
TAXONOMY REPORTING TEMPLATE

A guide to EU Taxonomy reporting for shipping companies



ROYAL
ASSOCIATION OF
NETHERLANDS
SHIPOWNERS



Royal Belgian
Shipowners'
Association



DanishShipping



Norges
Rederiforbund
Norwegian
Shipowners'
Association



Suomen Varustamot
Rederierna i Finland
Finnish Shipowners' Association

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Introduction

Aim of the document and the annex

This document aims to support shipowners with the mandatory reporting requirements that result from the EU Taxonomy regulation and specifically the article 8.

This is the first version of a reporting template, it is expected that the taxonomy and the best practices on how to report will further develop in the coming years. It is therefore expected that more versions of this document will follow in the coming years.

Process

The development of the flow chart and the template is a result of collaboration between the Swedish, Norwegian, Belgian, Danish, Finnish, and Dutch Shipowners Associations.

Content

Figure 1 on the next page displays a flow chart of the reporting process for shipowners. The process can be divided into three separate parts: 1. Taxonomy Scope, 2. Taxonomy Eligibility and 3. Taxonomy Alignment. This reporting template contains a detailed explanation on how to go through these different parts of the taxonomy reporting process. Annex I contains a list of links to Taxonomy reports from European shipowners and an example reporting structure. Annex II til IV contain more taxonomy criteria and Annex V contains a link to more detailed reporting guidelines from the EU.

Taxonomy compass

An easy way to find the criteria of the EU taxonomy, besides this document, is via the [EU Taxonomy Compass](#). This website contains all the economic activities and the related criteria that fall within the scope of the EU Taxonomy.

