

Cefic views on the Commission draft Delegated Act on the first two environmental objectives of the EU Taxonomy Regulation

Cefic welcomes the opportunity to provide comments on the first draft delegated act of the EU Taxonomy Regulation and continues to support efforts to mainstream sustainable finance initiatives.

Recalling the EU Industrial Strategy and the Chemicals Strategy for Sustainability, the transition towards a climate neutral, circular and sustainable society will require new technologies with investment and innovation to match. The chemical industry is an indispensable provider of safe, sustainable and innovative solutions at the service of society, but it is also capital-intensive, requires long lead-time and depends on a level-playing field with the right economic incentives.

Cefic notes that implementing and mainstreaming the EU Taxonomy is not a linear process and will require a supportive and well-designed regulatory framework that minimizes uncertainty, ensures comparability and safeguards competitiveness. The chemical industry is at the beginning of a significant transformation requiring an evaluation of entire value chains – companies will need adequate flexibility in incorporating the EU Taxonomy into business models. As such, the EU Taxonomy must be fair and incentivize companies to contribute to the transition journey, while avoiding penalizing those making efforts.

The first Taxonomy delegated act on climate change mitigation and adaptation relies heavily on the Final Report and Technical Annex of the Technical Expert Group on Sustainable Finance (TEG). The development of technical screening criteria is a highly complex and technical exercise which highlights the need for specialized stakeholder input and review. In its current form, conflicting sustainability schemes cause confusion for companies, investors and consumers, which affect the usability of the EU Taxonomy.

For instance, RED II sets stringent sustainability criteria for renewable energy, including biofuels. In this regard, biofuels compliant with RED II criteria should be considered Taxonomy-aligned; however, the technical screening criteria only partially considers this sectoral legislation. Under RED II, the current sustainability criteria were approved in 2018 and must be implemented by 2021. Additionally, as the Better Regulation process for the revision of RED II has begun, the technical screening criteria must directly reflect any relevant legislative initiative – the delegated act cannot precede legislative proposal.

As such, Cefic strongly recommends a thorough review of the Mitigation and Adaptation annexes to ensure alignment with existing pieces of related legislation and initiatives. Through various forums, industry is ready to positively contribute to ensure there are no clear misalignments inhibiting the success of the EU Taxonomy.

Building on our response to the respective inception impact assessment¹, Cefic wishes to comment on the following:

¹ [Cefic Inception Impact Assessment Response on First Taxonomy Delegated Act](#)

1. Thresholds must be gradual, supportive and considerate of external circumstances

Cefic recognizes the presented ambitious thresholds aim to capture the “best performance in the sector or industry”²; however, too stringent or continuously changing thresholds undermine necessary transitional and innovative efforts currently undertaken by the chemical industry, while limiting the investment universe. Thresholds must be supportive towards frontrunners while creating a constructive pull towards the others.

External factors beyond company control must be considered (such as national development strategies and renewable production capacity in Member States) while technological advancements of industrial processes (including energy efficiency and renewable energy consumption) are still not fully developed. As such, industry may not achieve climate ambitions in the intended timeframe, which may pose the risk of carbon leakage due to stagnation in the transitioning of sectors towards decarbonization because of lack of access to funding.

The EU Hydrogen Strategy outlines that hydrogen made from renewable energy sources is the long-term goal; however, in the short and medium term, other forms of low carbon hydrogen will play a key transition role. Moreover, the Strategy states that by 2050 investments in the range of €3-18 billion are required for low-carbon hydrogen.³ The threshold outlined in the Mitigation Annex (2.256 tCO₂e/tH₂) is incompatible with overarching EU ambitions as it effectively excludes hydrogen produced from retrofitted steam methane reformers. Additionally, the proposed threshold is more stringent than the final TEG Technical Annex proposal (5.8 tCO₂e/tH₂) despite the TEG amending its own mid-term recommendation (0.95 tCO₂e/tH₂) following similar stakeholder feedback.^{4 5}

With reference to electricity consumption for chlorine manufacturing, the most modern installations are unable to achieve the 2.45 MWh/tonne of chlorine stipulated in both the Mitigation and Adaptation Annexes. At present, less than 3% of the installed capacity in Europe reaches this value, while the average of the industry is 2.68 MWh/tonne.⁶ The additional criteria of attaining 100gCO₂e/kWh or lower average carbon intensity (Mitigation Annex), which are also indicated for many other activities (such as for Combined Heat and Power Installation – CHP), is unachievable considering current electricity data in Europe.

