



TAXONOMY

Guidelines for the EU Plastic Pipes and Fittings industry

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DISCLAIMER

The content of the Guidelines is based on the best knowledge of the Author at the moment of writing it. However, the content of the Guidelines does not constitute legal or other professional advice and it does not substitute the provisions under the EU Taxonomy Regulation and its Delegated Acts that the undertaking should follow. The purpose of the Guidelines is to give information and examples for undertakings on how to implement the relevant provisions. The authors are not liable for any damage arising from the use of these Guidelines or any material contained in it, or from any action or decision taken as a result of using the Guidelines.

1. INTRODUCTION

1.1. EUROPEAN TAXONOMY FOR SUSTAINABLE FINANCE

The EU Taxonomy for Sustainable Finance is a classification system developed by the European Union (EU) to establish a common language and framework for identifying and communicating environmentally sustainable economic activities. It aims to provide a clear and standardized definition of what constitutes an environmentally sustainable economic activity and to create a framework for investors, businesses, and policymakers to assess the environmental sustainability of investments.

The taxonomy is based on six environmental objectives:

1. climate change mitigation,
2. climate change adaptation,
3. sustainable use and protection of water and marine resources,
4. transition to a circular economy,
5. pollution prevention and control, and
6. protection and restoration of biodiversity and ecosystems.

It includes technical screening criteria (TSC) for each objective, which establish thresholds that activities must meet in order to be classified as environmentally sustainable.

Presently, the taxonomy for climate related objectives (climate change mitigation and climate change adaptation) has been published in the Official Journal of the EU (OJEU) as Delegated Act (Climate Taxonomy) and is applicable. Recently, the EU Commission further adopted a new package of measures, including Delegated Acts for [economic activities](#) substantially contributing to the objectives of:

1. sustainable use and protection of water and marine resources
2. transition to a circular economy
3. pollution prevention and control
4. protection and restoration of biodiversity and ecosystems

This also included amendments to add economic activities to the list of those substantially contributing to the objectives of climate change mitigation and adaptation, and to clarify the reporting obligations for the additional activities (Disclosure Delegated Act).

The EU Taxonomy Tax04 (or Environmental) Delegated Regulation (2023/2486) has been published in the OJEU on 21/11/2023 and will apply as from 1/1/2024. The present analysis was performed on the adopted version of the Sustainable Finance Package on 27 June 2023 (see 5. References & Resources).

The taxonomy applies to a wide range of economic activities, including agriculture, forestry, energy, manufacturing, transportation, and construction. It is designed to be a living document that will evolve over time to reflect scientific and technological advances, as well as changes in environmental priorities.

The taxonomy has several potential benefits, including helping to direct investment towards sustainable activities, improving transparency and comparability of investments, and facilitating the implementation of environmental policies and regulations. However, it also has some challenges, including the complexity of the subject, the need for consistent and reliable data to assess the environmental performance of economic activities and the potential for unintended consequences, such as the exclusion of activities that may have environmental benefits but do not meet the technical screening criteria.

1.2. TEPPFA THE EUROPEAN PLASTIC PIPES AND FITTINGS ASSOCIATION

TEPPFA (The European Plastic Pipes and Fittings Association) is an EU trade association that represents the manufacturers of plastic pipes and fittings in Europe. The association promotes the sustainable use of plastic pipes and fittings for various applications in building and infrastructure, such as water supply and distribution, gas supply, sewage and drainage, and telecommunications.

TEPPFA 's strategy aims at promoting the benefits of plastic pipes and fittings, such as their high quality, 50+ to 100+ year life expectancy, leak tightness, corrosion resistance, and low environmental impact. The association also supports the development of standards and regulations for plastic pipes and fittings in Europe and provides technical expertise and guidance to its members.

In addition to promoting the use of plastic pipes and fittings, TEPPFA and its associates also prioritize sustainability and are committed to reducing the environmental impact of their products. The association works on initiatives to improve the recycling of plastic materials, and advocates for the circular economy and the responsible use of resources.

1.3. TEPPFA GUIDELINES ON TAXONOMY: GOAL AND SCOPE

TEPPFA initially commissioned Ecoinnovazione srl (www.ecoinnovazione.eu) to perform a consultancy activity whose objective is to support TEPPFA members to get to a common understanding related to the identification of "eligible activities" for their sector and how to consider the "alignment" with the Climate Taxonomy. In a second step, it was agreed to extend the project scope and include the analysis of Taxonomy "eligible activities" as well as how to perform alignment for the other four environmental objectives (Environmental Taxonomy).

Prior to commissioning the project, TEPPFA checked with an external legal Counsel specialized in EU Competition Law how those activities should be dealt with within TEPPFA in full compliance with EU Competition Law. TEPPFA implemented the recommendations made by the consultant.

The trigger for this project was the need expressed by TEPPFA members to get more clarity about how taxonomy rules should be interpreted in view of eligibility and alignment disclosures.

These Guidelines are the deliverable of the consultancy activity and provide:

- an overview of the European Climate Taxonomy and related legislation.
- Definitions of basic concepts and terms.
- Analysis of TEPPFA members' activities and their potential eligibility/alignment.
- Considerations and Recommendations.

- List of references and resources.

