations, but above all for setting up new ones;

Europe's strategic objectives in the field of semiconductors

11. calls on businesses to take greater account of their semiconductor needs and the necessary supply chains in an ever-changing geostrategic environment, and to avoid one-sided dependencies, in order to spread risks; the EU needs to better highlight its benefits as a "safe harbour" within the international context;

12. calls on the Commission, in the upcoming negotiations with the Council and the European Parliament, to clearly emphasise the importance of the ECA in securing Europe's industrial base, and to demand additional financial contributions from the Member States and the economy;

13. suggests that the funding available through the ECA be used strategically to expand existing semiconductor clusters and semiconductor ecosystems, both small-scale and large scale, including by linking them through networks. The chances of the EU holding its ground on the global semiconductor market in the future are greatest if it draws on and builds on its existing strengths, thereby limiting itself to *inter*-dependence on "like-minded countries" and in turn reducing unilateral dependencies on third countries;

14. welcomes the establishment of the European Chips Fund; notes that Pillar 2 of the ECA should in principle be open to all kinds of technology and that the funding must be mobilised as soon as possible;

15. reiterates that, as a very successful tool, the IPCEIs continue to play an important role in the ECA; points out, however, that the EU and the Member States must act more swiftly in all areas, particularly in the area of permits and support, in order to be able to support industry, including SMEs, in line with its needs;

16. emphasises the key importance of new technologies for the further development of the EU as a major centre for semiconductors, in order to remain globally competitive in the area of technology: when implementing the ECA, it will be important to react openly and quickly to the use of new materials, such as gallium nitride, indium phosphide, silicon carbide and silicon nitride, as well as to the use of new processes, in order to enable the development and production of next generation chips; this includes, for example, photonic chips, essential for building an autonomous and sustainable network for data-, tele- and quantum communication, and for autonomous driving, and quantum chips, allowing analyses of far larger amounts of data, performing more powerful calculations in a faster way and performing detailed simulations, as well as hybrid chips and heterogeneous systems where the integration of photonic functions on electronic ICs is one of the critical issues for the future of the semiconductors industry;

17. considers it necessary for the EU to place additional emphasis on designing semiconductors and thus to build up its own design capabilities;

Funding for the Chips Act

18. criticises the financial envelope proposed for the ECA as being far too low; has doubts as to whether the overall package will be sufficient to enable the EU to compete on the international market for establishing new production facilities; underlines that new initiatives deserve new financial resources and regrets the re-directing of funds from successful programmes, such as Horizon Europe and the Digital Europe Programme;

19. calls on the Commission to ensure transparency with regard to the ECA's financial envelope and to ensure adequate funding for all three pillars; in doing so, the Commission should draw on similar initiatives worldwide;

20. takes the view that more, new money should be deployed for the implementation of the ECA, and therefore also calls on the Council, the Parliament and the Commission to provide the relevant EU and national subsidies and amend the Multiannual Financial Framework accordingly; as the ECA's strategic objectives extend beyond 2030, the semiconductor sector must be considered a high priority in the revision of the MFF as well as the next multiannual financial framework (MFF);

21. considers it necessary to create further incentives to ensure that, in addition to money from the EU, Member States and regions, as well as businesses, provide the necessary funding; points to the importance of the Commission facilitating support in accordance with EU law; the funding must be tied to compliance with environmental, social and governance (ESG) criteria;

22. calls on regions and businesses to involve the European Investment Bank (EIB) in financing new projects along the entire value chain; believes that the EIB can make a decisive contribution to the success of the ECA;

Funding and EU State aid rules from a regional perspective

23. calls on the Commission, when assessing and approving in accordance with Article 107(3)(c) TFEU, to interpret the "first of a kind in Europe" criterion generously, as in the case of

semiconductors there is no traditional competitive situation that is relevant to competition in the single market;

24. asks the Commission to consider further forms of relief, such as the granting of tax write-offs, in addition to changes to and simplifications in State aid law and procedures, in order to make it easier to set up businesses along the entire semiconductor value chain in Europe;

25. considers it necessary, under the "first of a kind" principle, to enable support not only for production facilities, such as the Integrated Production Facilities (IPF) and the Open EU Foundries (OEF), but also for the production of precursors, such as wafers or production units, which are equally relevant when it comes to achieving the objectives;

26. welcomes the arrangements provided for in Article 14 aimed at speeding up national planning and approval procedures in favour of integrated production facilities and open EU manufacturing facilities;