2. Use of EU ETS benchmarks must be consistent with regulation while also considering limitations

Cefic welcomes recognition that the manufacture of chemicals is necessary for a sustainable future. Cefic strongly questions the use of EU ETS benchmarks since these would exclude by definition 95% of installations from the criteria and do not represent a proper methodology for new investments. The annexes indicate values which reflect inter alia the new benchmarks of the 4th period. It is essential that for a new project, compliance with EU Taxonomy criteria should be assessed only for the scope of this project, and not for the whole company. The calculation of GHG emissions must follow the same principles, methodologies and units as in the determination of the benchmarks. The current text suggests this has not been considered.

² [Final report of the Technical Expert Group on Sustainable Finance](#)

³ [European Commission Communication on A Hydrogen Strategy for a Climate-Neutral Europe](#)

⁴ [Taxonomy Technical Report of the Technical Expert Group on Sustainable Finance – June 2019](#)

⁵ [Technical Annex of the Technical Expert Group on Sustainable Finance – March 2020](#)

⁶ [Chlor-alkali Industry Review \(2019-2020\)](#)

The benchmark for crackers is defined in tonne CO₂e per tonne HVC, where HVC stands for high value chemicals for which there are corrections for supplementary feed. In the annexes, these HVCs are limited to acetylene, ethylene, propylene and butadiene. This omits benzene and hydrogen which are part of the HVCs defined in the ETS benchmarks. Additionally, Section 3.13 (Manufacture of Organic Basic Chemicals), as defined by NACE 20.14, requires for instance all kinds of acetylene production, but the acetylene assessment has to be done against the HVC benchmark, which refers only to the steam cracking process. This misalignment between NACE and EU ETS benchmark poses usability issues.

The error is more pronounced in the aromatics benchmark expressed in tonnes CO₂e/tonne aromatics, whereas the ETS benchmark is expressed in tonnes CO₂e/tonne CWT where CWT stands for complex weighted throughput.⁷ Due to this method of calculation, the CWT of an aromatics plant is much higher than the sum of aromatics produced.

While GHG emission reduction based on the principles of benchmarks is understood, this approach is not suitable when modifications are made to existing plants to increase production while improving energy efficiency and GHG emission reduction, such as in the case of steam crackers. A cracker closely above the benchmark value and achieving the threshold due to the debottlenecking may qualify for financing but GHG emission reduction might be small. In contrast, a plant with initially high GHG emissions could have a project with high reduction potential but may fall short of meeting the threshold and would not qualify for sustainable financing. The benefits for reduction of GHG would however be much higher for the second project. For such debottlenecking projects, Cefic recommends consideration of an alternative threshold, based on the ratio (increase in GHG emissions) over (increase in capacity), to be below the threshold value.

3. Further development of chemical recycling

Cefic welcomes recognition of the manufacturing sector's role in the development of a circular economy for plastics, in addition to its emission reduction contribution.

We support the inclusion of chemical recycling in the technical annexes; however, in the material recovery from non-hazardous waste, only mechanical and separate collection are Taxonomy-eligible. Chemical recycling complements plastic recycling options and is capable of processing contaminated and/or mixed plastic waste. The feed for chemical recycling is most often the material that is not usable in mechanical recycling streams. Chemical recycling technologies allow use of plastic waste as feedstock to produce new chemicals and plastics, including those used in high-quality applications such as food contact and food packaging, as well as medical. Lastly without chemical recycling the collected plastics not mechanically recycled would end up being incinerated (with or without energy recovery), exported or landfilled.

Cefic also recommends to add "partially" in the screening criteria for chemical recycling, as the request that manufacture of plastics fully originate from chemical recycling is constraining and difficult to fulfil for some chemical recycling processes, leading to mixing feedstock from fossil and recycled origin; thus, requiring a mass-balance approach for which standards are under

⁷ [Commission Decision of 27 April 2011 on determining transitional Union-wide rules for harmonized free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council](#)

development at ISO 22095:2020⁸. Similarly, “partially” should also be added to plastics manufactured via mechanical recycling. Note that overly stringent criteria risks discouraging frontrunner companies and investors from undertaking significant investments.