The European Commission published the "EU taxonomy navigator"¹, a set of tools "to help users better understand the EU Taxonomy". They include:

- The EU Taxonomy Compass: it provides a visual representation of the contents of the EU Taxonomy.
- The EU Taxonomy Calculator: it is an interactive, educational tool that aims to help users understand and support with the reporting obligations (see paragraph 2.4).
- The FAQs repository.
- The EU Taxonomy User Guide.

These tools can complement the content of these Guidelines and support TEPPFA members in applying the Taxonomy. Presently, only the Climate Taxonomy is covered by the Navigator.

2. UNDERSTANDING THE EU TAXONOMY REGULATION

2.1. THE TAXONOMY REGULATION

The goal of Regulation (EU) 2020/852 is to establish a framework that facilitates sustainable investment by providing a classification system, or "taxonomy," for economic activities that contribute to environmental objectives.

In Regulation (EU) 2020/852, the concepts of "substantial contribution" and "do no significant harm" are used to guide the classification of economic activities in the EU Taxonomy.

"Substantial contribution" refers to an economic activity's ability to make a positive impact on one or more of the six environmental objectives defined in the Taxonomy Regulation. The criteria for determining a substantial contribution are based on technical screening criteria (TSC) developed by the European Commission. These criteria assess the environmental performance of an economic activity using quantitative thresholds and other indicators such as energy efficiency, water usage, and greenhouse gas emissions.

"Do no significant harm" is a principle that requires economic activities that contribute to the environmental objectives of the Taxonomy to avoid causing significant negative impacts on other environmental objectives or areas. This principle is based on a risk-based approach that considers potential negative impacts on the environment, such as pollution, deforestation, or depletion of natural resources. Economic activities that are found to cause significant harm are excluded from the Taxonomy.

Together, the concepts of "substantial contribution" and "do no significant harm" aim to promote sustainable economic activities that contribute to environmental objectives while avoiding significant negative impacts on other environmental areas². The regulation includes requirements for the European Commission to establish technical screening criteria for economic activities that substantially contribute to each environmental objective. It also includes reporting obligations for companies, financial market participants,

¹ <https://ec.europa.eu/sustainable-finance-taxonomy/>

² In principles, this "reductionist" approach seems in contrast with the systemic and holistic nature of sustainability themes. However, it provides a very pragmatic and operational approach towards sustainability. If interested to know more about this argument, please refer to the scientific debate about Sustainability Science as a post-normal science.

and advisers to disclose the degree of their economic activities' alignment with the taxonomy, and provisions for the use of the taxonomy in investment decisions and financial products.

The EU Taxonomy regulation (Regulation (EU) 2020/852) focuses primarily on environmental sustainability and sets out technical screening criteria to determine when an economic activity can be considered environmentally sustainable. However, the regulation recognizes the importance of social sustainability and requires that social considerations be taken into account when an economic activity has significant social impacts.

In particular, Article 18 of the EU Taxonomy regulation states that "when assessing whether an economic activity makes a substantial contribution to climate change mitigation or adaptation, and the prevention of environmental degradation, significant harm to social objectives shall be avoided, and social safeguards shall be respected."

The regulation also requires companies to disclose information on how they manage social issues, such as labor rights, human rights, and the social impacts of their operations. This information can be provided in the form of a non-financial statement, which must include a description of the company's policies, due diligence processes, and outcomes in relation to social issues.

While the EU Taxonomy regulation does not set out specific technical screening criteria for social sustainability, it is expected that further guidance on social sustainability will be developed in the future. The European Commission has stated that it intends to develop a separate framework for social sustainability to complement the EU environmental Taxonomy.

To ensure that economic activities meet social safeguards, the regulation requires that they comply with relevant international standards and guidelines, including the Universal Declaration of Human Rights, the International Labour Organization's core labour standards, and the OECD Guidelines for Multinational Enterprises. Companies are also expected to conduct due diligence to identify, prevent, mitigate, and account for any adverse social impacts of their operations.

2.2. KEY CONCEPTS AND DEFINITIONS

Sustainable economic activities: Economic activities that contribute to one or more of the six environmental objectives set out in the regulation, namely climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems.

Transitional activities: Economic activities that make a substantial contribution to climate change mitigation where no technologically and economically feasible low carbon alternative exists, provided they are compatible with a pathway to limit the temperature increase to 1,5 °C above pre-industrial levels, reflect best-in-class performance, do not hamper the development and deployment of low-carbon alternatives and do not lead to lock-in of carbon-intensive assets.

Enabling activities: An economic activity shall qualify as contributing substantially to one or more of the environmental objectives set out in Article 9 of Reg 852/2020 by directly enabling other activities to make a substantial contribution to one or more of those objectives, provided that such economic activity:

(a) does not lead to a lock-in of assets that undermine long-term environmental goals, considering the economic lifetime of those assets; and

(b) has a substantial positive environmental impact, based on life-cycle considerations.

Technical screening criteria: Criteria that are used to determine whether an economic activity qualifies as environmentally sustainable. These criteria are based on scientific evidence and assess the performance of the activity in terms of resource use, pollution, and other environmental impacts.

Taxonomy eligibility: Taxonomy-eligible economic activities refer to the share of economic activities that are described in the Taxonomy delegated acts, but that do not yet meet the relevant technical screening criteria. An economic activity could match the description of an activity laid out the Climate Delegated Act even if the NACE sector of the company is not listed in the relevant section of the Climate Delegated Act. Eligible activities constitute the baseline universe of activities that have the potential to align with the technical screening criteria, including as transitional or enabling activities. Taxonomy Regulation, the Climate Delegated Act and the Disclosures Delegated Act do not differentiate between *core* and *non-core* economic or business activities.

