

EU TAXONOMY

CONTRIBUTION TO THE CALL FOR PROPOSALS FOR THE REVISION OF THE SHIPPING CRITERIA

The Shipyards & Maritime Equipment Association of Europe (SEA Europe) represents the **European maritime manufacturing industry** in 17 countries, encompassing the production, maintenance, repair, retrofit and conversion of all types of ships and floating structures – commercial as well as military – including the full supply chain with the various producers of maritime systems, equipment material, and services.

This document represents **SEA Europe's contribution to the call for proposals for the revision of EU Taxonomy shipping criteria** launched by the European Commission in the framework of the European Sustainable Shipping Forum.

SUMMARY OF SEA EUROPE'S RECOMMENDATIONS

- **Conduct a targeted evaluation of the technical criteria of the EU Green Taxonomy for the maritime industry to support the development of more pragmatic criteria that incentivise private investment in the maritime manufacturing industry.**
- **Develop a European-wide investment roadmap to support the upgrade of shipyards' facilities and maritime manufacturing processes — for both military and commercial — through ring-fenced resources and simplification across the relevant EU funding instruments (including the upcoming European Competitiveness Fund, EU Structural Funds, and the European Innovation Fund), as well as through public guarantees (e.g., guaranteed loans and insurance), instruments that leverage private investments, and European Investment Bank instruments.**
- **Establish a Maritime Industrial Alliance bringing together all relevant stakeholders — including shipyards, the maritime equipment industry, shipowners, ports, fuel suppliers, banks, investors, regional authorities, and policymakers — to design the investment roadmap, including as regard access to private financing.**

1. Background on the EU Taxonomy

The EU Taxonomy is a **classification system that defines criteria for economic activities that are aligned with a net zero trajectory by 2050 and the broader environmental goals other than climate**. It aims to support investors in directing their capital towards the activities needed for the green transition. For this purpose, it covers six 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.

The Taxonomy Climate Delegated Act establishes **technical screening criteria** for different sectors and economic activities for the objectives of climate change mitigation and adaptation. These include manufacturing and transport activities, including maritime.

To qualify as environmentally sustainable under the EU Taxonomy, an activity must:

- make a “substantial contribution” to at least one of the six environmental objectives, reflected in technical screening criteria, and
- “do no significant harm” to any of the other five environmental objectives.

2. Context and timeline of the review

The European Commission recently announced a **review of the Taxonomy Climate Delegated Act**, due to the need for a general simplification and reduction of administrative burden. The content of the review focuses on improving the usability of the technical screening criteria, and on updating them in light of legislative, policy and technological developments.

The European Commission aims to **conclude the work on the technical screening criteria by the third week of September 2025**. Adoption is planned for Q2 2026 with entry into application in January 2027.

In this context, the European Commission has invited the members of the ESSF to share their views by submitting policy papers **by 28 August 2025**. These policy papers should provide concrete proposals for changes to the specific maritime technical screening criteria.

3. Scope of the review

The main concerns with regard to the maritime Taxonomy criteria have arisen around the following sections of the climate mitigation annex:

- **3.3 Manufacture of low carbon technologies for transport**
 - *(l) sea and coastal freight water transport vessels, vessels for port operations and auxiliary activities, that are not dedicated to transporting fossil fuels*
 - *(m) sea and coastal passenger water transport vessels, not dedicated to transporting fossil fuels*

- [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](#)

The current review of the maritime technical screening criteria will focus on addressing immediate concerns, while future changes necessitated by the International Maritime Organization's Net-Zero Framework and related guidance will be integrated into a subsequent EU Taxonomy review.

4. SEA Europe's views on the review of the EU Taxonomy

SEA Europe's contribution aligns with our broader recommendations for the upcoming **Industrial Maritime Strategy**, which seeks to enhance the competitiveness, sustainability, and resilience of Europe's maritime manufacturing sector.

We call the European Commission to conduct a **targeted evaluation of the technical criteria of the EU Green Taxonomy for the maritime industry** to support the development of more pragmatic criteria that incentivise private investment in the maritime manufacturing industry. We believe that the European Commission should carry out this evaluation **in accordance with its Better Regulation standards (see [here](#))**, to assess the effectiveness, efficiency, coherence, relevance, and EU added value of the policy.

The review of the Taxonomy criteria must be grounded in a rigorous, evidence-based methodology rather than relying on anecdotal inputs. In this context, **the timeline proposed by the European Commission is unrealistic**, as it does not allow sufficient time for the collection of robust data and its comprehensive analysis.

The Annex to this note outlines the concerns and proposed amendments to the technical screening criteria collected to date by SEA Europe. However, it does not present an exhaustive list of the issues encountered with the EU Taxonomy. We will continue to collect and update these concerns on an ongoing basis.

Beyond the technical criteria and their potential for improvement, we have a **fundamental concern with the way the EU Taxonomy has been applied**. Since it defines a "best in class" green standard, it overlooks the essential incremental investments needed to scale up clean technologies and transition to net-zero. **If transitional investments are not considered eligible to the Taxonomy, they will fail to attract private financing** — putting the European maritime sector at a competitive disadvantage against global competitors who are moving forward more pragmatically.

Moreover, the maritime sector relies heavily on the synergies between civilian and military applications, with many systems having **dual-use characteristics**. The Taxonomy must recognise this by introducing criteria tailored to this reality.

In practice, the EU Taxonomy has had a directly detrimental impact on innovation and investment, as it has been applied to determine eligibility for support from the European Investment Bank and the Innovation Fund. This use has narrowed the scope of such support and overlooked the broader spectrum of essential transition investments. We consider this a **misuse of the EU Taxonomy**, which was originally intended to identify the most sustainable activities and guide private capital toward them. It was not designed to serve as the definitive benchmark for the entire green transition — a process that is, by nature, transitional.