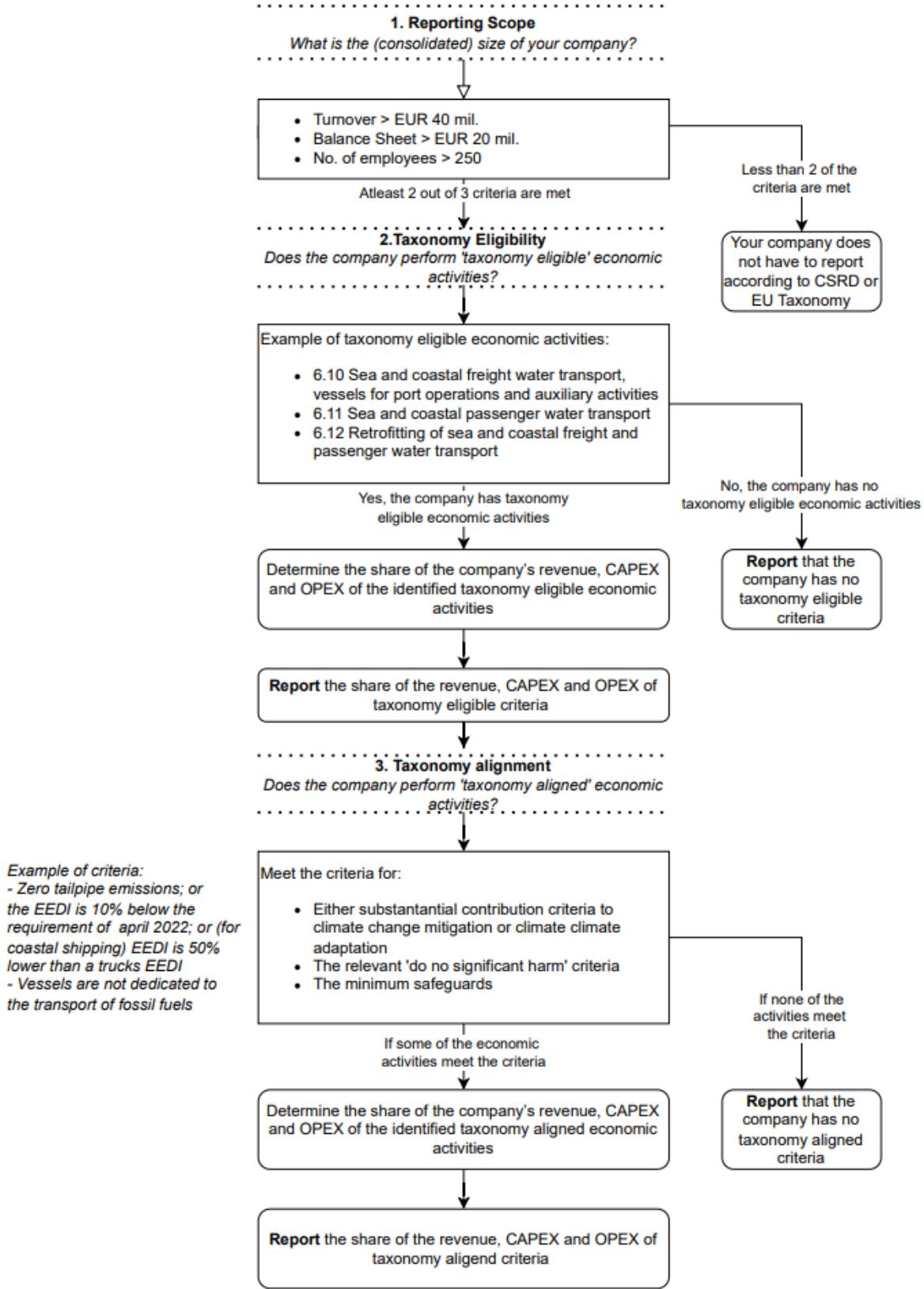


Figure 1: Flow chart of reporting on the Taxonomy for shipowners

1. REPORTING SCOPE

Determine if the company is required to report.

From 2023 onwards, a company will need to report if they fall within the CSRD scope. The CSRD scope is as follows:

If two of the following three criteria apply, a company must report:

1. turnover is more than EUR 40 million,
2. balance sheet more than EUR 20 million,
3. the company has more than 250 employees.

Or, all publicly listed small- and medium-sized companies, except for listed micro-enterprises, as of Jan. 1, 2026; and

All small- and medium-sized companies, non-listed, who choose to use the standards on a voluntary basis.

Reporting should be done on a consolidated basis:

“Undertakings that have to prepare a nonfinancial statement in accordance with Chapter 6 of the Article 19a of the Accounting Directive (2013/34/EU), or where applicable, a consolidated non-financial statement according to Article 29a of that Directive, should comply with the disclosure requirements of Article 8 of the Taxonomy Regulation. In the case of the latter, the information should be disclosed on a consolidated basis.”¹

¹ [How should financial and non-financial undertakings report Taxonomy-eligible economic activities and assets in accordance with the Taxonomy Regulation Article 8 Disclosures Delegated Act? \(europa.eu\)](#)

2. TAXONOMY ELIGIBILITY

Determine and report the percentage of taxonomy eligible economic activities

- a) Determine which economic activities of the company fall within the scope of the taxonomy. The taxonomy has its own definition of economic activities. Table 1 shows a list of three economic activities that would likely fit a shipowner.

Table 1: List of ship related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives

<ul style="list-style-type: none"> • 6.10 Sea and coastal freight water transport, vessels for port operations and auxiliary activities
<p>Purchase, financing, chartering (with or without crew) and operation of vessels designed and equipped for transport of freight or for the combined transport of freight and passengers on sea or coastal waters, whether scheduled or not. Purchase, financing, renting and operation of vessels required for port operations and auxiliary activities, such as tugboats, mooring vessels, pilot vessels, salvage vessels and ice-breakers. The economic activities in this category could be associated with several NACE codes, in particular H50.2, H52.22 and N77.34 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.</p>
<ul style="list-style-type: none"> • 6.11 Sea and coastal passenger water transport
<p>Purchase, financing, chartering (with or without crew) and operation of vessels designed and equipped for performing passenger transport, on sea or coastal waters, whether scheduled or not. The economic activities in this category include operation of ferries, water taxis and excursions, cruise or sightseeing boats. The activity could be associated with several NACE codes, in particular H50.10, N77.21 and N77.34 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.</p>
<ul style="list-style-type: none"> • 6.12 Retrofitting of sea and coastal freight and passenger water transport
<p>Retrofit and upgrade of vessels designed and equipped for the transport of freight or passengers on sea or coastal waters, and of vessels required for port operations and auxiliary activities, such as tugboats, mooring vessels, pilot vessels, salvage vessels and ice-breakers. The economic activities in this category could be associated with NACE codes H50.10, H50.2, H52.22, C33.15, N77.21 and N.77.34 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.</p>

Other economic transport activities that might be relevant to a shipowner are e.g. “terminal operations (section 6.16) and “freight transport by road” (section 6.6) and “freight rail transport” (section 6.2). A description of these activities can be found in table 2.