Taxonomy alignment: Taxonomy-aligned economic activities refer to the share of economic activities that meet the relevant technical screening criteria specified in the Taxonomy delegated acts. In particular, an economic activity is considered taxonomy-aligned if:

- Makes a "substantial contribution" to at least one of the six environmental objectives.
- "Does no significant harm" to any of the other five environmental objectives.
- Complies with minimum (social) safeguards.
- Complies with the applicable technical screening criteria.

Non-financial reporting: The disclosure of information on an entity's policies, risks, and performance related to environmental, social, and governance (ESG) issues. The EU Taxonomy Regulation requires certain companies to report on the degree of alignment of their activities with the taxonomy.

CAPEX: In the context of the EU Taxonomy, the Capex KPI is defined as the share of Taxonomy-aligned capital expenditures (Capex) in the numerator, divided into three categories (a – c) as defined in the Disclosures Delegated Act, divided by the total Capex (in the denominator). The three classifications of Capex are:

- **Type A CAPEX:** related to assets or processes that are associated with Taxonomy-aligned economic activities (where turnover is aligned);
- **Type B CAPEX:** part of a plan to expand Taxonomy-aligned economic activities or to allow Taxonomy-eligible economic activities to become Taxonomy-aligned under conditions specified in the Delegated Act (where turnover is eligible but not aligned); and
- **Type C CAPEX:** Related to the purchase of output from Taxonomy-aligned economic activities and individual measures enabling the target activities to become low-carbon or to lead to greenhouse gas reductions, provided that such measures are implemented and operational within 18 months (where turnover is neither eligible nor aligned). For Capex category c), the assessment focuses on the output and individual measures. It does not focus on the target economic activity for which the expenditure is incurred. Entities must assess whether the expenditure qualifies as:
 - a purchase of an output of a Taxonomy-eligible activity; or
 - an individual measure to improve energy efficiency included in the Taxonomy.

In other words, any investment in **outputs and measures listed in the Climate Delegated Act**, if implemented and operational within 18 months, are included in the CAPEX KPI

definition. This applies even if the target activity (for example, manufacturing of plastic pipes) is not Taxonomy eligible.

Expenditures on assets or processes which might be useful to enable the target activity to become low carbon, but which are not activities listed in the Climate Delegated Act do not fall under category (c).

OPEX: The OPEX KPI covers essentially non-capitalised costs related to the maintenance and servicing of companies' assets (plant, equipment) that are necessary to ensure the continued and effective use of assets.³ The OPEX KPI is defined as the share of Taxonomy-aligned operating expenditures (Opex) in the numerator, divided into three categories (a – c) as defined in the Disclosures Delegated Act, divided by the total Opex (in the denominator).

The three classifications of OPEX are:

- **Type A OPEX:** related to assets or processes that are associated with Taxonomy-aligned economic activities (where turnover is aligned);
- **Type B OPEX:** part of a Capex plan to expand Taxonomy-aligned economic activities or to allow Taxonomy-eligible economic activities to become Taxonomy-aligned within a predefined timeframe specified in the Delegated Act (where turnover is eligible but not aligned); and
- **Type C OPEX:** Related to the purchase of output from Taxonomy-aligned economic activities and individual measures enabling the target activities to become low-carbon or to lead to greenhouse gas reductions, provided that such measures are implemented and operational within 18 months (where turnover is neither eligible nor aligned). See definition of CAPEX for more information on Type C expenditures

The purchase of energy and raw materials (even though aligned with the Taxonomy) for the normal operation of plants is NOT included in the OPEX calculation. According to the Disclosure Delegated Act, the denominator of the OPEX is:

OPEX Denominator

The denominator shall cover direct non-capitalised costs that relate to research and development, building renovation measures, short-term lease, maintenance and repair, and any other direct expenditures relating to the day-to-day **servicing** of assets of property, plant and equipment by the undertaking or third party to whom activities are outsourced that are necessary to ensure the continued and effective functioning of such assets.

The definition explicitly refers to “**servicing**” of a plant, which - as explained in the [Notice \(2022/C 385/01\)](#) - does not include the normal operation.

³ See page 32 of: "A User Guide to Navigate the EU Taxonomy for Sustainable Activities."

<https://ec.europa.eu/sustainable-finance-taxonomy/assets/documents/Taxonomy%20User%20Guide.pdf>

Turnover: In the context of the EU Taxonomy, Turnover KPI is the share of the revenue generated by taxonomy eligible/aligned economic activities, divided by the total turnover.