In our recommendations for the Industrial Maritime Strategy, we call for the development of **“a European-wide investment roadmap to support the upgrade of shipyards’ facilities and maritime manufacturing processes** — for both military and commercial — through ring-fenced resources and simplification across the relevant EU funding instruments (including the upcoming European Competitiveness Fund, EU Structural Funds, and the European Innovation Fund), as well as through public guarantees (e.g., guaranteed loans and insurance), instruments that leverage private investments, and European Investment Bank instruments.”

We believe that EU policy efforts — particularly within the framework of the upcoming Industrial Maritime Strategy and the Sustainable Transport Investment Plan — should focus on developing this comprehensive investment roadmap, including as regard access to private financing. To achieve this, it is essential to bring together all relevant stakeholders — including shipyards, the maritime equipment industry, shipowners, ports, fuel suppliers, banks, investors, regional authorities, and policymakers — to design this roadmap collaboratively, **complementing rather than relying solely on the Taxonomy framework.** In this context, we call for the **establishment of a Maritime Industrial Alliance** to guide and structure this work.

ANNEX

PROPOSED TECHNICAL AMENDMENTS TO THE TAXONOMY

Taxonomy Regulation (EU) 2020/852: Cross-cutting application across disclosures	
<u>Current text</u>	<u>Proposed new text</u>
<i>There are no provision for avoided emissions (Scope 4) in product evaluation criteria.</i>	Add: "Where applicable, undertakings may report avoided emissions ('Scope 4') from the use of their manufactured equipment or systems, where this can be demonstrated through a credible and verifiable methodology aligned with ISO 14067 or equivalent standards."
Justification: Manufacturers of low-emission enabling technologies (e.g. energy-efficient propulsion systems, electrification components) currently cannot claim alignment based on the positive emissions impact of their products in use. This penalises producers of decarbonization-enabling goods and misaligns incentives. Allowing Scope 4 reporting — where robust methodologies exist — would better reflect the actual climate benefit and enable financing of enabling industries.	

Delegated Regulation (EU) 2021/2139 – Appendix C, point (f)	
<u>Current text</u>	<u>Proposed new text</u>
(f) substances, whether on their own, or in mixtures or in an article, in a concentration above 0,1 % weight by weight (w/w), and meeting the criteria laid down in Article 57 of Regulation (EC) No 1907/2006 and that were identified in accordance with Article 59(1) of that Regulation for a period of at least eighteen months, except if it is assessed and documented by the operators that no other suitable alternative substances or technologies are	(f) substances, whether on their own, or in mixtures or in an article, in a concentration above 0,1 % weight by weight (w/w), and meeting the criteria laid down in Article 57 of Regulation (EC) No 1907/2006 and that were identified in accordance with Article 59(1) of that Regulation for a period of at least thirty-six months, except where there is full compliance with the

available on the market, and that they are used under controlled conditions. In addition, the activity does not lead to the manufacture, presence in the final product or output, or placing on the market, of other substances, whether on their own, or in mixtures or in an article, in a concentration above 0,1 % weight by weight (w/w), that meet the criteria of Regulation (EC) No 1272/2008 for one of the hazard classes or hazard categories mentioned in Article 57 of Regulation (EC) No 1907/2006, except if it is assessed and documented by the operators that no other suitable alternative substances or technologies are available on the market, and that they are used under controlled conditions.	conditions specified in that Regulation or other applicable Union legislation, or where such substances are used in accordance with existing EU regulatory authorisations and restrictions. This exception applies where it is assessed and documented by the operators that no other suitable alternative substances or technologies are available on the market, that they are used under controlled conditions, and that their use does not compromise the environmental objectives of Regulation (EU) 2020/852. In addition, the activity does not lead to the manufacture, presence in the final product or output, or placing on the market, of other substances, whether on their own, or in mixtures or in an article, in a concentration above 0,1 % weight by weight (w/w), that meet the criteria of Regulation (EC) No 1272/2008 for one of the hazard classes or hazard categories mentioned in Article 57 of Regulation (EC) No 1907/2006, except under the same conditions as described above.
Justification: Appendix C of the Taxonomy's Climate Delegated Act imposes "Do No Significant Harm" requirements on substances of concern that go beyond existing EU chemicals law, such as REACH, POPs, and RoHS. This results in a duplicative compliance process, requiring companies and their supply chains to re-assess and justify the use of certain substances even when their use is already authorised or restricted under EU law. For manufacturers of complex products, such as maritime equipment, this creates significant additional cost and complexity without delivering proportionate environmental benefits. The extra burden risks discouraging investment in Taxonomy-aligned activities and slowing down decarbonisation efforts. The proposed amendment aligns Appendix C more closely with existing EU legislation, recognising compliance with REACH authorisations and restrictions as sufficient to meet Taxonomy requirements. Additional assessments would only be needed for new or unregulated uses above the 0.1% threshold. This preserves environmental safeguards while removing unnecessary duplication, streamlining compliance, and enabling industry to focus resources on accelerating emissions reduction and green technology deployment. The proposed amendment also deletes "<i>under controlled conditions</i>" in paragraph, as the absence of legal definition of this concept creates uncertainty for companies.	

Moreover, the proposed amendment extends the transition period from 18 months to 36 months because manufacturers of complex articles usually do not have sufficient information on the presence of substances in components and parts received from their suppliers in complex supply chains, hence need time to collect such information throughout the supply chain.