Table 2: List of infrastructure, rail and road related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives

<ul style="list-style-type: none"> • 6.16 Infrastructure enabling low carbon water transport
<p>Construction, modernisation, operation and maintenance of infrastructure that is required for zero tailpipe CO2 operation of vessels or the port’s own operations, as well as infrastructure dedicated to transshipment. The economic activities in this category could be associated with several NACE codes, in particular F42.91, F71.1 or F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.</p>
<ul style="list-style-type: none"> • 6.6 Freight transport services by road
<p>Purchase, financing, leasing, rental and operation of vehicles designated as category N1, N2 (480) or N3 (481) falling under the scope of EURO VI (482), step E or its successor for freight transport services by road. The economic activities in this category could be associated with several NACE codes, in particular H49.4.1, H53.10, H53.20 and N77.12 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.</p>
<ul style="list-style-type: none"> • 6.2 Freight rail transport

Purchase, financing, leasing, rental and operation of freight transport on mainline rail networks as well as short line freight railroads.

The economic activities in this category could be associated with several NACE codes, in particular H49.20 and N77.39 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Other economic energy activities that might be relevant to a shipowner are e.g.

“Electricity generation from wind power” (section 4.3) and “Electricity generation from ocean energy technologies” (section 4.4). A description of these activities can be found in table 3.

Table 3: List of offshore energy related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives

<ul style="list-style-type: none"> • 4.3 Electricity generation from wind power
<p>Construction or operation of electricity generation facilities that produce electricity from wind power. Where an economic activity is an integral element of the ‘Installation, maintenance and repair of renewable energy technologies’ as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.</p> <p>The economic activities in this category could be associated with several NACE codes, in particular D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.</p>
<ul style="list-style-type: none"> • 4.4 Electricity generation from ocean energy technologies
<p>Construction or operation of electricity generation facilities that produce electricity from ocean energy.</p> <p>The economic activities in this category could be associated with several NACE codes, in particular D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.</p>

- b) Determine the share of the company’s revenue, CAPEX and OPEX of the identified taxonomy eligible economic activities. Note that some activities of a company can be placed under multiple economic activities in the taxonomy, in that case a company can choose under which economic activity they want to report. For more detailed information on how to assess the revenue, CAPEX and OPEX, please see Annex I of Commission Delegated Regulation (EU) 2021/2178 ([Publications Office \(europa.eu\)](https://eur-lex.europa.eu/eli/reg_del/2021/2178/oj))
- c) Report the share of the revenue, CAPEX and OPEX that is taxonomy eligible in the company’s annual report. Table 4 provides an example of what a company should report as a minimum. Companies are of course allowed to share more in their taxonomy report, such as a breakdown per economic activity. Examples of more extensive reporting can be found in the Annex III. For more detailed information on how to assess the revenue, CAPEX and OPEX, please see Annex II of Commission Delegated Regulation (EU) 2021/2178 ([Publications Office \(europa.eu\)](https://eur-lex.europa.eu/eli/reg_del/2021/2178/oj))

Table 4: the minimum reporting requirement for taxonomy eligibility

The percentage of taxonomy-eligible activities as share of	
Revenue	x%
CAPEX	y%
OPEX	z%

3. TAXONOMY ALIGNMENT

Determine and report the percentage of taxonomy aligned economic activities

- a) Determine if the taxonomy eligible economic activities meet the substantial contribution criteria to either climate mitigation or climate adaptation.

The substantial contribution criteria for each economic activity can be found in the first delegated act on sustainable activities for climate change adaptation and mitigation objectives ([first delegated act](#)), which was published in the Official Journal on 9 December 2021. The substantial contribution criteria to climate change mitigation for the three shipping economic activities can be found in table 5. The substantial contribution criteria for climate adaptation for shipping related economic activities can be found in Annex II. The substantial contribution criteria for infrastructure, road, rail and offshore energy related economic activities can be found in Annex III.