2.3. ENVIRONMENTAL OBJECTIVES AND TECHNICAL SCREENING CRITERIA

Regulation (EU) 2020/852 defines six environmental objectives that the EU Taxonomy aims to support:

1. **Climate Change Mitigation:** This objective aims to reduce greenhouse gas emissions and enhance carbon sequestration to mitigate the effects of climate change.
2. **Climate Change Adaptation:** This objective aims to increase the ability of ecosystems and human societies to adapt to the impacts of climate change, such as droughts, floods, and rising sea levels.
3. **Sustainable Use and Protection of Water and Marine Resources:** This objective aims to ensure the sustainable use and protection of water resources, including freshwater, groundwater, and marine resources, to prevent their depletion and degradation.
4. **Transition to a Circular Economy:** This objective aims to promote the transition to a circular economy, where resources are kept in use for as long as possible, waste is minimized, and resource efficiency is increased.
5. **Pollution Prevention and Control:** This objective aims to prevent and control pollution to reduce its impact on human health and the environment, including air, soil, and water pollution.
6. **Protection and Restoration of Biodiversity and Ecosystems:** This objective aims to protect and restore biodiversity and ecosystems, including forests, wetlands, and other habitats, to ensure their long-term sustainability and resilience.

The technical screening criteria of the Delegated Act⁴ of Regulation (EU) 2020/852 define the requirements that economic activities must meet to qualify as environmentally sustainable. They set out a framework for assessing the degree of alignment of an economic activity with the two climate related objectives of the EU Taxonomy i.e. climate mitigation and adaptation.

The TSC cover the lifecycle of an economic activity, including its technical and operational characteristics. They are designed to be science-based, transparent, and consistent, and they consider the latest scientific evidence and industry best practices.

2.4. NON-FINANCIAL REPORTING REQUIREMENTS

⁴ The "Commission Delegated Regulation (EU) 2021/1110 of 23 April 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council with regard to the establishment of the technical screening criteria for determining the conditions under which an economic activity qualifies as environmentally sustainable" was adopted by the European Commission on April 21, 2021, and published in the Official Journal of the European Union on May 4, 2021. The text of the delegated act can be accessed on the EUR-Lex website, at the following link: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R1110&from=EN>

The Commission Delegated Regulation (EU) 2021/2178 (Disclosures Delegated Act)⁵ and its proposed amendments⁶, sets out the disclosure obligations for non-financial undertakings under the EU Taxonomy Regulation. Non-financial undertakings are defined as companies with more than 500 employees and a balance sheet total of over €20 million, or a net turnover of over €40 million.

Under the regulation, non-financial undertakings are required to provide the following disclosures:

1. **Description of the activities:** A description of the company's activities, including their products, services, and business models, and how they contribute to the EU's environmental objectives.
2. **Classification of economic activities:** An explanation of how the company's activities align with the technical screening criteria for each relevant environmental objective of the EU Taxonomy Regulation.
3. **Turnover:** The proportion of the company's **turnover** derived from products and services that are classified as environmentally sustainable under the EU Taxonomy Regulation.
4. **Capital expenditure (CAPEX):** The proportion of the company's capital expenditure allocated to environmentally sustainable economic activities as defined by the EU Taxonomy Regulation.
5. **Operating expenditure (OPEX):** The proportion of the company's operating expenditure allocated to environmentally sustainable economic activities as defined by the EU Taxonomy Regulation.
6. **Principal adverse impacts:** Information on the principal adverse impacts of the company's activities on sustainability factors, such as climate change, biodiversity, and resource depletion.
7. **Compliance with social safeguards:** Information on the company's compliance with relevant international standards and guidelines for social safeguards, such as human rights, labor rights, and the rights of indigenous peoples and local communities.
8. **Methodology and data sources:** A description of the methodology used to identify and assess the environmental sustainability of the company's activities, as well as the data sources used.

⁵ COMMISSION DELEGATED REGULATION (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation.

⁶ C(2023) 3851 final COMMISSION DELEGATED REGULATION (EU) .../... of XXX supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control, or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities.

The disclosure obligations apply to enterprises that are within the scope of the Non-Financial Reporting Directive (NFRD) 2014/95/EU (i.e. large⁷ listed companies) for the first time for the fiscal year starting on or after January 1, 2022. Figure 1 shows the timetable of disclosure obligations defined by the Disclosures Delegated Act.

Figure 1: Timetable of the disclosure obligations according to Disclosures Delegated Act (source: EC)

| | |
|--------------------|---|
| As of January 2022 | <ul style="list-style-type: none"> • Non-Financial entities report Taxonomy eligibility for the previous calendar year* • Financial entities report Taxonomy eligibility for the previous calendar year* |
| As of January 2023 | <ul style="list-style-type: none"> • Non-Financial entities report eligibility and alignment for the previous calendar year • Financial entities report Taxonomy eligibility for the previous calendar year |
| As of January 2024 | <ul style="list-style-type: none"> • Non-Financial entities report eligibility and alignment for the previous calendar year • Financial entities report Taxonomy eligibility and alignment for the previous calendar year |
| As of January 2025 | <ul style="list-style-type: none"> • Financial entities may include estimates on Taxonomy alignment for DNSH assessments of third-country exposures subject to the 2024 review period |
| As of January 2026 | <ul style="list-style-type: none"> • Credit institutions include Taxonomy alignment of their trading book and fees and commissions for non-banking activities |

For large enterprises within the scope of the Corporate Sustainability Reporting Directive (CSRD) 2022/2464 (non-listed large enterprises) the disclosure obligation starts in 2026 for the reporting period 2025. Listed SMEs will need to report in 2027 for the 2026 reporting period.

