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Orgalim comments on the 1st draft delegated act on climate change sustainable activities supplementing the EU Taxonomy Regulation

European technology manufacturers offer innovative technology solutions that hold enormous potential to help the transition to a more competitive, resource efficient economy and climate-neutral economy by 2050 – key goals of the European Green Deal. To achieve this transition, a substantial amount of financing is needed to back up greening of different sectors of the economy. In this context, Orgalim, representing Europe's technology industries, welcomes the European Commission's efforts in shaping the EU taxonomy legislation to help bridge the huge investment gaps that currently exist. A first delegated act on climate change sustainable activities, which will supplement the EU Taxonomy Regulation ([EU/2020/852](#)), can further incentivise financial flows towards economic sectors and activities compliant with the climate change mitigation and adaptation objectives, provided the act is properly designed.

To ensure European technology leadership and innovation, we call upon the Commission when fine-tuning the first delegated act to consider a wide range of technologies as well as diversity of companies' available resources, which makes a 'one-size-fits-all' approach truly challenging. The technical screening criteria set by the draft act should be flexible to accommodate different energy efficient and circular technology solutions and related maintenance and service activities, while rewarding innovation and competitiveness.

Below, Orgalim outlines a set of specific proposals for the draft delegated act on a climate change mitigation and adaptation taxonomy.

1. Allow flexibility for tailor-made low-carbon technologies, ICT and emerging technologies

EU technology industries produce advanced energy efficient and circular products and technologies which contribute to the saving of GHG emissions. They are often tailored to the specific needs of their customers and therefore are not always comparable to other technologies or solutions. In section 3.5 the draft delegated act sets out the technical screening criteria for manufacturing low-carbon technologies (and their key components) that demonstrate substantial life-cycle GHG emission savings compared to the best performing alternative technology/product/solution available on the market. This text creates confusion regarding technologies that cannot be compared to others, which is often the case with the mechanical engineering technologies as tailor made solutions. Life cycle assessments are inapplicable in those cases.

Furthermore, many low-carbon technologies to decarbonise the manufacturing sector are at an early stage of development or are yet to be invented. The draft delegated act does not reflect this, leading to an unequal situation

with the other sectors that are covered under the manufacturing section and with their own specific technical criteria. The burden of proof will be on manufacturing companies, making it difficult to meet the criteria on “the best performing alternative technology/product/solution available on the market”. Carbon footprint assessments are not comparable and the available and validated information on what is the “best performing alternative technology/ solution available on the market” is missing. SMEs will face even greater challenges since human and financial resources are particularly tight.

The same technical screening criteria would also apply for ICT solutions, under section 8. 2 with “data-driven solutions for GHG emissions reductions”. Such criteria would make it difficult to take advantage of the benefit of ICT as a key enabler for decarbonisation. Digital transformation is bringing the energy system to another level and offers huge opportunities to accelerate the decarbonisation of our economies. The greatest transformational potential for digitalisation is its ability to break down boundaries by helping to integrate innovative solutions and technologies (e.g. renewable energy, energy efficiency, electric vehicles and microgrid)^[1].

All **infrastructure**-related elements (signalling, safety, digitalisation of signalling installations, predictive maintenance, ticketing, planning for road and rail solutions) as well as **smart and digital solutions** (e.g. in the field of ITS) should also be seen as **enablers** for making our mobility more sustainable.

Proposal for sections 3.5 and 8.2 in Annex I: The text should include that a technology should be compared “when possible”: *The economic activity of manufacture of low-carbon technologies (and their key components) that demonstrate substantial life-cycle GHG emission savings compared, when possible, to the best performing alternative technology/product/solution available on the market.*

2. Consider low-carbon technologies at the manufacturing phase and not only at their end-use phase

EU technology companies are among global leaders, as demonstrated for example in high-value patents on clean energy technologies. Those companies are manufacturing technologies that will be deployed in key sectors to decarbonise the EU economy (building management systems, industrial automation, smart transformers, EV charging stations).

In the draft delegated act, the issue at stake is that low-carbon technologies can allow a sustainable activity to qualify when used at the end-use/operational phase, but not at the manufacturing phase. We indeed find asymmetry between technologies listed for low-carbon/transition activities (end-use) and in the manufacturing part. This shows an unbalanced approach towards the low-carbon manufacturing sector in Europe, which is in contradiction to the policy efforts made to trigger a vibrant low-carbon technology manufacturing industry in Europe.

This issue has been explicitly recognized by the TEG : “*However, in some cases, the list is less broad than the eligible activities in the corresponding section of the Taxonomy due to limited resources to explore in this phase the implications for use in other sectors of the same products, components, equipment and infrastructure. Further analysis is required to ensure no perverse incentives occur.*” The manufacturing section should therefore be corrected to reflect this imbalance and include all technologies or equipment when listed at the end-phase, under the transition and low-carbon activities.

^[1] Digitalisation is key for renewable energy integration: for example, ENEL ADMS in distribution grid saw energy savings of about 144 GWh per year, as well as a reduction in CO₂ emissions by 75,000t per year^[1].