27. points out that, in order to ensure the supply of semiconductors, not only the production facilities for semiconductors themselves, but also upstream and downstream production facilities, are relevant, with the result that these too must be included when focusing on facilitating and speeding up procedures, in order to avoid bottleneck effects;

Research and development from a regional perspective

28. advocates giving the EU a broad approach to R&D by involving customers and users, and avoiding basing development and innovation objectives solely on the further miniaturisation of node structures;

29. shares the concerns of the research and higher education sectors that the redeployment of funding under the Horizon Europe and Digital Europe programmes, as provided for in the Chips Act, weakens other areas, thus increasing competition for the remaining funding; therefore expects the funding redeployed from Digital Europe and Horizon Europe to be made available to the programmes again in the course of the funding period;

30. draws attention to the fact that national and regional co-financing of projects leads to administrative problems, and calls on the Commission to ensure that this does not constitute an obstacle to participation in research projects; in particular, framework conditions should be designed in such a way as to allow flanking support for projects from national or regional programmes, in the form of co-financing;

31. calls on the regions with relevant clusters to actively participate in the Chips Joint Undertaking as a successor to the Key Digital Technologies (KDT) and the Electronic Components and Systems for European Leadership (ECSEL) Joint Undertakings;

32. calls on the Commission to define the term "pilot line" more precisely. Access to the pilot lines must be broad and open in order to enable clusters, educational and research institutions, and businesses, particularly SMEs, to participate; SMEs' access to the pilot lines could be achieved both through the Horizon Europe programme and in a decentralised way through national and

regional bodies with experience in supporting start-ups and SMEs in their creation, growth and consolidation, such as regional development agencies;

33. calls for existing networks, such as the Industrial Alliance for Processors and Semiconductor Technologies, to be closely integrated into the semiconductor coordination mechanism. All networks should be open to new players, as networks such as the Vanguard Initiative or the network of EU digital innovation hubs can also make an important contribution;

34. suggests examining to what extent it is possible to ensure that know-how developed in the EU can be safeguarded, e.g. through extended patent protection, and what measures can be taken to this end; safety aspects should also play a role here;

Securing skilled workers and education and training

35. calls on the Member States, LRAs and businesses to place much more emphasis on securing skilled workers: qualified education and training makes a significant contribution to the EU's success as a major centre for semiconductors and is a key criterion for investment decisions; general and vocational education and training in the regions play a crucial role; more women and girls should be encouraged to pursue training in the area of semiconductor technology;

36. believes, therefore, that securing skilled workers is one of the keys to success. A coordinated strategy is needed to train younger generations and to retain teachers at universities and research institutions; therefore encourages greater exchanges of researchers between universities, research institutions and businesses, as well as the sharing of laboratory infrastructure across the EU;

37. highlights that local and regional authorities have strategic capacities to promote synergies between R&D, education, upskilling, reskilling and training policies that will be vital to attract and uphold a talented workforce;

38. recommends creating a traineeship programme dedicated to the semiconductor industry, to be jointly run and financed by industry, the Member States and the EU, with a bursary system and an obligation to work in the industry in Europe for a minimum period of time; additionally, recommends that the Commission consider developing dedicated human capital programmes to attract skilled workers from third countries with an advanced semiconductor industry;

39. recommends setting up a Knowledge and Innovation Community (KIC) on Semiconductors, and proposes creating a Semiconductor Academy, along the lines of the Battery Academy, involving industry and research institutions;

40. notes the importance of sustaining successful start-ups for the development of semiconductor ecosystems so that they can evolve and know-how is not lost;

41. recommends, furthermore, having specific support for the development of innovative chip designs under the Horizon Europe programme, for example within the "Digital, Industry and Space" cluster, so that the EU can maintain its leadership in the design of innovative chips and next generation technologies while reducing its interdependencies with other parts of the world;

Impact of the Chips Act on cities and regions

42. notes that, in the event of new businesses being established, considerable input will be required from LRAs and they will need a reliable framework and support from the Member States and the Commission;

43. calls on the Commission to keep in mind the impact that the inward movement of businesses has on LRAs; the creation of a framework for the establishment of businesses and the implementation of supporting measures should be understood as regional development and co-financing from the ERDF and the ESF should be made possible;

44. notes that this will, in particular, allow Member States with proportionally more limited national resources to achieve a relevant leverage effect. It should also be possible to support the development of existing fabs;