2.5. THE CORPORATE SUSTAINABILITY REPORTING DIRECTIVE (CSRD)

The Corporate Sustainability Reporting Directive (CSRD) entered into force on January 5th, 2023, and modernizes and strengthens rules on sustainability reporting. The CSRD builds on the Non-Financial Reporting Directive (NFRD), which applies only to large public-interest companies with over 500 employees, and covers reporting on environmental, social, and human rights issues, anti-corruption, bribery, and diversity on company boards.

Approximately 50,000 listed companies in total will be required to report sustainability information. The new rules will ensure that stakeholders have access to the information they need to assess investment risks arising from sustainability issues and create transparency about the impact of companies on people and the environment. The first companies will have to apply the new rules for the first time in the financial year 2024, for reports published in 2025. Companies will report according to European Sustainability Reporting Standards (ESRS)⁸, developed by EFRAG⁹, adopted by the EU Commission as a Delegated Act on 31 July 2023, under scrutiny by the EU Parliament and the EU Council until 30 September 2023, and will also have an audit of their sustainability information.

⁷ A company with more than 500 employees and a balance sheet total of 20 Million € or a net turnover of 40 Million €

⁸ To access the adopted ESRS visit: <https://webgate.ec.europa.eu/regdel/#/delegatedActs/2111>

⁹ EFRAG is a private association established in 2001, providing Technical Advice to the European Commission in the form of fully prepared draft EU Sustainability Reporting Standard

Among many other indicators, undertakings shall disclose the Taxonomy KPIs.

3. ANALYSIS OF TEPPFA MEMBERS' ACTIVITIES

This section provides examples of how TEPPFA members could assess their activities against the EU Taxonomy (for all Environmental objectives, incl. climate adaptation & mitigation) and calculate their KPIs to be disclosed, i.e. Turnover, CAPEX and OPEX.

This section is based on the text of the Delegated Act and supporting documents adopted and published by the European Commission on 27 June 2023, which were under scrutiny of both EU Parliament and EU Council until 27 October 2023. The [EU Taxonomy Tax04 \(or Environmental\) Delegated Regulation \(2023/2486\)](#) has been published in the OJEU on 21/11/2023.

See: <https://webgate.ec.europa.eu/regdel/#/delegatedActs/1786>

3.1. CALCULATION OF TURNOVER KPI

TEPPFA members core activities are classified, according to the NACE classification system¹⁰, as: **“C MANUFACTURING 22.21. Manufacture of plastic plates, sheets, tubes and profiles”**

This manufacturing activity is not included neither in the Climate Taxonomy nor in the Environmental Taxonomy Delegated Acts, **therefore the turnover from core activities of TEPPFA members is not "eligible"** (and, all the more so, aligned) since the explicit description of the activity in the Annex of the Delegated Acts prevails over the indication of a NACE classification (see below abstract from [Notice \(2022/C 385/01\)](#)).

Furthermore, recital 6 of the Climate Delegated Act clarifies that the references to NACE codes should be understood as indicative. The assessment of Taxonomy eligibility should be made in view of the specific description of the activity provided in the Annexes of the Climate Delegated Act.

In principle, manufacturing of components (i.e.: plastic pipes used in other eligible activities) can be counted as eligible activities if they are explicitly specified under the description of the activity or the technical screening criteria. However, "plastic pipes" are not cited in the Climate Taxonomy, its amendment and in the Environmental Taxonomy.

Anyway, some TEPPFA members may have complementary activities cited in the Climate and Environmental Taxonomy and therefore eligible. For example (Climate Taxonomy):

3.5 ¹¹Manufacture of energy efficiency equipment for buildings: space heating and domestic hot water systems rated in the highest two populated classes of energy efficiency in accordance with Regulation (EU) 2017/1369 and delegated acts adopted under that Regulation.

¹⁰ The NACE Classification system is accessible here:

https://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2&StrLanguageCode=EN

¹¹ The number indicates the section of the Climate Taxonomy that describes the activity.

9.1. Close to market research, development and innovation. Research, applied research and experimental development of solutions, processes, technologies, business models and other products dedicated to the reduction, avoidance or removal of GHG emissions (RD&I) for which the ability to reduce, remove or avoid GHG emissions in the target economic activities has at least been demonstrated in a relevant environment, corresponding to at least Technology Readiness Level (TRL) 6 (check the TSC on page 135 and following of the Climate Delegated Act).

9.3 Professional services related to energy performance of buildings. (a) technical consultations (energy consultations, energy simulations, project management, production of energy performance contracts, dedicated trainings) linked to the improvement of energy performance of buildings.

3.6 Manufacture of other low carbon technologies

Some specific considerations should be dedicated to activity 3.6 Manufacture of other low carbon technologies. It is defined as: aimed at substantial GHG emission reductions in other sectors. Please note that 3.6 refers to “enabling” activities, i.e. activities that are not low carbon by themselves but are able to lower the life cycle emissions of other activities. This is probably the key element to consider.

Operators of the activity should justify whether and how their technology enables the achievement of substantial GHG reductions in other sectors compared to other competing technologies. In this, they should ensure that their assessment is consistent with any credible, available external sources of information on the potential of the technology to help achieve decarbonisation of the target activity, in line with the EU Climate Law or Paris Agreement objectives.

An example is reported in the FAQ published by the EC on 19 December 2022¹², related to manufacturing of equipment for traffic management. For the purpose of Taxonomy-alignment, the activity would have to prove that it delivers GHG emissions savings compared to the best performing alternative technology/product/solution available on the market (in this case, compared to other equipment for traffic management and tolling). If there are several possible uses, savings would have to occur for all potential uses.