Technical screening criteria: Annex I, Section 3.3 – Manufacture of low carbon technologies for transport	
<u>Current text</u>	<u>Proposed new text</u>
	On item (m), add a new point or replace (v) <u>OPTION 1:</u> From 1 January 2026, vessels that are able to run on zero direct (tailpipe) CO₂ emission fuels or that are able to run on fuels from renewable sources achieving at least 20% reduction in GHG WtW emissions compared to sector baseline (IMO or EU ETS), and: (a) are compatible with a future (bio-/e-) RLCF or WtW zero-emission fuel (e.g., methanol, hydrogen, ammonia); (b) are able to plug-in at berth; (c) if LNG is used in ICE, they are equipped with high-efficiency dual-fuel engines and demonstrate the use of state-of-the-art measures and technologies to mitigate methane slippage emissions. <u>OPTION 2:</u> From 1 January 2026, vessels are capable to initially operating with fuels achieving at least 20% GHG WtW reduction compared to conventional marine fuels and are designed for transition to zero-emission fuels demonstrating one of the following:

	(a) the possibility of having future conversion to RLCF, or zero-emission fuels (e.g. hydrogen, ammonia), or electric systems, documented by a retrofit plan aligned with infrastructure development and fuel availability; (b) fuel system compatibility with renewable fuels (e.g., bio-LNG, e-LNG, green methanol).
<i>Justification:</i> The Technical Screening Criteria (TSC) under Section 3.3 item (m) require new vessels to meet extremely stringent conditions, including zero direct (tailpipe) CO₂ emissions or hybrid configurations with at least 25% energy from zero-emission sources. From 2026 onward, vessels must achieve EEDI values 20% below IMO reference lines: these criteria effectively exclude transitional technologies such as LNG and bio-LNG and other transitional fuels, which offer significant emission reductions compared to the State of the Art. Section 6.12, which covers retrofitting of vessels, adopts a more pragmatic approach. It allows eligibility for activities that reduce fuel consumption by 15% or achieve EEXI values 10% below regulatory thresholds, without requiring zero tailpipe emissions. This flexibility acknowledges the technical and economic constraints of retrofitting and supports incremental improvements. In contrast, Section 3.3 applies stricter requirements to new vessels, which paradoxically discourages innovation and fleet renewal. New vessels, which could be designed for future conversion to zero-emission fuels, are excluded unless they meet near-perfect standards. This asymmetry risks penalizing forward-looking investments and delaying decarbonization. Section 6.11, which covers operation of passenger vessels, sets - as an option – a threshold for EEDI combined with yearly average GHG intensity of the energy used on-board by a ship during a reporting period at the following levels: • 76,4 g CO₂e/MJ from 1 January 2026 until 31 December 2029; • 61,1 g CO₂e/MJ from 1 January 2030 until 31 December 2034; • 45,8 g CO₂e/MJ from 1 January 2035 until 31 December 2039; • 30,6 g CO₂e/MJ from 1 January 2040 until 31 December 2044; • 15,3 g CO₂e/MJ from 1 January 2045. We propose to introduce a transitional criteria which supports a viable pathway for new vessels with transitional technologies (see in the right column above).	

This proposal aligns with Article 10(2) of Reg. (EU) 2020/852, which allows transitional activities where no feasible low-carbon alternative exists. It is supported by Commission Notices C/2023/211 and C/2025/1373, which encourage flexible interpretation for emerging technologies.

In addition, (OPTION 2) it must be noticed that FuelEU Maritime already recognize “design for compliance” or “design for conversion” as a compliance strategy. In fact, this regulation takes a goal-based and technology-neutral approach, allowing for innovation and the development of new sustainable fuels and energy conversion technologies, offering operators the freedom to decide which fuels and technologies to use based on ship-specific or operation-specific profiles. The Regulation also provides for different flexibility mechanisms, supporting existing fleets to find suitable compliance strategies and rewarding first-movers for early investment in energy transition. All these criteria (goal-based, technology-neutral approach and flexibility mechanisms rewarding first-movers) are clearly indicating the intention of the regulator to support innovation which is compliant-now to existing standards and compliant-with-conversion to future standards.

The proposed modification still fosters the sector to move towards zero emissions technologies and does not hamper the development and deployment of low-carbon alternatives, whilst opening the possibility of adopting transitional solutions exceeding the best performance of the sector, without creating any lock in effect of carbon-intensive assets in maritime.

The proposed OPTION 1 also allows the possibility to be compliant with the existing criteria (e) of the Technical Screening Criteria set for Economic Activity 6.11, which are setting progressive thresholds on the yearly average greenhouse gas intensity of the energy used on-board by a ship. In fact, within the period 2026-29 proposed criteria b, c, and d, ensure that the limit of 76,4 g CO₂e/MJ is achievable, whilst the compatibility with future RLCF or zero-emission fuels will ensure further reduction over time when the ship is refurbished to greener standards.

These measures will therefore accelerate the deployment of low-emission vessels. They avoid technological lock-out and support innovation. Most importantly, they align regulatory framework with industrial realities and decarbonization pathways.