Note that the criteria are designed to assess ships, so they must be assessed on a ship-by-ship basis. Each ship is thus a separate economic activity that may or may not meet the criteria. Reporting should however be done on a consolidated basis.

Table 5: Substantial contribution criteria for Climate Mitigation for shipping related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives

6.10 Sea and coastal freight water transport, vessels for port operations and auxiliary activities	6.11 Sea and coastal passenger water transport	6.12 Retrofitting of sea and coastal freight and passenger water transport
1. Confirm with either a, b, c or d. (a) the vessels have zero direct (tailpipe) CO2 emissions;		1. Until 31 December 2025, the retrofitting activity reduces fuel consumption of the vessel by at least 10 % expressed in grams of fuel per deadweight tons per nautical mile, as demonstrated by computational fluid dynamics (CFD), tank tests or similar engineering calculations
(b) until 31 December 2025, hybrid and dual fuel vessels derive at least 25 % of their energy from zero direct (tailpipe) CO2 emission fuels or plug-in power for their normal operation at sea and in ports;		2. Vessels are not dedicated to the transport of fossil fuels.
(c) where technologically and economically not feasible to comply with the criterion in point (a), until 31 December 2025, and only where it can be proved that the vessels are used exclusively for operating coastal and short sea services designed to enable modal shift of freight currently transported by land to sea, the vessels have direct (tailpipe) CO2 emissions, calculated using the International Maritime Organization (IMO) Energy Efficiency Design Index (EEDI)246 , 50 % lower than the average reference CO2 emissions value defined for heavy duty vehicles (vehicle sub group 5- LH) in accordance with Article 11 of Regulation 2019/1242;		
(d) where technologically and economically not feasible to comply with the criterion in point (a), until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI) value 10% below the EEDI requirements applicable on 1 April 2022, if the vessels are able to run on zero direct (tailpipe) emission fuels or on fuels from renewable sources.		
2. Vessels are not dedicated to the transport of fossil fuels.		

If the economic activity in question meets either or both of the substantial contribution, the next step is to determine if the activity meets the ‘Do No Significant Harm’ criteria (see point b below). If the economic activity does not meet any substantial contribution criteria the economic activity is not taxonomy aligned, which needs to be reported (point d below).

- b) For the taxonomy eligible economic activities that meet the substantial contribution criteria to at least one of the first two environmental objectives (climate change mitigation and adaptation), determine if the economic activities meet the ‘Do No Significant Harm’ criteria to all the other environmental objectives. The ‘Do No Significant Harm’ criteria for each economic activity can be found in the first delegated act ([first delegated act](#)) on sustainable activities for climate change adaptation and mitigation objectives, which was published in the Official Journal on 9 December 2021. The ‘Do No significant Harm’ criteria for the three economic activities that would likely fit a shipowner can be found in table 6. The ‘Do No Significant Harm’ criteria for infrastructure, road, rail and offshore energy related economic activities can be found in Annex IV.

Table 6: Do No Significant Harm Criteria for shipping related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives.

	6.10 Sea and coastal freight water transport, vessels for port operations and auxiliary activities	6.11 Sea and coastal passenger water transport	6.12 Retrofitting of sea and coastal freight and passenger water transport
Climate Mitigation	The vessels are not dedicated to the transport of fossil fuels.	N/A	The vessels are not dedicated to the transport of fossil fuels.
Climate Adaptation	The activity complies with the criteria set out in Appendix A to this Annex. The physical climate risks that are material to the activity have been identified from those listed in the table in Section II of this Appendix by performing a robust climate risk and vulnerability assessment with the following steps:		
The sustainable use and protection of water and marine resources	The activity complies with the criteria set out in Appendix B to this Annex: Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed with the aim of achieving good water status and good ecological potential as defined in Article 2, points (22) and (23), of Regulation (EU) 2020/852, in accordance with Directive 2000/60/EC670 and a water use and protection management plan, developed thereunder for the potentially affected water body or bodies, in consultation with relevant stakeholders. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.		
The transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy. For battery-operated vessels, those measures include reuse and recycling of batteries and electronics, including critical raw materials therein. For existing ships above 500 gross tonnage and the new-built ones replacing them, the activity complies with the requirements of Regulation (EU) No 1257/2013 of the European Parliament and of the Council249 relating to the inventory of hazardous materials. The scrap ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Decision 2016/2323. The activity complies with Directive (EU) 2019/883 of the European Parliament and of the Council as regards the protection of the marine environment against the negative effects from discharges of waste from ships. The ship is operated in accordance with Annex V to the International Convention for the Prevention of Pollution from Ships of 2 November 1973 (the IMO MARPOL Convention), in particular with a view to producing reduced quantities of waste and to reducing legal discharges, by managing its waste in a sustainable and environmentally sound manner.		
Pollution prevention and control	As regards the reduction of sulphur oxides emissions and particulate matters, vessels comply with Directive (EU) 2016/802 of the European Parliament and of the Council252, and with Regulation 14253 of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO254 . As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13255 of Annex VI to IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions256 . Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention. Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001		

