

Getting to Zero Coalition Action Framework: Documenting actions towards decarbonising shipping

2025 edition



AUTHORS

**Femke Spiegelenberg
Jesse Fahnestock
Layla Chamilothis**

DATA COLLECTION AND ANALYSIS

**Uliana Boiarchuk
Layla Chamilothis**

LAYOUT

Housatonic.eu

EDITOR

Justin Cremer

Getting to Zero Coalition Action Framework: Documenting actions towards decarbonising shipping 2025 edition

This report has been produced by the Global Maritime Forum for the Getting to Zero Coalition.

The Global Maritime Forum would like to thank the participants of the Getting to Zero Drafting Group and Reference Group for their contributions to the development of the framework, as well as the Getting to Zero Coalition Strategy Group for their initial ideas and reflections.



Content

EXECUTIVE SUMMARY	4
INTRODUCTION	6
Scope	6
How do we assess progress?	7
ANALYSIS OF ALL ACTIONS	9
The Getting to Zero Coalition's progress compared to the wider industry	12
ACTIONS	15
Creating enabling conditions (average score: 58%)	16
1. GHG emission reduction targets (not scored)	17
2. Transition planning (32%)	18
3. Progress reporting (63%)	19
4. IMO policy engagement (47%)	20
5. National or regional policy engagement (49%)	21
6. Rules and guidelines by classification societies (42%)	22
Incentives and market-making (average score: 42%)	23
7. Transparency in ship finance (67%)	24
8. Transparency in shipping activities (45%)	25
9. Port incentives (57%)	26
10. Green loans (17%)	27
11. Zero-emission fuel matchmaking (23%)	28
First movers and niche market development (average score: 24%)	29
12. Book and Claim (20%)	30
13. Commercialising zero-emission shipping services (6%)	32
14. Procuring zero-emission shipping services (20%)	33
15. Pilot and demonstration projects (56%)	34
16. Green corridors (16%)	35
Transition investments (average score: 23%)	36
17. Capacity building for seafarers (20%)	37
18. Zero-emission infrastructure (37%)	38
19. Zero-emission engines and vessel construction (33%)	39
20. Zero-emission retrofits (8%)	40
21. Zero-emission finance (17%)	41
Deployment of zero-emission shipping (average score: 26%)	42
22. Zero-emission fuel production facilities (54%)	43
23. Fuel production in developing countries (21%)	44
24. Fuel supply to the maritime sector (8%)	45
25. Zero-emission fuel offtake (19%)	46
26. Zero-emission vessel orders and deployment (27%)	47
CONCLUSION	48

Executive summary

The Getting to Zero Coalition Action Framework was developed as a tool to assess and document the collective actions undertaken by Coalition members. The Action Framework aims to increase transparency, showcase the Coalition as a coalition of leaders; promote collective accountability; inspire companies on what actions to undertake.

This report evaluates and showcases the actions members are undertaking to support the Coalition's shared ambition. It aims to serve not only as a benchmark for our members but also as a dynamic, evolving resource that other organisations and coalitions can reference for inspiration in advancing toward the IMO's GHG strategy.



Shared challenges: Coalition members are grappling with sector-wide challenges, including uncertainty around IMO mid-term measures, fuel pathway competitiveness, and connecting future supply and demand for zero-emission solutions.

Leadership on enabling conditions: Members are stepping up by promoting enabling conditions through target-setting, advocacy for strong decarbonisation policies, and improving emissions transparency.

Progress on zero-emission assets: Some Coalition leaders are already developing and deploying zero-emission assets, signaling early progress in the transition.

Slow advancement in niche markets: Activities in green premium markets and green shipping corridors remain largely exploratory, with more work needed to scale these first-mover initiatives.

Recommendations for the industry are to make long-term transition planning (2035 and beyond) a key priority, to leverage best practice from others through knowledge sharing initiatives, to explore and participate in innovative commercial arrangements to spread the costs and risks of the transition, and to advocate for national and international policy incentives.

Governments are encouraged to strengthen international regulation by adopting predictable and reliable measures that can deliver zero-emission shipping at scale, implement national incentives and infrastructure investments, and develop national hydrogen strategies.