If a technology is the best in their sector but does not aim at substantial emission reductions in another sector for all its potential uses, it would not be eligible. For example, a low-carbon pipe, consisting of 100% bio-based materials, supported by an EPD, is not eligible under this activity, unless it is possible to demonstrate that it can lead to a substantial GHG emission reduction in other sectors in all its potential uses.

Therefore, plastic pipes, to be eligible within 3.6, shall not be low carbon by themselves (a bio-based pipe will always have substantial GHG reduction (compared to virgin), but it is necessary to demonstrate that their use (for all possible applications: wastewater treatment, district heating, water supply, etc.) in another activity, leads to a significant reduction of the life cycle emissions of that activity.

Let’s take the example of Wastewater Treatment plants.

¹² Accessible here: <https://ec.europa.eu/sustainable-finance-taxonomy/home>

The use of low carbon plastic pipes in the construction of the wastewater treatment plant could lower the embodied carbon of the system. But the use of low carbon plastic pipes has no relevant effect on the emissions in the use phase of the wastewater treatment system. If you consider the lifecycle of the wastewater treatment plant, you can understand that the embodied carbon in that system is negligible with respect to the emissions of the use phase. Therefore it is not possible to claim that the application of low carbon plastic pipes in wastewater treatment leads to significant GHG emission savings in the whole life cycle of the wastewater treatment system.

Please note that even if the Taxonomy lists C22 as a NACE code potentially included within the scope of an eligible activity, it is the description of the activity itself that has to be considered to check the eligibility of an activity.

Example of a possible complementary activity of TEPPFA members cited in the Environmental Taxonomy:

5.5. Product-as-a-service and other circular use- and result-oriented service models (ANNEX 2 Transition to a circular economy). The economic activity covers products (besides others) that are manufactured by economic activities classified under the NACE code C22 “Manufacture of rubber and plastic products”.

The activity shall provide the customer (physical or legal persons) with access to, and use of product(s), while ensuring that the ownership remains with the company providing this service, such as a manufacture. The activity shall lead to an extended lifespan (at least twice the Union average for that product category) or increased use intensity (at least twice the Union average) of the product in practice or ‘lifespan times use intensity’ is at least twice.

In this case, a change of business model is requested: from product manufacturer to solution provider.

3.2. CALCULATION OF CAPEX KPI

Please refer to the CAPEX definition provided in section 2.2.

Some examples of eligible CAPEX that may be applicable to TEPPFA members:

Examples of expenditures that are potentially aligned with the **Climate Taxonomy**:

- 4.1 Investing in a photovoltaic plant.
- 7.1 - 7.2 Investing in construction or renovation of a building aligned with the TSC.
- 9.1 R&D for low carbon solutions: ability to reduce, remove or avoid GHG emissions in the target economic activities has at least been demonstrated in a relevant environment, corresponding to at least Technology Readiness Level (TRL) 6. The economic activity aims at bringing to market a solution that is not yet in the market and is expected to have a better performance in terms of lifecycle GHG emissions than best commercially available technologies based on public or market information. The implementation of the technologies, products or other solutions being researched results in overall net GHG emissions reductions over their life cycle.
- 7.4 Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings).
- Investments for adaptation of economic activities to climate change in accordance with Annex II to the Climate Delegated Act.

Examples of investments potentially aligned with the **Environmental Taxonomy**:

Transition to a circular economy

- 3.1. Construction of new buildings
- 3.2. Renovation of existing buildings

3.3. CALCULATION OF OPEX KPI

Please refer to the OPEX definition provided in section 2.2.

Some examples of eligible OPEX that may be applicable to TEPPFA members:

- Maintenance and repair costs for a photovoltaic plant.
- Maintenance and repair costs for heat pumps (aligned with TSC requirements) for heating offices.
- Maintenance and repair costs for plant producing (3.5) space heating and domestic hot water systems aligned with TSC.
- Operating cost for adaptation of economic activities to climate change in accordance with Annex II to Climate Delegated Act.

4. CONSIDERATIONS AND RECOMMENDATIONS

4.1. KEY TAKEAWAYS

The core activity of TEPPFA members, i.e. NACE C22.21 (Manufacturing of plastic plates, sheets, tubes and profiles), is not included in the Climate Taxonomy Delegated Act, its proposed amendment and the Environmental Taxonomy Delegated Act. Therefore, it is not an eligible activity and cannot be a Taxonomy aligned activity.

However, some complementary activities performed by some TEPPFA members could be included in the Climate Taxonomy and be eligible. In section 3.1 some examples have been provided.

Eligible and aligned Turnover is not the only important KPIs: CAPEX and OPEX play an important role as well, and they are more "hidden" within the enterprise balance sheet. It is very important that a specific working group within the organisation takes care of identifying all possible eligible/aligned expenditures.