The protection and restoration of biodiversity and ecosystems	Releases of ballast water containing non-indigenous species are prevented in line with the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM). Measures are in place to prevent the introduction of non-indigenous species by biofouling of hull and niche areas of ships taking into account the IMO Biofouling Guidelines ²⁵⁸ . Noise and vibrations are limited by using noise reducing propellers, hull design or on-board machinery in line with the guidance given in the IMO Guidelines for the Reduction of Underwater Noise ²⁵⁹ . In the Union, the activity does not hamper the achievement of good environmental status, as set out in Directive 2008/56/EC, requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptors 1 (biodiversity), 2 (nonindigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and as set out in Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.
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- c) Determine if the taxonomy eligible economic activities, that meet the substantial contribution criteria to at least one of the first two environmental objectives (climate change mitigation and adaptation) and meet all the 'Do No Significant Harm' criteria to all the other environmental objectives, meet the minimum safeguards. The minimum safeguards are listed below.

1. The minimum safeguards referred to in point (c) of Article 3 shall be procedures implemented by an undertaking that is carrying out an economic activity to ensure the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights.

- d) Report the share of the revenue, CAPEX and OPEX that is taxonomy aligned. Table 7 provides an example of what a company should report as a minimum. Examples of more extensive reporting can be found in the Annex I. For more detailed information on how to assess the revenue, CAPEX and OPEX, please see Annex II of Commission Delegated Regulation (EU) 2021/2178 (Publications Office (europa.eu))

Table 7: the minimum reporting requirement for taxonomy alignment

The percentage of taxonomy-aligned activities as share of	
Revenue	x%
CAPEX	y%
OPEX	z%

Annex I: Reporting Examples

List with links to taxonomy reports from European Shipowners

- [A.P. Møller - Mærsk Annual Sustainability Report Including Taxonomy](#)
- [Odfjell Taxonomy Report](#)
- [Fugro Annual Report Including Taxonomy Report](#)
- [DFDS Taxonomy report](#)

Table 8: example of a reporting template that includes a distribution over the different economic activities of a company.

<i>Economic activities:</i>	TAXONOMY ELIGIBLE % of the company's revenue, CAPEX and OPEX			% that is aligned with the EU Taxonomy	TAXONOMY ALIGNED % of the company's revenue, CAPEX and OPEX		
	Turnover	CAPEX	OPEX		Turnover	CAPEX	OPEX
<i>6:10 Sea and coastal water freight transport</i>	60%	50%	60%	90%	54%	45%	54%
<i>6:11 Sea and coastal passenger water transport</i>	30%	20%	30%	50%	15%	10%	15%
<i>6:15 Infrastructure enabling low carbon water transport</i>	10%	20%	10%	20%	2%	4%	2%
Consolidated	90%	90%	90%		71%	59%	71%

Annex II: Substantial contribution criteria for climate adaptation for shipping related economic activities

Table 9: Substantial contribution criteria for Climate **Adaptation** for **shipping** related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives

6.10 Sea and coastal freight water transport, vessels for port operations and auxiliary activities	6.11 Sea and coastal passenger water transport	6.12 Retrofitting of sea and coastal freight and passenger water transport
1. The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity.		
2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps: (a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime; (b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity; (c) an assessment of adaptation solutions that can reduce the identified physical climate risk.		
The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that: (a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale; (b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios ⁵⁰⁶ consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.		
3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports ⁵⁰⁷ , scientific peer-reviewed publications and open source ⁵⁰⁸ or paying models.		
4. The adaptation solutions implemented: (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities; (b) favour nature-based solutions or rely on blue or green infrastructure to the extent possible; are consistent with local, sectoral, regional or national adaptation plans and strategies; (c) are consistent with local, sectoral, regional or national adaptation plans and strategies; (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met; (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.		