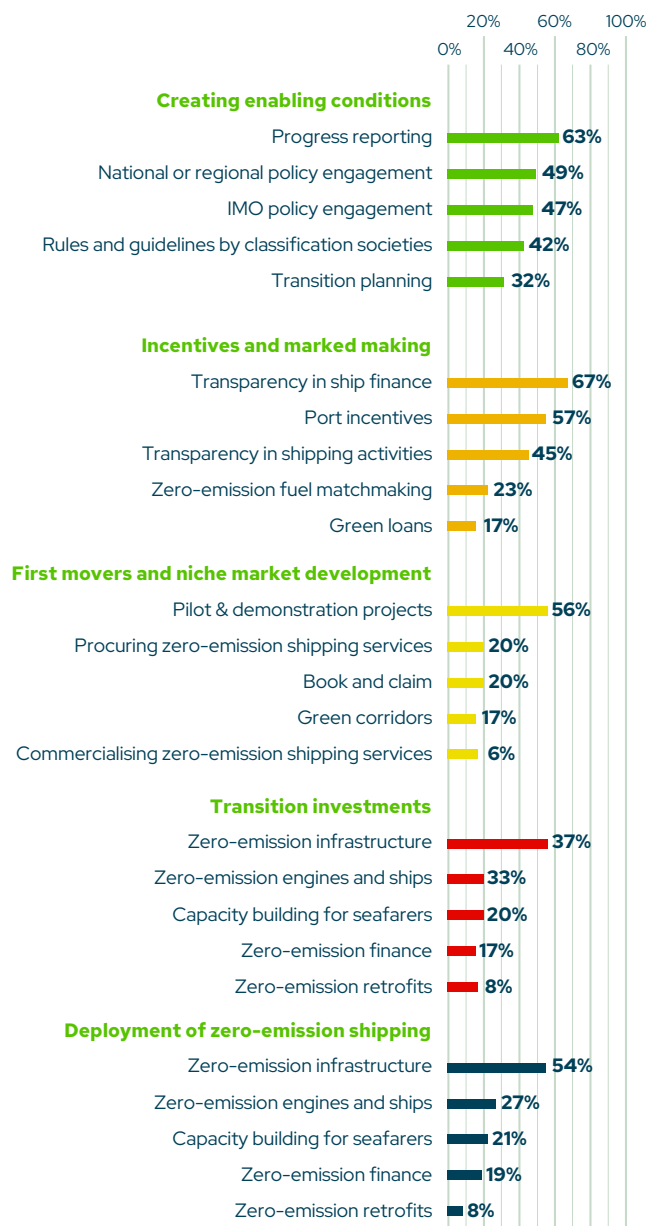


Figure: Scores per action expressed in % of the maximum score available.

Introduction

The Getting to Zero Coalition was launched in 2019. Today, more than 200 companies, key governments, and intergovernmental organisations support the Coalition's mission to make zero-emission fuels and vessels a scalable and commercial reality by 2030 to achieve shipping's full decarbonisation by 2050.

Since its inception, the Coalition has explored pathways toward full shipping decarbonisation and built a solid knowledge base. Members have already taken concrete action through activities like green corridors or committing to zero-emission vessel orders. Policy advocacy through the Coalition has also played a key role in recent policy developments, including the International Maritime Organisation's (IMO) decision to introduce more ambitious targets through its 2023 greenhouse gas (GHG) strategy, the European Union's Fit for 55, and national frameworks for international shipping.

However, as the Coalition continues to expand, it has become challenging to monitor the progress and actions members are undertaking to support their shared ambition. This has highlighted the need for a framework to systematically track and evaluate progress. The Getting to Zero Coalition Action Framework was developed as a tool to assess and document the collective actions undertaken by Coalition members. The Action Framework aims to:

- increase transparency;
- showcase the Coalition as a coalition of leaders;
- promote collective accountability;
- inspire companies on what actions to undertake; and
- provide a basis for a potential revision of the Getting to Zero Coalition Strategy in 2026 or 2028.

The Action Framework was initially conceived in the Coalition's Strategy Group and further developed through a special drafting group of Coalition knowledge partners and supporting organisations, as well as a reference group made up of industry representatives from across the maritime value chain. The process identified 26 tailored actions that could be evaluated through a tiered rating system. Each action was designed with levels of completion, or tiers, and organisations are scored based on the extent to which they fulfil each action.

Individual member companies were asked to fill out and submit a reporting form for review by the Global Maritime Forum. The results were aggregated to showcase the Coalition's collective actions and identify areas where more can be done. Individual scores remain confidential.

Scope

This report evaluates and showcases the actions members are undertaking to support the Coalition's shared ambition. It aims to serve not only as a benchmark for our members but also as a dynamic, evolving resource that other organisations and coalitions can reference for inspiration in advancing toward the IMO's GHG strategy.

The scope of the report encompasses all industry members of the Getting to Zero Coalition. The Global Maritime Forum received 76 submissions from member organisations, representing slightly less than half of the total membership, which poses a limitation to the comprehensiveness of the results. However, as this is the first year of a new initiative, this number is expected to increase in years to come.

How do we assess progress?

A prerequisite for achieving full decarbonisation of the shipping industry by 2050 is the uptake of scalable zero-emission fuels (SZEFS) in the near future. This means that by 2030, at least 5% of the annual total energy used in the shipping industry should come from SZEFS.¹ In this regard, the members of the Getting to Zero Coalition are often first movers, seeking ways to achieve this common goal either independently or through various Coalition working groups. Realising this, the Getting to Zero Coalition Strategy Group expressed a strong interest in developing a framework that would support this ambition. In response to this and the growing need for more transparency and clarity about the actions members are taking, the idea of the Action Framework emerged.

It was decided that the framework should include both actions and completion tiers to evaluate how advanced these actions are. The design and choice of actions were informed by the Global Maritime Forum and the Getting to Zero Coalition's previous research, including the reports [Getting to 5%: An action plan for delivering zero-emission fuels in shipping](#) and [Climate Action in Shipping: Progress Toward Shipping's 2030 Breakthrough](#). However, actions were added, removed, or modified based on two main principles: Firstly, the framework includes actions that extend beyond 2030 and are necessary for the full decarbonisation of the industry by 2050. Secondly, the actions are designed to address the entire value chain. Once the actions were decided upon, a questionnaire was tailored to facilitate data collection and serve as an informational guide for members on possible courses of action. The questionnaire included a list of actions, their descriptions, guidelines for answering, and grading criteria.

