Technology Industries of Finland

Technology Industries of Finland – Position Paper on the Net-Zero Industry Act
May 2023

The Green Deal Industrial Plan set out in the European Commission's communication in February has heralded a new era in European economic and industrial policy. It is a challenge to innovative, export-driven countries.

The aim of the Commission is to respond to the protectionist development of the world economy and the weaponisation of energy. The aim is right: Europe must accelerate its green transformation. It is also the right choice to support the development of innovative technologies that help us achieve this objective in the most effective way. However, there are no grounds to deploy regulation to select winning technologies in a market that develops fast. It is especially concerning to do so without a thorough impact analysis to underpin such a proposal.

Definition and Approach to Net-Zero Technologies

The green transformation represents a tremendous opportunity to reindustrialise Europe. The Net-Zero Industry Act (short "NZIA") plays a key role in setting firm and ambitious objectives for that transformation. These objectives can be met by various means. The regulation should be balanced in its approach to technologies and also cover technologies that improve energy efficiency in processes that are already in use.

As a primary option, TIF suggests replacing the list of net-zero technologies within Article 3 by principles of impact and excellence in the production of renewable energy or energy savings. We also recommend exclusively limiting the actions outlined in the NZIA to the maturity level of first industrial deployment.

As a secondary option, TIF suggests three major changes to the proposal:

First, **energy-saving solutions** must also be considered as part of the listed and strategic technologies. Within industry, the green transformation will move forward in controlled steps. Digital solutions (e.g., sensors, data, data platforms, AI-models, and mobile communication networks) will play a key role in cutting energy usage and material efficiency on the existing machine base of European industries. The electrification of industrial processes and improved energy conversion efficiency will likewise help in saving even more energy and reducing CO_2 emissions. The same principle applies to solutions using residual elements of biomass. Those technologies should be fully recognised as both net-zero and strategic technologies in the NZIA.

Secondly, the requirement of substantial **impact** should be included in the list, at least on a strategic level. There are technologies of different readiness levels on the list and the developments on energy production and efficiency can take place on many fronts, either by using existing technologies or by developing new ones. Analysing the impact of technologies is crucial for considerations on sustainability and biodiversity. Therefore, a requirement of substantial impact needs to be added to the NZIA. The EU should allocate support only to those projects that have a significant impact on the production of green energy or technologies that help to cut the use of fossil-based energy and advance the bloc's sustainability and biodiversity goals.

Thirdly, the whole underlying **value chain** should be considered when singling out supported technologies.

Technology Industries of Finland
Eteläranta 10, P.O.Box 10, FI-00131 Helsinki
Telephone +358 9 192 31
www.techind.fi
Business ID: 0215289-2

On carbon capture technologies, it is essential that the proposal does not only focus on capturing CO_2 to fossil fuel fields: innovative technologies based on the capture and utilisation of CO_2 from industrial processes and the use of renewable biomass must not only be covered but prioritised in the NZIA.

The critical net-zero technologies, which are critical along all the value chain, should include:

- Circular net-zero capacity with added value by-products
- Digital technologies (e.g., AI, data platforms, digital twins, industrial 5G) that optimise manufacturing and energy systems in terms of resource and energy efficiency
- Automation technologies (e.g., high-level control systems) to support manufacturing, processing, and system-level optimisation
- Clean tech for material processing and product re-use
- Heat recovery in industrial processes and heat storage
- Carbon capture and usage technologies for industrial processes and use of solid bioenergy
- Energy efficiency in manufacturing processes and green electrified industrial processes
- Cybersecurity and smart grid management (5G/6G, AI)
- Nuclear energy, essentially SMR reactors

Streamlining Administration and Permitting

TIF fully supports the ambitious timelines and clarified ways of working through the permit processes proposed by the European Commission. These should play a key role in unleashing the potential of European excellence.

Online Accessibility of Information

Article 5 of the NZIA should be developed with view to creating a single European point to access information of all net-zero initiatives, including those that are undertaken under the new relaxed state aid schemes. This would sustain the EU internal market and ensure that the providers of most advanced technologies can enter bids. This would ideally be a task for the European Commission.

Environmental Assessments

With view to environmental assessments, TIF recommends that the European Commission also conducts a comprehensive analysis of the EU acquis to detect and remove any conflicting elements.

Net-Zero Strategic Projects

Reducing the use of energy and emission of CO_2 should be the leading principle and requirement to qualify as Strategic Net-Zero Projects. In TIF's view, Article 3 should therefore include a "Requirement of Substantial Impact" relating to energy savings or carbon-free production. The NZIA should similarly be amended to clarify that carbon capture and usage technologies that are currently being developed are also covered by the proposal, as these technologies will have a major impact on the excellence of European green industry.

Skills

TIF welcomes the measures proposed to advance the European skills base on the green transformation. They should not only be limited to EU citizens but cover people from third

countries as well. Especially the recognition of professional qualifications is a pragmatic and welcome measure. This could be scaled to other areas as well.

Regulatory Sandboxes

TIF supports regulatory sandboxes. They are, however, not stand-alone entities: to allow for rapid experimentation and to speed up the scaling of technologies and innovation, the regulatory sandboxes need to be based on and accompanied by investment in technology infrastructures (i.e., test beds, pilot lines). Again, a close collaboration between industry, RTOs, EU institutions, and Member States is needed to design regulatory sandboxes and to identify gaps in tech infrastructures that would require joint investment.

Inquiries:

Jussi Mäkinen (Director, EU Regulation)
Tel. +358 40 900 3066 / jussi.makinen@techind.fi

EU Transparency Register ID: 39705603497-38

Technology Industries of Finland (TIF) represents Finnish technology industries and counts over 1,800 member companies, ranging from SMEs and start-ups to world leading MNEs. The technology industry is comprised of five subsectors: electronics and the electrotechnical industry, mechanical engineering, the metals industry, consulting engineering, and information technology. Technology industry is the most important export industry of Finland, with operations constituting over 50 % of all Finnish exports and accounting for 70 % of all private investments.