45. calls for the ECA to be operationally linked to other key EU policies and projects, such as the REACH Regulation, the Action Plan on Critical Raw Materials, the New Industrial Strategy, the Circular Economy Action Plan and the AI Strategy. Regions should play an important role and be closely involved in this process;

46. points out that technological openness and the use of certain hazardous chemicals are necessary for the production of semiconductors and that their production, import or use is regulated by EU chemicals legislation. In the risk assessment referred to in Article 16, it is important to take into account to what extent European economic operators can overcome the legal hurdles associated with chemicals and substances remain securely available on the EU market;

Resilience and Crisis Response

47. notes that designing and producing semiconductors in the EU can also contribute to the security and resilience of critical infrastructure in LRAs (energy networks, medical care, transport, administration, public institutions);

48. suggests that instead of an "emergency toolbox", a "prevention toolbox" should be set up, since intervention in semiconductor production at short notice is not possible because of its complexity in terms of combinations of different ICs in the final products and of its widespread international supply chain, and is therefore unsuitable as a crisis response. Cooperation and coordination should always take precedence over intervention. Particular attention should be paid to maintaining semiconductor production and the necessary availability of precursors and sub-products;

49. calls on the Commission to define the crisis situation, the rights of intervention provided for and the specific action to be taken in the event of a crisis in a more precise and legally certain manner, given the many different causes that may give rise to shortages and delivery problems, and to make it clear that this can only be applied as a last and proportional resort; is concerned that the proposed crisis response mechanism could discourage investment;

50. suggests that greater focus should be placed on securing the availability of certain types of semiconductors and the (where appropriate, joint) purchase of critical raw materials (e.g. palladium, neon, C4F6, lithium, gallium, silicon) and precursors (e.g. wafers) necessary for this purpose;

51. calls for LRAs to be included in the "semiconductor coordination mechanism", as they can make a valuable contribution to achieving the sought-after network through their local knowledge of research, industry and semiconductor clusters;

52. calls for care to be taken, when appointing the Semiconductor Board, to ensure that it is a specialised body and not a political body. The acceptance of the Board and its work largely depends on the trust placed in its members. The industry and the CoR should therefore also be represented with appropriate expertise;

53. supports the objective of creating an overall picture of semiconductor value chains, dependencies and requirements in the semiconductor sector; has doubts, however, as to whether the resulting amounts of data can be processed in a safe and targeted manner; draws attention to the fact that, without valid data from non-European players, it will not be possible to get a meaningful picture;

54. recommends the swift adoption and implementation of the ECA, and calls on the European Commission, the Council of the European Union and the European Parliament to take into account the CoR's recommendations, and to reach an agreement under the Czech presidency;

55. welcomes that the Commission has executed a subsidiarity analysis for the proposal for a Chips Act and agrees that the objectives of the proposal cannot be achieved by Member States acting alone, as the problems are of a cross-border nature, and not limited to single Member States or to a subset of Member States. The CoR therefore supports the European Commission's analysis that action at Union level can clearly best drive European actors towards a common vision and implementation strategy.

Brussels, 12 October 2022

The President
of the European Committee of the Regions

Vasco Alves Cordeiro

The Secretary-General
of the European Committee of the Regions

Petr Blížkovský

III. PROCEDURE

Title	European Chips Act on strengthening Europe's semiconductor ecosystem
Reference(s)	COM(2022) 46 final COM(2022) 46 final, Annexes 1 to 3 COM(2022) 47 final COM(2022) 45 final COM(2022) 782 final
Legal basis	Article 307(4) TFEU
Procedural basis	Rule 41(b)(i) RoP
Date of Council/EP referral/Date of Commission letter	
Date of Bureau/President's decision	N/A
Commission responsible	Commission for Economic Policy (ECON)
Rapporteur	Thomas Gottfried Schmidt (DE/EPP)
Analysis	25 March 2022
Discussed in commission	12 May 2022
Date adopted by commission	8 July 2022
Result of the vote in commission	Majority
Date adopted in plenary	12 October 2022
Previous Committee opinions	Action Plan for Critical Raw Materials ECON-VII/011 COR-2020-04292-01 Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery ECON-VII/017 COR-2021-02688-00-00 New Circular Economy Action Plan ENVE-VII/006 COR-2020-0 Safe and sustainable chemicals for a toxic-free environment in Europe's cities and regions ENVE-VII/014 COR-2020-
Date of subsidiarity monitoring consultation	N/A