The questionnaire was initially sent to a group of pilot companies. Based on their answers and feedback, the questionnaire and grading system were further improved.

Data collection: The sample for data collection was limited to Getting to Zero Coalition members. The questionnaire was sent out to all members via email. Companies were asked to report based on the guidelines included in the questionnaire. To facilitate the reporting process, an FAQ and video guide were developed, along with a series of information sessions.

Data analysis method: The data analysis was divided into two stages: grading the answers according to the specified criteria, and thematic analysis to identify recurring patterns of significance.

Grading was performed by comparing the reported answers to the developed criteria, assigning the respective tier, and giving a relevant grade. Based on these criteria, the actions were graded from no score to Tier 3 to Tier 1. Tier 0 means that the answers do not correspond to the outlined action, and such answers are given zero points. Tier 3 is the lowest tier of action, with such answers receiving 1 point. The middle tier, Tier 2, awards two points. The highest level of action completion is Tier 1, which awards three points.

¹ [Climate Action in Shipping: Progress toward Shipping's 2030 Breakthrough report](#)

Some actions were only applicable to certain segments of the shipping value chain. If a company not active in that specific segment answered the question, the answer was assigned Tier 0 but was still considered during the thematic analysis to understand the wider value chain perspective.

The results were then interpreted to calculate the individual score of a company and further evaluated per action and per segment.

- An individual score was calculated by adding all the points received by the company from all the reported actions.
- To understand the level of advancement per action for all relevant Coalition members, the 'weighted' score per action was calculated using the formula: **$([\text{actual score}] / [\text{maximum score}]) \times 3$** . The actual score was calculated by adding all the points received for each individual action. The maximum score for the action was derived by multiplying the total number of submissions from relevant actors for that action by three (the highest possible score).
- The same formula was used to calculate the 'weighted' score for each segment within each action, based only on the responses from companies in that segment. This allowed for evaluating and comparing the performance of companies from different segments regarding a certain action.

The grading and thematic analysis were conducted by multiple reviewers, allowing for cross-checking and the incorporation of various viewpoints.

The answers are treated confidentially, and examples used in this report are those for which explicit consent has been given.

Limitations: The purpose of this report is to evaluate actions and increase transparency among the Getting to Zero Coalition members, which leads to limitations in scope and sample size. However, several other limitations stemmed from the reporting process and analysis design.

Firstly, 76 coalition members submitted answers to the questionnaire, accounting for roughly 50% of the total membership. While this is limiting, this sample is arguably sufficient to represent the Coalition as a whole. The response rate can be explained by the novelty of the initiative and is expected to grow on an annual basis. Secondly, although manual assessment of the answers was deemed the most appropriate method, it is recognised that the human factor introduces subjectivity and various biases. To address this, the grading and thematic analysis underwent cross-assessment by several reviewers. Thirdly, the calculation process for the 'weighted' score per action and per segment allowed for the possibility of double counting. A minor error margin was accepted; otherwise, the score was corrected manually.

Analysis of all actions

Seventy-six members of the Getting to Zero Coalition provided input on actions they are undertaking. While many companies are active in multiple segments of the shipping value chain, the input was categorised accordingly across 13 main segments: charterer, classification society, energy production, financial institution, freight forwarder, cargo owner/customer, insurer, services/consultancy, port/terminal, ship manager, shipbuilder/ equipment and technology, shipowner/operator, and other. Thirty-one companies active in ship-owning and operation provided input, and the other nine segments were, on average, represented by five relevant companies. Responses came from companies headquartered in 25 different countries.

There are, in total, 26 different action areas, with 25 of these given a score for each respondent and for each segment of the value chain. One action, setting GHG reduction targets for the company, was not scored due to scoring difficulty in relation to the wide diversity of segments and respondents. For the remaining 25 actions, this report focuses on the assessment of actions by the Coalition as a whole, rather than the actions of individual companies. Due to the wide variety of segments in the Coalition membership, some actions were only applicable to specific segments, whereas others were applicable to multiple or all segments.

For each submission, an action could be graded as incomplete (Tier 0, zero points), the minimum possible action taken (Tier 3, awarded with one point), significant action taken (Tier 2, awarded with two points), or the best action taken (Tier 1, awarded with three points). Each action has a maximum score based on the segments to which it was applicable.

For actions that were relevant to most/all segments of the value chain, the Coalition-wide scores ranged from a **low of 16%** of the possible maximum score (Green Corridors) to a **high of 63%** of the possible maximum score (Progress Reporting). **The average score for these generally relevant actions was 44%.**

Many other actions were only relevant for certain segments of the value chain. For these, the Coalition-wide scores ranged from a **low of 6%** of the possible maximum (Commercialising zero-emission shipping services) to a **high of 67%** (Transparency in ship finance). **The (unweighted) average score on these actions was 28%.**

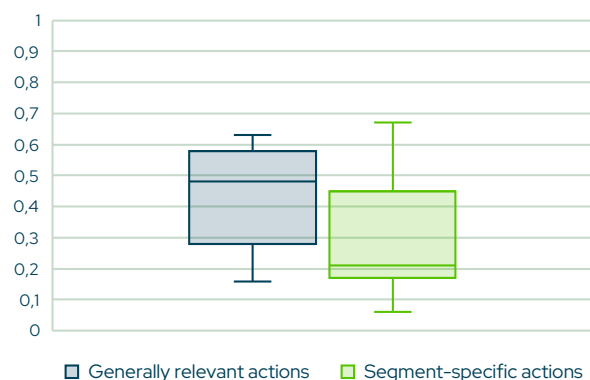


Figure 1: Range of scores across six actions of general relevance (blue) and 19 segment-specific actions (green). Scores are the average of all relevant respondents, 1=maximum.