Annex III: Substantial contribution criteria for climate mitigation and adaptation criteria for Infrastructure, road, rail and energy related economic activities

Table 10: Substantial contribution criteria for **Climate Mitigation for Offshore Energy** related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives.

4.3 Electricity generation from wind power	4.4 Electricity generation from ocean energy technologies
The activity generates electricity from wind power.	The activity generates electricity from ocean energy.

Table 10: Substantial contribution criteria for **Climate Mitigation for infrastructure, road and rail** related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives

6.16 Infrastructure enabling low carbon water transport	6.6 Freight transport services by road	6.2 Freight rail transport
<p>1. The activity complies with one or more of the following criteria:</p> <ul style="list-style-type: none"> (a) the infrastructure is dedicated to the operation of vessels with zero direct (tailpipe) CO2 emissions; electricity charging, hydrogen-based refuelling; (b) the infrastructure is dedicated to the provision of shore-side electrical power to vessels at berth; (c) the infrastructure is dedicated to the performance of the port's own operations with zero direct (tailpipe) CO2 emissions; (d) the infrastructure and installations are dedicated to transshipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transshipment of goods. <p>2. The infrastructure is not dedicated to the transport or storage of fossil fuels.</p>	<p>The activity complies with one of the following criteria:</p> <ul style="list-style-type: none"> (a) vehicles of category N1 have zero direct (tailpipe) CO2 emissions; (b) vehicles of category N2 and N3 with a technically permissible maximum laden mass not exceeding 7,5 tonnes are 'zero-emission heavy-duty vehicles' as defined in Article 3, point (11), of Regulation (EU) 2019/1242; (c) vehicles of category N2 and N3 with a technically permissible maximum laden mass exceeding 7,5 tonnes are one of the following: <ul style="list-style-type: none"> (i) 'zero-emission heavy-duty vehicles', as defined in Article 3, point (11), of Regulation (EU) 2019/1242; (ii) where technologically and economically not feasible to comply with the criterion in point (i), 'lowemission heavy-duty vehicles' as defined in Article 3, point (12), of that Regulation. <p>2. Vehicles are not dedicated to the transport of fossil fuels</p>	<p>1. The activity complies with one or both of the following criteria:</p> <ul style="list-style-type: none"> (a) the trains and wagons have zero direct tailpipe CO2 emission; (b) the trains and wagons have zero direct tailpipe CO2 emission when operated on a track with necessary infrastructure, and use a conventional engine where such infrastructure is not available (bimode). <p>2. The trains and wagons are not dedicated to the transport of fossil fuels</p>

Table 11: Substantial contribution criteria for **Climate Adaptation for infrastructure, road, rail and offshore Energy** related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives

6.16 Infrastructure enabling low carbon water transport	6.6 Freight transport services by road	6.2 Freight rail transport	4.3 Electricity generation from wind power	4.4 Electricity generation from ocean energy technologies
<p>1. The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity.</p> <p>2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps:</p> <p>(a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime;</p> <p>(b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;</p> <p>(c) an assessment of adaptation solutions that can reduce the identified physical climate risk. The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:</p> <p>(a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;</p> <p>(b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios (453/554/483) consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.</p> <p>3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports (454/555/484), scientific peer-reviewed publications and open source (455/456/485) or paying models.</p> <p>4. The adaptation solutions implemented:</p> <p>(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities;</p> <p>(b) favour nature-based solutions (456/557486) or rely on blue or green infrastructure (457/487) to the extent possible;</p> <p>(c) are consistent with local, sectoral, regional or national adaptation plans and strategies;</p> <p>(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;</p> <p>(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.</p> <p>1. The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that substantially reduce the most important physical climate risks that are material to that activity.</p> <p>2. The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment with the following steps:</p> <p>(a) screening of the activity to identify which physical climate risks from the list in Appendix A to this Annex may affect the performance of the economic activity during its expected lifetime;</p> <p>(b) where the activity is assessed to be at risk from one or more of the physical climate risks listed in Appendix A to this Annex, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity;</p> <p>(c) an assessment of adaptation solutions that can reduce the identified physical climate risk. The climate risk and vulnerability assessment is proportionate to the scale of the activity and its expected lifespan, such that:</p> <p>(a) for activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using climate projections at the smallest appropriate scale;</p>				