Even though C22.21 is not an eligible activity, plastic pipes are key components for many other eligible activities. In those cases, specific characteristics of the plastic pipes may be of interest. Some of them are listed in the following Table 1 (Climate Taxonomy), Table 2 (Environmental taxonomy: Annex 1 Sustainable use and protection of water and marine resources) Table 3. (Environmental taxonomy: Annex 2 Transition to a circular economy)

Table 1 Example of eligible activities (Climate Taxonomy) that may use plastic pipes and where specific characteristics of plastic pipes may be of interest.

| Code | Activity |
|------|--|
| 3.1 | Manufacture of renewable energy technologies |

| | |
|------|---|
| 3.2 | Manufacture of equipment for the production and use of hydrogen |
| 3.5 | Manufacture of energy efficiency equipment for buildings |
| 4.5 | Electricity generation from hydropower |
| 4.6 | Electricity generation from geothermal energy |
| 4.22 | Production of heat/cool from geothermal energy |
| 5.1 | Construction, extension and operation of water collection, treatment and supply systems |
| 5.2 | Renewal of water collection, treatment and supply systems |
| 5.3 | Construction, extension and operation of wastewater collection and treatment |
| 5.4 | Renewal of wastewater collection and treatment |
| 7.1 | Construction of new buildings |
| 7.2 | Renovation of existing buildings |
| 7.3 | Installation, maintenance and repair of energy efficiency equipment |

Table 2 Example of eligible activities (Environmental taxonomy: Annex 1 - Sustainable use and protection of water and marine resources) that may use plastic pipes and where specific characteristics of plastic pipes may be of interest.

| Code | Activity |
|------|--|
| 1.1 | Manufacture, installation and associated services for leakage control technologies enabling leakage reduction and prevention in water supply systems |
| 2.1. | Water supply |

Table 3 - Example of eligible activities (Environmental taxonomy: Annex 2 - Transition to a circular economy) that may use plastic pipes and where specific characteristics of plastic pipes may be of interest.

| Code | Activity |
|------|----------------------------------|
| 3.1 | Construction of new buildings |
| 3.2. | Renovation of existing buildings |

This opens two (complementary) opportunities:

1) Contribution to the alignment of activities performed by downstream users of plastic piping systems

Examine with attention the TSC of those above listed activities and check whether it is possible to qualify own plastic pipes as contributing to the alignment to the TSC. In Table 4 and Table 5 are listed a few examples of TSC of specific activities that may be relevant for plastic pipes.

Table 4 - Technical Screening Criteria of Climate Taxonomy eligible activities that may be relevant for plastic pipes.

| Code | Activity | Criteria |
|------|---|--|
| 3.1 | Manufacture of renewable energy technology | <ul style="list-style-type: none"> • use of secondary raw materials • design for high durability, recyclability, easy disassembly and adaptability of products manufactured • information on and traceability of substances of concern throughout the lifecycle of the manufactured products. • generic criteria for DNSH to pollution prevention and control regarding use and presence of chemicals (Appendix C of Climate Delegated Act) |
| 3.2 | Manufacture of equipment for the production and use of hydrogen | <ul style="list-style-type: none"> • use of secondary raw materials • design for high durability, recyclability, easy disassembly and adaptability of products manufactured • information on and traceability of substances of concern throughout the lifecycle of the manufactured products. • generic criteria for DNSH to pollution prevention and control regarding use and presence of chemicals (Appendix C of Climate Delegated Act) |
| 3.5 | Manufacture of energy efficiency equipment for buildings | <ul style="list-style-type: none"> • hot water systems rated in the highest two populated classes of energy efficiency • use of secondary raw materials • design for high durability, recyclability, easy disassembly and adaptability of products manufactured • information on and traceability of substances of concern throughout the lifecycle of the manufactured products. • generic criteria for DNSH to pollution prevention and control regarding use and presence of chemicals (Appendix C of Climate Delegated Act) |

| | | |
|-----|---|--|
| 5.1 | Construction, extension and operation of water collection, treatment and supply systems | <ul style="list-style-type: none"> leakage level (ILI) is equal to or is lower than 1,5 |
| 5.2 | Renewal of water collection, treatment and supply systems | <ul style="list-style-type: none"> by closing the gap by at least 20 % either between the current leakage level averaged over three years, calculated using the Infrastructure Leakage Index (ILI) rating method and an ILI of 1.5 |
| 7.1 | Construction of new buildings | <ul style="list-style-type: none"> For buildings larger than 5 000 m² (285), the life-cycle Global Warming Potential (GWP) of the building resulting from the construction has been calculated for each stage in the life cycle enable reuse and recycling Building components and materials used in the construction comply with generic criteria for DNSH to pollution prevention and control regarding use and presence of chemicals (Appendix C of climate Delegated Act) Building components and materials used in the construction that may come into contact with occupiers (289) emit less than 0,06 mg of formal- dehyde per m³ of material and less than 0,001 mg of other categories 1A and 1B carcinogenic volatile organic compounds per m³ of material. |
| 7.2 | Renovation of existing buildings | <ul style="list-style-type: none"> Building components and materials used in the construction comply with generic criteria for DNSH to pollution prevention and control regarding use and presence of chemicals (Appendix C of climate Delegated Act) Building components and materials used in the construction that may come into contact with occupiers (289) emit less than 0,06 mg of formal- dehyde per m³ of material and less than 0,001 mg of other categories 1A and 1B carcinogenic volatile organic compounds per m³ of material. |
| 7.3 | Installation, maintenance and repair of energy efficiency equipment | <ul style="list-style-type: none"> installation, replacement, maintenance and repair of heating, ventilation and air-conditioning (HVAC) and water heating systems, including equipment related to district heating services, with highly efficient technologies; Building components and materials used in the construction comply with generic criteria for DNSH to pollution prevention and control regarding use and presence of chemicals (Appendix C of Climate Delegated Act) |