These results suggest room to improve across the Coalition. To a certain extent, the scores below 50% reflect the early stage of shipping's transition: actions were not benchmarked against any assessment of where leading companies in the transition "should" be in 2024, and it may be that average scores of 44% and 28% reflect leading practice in the sector. For this reason, actions will be best assessed over multiple years.

In addition, certain barriers in the ecosystem prevent companies from acting at the highest level of ambition for some actions. Some of these barriers are noted in the exploration of individual actions below. However, the uncertainty surrounding the adoption of mid-term measures by the IMO plays a role in limiting ambition across a number of action areas.

Nonetheless, a qualitative review of the results clearly shows room for improvement, independent of structural factors. For many action areas, the spread between stakeholders acting at a moderate or high level of ambition was offset by a number of companies not taking any action at all or lagging significantly behind their peers. Part of the goal of this report is to develop a framework for establishing and sharing best practices that can help improve the performance of the Getting to Zero Coalition overall.

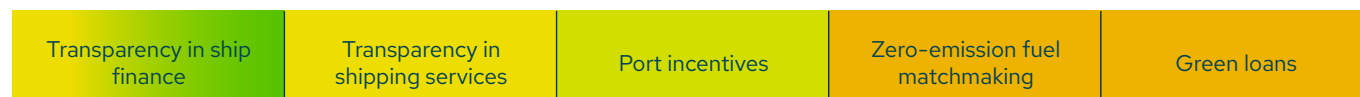
The assessed actions can be seen from a transition perspective: from creating enabling conditions to the deployment of zero-emission shipping globally via market-making, niche initiatives, and early investments in human and physical capacity. For each action, different parts of the value chain show different levels of progress (from no action in deep red to advanced action in deep green).

Creating enabling conditions

No action  Advanced action



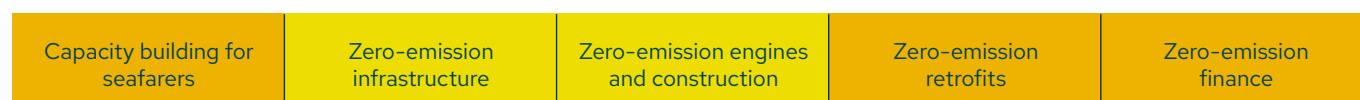
Incentives and market-making



First movers and niche market development



Transition investments



Deployment of zero-emission shipping



Figure 2: Actions in a transition perspective. For each action, the range of scores reflects the differences between relevant segments, so that actions with a single colour are generally most relevant for a single part of the value chain.

While the maritime ecosystem is working on many elements of the transition in parallel, **the areas of most ambitious action (green) are generally focused on creating enabling conditions in policy and markets for zero-emission shipping**—activities that are essential but do not require risky capital investments or other commercial commitments.

Where more investment is required, the actions being taken are less advanced. Companies in the Coalition continue to make investments in their own pilot and demonstration projects, while the level of action in niche initiatives like green corridors and the markets for premium-based zero-emission shipping services appears to be mixed at best. Some companies have begun making investments in their own assets – both in terms of infrastructure for fuel supply and through orders of dual-fuel vessels. While the Coalition has fewer members active in fuel production, some of these investments have reached advanced levels of development in line with the Coalition’s overall ambitions.

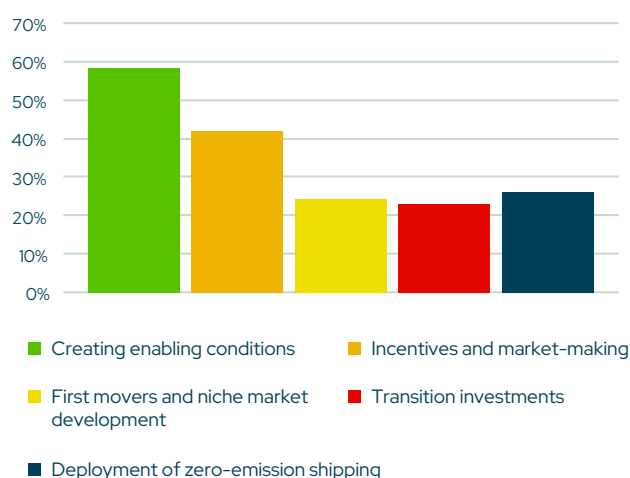


Figure 3: Coalition-wide “average” scores across the different elements of action needed for the transition to zero-emission shipping