Technical screening criteria: Annex I, Section 3.3 – Manufacture of low carbon technologies for transport, points (l) and (m) (Climate Change Mitigation)

<u>Current text</u>	<u>Proposed new text</u>
<i>(l) sea and coastal freight water transport vessels, vessels for port operations and auxiliary activities, that are not dedicated to transporting</i>	<i>(l) sea and coastal freight and service water transport vessels, including vessels for port, offshore and auxiliary operations (all vessel types), [delete: “that are not dedicated to transporting fossil fuels”]; (m) sea and coastal</i>

<i>fossil fuels; (m) sea and coastal passenger water transport vessels, not dedicated to transporting fossil fuels.</i>	<i>passenger water transport vessels [delete: “not dedicated to transporting fossil fuels”]. All vessel categories (cargo, passenger, service) are included, provided they meet the applicable low-carbon performance criteria.</i>
Justification: The current criteria exclude vessels “dedicated to transporting fossil fuels”, which effectively disqualifies entire segments (e.g. tankers, LNG carriers) from taxonomy eligibility. This blanket exclusion is counterproductive – it ignores efficiency improvements in these vessels and fails to incentivize their decarbonization. To align with a pragmatic transition, the taxonomy should focus on a vessel’s emissions performance rather than its cargo. Every vessel type, including those currently used for fossil fuel transport, must adopt cleaner technologies; excluding them outright undermines climate goals. As SEA Europe notes, a “best-in-class” green standard that overlooks incremental transition investments will “fail to attract private financing – putting the European maritime sector at a competitive disadvantage against global competitors who are moving forward more pragmatically.” Removing this exclusion ensures all vessel categories can qualify if they meet stringent efficiency or emissions thresholds. This maintains technology neutrality and coherence with IMO’s approach (IMO regulations do not prohibit efficiency measures on ships based on cargo, focusing instead on technical standards). It also encourages innovation in traditionally hard-to-abate segments, supporting the overall maritime transition without greenwashing (since strict performance criteria still apply). In summary, broadening eligibility to all ship types – regardless of cargo – while holding them to robust GHG performance standards will improve clarity, consistency, and the incentive for sustainable investment across the entire shipping industry.	

Technical screening criteria: Annex I, Section 3.3 – Manufacture of other low carbon technologies	
<u>Current text</u>	<u>Proposed new text</u>
Life-cycle GHG emission savings are calculated using Commission Recommendation 2013/179/EU or, alternatively, ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emission savings are verified by an independent third party.	Life-cycle GHG emission savings shall be calculated using Commission Recommendation 2013/179/EU or, alternatively, ISO 14067:2018, ISO 14064-1:2018, ISO 14040/14044 or other equivalent internationally recognised standards. Quantified life-cycle GHG emission savings shall be verified in accordance with a risk-based and proportional approach, taking into account company size, complexity and environmental impact. Verification may be conducted by accredited independent third parties, qualified external experts, or competent internal auditors, provided that the methodology, data and

	calculations are fully documented and made available for review by competent authorities.
Justification: The current requirement for lifecycle GHG savings to be calculated solely under ISO 14067:2018 and verified by an independent third party creates high fixed compliance costs and duplicate assessment work, particularly for SMEs. This rigid approach excludes other internationally recognised LCA standards (e.g., ISO 14040/14044) already embedded in industry practice, forcing companies to re-run valid assessments at significant cost. A risk-based, proportional verification model—successfully applied in other EU environmental frameworks—would maintain data quality, reduce administrative burden, and enable broader participation in Taxonomy-aligned activities, accelerating deployment of low-carbon technologies in line with EU Green Deal and Sustainable Finance objectives.	

Technical screening criteria: Annex I, Section 3 Addition of a new point: Low-carbon transitional fuels for maritime transport	
<u>Current text</u>	<u>Proposed new text</u>
<i>There are no specific provisions on the manufacturing of fuel for maritime applications.</i>	ADD THE FOLLOWING: Description of the activity: Manufacture of synthetic or derived fuels (including ammonia, methanol, methane, hydrogen carriers) from fossil feedstocks for application in maritime transport, provided that the fuels achieve substantial lifecycle greenhouse gas (GHG) emission reductions compared to conventional marine fuels. Technical screening criteria: The activity complies with the following lifecycle GHG emissions savings requirement: • $\geq 70\%$ GHG emissions savings for liquid or gaseous fuels compared to a fossil fuel comparator of 94 g CO₂e/MJ, calculated in analogy to the approach set out in Article 25(2) of and Annex V to Directive (EU) 2018/2001.

	• Lifecycle GHG emissions are calculated using the methodology referred to in Article 28(5) of Directive (EU) 2018/2001 or, alternatively, using ISO 14067:2018 (1) or ISO 14064-1:2018 (2). • Quantified lifecycle GHG emission savings are verified in line with Article 30 of Directive (EU) 2018/2001 where applicable, or by an independent third party. • A publicly available transition plan demonstrates how the feedstock mix will move to $\geq 95\%$ renewable or biogenic carbon sources or renewable hydrogen within 20 years of the project start date.
Justification: Current vessel criteria in the Taxonomy recognise zero tailpipe emission propulsion. However, manufacture criteria for fuels are limited to renewable hydrogen (and its derivatives) and biofuels, leaving no category for fossil-derived alternative fuels that can achieve substantial lifecycle GHG reductions now and have a credible pathway to full decarbonisation. The binding constraint to faster maritime decarbonisation is low availability and high cost of alternative fuels. This creates a chicken-and-egg problem: shipowners delay ordering alternative-fuel ships without supply certainty, and producers delay investing in large-scale plants without demand certainty. Recognising low-carbon transitional fuels under strict performance thresholds, verification requirements, and time-bound transition plans would: • Unlock investment in production, storage, and bunkering infrastructure; • Immediately reduce GHG emissions from shipping; • Accelerate the transition to fully renewable fuels by establishing fuel handling and supply chains. The proposal is consistent with Article 10(2) of Regulation (EU) 2020/852 on transitional activities and safeguards environmental integrity by mandating strict lifecycle thresholds, independent verification, and no-lock-in safeguards.	