Table 5 - Examples of Technical Screening Criteria of Environmental Taxonomy - Annex 2 “Transition to a circular economy” eligible activities that may be relevant for plastic pipes.

| Code | Activity | Criteria |
|------|-------------------------------|---|
| 3.1 | Construction of new buildings | <ul style="list-style-type: none"> The life-cycle Global Warming Potential (GWP) of the building resulting from the construction has been calculated for each stage in the life cycle and is disclosed to investors and clients on demand. The use of primary raw material in the construction of the building is minimised through the use of secondary raw materials: <ul style="list-style-type: none"> ○ |

| | | |
|-----|------------------------|--|
| | | <ul style="list-style-type: none"> ○ for non-biobased plastic, a maximum of 50% of the total material come from primary raw material; ● uses electronic tools to describe the characteristics of the building as built, including the materials and components used: <ul style="list-style-type: none"> ○ for example using EN ISO 22057:2022 to provide Environmental Product Declarations |
| 3.2 | Renovation of building | <ul style="list-style-type: none"> ● The life-cycle Global Warming Potential (GWP) of the building resulting from the construction has been calculated for each stage in the life cycle and is disclosed to investors and clients on demand. ● The use of primary raw material in the construction of the building is minimised through the use of secondary raw materials: <ul style="list-style-type: none"> ○ ○ for non-biobased plastic, a maximum of 75% of the total material come from primary raw material; ● uses electronic tools to describe the characteristics of the building as built, including the materials and components used: <ul style="list-style-type: none"> ○ for example using EN ISO 22057:2022 to provide Environmental Product Declarations |

Plastic pipes able to demonstrate that they have the properties listed above may have a competitive advantage towards clients performing the eligible activity, contributing to meet the TSC of activities performed by downstream users of plastic piping systems.

2) Integration of eligible activities covering core activities of our industry (manufacturing of pipes, fittings and piping systems) in a future revision of the EU taxonomy regulation

Delegated acts are periodically revised: TEPPFA will further consolidate technical or scientific evidence which might lead in the future to the integration of eligible activities covering core activities of its industry (manufacturing of pipes, fittings and piping systems) in a future revision of the EU taxonomy regulation.

5. REFERENCES AND RESOURCES

5.1. LEGISLATIVE ACTS

Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (**Taxonomy regulation**).

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32020R0852>

Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives (**Climate Delegated Act**). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32021R2139>

Commission Delegated Regulation (EU) 2022/1214 of 9 March 2022 amending Delegated Regulation (EU) 2021/2139 as regards economic activities in certain energy sectors and Delegated Regulation (EU) 2021/2178

as regards specific public disclosures for those economic activities (**Nuclear and Gas supplement**).
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R1214>

Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities and specifying the methodology to comply with that disclosure obligation (**Disclosures Delegated Act**).
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R2178>

Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (**CSRD**).
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022L2464>

Commission Delegated Regulation (EU) 2023/2486 of 27 June 2023 supplementing Regulation (EU) 2020/852 and amending Commission Delegated Regulation (EU) 2021/2178 as regards specific public disclosures.

[EU Taxonomy Tax04 \(or Environmental\) Commission Delegated Regulation \(2023/2486\)](#)

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5.2. WEB SITES AND ONLINE TOOLS

EU taxonomy for sustainable activities: main web page of the European Commission:

https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

EU Taxonomy Navigator a user-friendly website that offers a series of online tools to help users better understand the EU Taxonomy in a simple and practical manner:

<https://ec.europa.eu/sustainable-finance-taxonomy/wizard>

The EU Taxonomy Compass provides a visual representation of the contents of the EU Taxonomy:

<https://ec.europa.eu/sustainable-finance-taxonomy/taxonomy-compass/the-compass>

The EU Taxonomy Calculator is an interactive, educational tool that aims to help users understand and support with the reporting obligations: <https://ec.europa.eu/sustainable-finance-taxonomy/wizard>

The FAQs repository provides a list of documents with notice and information on how to interpret many of the Taxonomy requirements and criteria: <https://ec.europa.eu/sustainable-finance-taxonomy/home>

The EU Taxonomy User Guide: is a guidance document for non-experts. It explains what the EU Taxonomy is and how it fits within the wider sustainable finance regulatory framework. It also provides a step-by-step guide to assess Taxonomy-alignment, which is exemplified through 12 use cases that show users how to deal with the main implementation challenges they may face: <https://ec.europa.eu/sustainable-finance-taxonomy/assets/documents/Taxonomy%20User%20Guide.pdf>

About TEPPFA

TEPPFA is the European Plastic Pipes and Fittings Association founded in 1991 with headquarters in Brussels. TEPPFA's 14 multinational company members and 15 national associations across Europe represent 350 companies that manufacture plastic pipes and fittings. TEPPFA members' final products have an annual production volume of 3 million tonnes directly employing 40,000 people with €12 billion combined annual sales. TEPPFA positions itself as polymer neutral. TEPPFA members' final products are subdivided into two application groups: above ground systems for hot and cold water, surface heating and cooling, waste water discharge and rainwater drainage, and below ground systems for sewers, stormwater and drainage, drinking water and gas supply and, cable ducts.

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