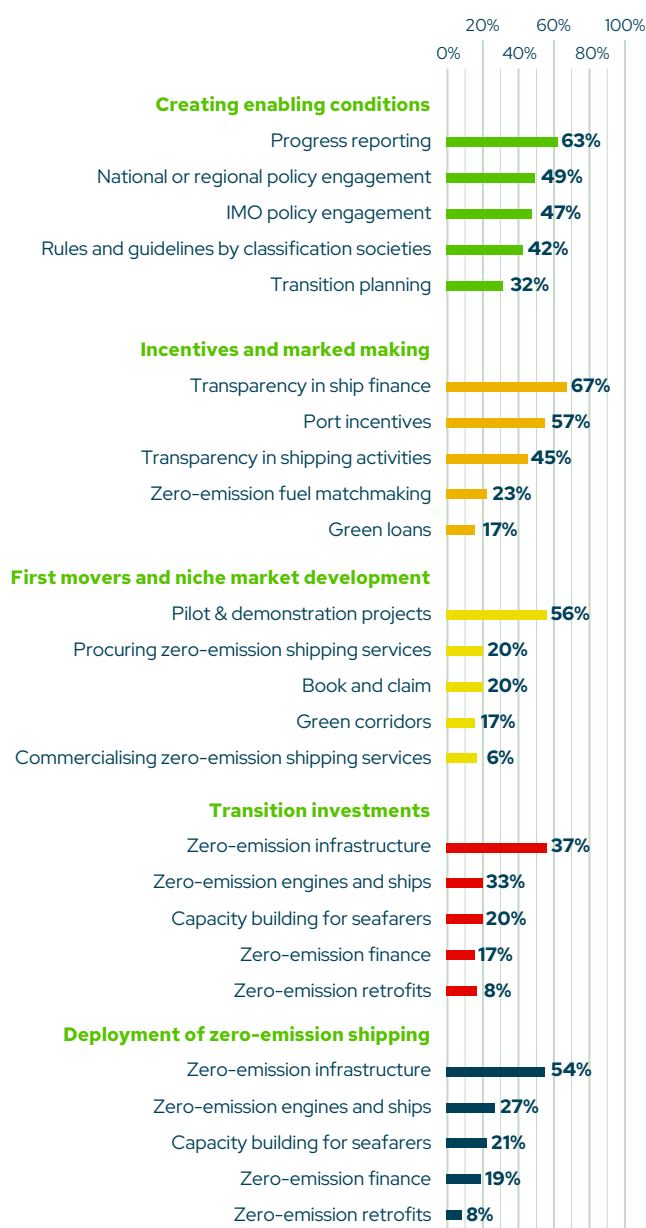


Figure 4: Scores per action expressed in % of the maximum score available.

The Getting to Zero Coalition's progress compared to the wider industry

Together with University College London (UCL) and the Race to Zero, the Getting to Zero Coalition annually releases a *Climate Action in Shipping: Progress toward Shipping's 2030 Breakthrough report* (hereafter referred to as "the Climate Action in Shipping report"). The latest edition, published in 2024, is the third to monitor and track progress towards the 5-10% scalable zero-emission fuels goal for 2030. This report reviews five categories for change—technology and supply, demand, finance, policy, and civil society—across the maritime value chain and ascertains whether actions across these levers are aligned with what would be necessary to meet the 2030 goal. The report analyses progress, on an industry-wide basis and with a focus on progress towards 2030 rather than full shipping decarbonisation. The Climate Action in Shipping report also mostly looks at the end stage of each category for 2030, whereas the Action Framework also considers the steps along the way.

In 2023 and 2024, the Climate Action in Shipping report found that the industry is only partially on track to meet its goal, with the 2024 edition expanding its scope to assess the 5-10% target in alignment with the 2023 IMO GHG Strategy. While progress is evident across all change levers, the report concludes that it's not happening fast enough. Whilst we do see early concrete action undertaken in the Coalition, overall progress appears to be similar to that of the wider industry.

The enabling conditions in this report overlap largely with the policy category in the Climate Action in Shipping report. While the two reports take different approaches—the Climate Action report looks at policy progress per se, and the Action Framework looks at the progress of companies engaging with policy—the Coalition plays an active role in policy engagements, both in national and international policy questions.

In terms of the actions related to the deployment of zero-emission shipping, Coalition members seem to be relatively on par with the wider industry. For example, zero-emission engine development is partially on track, which is strongly mirrored in the Action Framework since some of the biggest engine developers are members of the Coalition. Fuel production in the Coalition and the wider industry are also comparable in their limited scale. This is likely because all producers of zero-emission fuels face the same demand constraints. Orders of zero-emission vessels are indicated as not on track on an industry-wide basis. Here we do see progress made in the Coalition, with many shipowner members having ordered dual-fuel or zero-emission-ready vessels.

First mover and niche market developments, including actions such as green corridors, pilot and demonstration projects, and commercialisation of zero-emission services, overlap with the technology/supply and demand categories of the Climate Action in Shipping report. Zooming in on green corridors, there is more progress among Coalition members than in the wider industry. The consortia behind the most advanced green corridors are often largely made up of Coalition members. Nonetheless, progress within these corridors remains relatively limited.

Finally, looking at transition investments and the actions in the category of incentives and market-making, we see similar progress across both the Coalition and the wider industry. Transparency in emissions and climate alignment is increasing in the industry and takes a prominent role in the actions of the Coalition. Nevertheless, actions to move from transparency to concrete investments to reduce emissions remain limited. Similar to the Climate Action in Shipping report, for example, there is limited uptake of sustainability-linked loans within the Coalition, likely due to the dominance of dual-fuel vessels that can still run on fossil fuels. Banks remain hesitant to provide better financing for these vessels, instead favouring transition financing for short-term energy solutions over true zero-emission alternatives.