Technical screening criteria: Annex I, Section 6.10 – Sea and coastal freight water transport, vessels for port operations and auxiliary activities (Climate Change Mitigation)	
<u>Current text</u> 6.10. Sea and coastal freight water transport, vessels for port operations and auxiliary activities.” Description of the activity: Purchase, financing,	<u>Proposed new text</u> Split and refine Section 6.10 to introduce clear vessel-type categories, aligned with IMO definitions, with tailored criteria for each:

chartering, leasing, rental and operation of vessels for the carriage of freight by sea or coastal waters (including ro-ro, container, bulk, etc.) and vessels for port services or auxiliary maritime activities. **Substantial contribution criteria:** The current criteria allow four compliance options – e.g. (a) zero direct (tailpipe) CO₂ emissions (with a temporary allowance for limited emissions until end of 2025), (b) ..., (c) vessels able to use zero-carbon fuels with an attained EEDI 20% below the 2022 requirement, and (d) vessels with an attained EEXI 10% below the 2023 requirement and annual operational GHG intensity under set thresholds. *(Vessels dedicated to the transport of fossil fuels are explicitly excluded under the current criteria.)*

- **6.10 – Sea and coastal cargo vessel operations (freight transport):**
Description: Purchase, financing, chartering, leasing, rental and operation of sea-going cargo vessels, including **bulk carriers, tankers, container ships, general cargo ships, refrigerated cargo ships, combination carriers, ro-ro cargo vessels, etc.**, engaged in freight transport classnk.or.jp. *Technical screening criteria:* The vessel meets **performance benchmarks** in line with IMO standards for its category and size. For example: **(i)** the vessel achieves **zero direct CO₂ emissions** in operation (or uses only sustainable zero-carbon fuels); **or (ii)** the vessel is **capable of using zero-emission fuels** (e.g. ammonia, electrification) *and* its design efficiency exceeds IMO requirements (attained EEDI/EEXI at least **20% lower** (better) than the applicable requirement nortonrosefulbright.com). **(iii)** As a transitional option, the vessel's efficiency in operation ranks among the top tier of its class – e.g. its verified annual GHG emissions per tonne-kilometer are below the threshold corresponding to the top 10% most efficient similar ships. Large vessels (e.g. ≥5,000 GT, which account for ~90% of shipping emissions sciencedirect.com) must additionally demonstrate alignment with ambitious operational carbon-intensity benchmarks (for instance, meeting or exceeding the level required for an IMO CII “A” rating in the relevant year). **Smaller vessels** (below international reporting thresholds, e.g. <5,000 GT or <400 GT, which are outside the scope of IMO EEDI/EEXI rules eur-lex.europa.eu) can qualify via alternative metrics – for example, by **achieving at least a 20% reduction in fuel consumption** (CO₂ per ton-mile) relative to a baseline conventional design of similar size/capacity, verified through computational analysis or sea trials. *(Vessels of all cargo types are eligible – the previous exclusion of fossil-fuel transport vessels is removed, as per Section 3.3 above.)* Compliance with DNSH and minimum safeguards remains as in the current text.

- **6.10a – Sea and coastal *service and auxiliary vessel* operations (port, offshore, and other non-freight vessels) – [New category]:**
Description: Purchase, operation or chartering of **offshore support vessels, dredgers, tugboats, research and survey vessels, training ships, coastal guard and patrol vessels, and other marine service vessels** not primarily carrying freight or passengers. (This category covers vessels used in offshore energy operations, port services, cable-laying, marine construction, fishing surveillance, etc., aligning with the inclusion of “offshore ships” in EU monitoring regimes from 2025 [dnv.com](https://www.dnv.com).) *Technical screening criteria:* In the absence of IMO EEDI benchmarks for many of these vessels [cedelft.eu](https://www.cedelft.eu), eligibility is defined by **technology and efficiency thresholds**. For example: **(i)** the vessel has **zero-emission or hybrid propulsion** for its normal operations (e.g. battery-electric or hydrogen fuel cell power for port service vessels, with on-board systems enabling plug-in electric recharging); **or (ii)** the vessel’s installed machinery and energy management deliver at least a **X% reduction in greenhouse gas emissions** (on a lifecycle per-operational-hour or per-task basis) compared to the best conventional designs in its class (with X% set ambitiously, e.g. 20% or more fuel efficiency improvement). This can be demonstrated by improved engine specific fuel consumption, use of advanced drivetrains (e.g. diesel-electric, wind assist, air lubrication) and integration of renewable energy on board. Additionally, engines shall meet the latest efficiency standards and facilitate future **fuel switching** to zero-carbon fuels. For offshore vessels supporting the energy sector, preference is given if they are “**fuel-ready**” (e.g. LNG-ready for future bio-LNG or ammonia conversion) and if they can operate with **shore power or zero-emission at port**. These criteria ensure even vessels not covered by standard IMO metrics are held to quantifiable GHG performance improvements. *(This is a new section to ensure that port and offshore service vessels, previously lumped under freight in 6.10, are separately addressed with appropriate criteria.)*

Justification:

Clarity and completeness of vessel categories: The current Section 6.10 groups together disparate vessel types (from large cargo ships to port service craft) under one heading, which obscures important differences. We propose splitting it into a dedicated **cargo vessel category (freight transport)** and a new **service/offshore vessel category**, to “capture the diversity of vessels and business models within the sector” as originally intended. This aligns the taxonomy with the **International Maritime Organization’s classification framework**, which defines ship types like bulk carrier, gas carrier, container ship, tanker, passenger ship, ro-ro, etc., in its regulations. By mirroring these standard categories, the criteria become more **consistent with industry terminology and IMO standards**, helping investors and shipowners alike to interpret them correctly. As noted in an EU-commissioned study, aligning the taxonomy with IMO’s work “**would help ensure the level playing field**” in the shipping market – preventing divergent definitions that could confuse stakeholders or disadvantage EU projects.