Additionally, chemical (and mechanical) value chains require the mixing and/or co-processing with virgin fossil material during the transition towards a circular economy. Therefore, mixing and/or co-processing at later value chain steps should be considered Taxonomy eligible.

4. Support for the development of a bioeconomy

Biomass-derived chemicals can help improve resource efficiency, reduce CO₂ emissions, deliver circular solutions and contribute to the ambitions of the European Green Deal. In its current form, the draft delegated act excludes the use of food and feed crops in Section 3.13, 3.16 (Manufacture of plastics in primary form), 4.13 (Manufacture of biogas and biofuels for use in transport) and 5.7 (Anaerobic digestion of bio-waste); however, it is included when biomass is used for Section 4.8 (Electricity generation from bioenergy), 4.20 (Cogeneration of heat/cool and power from bioenergy) and 4.24 (Production of heat/cool from bioenergy). This inconsistent approach hinders the development of a flourishing bioeconomy and creates an uneven playing field between different sectors. Focus should rather be on setting and enforcing smart criteria for sustainable production of biomass.

Further, the provisions under 4.13 (Manufacture of biogas and biofuels for use in transport) should be widened and refer only to the manufacture of biogas and biofuels.

With focus on Section 5.7, Point 4 of the technical screening criteria suggests digestate should be used as a fertilizer. While this is the best way to utilize the digestate (a biogas plant will strive for this), there are certain regions (i.e. North West Germany, the Netherlands) that cannot take on more digestate as fertilizer due to existing nitrate levels in the soil. Additionally, certain wastes may also contain heavy metals over the limits allowed by Annex I of Regulation (EU) 2019/1009⁹ or plastics preventing them to be used as fertilizer; therefore, the delegated act should allow for other uses of the digestate such as input to chemicals.

5. Transport and Storage of CO₂

As highlighted in the TEG Technical Annex “the transport and storage of CO₂ should be considered essential to the infrastructure of a modern, sustainable society”¹⁰ and Section 5.11 (Transport of CO₂) of the delegated act annexes should cover all possible transport modalities (including ship/barge, train, truck and pipelines). Additionally, the word “directly” should be removed from Point 2 as it may cause complications for cases where CO₂ is processed in intermediate storage before being transported for permanent storage.

In Section 5.12 (Underground permanent geological storage of CO₂), “exploration” is used in combination with references to “geological formation”. By integrating “exploration”, the criteria

⁸ ISO 22095:2020 “Chain of custody – General terminology and models”

⁹ [Commission Regulation of 5 June 2019 laying down rules on the making available on the market of EU fertilizing products and amending Regulations \(EC\) No 1069/2009 and \(EC\) No 1107/2009 and repealing Regulation \(EC\) No 2003/2003](#)

¹⁰ [Technical Annex of the Technical Expert Group on Sustainable Finance – March 2020](#)

may be interpreted as requiring saline aquifer storage; therefore, we recommend deletion of the term.

6. Life-Cycle Analysis and Third-Party Verification

Throughout the Mitigation Annex¹¹ the technical screening criteria states that “quantified life-cycle GHG emissions [must be] verified by an independent third-party”. Cefic welcomes life cycle thinking but notes that Life-Cycle Analysis (LCA) is conducted at a product or service level and is often intended for internal use to identify improvement potential. To have each LCA verified by a third-party represents a significant cost and would be extremely time-consuming. According to the ISO 14044 LCA standard¹² a critical review is always required but may be carried out by a qualified internal or external expert. A costly third-party critical review by a panel of interested parties is required only when the results of an LCA are intended to be used for comparative assertions disclosed to the public, such as in marketing materials.

With reference to Section 9.1 (Research, development and innovation), should a company already have a Science-Based Target (SBT) for GHG emission reduction with a roadmap, all investments and research used to establish new solutions and bring about engineering improvements (which are part of that established roadmap to meet the SBT) could also be seen as substantial contributions. This is because the SBT is calculated to ensure fair contribution to global emission reduction ambitions outlined in the Paris Agreement.