Recommendations for industry

Make long-term transition planning (2035 and beyond) a key priority: Industry should prioritise the development of long-term strategic plans for the transition to zero-emission shipping. Only a few investment cycles remain until full decarbonisation by 2050. To avoid locking in on temporary technologies, long-term transition planning should be part of today's decision-making.

Leverage best practices from others: Industry should actively engage in knowledge-sharing initiatives and learn from the best practices of leading peers. By learning about successful case studies and adopting proven strategies from companies that are making progress in the transition to zero-emission shipping, businesses can be inspired on what next steps to undertake. Implementing these insights into investment decisions will help accelerate the adoption of sustainable technologies, improve operational efficiency, and ensure that investments align with industry standards, thereby enhancing both short-term returns and long-term sustainability.

Explore and participate in innovative commercial arrangements to spread the costs and risks of the transition: Tailored commercial arrangements, such as green corridors and demand aggregation, can enable companies to undertake initial, risky investments. This can scale up zero-emission shipping, bring down costs of these fuels, and increase fuel availability.

Advocate for national and international policy incentives: Companies should engage with national governments to advocate for policy incentives that promote hydrogen production, encourage the development of robust national certification systems for zero-emission fuels, secure capital investments in infrastructure, and reduce financial and regulatory risks associated with zero-emission shipping solutions. Furthermore, companies should engage actively with their national governments on their positions at the IMO to support high-ambition frameworks.

Recommendations for policy makers

Strengthen international regulation by adopting predictable and reliable measures that can deliver zero-emission shipping at scale: The uncertainty surrounding mid-term measures from the IMO and other regulatory bodies is limiting ambition and investment in zero-emission shipping. Clear, consistent, and enforceable global policies— including a universal GHG price, an ambitious global fuel standard, and targeted support for scalable zero-emission fuels—are essential to provide the long-term stability needed for companies to commit to large-scale investments.

Implement national incentives and infrastructure investments: To support the international transition, national governments should establish targeted incentives, such as tax breaks, grants, and subsidies, to reduce the financial risk of investing in zero-emission vessels and fuel infrastructure. This can help the wider e-fuel value chain mature for global scale up.

Develop national hydrogen strategies: National governments should prioritise the creation of comprehensive hydrogen strategies that outline clear pathways for the production, distribution, and use of hydrogen-derived fuels for zero-emission shipping. These strategies should include investments in infrastructure, such as hydrogen production plants and storage, as well as policies to incentivise the use of hydrogen-derived fuels, including by international shipping. By establishing long-term goals and clear regulatory frameworks, governments can provide the certainty needed for private-sector investments in hydrogen, helping to create a sustainable and scalable hydrogen economy that supports the maritime sector's decarbonisation goals.

Actions

The Action Framework is made up of 26 actions, that are all differently applicable to the maritime value chain. These included:

Creating enabling conditions

- **1. GHG emission reduction targets**
Set company GHG emission reduction targets for shipping
- **2. Transition plan**
Set a transition plan or strategy to deliver on the targets
- **3. Progress reporting**
Report on progress against targets
- **4. IMO policy engagement**
Engage with international policymakers to push for high ambition at the IMO
- **5. National or regional policy engagement**
Engage with national or regional policymakers to push for ambitious policies, regulations, and legislation
- **6. Rules and guidelines**
Classification societies develop and publish robust rules and guidelines for zero-emission ready vessels, and set design, construction, maintenance and survey standards

Incentives and market-making

- **7. Transparency in ship finance**
Financial institutions increase transparency in ship finance and adopt stringent environmental, social, and governance (ESG) standards (e.g., via Poseidon Principles)
- **8. Transparency in shipping activities**
Charterers and shipowners increase transparency of their shipping activities' climate alignment (e.g., via the Sea Cargo Charter or Clean Cargo Initiative)
- **9. Port incentives**
Ports and port authorities offer commercial incentives for zero-emissions shipping (e.g. reduce waiting times or port fee reductions)
- **10. Zero-emission fuel matchmaking**
Ports and fuel service providers act as matchmakers between supply and demand of zero-emission fuels
- **11. Green loans**
Financial institutions provide better terms on green loans to companies in the shipping value chain (i.e. discounts, longer maturity)

First movers and niche market development

- **12. Book and Claim**
Charterers and shipowners develop and/or implement robust book and claim chain of custody systems
- **13. Commercialising zero-emission shipping services**
Freight forwarders and carriers commercialise zero-emission shipping to end customers

→ 14. Procuring zero-emission shipping services

Cargo owners procure zero-emission shipping services

→ 15. Pilot and demonstration projects

Take part in pilots and demonstrations for zero-emission fuels

→ 16. Green corridors

Engage in deep-sea, zero-emission green corridors targeting deployment before 2030

Transition investments

→ 17. Capacity building for seafarers

Shipping companies participate in capacity building, training development, and other similar activities to train seafarers on the safe handling of zero-emission fuels

→ 18. Zero-emission infrastructure

Ports, infrastructure providers and port handling companies invest in zero-emission (ready) infrastructure (e.g. bunkering or storage facilities)