Tailored technical thresholds: Introducing explicit metrics like gross tonnage (GT), deadweight (DWT), engine power (kW), or energy per transport work ensures criteria are **measurable and appropriate for each vessel class**. Larger ocean-going ships should be evaluated with metrics like EEDI/EEI and operational carbon intensity (aligning with IMO’s **Carbon Intensity Indicator** framework), whereas smaller or specialized vessels require alternate benchmarks. Currently, vessels outside the EEDI scope (e.g. many workboats, offshore and small vessels) cannot use the taxonomy’s efficiency options and would only qualify if zero-emission, which is often not yet technically feasible. This is a clear gap. By defining alternative thresholds (such as percent fuel reduction vs baseline, or max gCO₂ per ton-mile for cargo ships, etc.), we **bring those vessels into the fold** of transitional eligibility. For instance, the EU MRV regulation will start covering offshore vessels ≥400 GT in 2025, recognizing their emissions impact; the taxonomy should likewise set standards for them rather than ignore them. Also, using known regulatory breakpoints (like 5,000 GT, which covers ~90% of maritime CO₂) allows the criteria to dovetail with EU and IMO reporting regimes, enhancing coherence.

Avoiding one-size-fits-all and improving usability: A cargo megaship and a harbor tug operate very differently; lumping them under one criterion risks **ineffective or unfair thresholds**. Our proposed structure ensures that **each segment has criteria calibrated to its context** – e.g. a tanker must greatly outperform IMO efficiency baselines to qualify, while a tugboat can qualify by adopting electrification or other specific measures suited to its size and duty. This granular approach was hinted at in prior analyses (e.g. using a “top 10% best in class” benchmark within each ship type). Implementing such differentiation now will improve the taxonomy’s usability and credibility. It will also close loopholes where certain vessels might qualify too easily or, conversely, be unable to qualify at all. By clearly defining categories and thresholds, we **ensure no vessel type is left behind** in the transition. All maritime assets – cargo, passenger, offshore, service – can attract sustainable finance if they truly perform at the forefront of emissions reduction for their class. This comprehensive coverage of vessel types makes the taxonomy more **inclusive yet stringent**, channeling investments to where they can drive real decarbonization across the entire sector.

Technical screening criteria: Annex I, Section 6.11 – Sea and coastal passenger water transport (Climate Change Mitigation)

<u>Current text</u>	<u>Proposed new text</u>
6.11. <i>Sea and coastal passenger water transport.</i>” Description: Operation of vessels for the carriage of passengers by sea or coastal waters (e.g. ferries, cruise ships, water shuttles). Substantial contribution criteria: (In the current Delegated Act, this category’s criteria are focused on full electrification/zero-emission operation, with a temporary allowance for limited direct emissions until end of 2025. Unlike freight, no additional efficiency-based options beyond 2025 are explicitly provided in the published text.)	6.11. <i>Sea and coastal passenger vessel transport.</i>” <i>Description:</i> Purchase, financing, leasing, chartering, and operation of passenger vessels for sea and coastal transport, including ferries, roll-on/roll-off (ro-pax) ships, cruise ships, high-speed craft, and other vessels carrying passengers (with or without vehicles). This category encompasses both short-sea domestic ferries and international passenger ships, aligned with IMO definitions (e.g. “passenger ship” and “ro-ro passenger ship” as per MARPOL). <i>Technical screening criteria:</i> The vessel meets at least one of the following: (i) Zero-emission option: The vessel has zero direct (tailpipe) CO₂ emissions during operation. This can be achieved through fully electric/battery propulsion, hydrogen or ammonia fuel cells, wind propulsion, or other zero-carbon energy sources. (A minimal emissions exception for emergency or auxiliary engines can be allowed until a specified date, similar to the current time-limited allowance.) (ii) Advanced efficiency/alternative fuel option: The vessel is capable of using 100% zero-carbon fuels (e.g. methanol, ammonia, bio-LNG) or shore-supplied electricity for all primary functions <i>and</i> demonstrates a design efficiency significantly better than regulatory baselines – for example, an attained EEDI or EEXI value at least 10% below the IMO requirement applicable on its build date for that vessel type eur-lex.europa.eu. For cruise ships and large ro-pax ferries, which fall under IMO’s EEDI Phase 2 and 3 standards, this criterion ensures the ship’s design is ahead of mandated efficiency curves (similar to freight vessels). The ship must also be equipped with shore power capability (to achieve zero emissions at berth) and, where relevant, implement state-of-the-art measures to minimize methane or nitrous oxide slip if using alternative fuels. (iii) Operational efficiency option (transitional): Until full zero-emission solutions are widely available, a passenger vessel can qualify by achieving top-tier operational carbon efficiency. This means its annual average GHG emissions per passenger-kilometer (or per gross ton-mile, for mixed-use