(b) for all other activities, the assessment is performed using the highest available resolution, state-of-the-art climate projections across the existing range of future scenarios (453/554/483) consistent with the expected lifetime of the activity, including, at least, 10 to 30 year climate projections scenarios for major investments.

3. The climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports (454/484), scientific peer-reviewed publications and open source (455/485) or paying models.

4. The adaptation solutions implemented:

(a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities;

(b) favour nature-based solutions (456/557/486) or rely on blue or green infrastructure (457/558/487) to the extent possible;

(c) are consistent with local, sectoral, regional or national adaptation plans and strategies;

(d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Annex IV: Do No Significant Harm criteria for Infrastructure, road, rail and energy related economic activities

Table 12: **Do no significant harm** criteria for **offshore energy** related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives.

	4.3 Electricity generation from wind power	4.4 Electricity generation from ocean energy technologies
Climate Mitigation	N/A	
Climate Adaptation	The activity complies with the criteria set out in Appendix A to this Annex.	
The sustainable use and protection of water and marine resources	In case of construction of offshore wind, the activity does not hamper the achievement of good environmental status as set out in Directive 2008/56/EC of the European Parliament and of the Council (158), requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive, and as set out in Commission Decision (EU) 2017/848 (159) in relation to the relevant criteria and methodological standards for that descriptor	The activity does not hamper the achievement of good environmental status, as set out in Directive 2008/56/EC, requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive, and as set out in Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for that descriptor.
The transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.	

Pollution prevention and control	N/A	Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012 of the European Parliament and of the Council (161), which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.
The protection and restoration of biodiversity and ecosystems	The activity complies with the criteria set out in Appendix D to this Annex. The activity does not hamper the achievement of good environmental status, as set out in Directive 2008/56/EC, requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptor 1 (biodiversity), laid down in Annex I to that Directive, and as set out in Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for that descriptors. The activity complies with the criteria set out in Appendix D to this Annex. The activity does not hamper the achievement of good environmental status, as set out in Directive 2008/56/EC, requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptor 1 (biodiversity), laid down in Annex I to that Directive, and as set out in Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for that descriptor	

Table 13: **Do no significant harm** criteria for **infrastructure, road and rail** related economic activities, taken from the first delegated act on sustainable activities for climate change adaptation and mitigation objectives

	6.16 Infrastructure enabling low carbon water transport	6.6 Freight transport services by road	6.2 Freight rail transport
Climate Mitigation	The infrastructure is not dedicated to transportation or storage of fossil fuels. In case of new infrastructure or major renovation, the infrastructure has been climate proofed in accordance with the appropriate climate proofing practice that includes carbon footprinting and clearly defined shadow cost of carbon. Such carbon footprinting covers scope 1-3 emissions, and demonstrates that the infrastructure does not lead to additional relative greenhouse gas emissions, calculated on the basis of conservative assumptions, values and procedures	1. The vehicles are not dedicated to the transport of fossil fuels. 2. For vehicles of category N2 and N3 falling under the scope of Regulation (EU) 2019/1242, specific direct CO2 emissions are equal to or lower than the reference CO2 emissions of all vehicles in the same subgroup, as defined in Article 3 of that Regulation (488).	
Climate Adaptation	The activity complies with the criteria set out in Appendix A to this Annex.	The activity complies with the criteria set out in Appendix A to this Annex.	The activity complies with the criteria set out in Appendix A to this Annex.