→ 19. Zero-emission engines and ships

Engine manufacturers and shipyards develop zero-emission engines and ships

→ 20. Zero-emission retrofits

Shipping companies invest in zero-emission retrofits

→ 21. Zero-emission finance

Financial institutions invest in zero-emission shipping, for example zero-emission vessels, supporting zero-emission fuel production or infrastructure

Deployment of zero-emission shipping

→ 22. Zero-emission fuel production facilities

Fuel producers develop zero-emission fuel production facilities (including renewable energy and electrolyser capacity)

→ 23. Fuel opportunity in developing countries

Fuel producers invest in zero-emission fuel production in developing countries

→ 24. Offtake with the maritime sector

Fuel producers sign offtake agreements with the maritime sector for zero-emission fuels

→ 25. Zero-emission fuel offtake

Shipowners sign offtake agreements with zero-emission fuel producers

→ 26. Zero-emission vessels

Shipping companies purchase zero-emission vessels

This section will dive deeper into the main transition categories and their individual actions by exploring their overall score, highlighting key examples, and discussion challenges and opportunities that were reported.

Creating enabling conditions (average score: 58%)

Companies can contribute to the transition to zero-emission shipping by creating enabling conditions for change, whether internal, through target-setting, transition-planning, and reporting, or external, through advocacy and input into policies, rules, and guidelines. Coalition members were asked to provide information on six types of action in this area, though only five of these were scored.



These actions were relevant for the broadest range of coalition members across all value chain segments, and thus received the highest number of answers, and the widest range of scores.

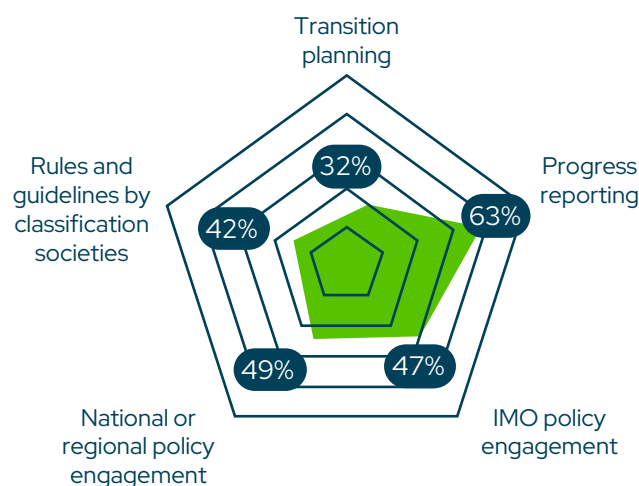


Figure 5: Scores of actions within the category of “Enabling conditions” as a % of the maximum score

1. GHG emission reduction targets (not scored)

Setting company GHG emission reduction targets is the essential first step toward achieving the overall decarbonisation of the shipping industry. Organisations are encouraged to develop ambitious targets to reach net zero by 2050, aligned with the Science Based Targets initiative (SBTi) and the “striving for” pathway of the IMO’s Revised GHG Strategy.² This action also supports targets in line with the minimum interim targets for 2030 and 2040 set by the IMO. Companies were asked to specify their relevant Scope 1, 2, or 3 emission reduction targets and explain their relation to the maritime sector.

The majority of Coalition members have established GHG emission reduction targets. Because of the difficulty of comparing across sectors—the targets set by an energy company, bank, and shipping company are likely to have fundamentally different coverage and relevance to shipping’s transition—responses were not given a score and no overall assessment of Coalition action was made. Nevertheless, whilst seven companies reported they work with SBTi to set science-based targets for decarbonisation (approximately 11%), it was striking that very few companies have set targets for 2030 and 2040. Whereas a vast majority of the companies do have 2050 targets, sub-targets are still missing. This might change as the IMO measures get adopted, forcing companies to think more concretely about their targets. Several companies indicated compliance to be an important factor that defines/raises their ambition for reduction.

² IMO’s Revised GHG Strategy stipulates the following absolute reduction targets:
 2030: -20% striving for -30%; 2040: -70% striving for -80%; 2050: -100%.
 Emission intensity targets: 2030: at least -40%; Fuel uptake target 2030: 5% striving for 10%,

2. Transition planning (32%)

Action explained

To ensure that GHG emission reduction targets are met, companies should consider the practical aspects of how they plan to achieve these targets, thereby establishing a transition plan or strategy. Companies were asked to provide a brief description of their transition plan and indicate whether it has been validated by a third party (e.g., SBTi).

- **Tier 3:** Setting a transition plan
- **Tier 2:** External communication of a transition plan
- **Tier 1:** All of the above and third-party validation

Action analysed

This action applied to all actors. 63 companies filled in this action, of which 43 received a score (16 were scored Tier 3, 24 were scored Tier 2, and three were scored Tier 1). It appears that companies are taking limited action when it comes to setting a transition plan or strategy to deliver on their targets. Transition planning scored 32% across the Coalition – meaning that companies achieved only 32% of the maximum possible score. This may reflect the uncertainties in the market around the timing of policies and the availability of fuels and technologies, all elements that make transition planning challenging. Nonetheless, there is good reason to believe that Coalition members better understand where they are and where they want to go than how they will get there.