	vessels) do not exceed a threshold aligned with the best performance in its category. For example, the ship should meet the benchmark of an IMO CII rating of “A” (or equivalent absolute gCO₂/pax-nm threshold) for the relevant year. This incentivizes operators to optimize speed, routing, and loading, and to utilize energy-saving technologies. Vessels not covered by CII (e.g. under 5,000 GT or domestic-only small ferries) can demonstrate an equivalent high efficiency through fuel consumption data and load factors. As vessel size and type vary greatly (a 100-passenger coastal ferry vs. a 5,000-passenger cruise), the criteria may be scaled – e.g. larger ships must hit a stricter percent-reduction target compared to average. In all cases, the vessel must not be dedicated to exclusively transporting fossil fuels (passenger vessels generally are not, so this is by construction). DNSH criteria (e.g. on pollution, waste management, etc.) continue to apply as per the existing text, with the addition that ships should comply with relevant safety and environmental standards (Ballast Water Convention, etc., as applicable).
<i>Justification:</i> Alignment with IMO categories and terminology: This section explicitly references passenger vessel sub-categories (such as ferries, ro-ro and cruise ships) in line with IMO conventions. The IMO defines “passenger ship” and specific types like “ro-ro passenger ship” in MARPOL and SOLAS, and sets design efficiency standards accordingly. By using these standard terms and covering <i>all</i> passenger vessel types (from short-haul ferries to ocean-going cruise liners), we remove ambiguity. This ensures that investors can easily identify what falls under “passenger water transport” and that no type of passenger vessel is unintentionally excluded. It also aligns the taxonomy with other EU initiatives – for example, the need to decarbonize ferries and cruise ships is recognized in EU programs, and using common definitions aids coherence across policies. Introduction of performance thresholds: The current criteria for Section 6.11 heavily emphasize zero-emission vessels, which is the ultimate goal but not immediately attainable for many large passenger ships. Notably, unlike the freight section, no alternate threshold (like an EEDI/EEXI improvement) was clearly provided beyond 2025 in the original text. This is a gap that could stall green investment in the interim. We therefore propose adding measurable efficiency-based options for passenger vessels, analogous to what is now allowed for freight. For instance, requiring an EEXI or EEDI 10% better than the latest standards ensures only the top-performing new ships qualify – pushing innovation in hull design, engines, and onboard energy systems for passenger ships. Likewise, an operational carbon intensity criterion (like a maximum gCO₂ per passenger-mile) encourages existing ships and operators to reduce emissions through speed optimization, better voyage planning, and retrofits (in synergy with Section 6.12). Introducing a passenger-km efficiency metric	

is particularly relevant for this category, as it captures the vessel’s societal function (moving people) and allows comparison across different sizes or service profiles.

Consistency and fairness: These changes make the **passenger vessel criteria consistent with the freight criteria** in structure – both have a zero-emission pathway and a high-efficiency transitional pathway. This consistency is fair to the industry and avoids a situation where, for example, a cargo ship can qualify via a 10% EEDI improvement but a ferry cannot. It addresses stakeholder feedback that the taxonomy should not punish sectors where zero-emission technology is not yet fully viable. The inclusion of options like shore-power capability and alternate fuels also aligns with EU policy (e.g. the Alternative Fuels Infrastructure Regulation and FuelEU Maritime) which require or favor such measures in shipping. By explicitly citing these technical requirements, the taxonomy criteria drive investments into ships that are **“future-proof”** (ready for stricter environmental regulations and new fuels) – a key aspect for sustainable finance. Overall, the proposed text for Section 6.11 ensures that **all passenger vessels – large and small – can be part of the transition if they meet clear, rigorous benchmarks**, thereby mobilizing capital for greener ferries and cruise ships alike while maintaining the integrity of the “sustainable investment” label.

Technical screening criteria: Annex I, Section 6.12 – *“Retrofitting of sea and coastal freight and passenger water transport”* (Climate Change Mitigation)

<u>Current text</u>	<u>Proposed new text</u>
<i>6.12. Retrofitting of sea and coastal freight and passenger water transport.”</i> Description: Modification of existing sea and coastal freight or passenger vessels (such as engine replacement, energy efficiency upgrades, or fuel conversion) to improve environmental performance. Substantial contribution criteria: Until 31 December 2025, the retrofitting activity had to reduce the vessel’s fuel consumption (and corresponding CO₂ emissions) by at least 10% per transport work (e.g. in grams of fuel per tonne-nautical mile) as verified by computational fluid dynamics or tank tests. (No explicit criteria beyond 2025 were defined in the original text, implying retrofits after 2025 might need to meet the same stringent standards as new builds, which creates uncertainty.)	<i>6.12. Retrofitting of sea and coastal vessels for enhanced energy efficiency and emissions reduction.”</i> Description: Activities that upgrade or modify an existing sea-going vessel of any type (cargo, passenger, service, fishing, etc.) to substantially improve its energy efficiency or enable the use of low-/zero-carbon fuels. This includes retrofitting or replacing main or auxiliary engines, hull form optimization (e.g. bulbous bow modification), installing energy-saving devices (like propeller optimization, waste heat recovery, wind-assist technologies), equipping ships to plug into shore-side electricity, and converting or upgrading fuel systems (e.g. from diesel to LNG, ammonia-ready or hydrogen-ready fuel systems). Technical screening criteria: The retrofit yields a significant reduction in greenhouse gas emissions intensity of the vessel’s operations. For example: (i) For a freight or passenger vessel, the retrofit measures must achieve at least a 15% reduction in fuel