<p>The sustainable use and protection of water and marine resources</p>	<p>The activity complies with the provisions of Directive 2000/60/EC, in particular with all the requirements laid down in Article 4 of the Directive. In accordance with Article 4 of Directive 2000/60/EC and in particular paragraph 7 of that Article, prior to refurbishment/construction, an impact assessment of the project is carried out to assess all its potential impacts on the status of water bodies within the same river basin and on protected habitats and species directly dependent on water, considering in particular migration corridors, free-flowing rivers or ecosystems close to undisturbed conditions. The assessment is based on recent, comprehensive and accurate data, including monitoring data on biological quality elements that are specifically sensitive to hydromorphological alterations, and on the expected status of the water body as a result of the new activities, as compared to its current one. It assesses, in particular, the cumulated impacts of this new project with other existing or planned infrastructure in the river basin. On the basis of that impact assessment, it has been established that the project is conceived, by design and location and by mitigation measures, so that it complies with one of the following requirements:</p> <p>(a) the project does not entail any deterioration nor compromises the achievement of good status or potential of the specific water body it relates to,</p> <p>(b) where the project risks to deteriorate or compromise the achievement of good status/potential of the specific water body it relates to, such deterioration is not significant, and is justified by a detailed costbenefit assessment demonstrating both of the following:</p> <p>(i) the overriding reasons in the public interest or the fact that the benefits expected from the planned navigation infrastructure project in terms of benefits to climate change mitigation/adaptation outweigh the costs from deteriorating the status of water that are accruing to the environment and to society</p> <p>(ii) the fact that the overriding public interest or the benefits expected from the activity cannot, for reasons of technical feasibility or disproportionate cost, be achieved by alternative means that would lead to a better environmental outcome (such as nature based solution, alternative location, rehabilitation/refurbishment of existing infrastructures, or use of technologies not disrupting river continuity). All technically feasible and ecologically relevant mitigation measures are implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water. Mitigation measures include, where relevant and depending on the ecosystems naturally present in the affected water bodies:</p> <p>(a) measures to ensure conditions as close as possible to undisturbed continuity (including measures to ensure longitudinal and lateral continuity, minimum ecological flow and sediment flow); L 442/308 Official Journal of the European Union 9.12.2021 EN</p> <p>(b) measures to protect or enhance morphological conditions and habitats for aquatic species;</p> <p>(c) measures to reduce adverse impacts of eutrophication.</p>	<p>N/A</p>	<p>N/A</p>
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	<p>The effectiveness of those measures is monitored in the context of the authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body. The project does not permanently compromise the achievement of good status/potential in any of the water bodies in the same river basin district. In addition to the mitigation measures referred to above, and where relevant, compensatory measures are implemented to ensure that the project does not result in overall deterioration of status of water bodies in the same river basin district. This is achieved by restoring (longitudinal or lateral) continuity within the same river basin district to an extent that compensates the disruption of continuity, which the planned navigation infrastructure project may cause. Compensation starts prior to the execution of the project.</p>		
The transition to a circular economy	<p>At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for reuse, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol (559). Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate reuse and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.</p>	<p>Vehicles of category N1, N2 and N3 are both of the following: (a) reusable or recyclable to a minimum of 85 % by weight; (b) reusable or recoverable to a minimum of 95 % by weight (489). Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy.</p>	<p>Measures are in place to manage waste, in accordance with the waste hierarchy, in particular during maintenance</p>
Pollution prevention and control	<p>Measures are taken to reduce noise, vibration, dust and pollutant emissions during construction maintenance works.</p>	<p>For road vehicles of categories M and N, tyres comply with external rolling noise requirements in the highest populated class and with Rolling Resistance Coefficient (influencing the vehicle energy efficiency) in the two highest populated classes as set out in Regulation (EU) 2020/740 and as can be verified from the European Product Registry for Energy Labelling (EPREL). Vehicles comply with the requirements of the most recent applicable stage of the Euro VI heavy duty emission type-approval (490) set out in accordance with Regulation (EC) No 595/2009.</p>	<p>Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in Annex II to Regulation (EU) 2016/1628.</p>

		Vehicles comply with Regulation (EU) No 540/2014.	
The protection and restoration of biodiversity and ecosystems	The activity complies with the criteria set out in Appendix D to this Annex.	N/A	N/A

Annex V Detailed reporting guidelines

Detailed reporting guidelines can be found in Annex I and Annex II of “COMMISSION DELEGATED REGULATION (EU) 2021/2178 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 ([Publications Office \(europa.eu\)](https://publications.europa.eu))