For example, for electrical equipment, its enabling role to reduce GHG emissions in low-carbon or transition activities has been neglected. We therefore call for the creation of a specific section 3.6 in the manufacturing section called “manufacture of electrical equipment”, that would correspond to the NACE code C27.1 Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus.

This would address the issue of missing electrical equipment or equipment that has been listed under end-use activities and not in the manufacturing part. For example, equipment listed under the section 4.9 transmission and distribution of electricity: distribution transformers, equipment and infrastructure where the main objective is an increase of the generation or use of renewable electricity generation; equipment to increase the controllability and observability of the electricity system and to enable the development and integration of renewable energy sources.

Proposal for section 3.5: To correct this asymmetry, the “manufacture of low-carbon technologies” should be modified according to the following: “Manufacture of all low-carbon technologies that are explicitly mentioned as enabling technologies for ‘low-carbon or transition activities’, applying the same thresholds”

Proposal: Create a specific section 3.6 in the manufacturing section called ‘manufacture of electrical equipment’ corresponding to the NACE code C27.1 Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus. We also suggest adding NACE codes 26.11 (Manufacture of electronic components) and 26.51 (Manufacture of Instruments and appliance for measuring, testing and navigation).

3. Include all maintenance and services activities that are required to support enabling technologies

Asset operations form the lion’s share of CO₂ emissions: for instance, building emissions are responsible for 20% to construction and design phase and 80% to operations. It means maintenance and services related to a given asset provide a great opportunity to improve the energy and environment performance.

In the draft delegated act, only services for renewables and the building sector (energy audits and management, energy performance contracts, ESCOs) have been listed and can qualify. This approach is limited and does not take into consideration many essential services that are required to enable activities considered by the TEG. For instance: the installation and maintenance of low-carbon technologies (e.g. variable speed drives, buildings management systems) should be included. In other terms, considering technologies only at product-level ignores the required human-skills needed for the design, installation, operation and maintenance of these technologies.

In addition, maintenance services that enable optimal energy-efficiency of technologies (ex: transformers) or assets (e.g. buildings) over their lifetime should also qualify. The International Energy Agency for instance forecasts that in OECD countries, about 50% of buildings that will be in use in 2050 are already built. Prolonging the lifetime of assets, with optimised energy performance, is a key lever to reduce global GHG emissions.

Proposal: Create a new section 9.3 ‘Professional services related to energy performance, including design, installation, maintenance of low-carbon technologies’. For enabling activities, this section would include activities providing services supporting targeted sectors, such as design, installation, maintenance, operational support, consulting (audit, advisory services, legal counsel, etc.).

4. Consider the higher energy efficiency impact of newly installed technologies

EU technology solutions help different users and sectors to reduce their water footprint, improve energy performance and recover rainwater and valuable resources from used water. Obsolete water infrastructure can be modernised with already existing highly energy-efficient and energy-neutral wastewater technologies, which can also turn wastewater plants into energy producers.

In this context, we welcome that the draft delegated act (section 5 in Annex I) contains valuable parameters moving the water and wastewater sector in a more sustainable direction. We support that the technical criteria for economic activities in the water sector take into account energy efficiency and water leakage performance, which are ambitious and realistic.

The draft delegated act (section 5.4) states that “The renewal of the front-to-end waste water system, including collection, treatment and discharges of waste water, improves energy efficiency by decreasing the average energy use of the system by at least 10% compared to own baseline performance averaged over 3 years, demonstrated on an annual basis”. Alternatively, new technologies installed in wastewater equipment may cut even more energy use and up to 25% compared to the upgraded one. For example, an upgraded pumping station or an aeration system would not necessarily reduce 10% of energy use of the overall system. The same level of energy reduction ambition can be applied to the part of the delegated act (section 5.2) referring to the renewal of water supply system, including water collection, treatment and supply.

Proposal for sections 5.2 and 5.4 in Annex I: Extend the technical screening criteria to also include the new installed water supply and waste water equipment with a potential to reduce the energy consumption by 25% compared to the equipment it substitutes.

5. Build up policy coherence on transitional activities with key energy legislation

Transitional activities will provide a huge potential to reduce carbon emissions if the criteria are properly designed. The Commission has defined many activities as transitional. The technical screening criteria (TSC) are, however, strict and do not reflect reality, while Article 10 in the Taxonomy Regulation provides clear guidance on how such activities can also qualify as contributing substantially to climate change mitigation.

In consequence, proven technologies such as the use of renewable and low-carbon fuels would not be considered sustainable, even if the Commission in other areas of its work integrates these exact same technologies into relevant future strategies such as a new Sustainable and Smart Mobility Strategy. Within the Taxonomy Annex this is not handled consistently; for example “life-cycle emissions” are considered instead of “tailpipe CO₂ emissions” in the energy section.