	consumption per transport work unit (e.g. liters of fuel per tonne-km or per passenger-km) compared to the vessel’s performance pre-retrofit (an increase from the previous 10% threshold to reflect advancing best practices). (ii) For service and other vessels (where a per-km metric may not be straightforward), the retrofit should deliver at least a 15% improvement in the vessel’s overall fuel efficiency or CO₂ emissions per hour of operation at normal duty, or enable a switch to a fuel that results in at least 50% lower CO₂e emissions (tank-to-wake) – for instance converting a vessel to run on renewable fuels or installing a hybrid electric system. (iii) Retrofitting activities that enable future zero-emission operation, such as reinforcement of the structure for battery packs or installation of fuel storage and handling systems for alternative fuels, also qualify, provided a meaningful interim emissions reduction (e.g. >10%) is achieved in the current configuration. These criteria apply at any date going forward (the 2025 time limit is removed); they will be periodically reviewed to tighten the required improvement level in line with technological progress and climate targets. All retrofits must comply with safety standards and not prolong the life of the vessel beyond safe operational limits (to avoid counteracting fleet renewal with cleaner new builds). The activity must also ensure the vessel, after retrofit, continues to meet “Do No Significant Harm” criteria (e.g. compliance with pollutant emission standards like IMO Tier III or EU Sulphur cap, if applicable, and proper handling of any replaced equipment or materials). Additionally, any retrofitting of vessels above 500 GT must be done in compliance with Regulation (EU) No 1257/2013 on ship recycling (to ensure old components are disposed of in a sustainable manner).
<i>Justification:</i> Extending the scope to all vessel types: The current wording of 6.12 limits retrofits to “freight and passenger water transport” – implicitly excluding upgrades on other vessels like fishing boats or offshore ships. This is a gap, as decarbonizing the existing fleet is crucial across the maritime sector. By explicitly allowing retrofits for all vessel categories, we ensure that investments in modernizing, for example, a fishing trawler’s engine or a tugboat’s hybrid system can be deemed sustainable if they achieve substantial emissions cuts. Given that fishing vessels alone contribute roughly 4% of shipping’s CO₂ emissions (and up to 0.5% of global emissions), there is a clear benefit in incentivizing their upgrade to more efficient technologies. No vessel type	

should be left without a transition pathway – this revision makes the taxonomy **comprehensive** in covering existing ships from cargo liners to service craft.

Updating and clarifying the retrofit threshold: We propose raising the required fuel savings from 10% to **15%** (post-2025) to reflect greater ambition and the improving potential of technologies. Early analysis set a 10% improvement as a minimum, but with advancing tech (e.g. air lubrication, wind assist, engine derating), higher gains are increasingly attainable. A 15%+ efficiency gain ensures that only robust retrofit projects qualify, thus channeling capital to truly impactful refurbishments. At the same time, removing the arbitrary end-2025 deadline provides **regulatory certainty**: shipowners considering retrofits in 2026 and beyond will know their investments can count as sustainable, rather than facing a cliff where only newbuilds qualify. This aligns with the reality that the maritime transition will span several decades – existing ships need continuous upgrades through the 2020s and 2030s to meet climate goals (since the full fleet turnover takes ~25-30 years). The importance of such transitional improvements is highlighted by the Commission itself, noting that “**currently there are no commercially viable zero-emission solutions for ocean-going vessels. Therefore it is important to support the transition to zero-emissions vessels**”. Retrofitting is exactly this kind of transitional action – it delivers incremental emissions cuts now and prepares vessels for future zero-emission fuels (for example, converting a ship to be ammonia-ready cuts CO₂ and avoids lock-in).

Encouraging innovation and preventing greenwashing: By broadening eligible retrofits, we encourage innovation in areas like wind propulsion, waste heat recovery, and engine retrofits for alternative fuels. These are often mid-sized projects that struggle to get financing; taxonomy alignment could unlock green loans or bonds for such refits. At the same time, the criteria are strict enough (15% efficiency gain or significant fuel switch) to avoid mere cosmetic improvements. They require quantifiable proof (through computation or sea trials) of performance gain, thus addressing any concern of greenwashing. This approach complements the newbuild criteria: whereas Sections 6.10 and 6.11 set the bar for new vessels, Section 6.12 ensures **existing ships have a route to contribute substantially** by upgrading. It acknowledges the industry’s reality that many ships operating today will still be in service in 2030, so we must incentivize cutting their emissions. Notably, SEA Europe and industry stakeholders have warned that ignoring transitional steps like retrofits would mean “**essential transition investments**” are overlooked, undermining our climate goals and Europe’s competitiveness. By refining Section 6.12 as proposed, we make the EU Taxonomy a more forward-looking tool that boosts the sustainable **retrofit market**, creates jobs in shipyards (for green conversions), and accelerates emissions reductions in the 2020-2030 decade – all while maintaining environmental integrity through clear, monitored thresholds.

Technical screening criteria: Annex I, new Section 7.x — Modernisation of shipyard facilities and maritime manufacturing infrastructure	
<u>Current text</u>	<u>Proposed new text</u>
<i>No relevant provision exists for the modernisation of shipyard facilities and maritime manufacturing infrastructure</i>	ADD NEW SECTION: 7.x Modernisation of shipyard facilities and maritime manufacturing infrastructure The activity consists of the refurbishment, retrofitting or modernisation of shipyard and maritime production sites to improve their environmental performance. <u>Substantial contribution to climate change mitigation:</u> The modernisation leads to: ○ A reduction in Scope 1 or Scope 2 GHG emissions of ≥30% compared to the previous baseline, or ○ A minimum 20% reduction in specific energy consumption (MWh/unit of output) for core manufacturing or ship repair activities. Eligible investments include electrification of shipyard machinery and docks, heat recovery systems, building envelope insulation, on-site renewable generation, energy management systems, and waste heat utilisation. <u>Do No Significant Harm (DNSH):</u> Environmental safeguards apply as per existing Annex C. Activity complies with national/local permits and marine environmental rules.
Justification: There is currently no taxonomy entry covering shipyard decarbonisation. Many shipyards are actively investing in energy efficiency, electrification, digital tools, and low-carbon heat systems — but cannot access taxonomy-aligned financing because these activities are not listed. This is an unintended gap that penalises infrastructure-focused emission reductions. The proposed activity mirrors existing entries in construction (7.1–7.7) and manufacturing (3.1–3.6) and allows the sector to contribute meaningfully to net-zero goals.	

