

POSITION

Strategic Technologies for Europe Platform (STEP): European Commission proposal

Brussels, 18 September 2023

ESIA, as the voice of the semiconductor industry in Europe, welcomes the proposal regulation establishing the **Strategic Technologies for Europe Platform (STEP)**¹. As European Commissioner for Internal Market Thierry Breton said in 2022: “**Without chips, no digital transition, no green transition, no technological leadership.**”² ESIA concurs: semiconductors lie at the centre of the most important, ambitious, and forward-looking policy goals of the European Union. Whether it is central processing units in mobile devices, memory storage in data centres, power converters in wind turbines, or solar inverters in photovoltaic panels: chips play an irreplaceable role for the functionality & efficiency of every piece of technology that enables a more digital and green future.

In this context, ESIA stresses that the STEP and its financial and non-financial provisions support the resilience and competitiveness of the semiconductor ecosystem in Europe. The reprioritisation of critical technologies should extend to semiconductors so that STEP can attain its objective to “*strengthen European sovereignty and security, accelerate the Union’s green and digital transitions and enhance its competitiveness*”³.

Semiconductors are critical technologies

ESIA welcomes that “*microelectronics*” is mentioned in the list of **deep & digital technologies**, although the corresponding reference is ‘only’ being made “[by] *way of example*” in Recital (4)⁴. The importance of microelectronics has also been proved by being considered as Important Projects of common European Interest (IPCEIs) (as referred to in Article 2(3)). Thus, ESIA would advocate for a more definite language on including microelectronics (or semiconductors), providing certainty on what does and does not constitute a critical technology.

Second, semiconductors are indispensable components in most – if not all – technologies put forward in the “*Net-Zero Industry Act*” and its annex^{5,6}. Therefore, semiconductors should be regarded as clean technologies as well. They cannot be replaced as they enable core functions of clean technologies, *and* they allow for lowering the carbon footprint at every step of their value chains. Most paths toward the green transition and climate-neutrality involve significant electrification and digitalisation, both enabled by the use of innovative semiconductor technologies.

Addressing labour and skills

One of the biggest challenges facing semiconductor companies today is the recruitment of diverse and highly specialised profiles to run their operations and drive innovations. As professional services firm *PwC* calculated, if no action is taken, the European semiconductor industry is facing a talent gap of no less than 350,000 professionals by 2030⁷. No amount of support will attract investments in EU Member States if the talent pool cannot provide the personnel needed. While education remains a Member State competence, the EU is in a unique position to coordinate cross-country projects and emphasise the of lack of profiles in science, technology, engineering, and mathematics (STEM) fields on national agendas as critical for their future economic growth and resilience.

The “*Net-Zero Industry Act*” rightly points out that scaling up of clean technologies and corresponding value chains “*requires significant additional skilled workers*”, hence representing a need in “*reskilling and upskilling, including in the field of vocational education and training*”⁸. ESIA thus fully endorses STEP’s objective of “*addressing shortages of labour and skills critical to all kinds of quality jobs*”⁹.

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ABOUT ESIA

The European Semiconductor Industry Association (ESIA) is the voice of the semiconductor industry in Europe. Its mission is to represent and promote the common interests of the Europe-based semiconductor industry towards the European institutions and stakeholders in order to ensure a sustainable business environment and foster its global competitiveness. As a provider of key enabling technologies, the industry creates innovative solutions for industrial development, contributing to economic growth and responding to major societal challenges. Being ranked as the most R&D-intensive sector by the European Commission, the European semiconductor ecosystem supports approx. 200.000 jobs directly and up to 1.000.000 induced jobs in systems, applications and services in Europe. Overall, micro- and nano-electronics enable the generation of at least 10% of GDP in Europe and the world.

¹ EUROPEAN COMMISSION (20/06/2023). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the Strategic Technologies for Europe Platform (‘STEP’) and amending Directive 2003/87/EC,*

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- Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) No 1303/2013, (EU) No 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 and (EU) 2021/241, COM(2023) 335 final, EUR-Lex. URL: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=COM:2023:335:FIN> (retrieved 15/09/2023)
- ² European Commission (08/02/2022). *Digital sovereignty: Commission proposes Chips Act to confront semiconductor shortages and strengthen Europe's technological leadership*, Press corner. URL: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_729 (retrieved 15/09/2023)
- ³ EUROPEAN COMMISSION (20/06/2023). *Op. cit.*, p. 29.
- ⁴ *Ibid.*, p. 23.
- ⁵ EUROPEAN COMMISSION (16/03/2023). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act) (Text with EEA relevance), 2023/0081 (COD)*, EUR-Lex. URL: https://eur-lex.europa.eu/resource.html?uri=cellar:6448c360-c4dd-11ed-a05c-01aa75ed71a1.0001.02/DOC_1&format=PDF (retrieved 15/09/2023)
- ⁶ EUROPEAN COMMISSION (16/03/2023). *ANNEXES to the proposal for a Regulation of the European Parliament and of the Council on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act), ANNEX*, EUR-Lex. URL: https://eur-lex.europa.eu/resource.html?uri=cellar:6448c360-c4dd-11ed-a05c-01aa75ed71a1.0001.02/DOC_2&format=PDF (retrieved 15/09/2023)
- ⁷ FEHST Pascal, SCHIEFFER Sina (23/08/2023). *Bridging the talent gap. How European semiconductor players can still become winners in the global growth story*, VIEWPOINT. URL: <https://www.strategyand.pwc.com/de/en/industries/telecommunication-media-and-technology/bridging-the-talent-gap.html> (retrieved 15/09/2023)
- ⁸ EUROPEAN COMMISSION (16/03/2023). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act) (Text with EEA relevance), 2023/0081 (COD)*, *Op. cit.*, p. 32.
- ⁹ EUROPEAN COMMISSION (20/06/2023). *Op. cit.*, p. 29.