Having assurance on the process is sufficient for compliance with the EU Taxonomy. An audit partner can assure whether it is reasonable to assume a company has assessed the portfolio correctly, whether LCAs have been carried out according to the ISO standard, and whether the company has reported on the outcomes in a complete and consistent manner.

It is important that the LCA approach is consistently applied throughout the EU Taxonomy. For instance, improvements related to Point 1 in Section 5.4 (Renewal of wastewater collection and treatment) must be considered in an LCA approach.

7. Consideration of unique circumstances for Research, Development & Innovation

Cefic welcomes Section 9.1 as research, development & innovation (RD&I) will be critical in delivering the solutions for a climate-neutral economy. A well-designed EU Taxonomy may contribute to better alignment of the objectives of RD&I activities along the Technology Readiness Level (TRL) – with high flexibility at low TRL (i.e. TRL 2) and gradual granularity toward higher TRLs (i.e. TRL 6).

An EU Taxonomy applied to RD&I must be technologically neutral and consider all possible technological solutions, apply appropriate criteria and methodologies to evaluate technology impact (as impact may depend on time and location for implementation), and consider key aspects

¹¹ 3.12 (Manufacture of chlorine); 3.13 (Manufacture of organic basic chemicals); 3.16 (Manufacture of plastics in primary form); 4.6 (Electricity generation from geothermal energy); 4.7 (Electricity generation from gaseous and liquid fuels); 4.18 (Cogeneration of heat/cool and power from geothermal energy); 4.19 (Cogeneration of heat/cool and power from gaseous and liquid fuels); 4.22 (Production of heat/cool from geothermal energy); 4.23 (Production of heat/cool from gaseous and liquid fuels); and 9.1 (Research, development and innovation).

¹² ISO 14044:2006 “Environmental management – Life cycle assessment – Requirements and guidelines”

of technology development (including time, evaluation of impact and elements specific to the scale-up of innovative process technologies in the chemical industry).

It is also important to ensure an appropriate balance of financial support between high TRLs (in particular demonstration of first-of-its-kind plants) and lower TRLs (needed for the development of new breakthroughs). Such information should be communicated to investors in portfolio assessment. In addition to financial risk-sharing, an appropriate European policy framework is critical to enable investment in innovation technologies, which are often not cost-competitive with optimized conventional production routes.

8. Greater clarity of key terms to avoid inconsistent application

The technical screening criteria must have clear definitions of key terms and they need to be consistently applied across all economic activities.

The “additionality” criterion¹³ is unclear. In its current form, it implies that an activity being accepted for financing as a sustainable investment (based on compliance with the Taxonomy Regulation) is a condition to demonstrate additionality. In this case, it should be evidenced that without the activity being accepted for finance, it would not have been possible/implemented, or the area would have been used for other activities that would have a negative climate impact. Such rationale is incompatible with the spirit of the Taxonomy Regulation as it is not a mandate for financing. In the sections it is utilized, there is implication that private investors that do not require access to third party financing could be discouraged to invest in protection or enhancement of natural sinks since that activity may not qualify as a Taxonomy-eligible activity.

There is also an absence of definition in key terms, such as in Section 4.25 (Production of heat/cool using waste heat) where “waste heat” is not defined. Other terms, including “net zero energy use” in Section 5.3 (Construction, extension and operation of wastewater collection and treatment) are unclear given the context.

Furthermore, recognition of the production of specialty chemicals is required in the EU Taxonomy. Specialty chemicals provide key ingredients that serve as (co-) enablers for markets, by for instance contributing to climate change mitigation and adaptation measures while also meeting DNSH criteria. The production of elastomers for underwater cables in conjunction with off-shore wind parks or carbon fiber-based materials applied in car manufacturing allowing for weight reductions, serve as examples to illustrate the need to improve clarity of the EU Taxonomy in this regard.

Finally, it remains unclear what NACE codes are to be used for activities not covered by the EU Taxonomy.