Renewable and low-carbon fuels will provide a significant decrease of GHG emissions during the transition and may be produced from waste, bio matter or even directly from water and air using renewable energy. Production of some of these fuels is included in section 4.13 of Annex I and Annex II, which has a requirement of at least 65% saving in relation to the GHG saving methodology and the relative fossil fuel comparator set out in Annex V to Directive (EU) 2018/2001 (Renewable Energy Directive)

Proposal for sections addressing TSC with a “zero direct tailpipe (CO₂) Emissions” approach in the transport section (e.g. 3.3, 6.1, 6.2, 6.3, 6.7, 6.8, 6.10, 6.11. in Annex I): Extend the technical screening criteria to also include: relevant activity [e.g. the trains and passenger coaches] to operate on a fuel with a GHG emission saving of at least 65% in relation to the GHG saving methodology and the relative fossil fuel comparator set out in Annex V to Directive (EU) 2018/2001 or equivalent comparator for fuels not currently covered.

6. Enable further growth of hydrogen manufacturing

Production of clean hydrogen is acknowledged as a key factor for the clean energy transition of Europe. Both renewable and low-carbon hydrogen are needed to realise the EU's energy and climate ambitions. The European Hydrogen Strategy also recognises the need for low-carbon hydrogen produced from natural gas with carbon capture and storage (CCS).

In the final report from the Technical Expert Group from March 2020, it was proposed that direct CO₂ emissions from manufacturing of hydrogen should be below 5.8 tCO₂e/tH₂ in order to meet the technical screening criteria for climate mitigation. We take note that the Commission suggests a threshold value of 2.256 tCO₂e/tH₂ in the draft delegated act for climate mitigation, section 3.9. We are not sure how the threshold value of 2.256 tCO₂e/tH₂ has been derived. We ask that the Commission ensures that the climate mitigation criteria for CO₂ emissions from the manufacturing of hydrogen from natural gas with CCS must be ambitious, but still realistic and achievable by using the best available techniques. In addition, we see it as important that section 3.2 in Annex 1 and Annex 2 ("Manufacture of equipment for the production of hydrogen") includes both hydrogen electrolysis technologies as well as other types of low-carbon technologies for hydrogen production, as the latter technologies will also make a significant contribution to climate mitigation.

Proposal for section 3.2 in Annex I and Annex II: In addition to electrolysis, include low-carbon technologies for manufacturing of hydrogen, such as fuel cell technologies and their components.

Proposal for section 3.9 in Annex I: Ensure that the criteria for threshold values for emissions of tCO₂e/tH₂ are realistic and in accordance with the recommendations from the Technical Expert Group report of March 2020.

7. Ensure equal treatment of all types of renewable electricity generation

A renewable and low-carbon energy system is crucial for reaching the European adopted climate targets. The taxonomy should ensure a level playing field and equal treatment of all types of renewable electricity generation. In the draft delegated act for climate mitigation (annex 1), the proposed screening criteria for electricity generation from hydropower (section 4.5) goes far beyond the criteria for other types of renewable electricity generation, for example from wind, ocean technologies, etc. We believe that the taxonomy should be developed with technology-neutral criteria for different types of renewable electricity generation. This applies both to criteria for substantial contribution to climate change mitigation and the "do not harm" criteria for the environmental objective of sustainable use and protection of water and marine resources.

Proposal for section 4.5 in Annex I: The criteria for substantial contribution to climate mitigation should be modified to "the activity generates electricity from hydropower", and hence aligned with the criteria for e.g. production of electricity from wind power (section 3.3) and ocean technologies (section 3.4). The "do not harm" criteria for sustainable use and protection of water and marine resources should be aligned with requirements that follow from the EU Water Framework Directive, which according to the Commission's recent Fitness Check is fit for purpose.

Proposal for section 3.1 in Annex I: It should be clearly specified that technologies and core components used for the production of electricity and heat from renewable energy sources as defined in Article 2(1) of Directive (EU) 2018/2001 are included in the scope.

8. Further specific proposals

Proposal for section 3.4: regarding cooling and ventilation systems, remove “rated in the top two energy labelling class in accordance with Regulation (EU) 2017/1369”. The scope of cooling and ventilation systems should also include “Ventilative Cooling” (night cooling) as it is a very energy-efficient technology to reduce overheating (climate adaptation – Annex II). There is no reason to limit ventilation systems to the top two energy labelling classes as all ventilation technologies can make significant contributions to climate mitigation depending on the specific case (renovation vs new, type of building etc.).

Proposal for section 4.16: Installation of electric heat pumps, remove “the GWP criteria <675”. It is more appropriate to refer to compliance with the EU legislative framework for refrigerants (EU Regulation 517/2014) and its expected adjustments for an accelerated phase-down of F-gases.

Orgalim represents Europe’s technology industries, comprised of 770,000 innovative companies spanning the mechanical engineering, electrical engineering, electronics, ICT and metal technology branches. Together they represent the EU’s largest manufacturing sector, generating annual turnover of over €2,100 billion, manufacturing one-third of all European exports and providing 11.5 million direct jobs. Orgalim is registered under the European Union Transparency Register – ID number: 20210641335-88.