9. Consistency across different economic activities

Cefic recognizes the tremendous work achieved by the TEG in developing technical screening criteria for 70 climate change mitigation and 68 climate change adaptation activities, in addition to

¹³ Sections 1.4 (Afforestation), 1.5 (Rehabilitation and restoration of forests), 1.6 (Reforestation), 1.7 (Improved forest management), 1.8 (Conservation forestry) and 2.1 (Restoration of wetlands)

DNSH criteria for the other environmental objectives. At this stage, criteria for certain economic activities are more developed in comparison to others, which poses difficulties in application.

For instance, in Section 1.3 (Livestock Production) there is a positive listing of specific products which effectively dereferences others not quoted. For auditing purposes, there is a requirement to explain deviation from the mentioned products, even though the list of suggestions is not meant to be exhaustive. In this context, such listings would hinder the use of authorized feed additive technologies, nutritional techniques, and digestibility improvements which would positively contribute to reducing environmental impact.

When comparing the different economic activities in the technical screening criteria, there are several cases of misalignment. For example, in comparison to the rest of the delegated act (and contrary to the recommendations of the TEG) there are inconsistencies in references to fertilizers in Sections 1 and 2. In the Forestry and Restoration of Wetlands sections there is a prohibition on the use of fertilizers under the DSH criteria, while in other activities the use of fertilizers is (in a targeted way) allowed (Section 1.1 – Growing of non-perennial crops). To ensure the successful implementation of the EU Taxonomy, all economic activities must reflect existing EU legislation and align with other economic activities covered.

Finally, we note that there are specific references to the type of activity (i.e. enabling according to Article 10(1), point (i) or Article 11(1), point (b); transitional according to Article 10(2)); however, some activities lack this clear attribution. For consistency, each economic activity should have these specific references. In this context, the coverage of activities enabling adaptation must be expanded. Currently, few activities in the Adaptation Annex are labelled accordingly (namely in Section 9 and 10); however, other activities (i.e. Section 3.5 – Manufacture of other low carbon technologies) may include or be described to include solutions that also enable adaptation. Such activities must be considered, since a limitation of the scope cannot be justified against the framework of the Taxonomy Regulation. In line with this approach, the TEG Report widely included screening criteria for both adapted activities and activities enabling adaptation.

10. Proper application of existing legislation and principles of Better Regulation

Given the recognition of its role in achieving the objectives of the European Green Deal, the chemical industry relies on predictable, workable and evidence-based legislation which can be assured through the proper application of the Better Regulation Guidelines. Additionally, delegated acts must consider existing EU legislation (EU ETS, RED II, REACH, waste legislation etc.) in order to avoid overlap, gaps and conflicts in applicability.

There are examples of where references to important chemicals legislation are deleted (in comparison to the TEG Technical Annex) such as the deletion of compliance with REACH and RoHS in the Pollution Prevention and Control DNSH criteria for Section 3.5. Additionally, in the various Forestry sections¹⁴ (EU) Regulation 2020/853 is consistently mentioned. This reference is incorrect and should presumably be (EU) Regulation 2020/852.

¹⁴ Sections 1.4 (Afforestation), 1.5 (Rehabilitation and restoration of forests), 1.6 (Reforestation), 1.7 (Improved forest management), 1.8 (Conservation forestry)

Cefic continues to support the European Commission and is ready to contribute to the development, analysis and review of technical screening criteria with evidence-based recommendations. This includes active participation of our Permanent Representative in the EU Platform on Sustainable Finance.

While contributing to this consultation we are very aware we are experiencing unprecedented times, with events none of us have lived through before. Cefic endeavors to maintain a high standard in our responses to public consultations. While we are confident that this contribution adequately reflects our views at the current time, we recognize that public and private sector responses to the crisis and its aftermath, both in the EU and globally, have the potential to significantly affect industry's operating conditions. When investing in the future, industry, governments and institutions will also have to continue to ensure investments align with the policy targets of a climate-neutral Europe. We look to the European Commission to undertake the appropriate assessments and to include these wider considerations in the future framework that will be developed, with the objective of ensuring the EU's post-crisis attractiveness as a place for investing in the industrial transformation required to achieve EU Green Deal objectives.

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About Cefic

Cefic, the European Chemical Industry Council, founded in 1972, is the voice of large, medium and small chemical companies across Europe, which provide 1.2 million jobs and account for 16% of world chemicals production.