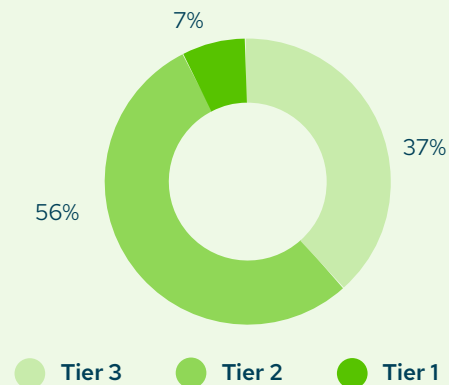


Figure 6: Share of each tier making up the total score of "transition planning"

Challenges

Various members indicated that the SBTi methodology for maritime has issues (granularity, emission factors, treatment of scope 2 and 3 emissions, etc.) that make it challenging to use as a gold standard for assessing transition plans. While SBTi was one of the third-party validation frameworks deemed acceptable when grading, no companies indicated any alternatives.

Spotlight on best practices

Höegh Autoliners has developed a detailed transition plan, which has been third-party validated and is expected to be certified as SBTi compliant. It includes ongoing actions (dual-fuel ships for delivery in 2027), committed funds for new-build investments, commercial/collaboration agreements with value chain partners, and phase-out plans for conventional assets.

3. Progress reporting (63%)

Action explained

Transparency increases awareness and fosters accountability; therefore, companies were asked to describe how they report progress against their targets. This is how companies were graded:

- **Tier 3:** Tracking progress internally
- **Tier 2:** Tracking progress and communicating externally
- **Tier 1:** All of the above, and validating progress with the help of a third party, such as auditors

Action analysed

Among the actions relevant Coalition-wide, 'progress reporting' saw the most answers submitted and the highest scores, with 28 respondents reporting progress against their targets publicly and having these reports validated by a third party. This action applied to all actors. 66 companies filled in this action, of which 59 received a score (8 were scored Tier 3, 23 were scored Tier 2, and 28 were scored Tier 1).

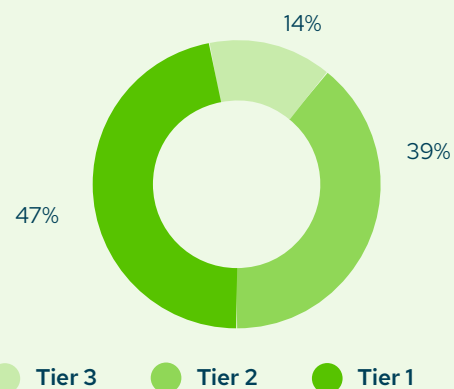


Figure 7: Share of each tier making up the total score of "progress reporting"

Challenges and opportunities

Challenges and opportunities: Reporting on progress towards GHG emission reductions can be complex and requires accurate data collection, standardised methodologies, and verification across global operations, which may be difficult for companies with diverse fleets and supply chains. Nevertheless, reporting enhances credibility, strengthens stakeholder trust, and can provide a competitive advantage by demonstrating commitment to sustainability, attracting environmentally conscious investors, customers, and business partners.

Spotlight on best practices

Pacific Basin targets net-zero emissions by 2050 compared to its 2008 baseline. In 2023, its fleet's carbon intensity (Energy Efficiency Operating Indicator) fell 12% to 8.49 grams of CO₂ per tonne-mile, putting it on track to meet its greenhouse gas reduction goals. Since 2008, Pacific Basin has reduced carbon intensity by 40%, averaging a 3% annual reduction, and it expects to further reduce it by more than half by 2030. The American Bureau of Shipping (ABS) validated the company's 2023 emissions data. See pages 24 and 83 of Pacific Basin's 2023 [Sustainability Report](#) for details.

4. IMO policy engagement (47%)

Action explained

International policy is one of the key drivers of industry decarbonisation, but its eventual implementation remains unclear. Therefore, active engagement to advocate for higher ambitions at the IMO is crucial. Setting highly ambitious policies at the international level can create a positive feedback loop in which international policies and industry actions reinforce each other.

For this action, companies described their climate policy engagement with industry associations, including key messages and how their positions align. Companies were graded as follows:

- **Tier 3:** The company aligns its positions and messages with relevant industry associations
- **Tier 2:** The company supports positions and messaging that go beyond the industry association's positions in terms of scope, specificity, or climate ambition
- **Tier 1:** The company supports positions and messaging aligned with those communicated by the Getting to Zero Coalition

Action analysed

Roughly half of the companies that provided information pertaining to this action indicated that their messaging regarding the IMO was aligned with the Getting to Zero Coalition's [Ambition Statement](#), though few companies provided examples of such messaging. This action applied to all actors. 60 companies filled in this action, of which 48 received a score (17 were scored Tier 3, 5 were scored Tier 2, and 26 were scored Tier 1).

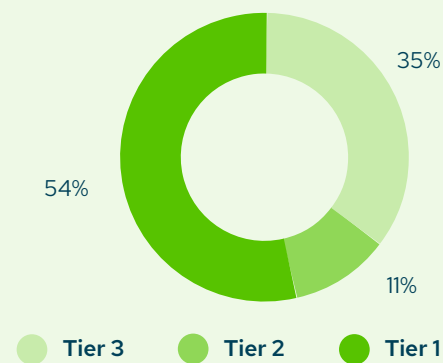


Figure 8: Share of each tier making up the total score of "IMO policy engagement"

Challenges and opportunities

Many IMO delegations lack direct contact with the wider maritime value chain and would thus benefit from understanding how industry perceives policy options and what is important for business cases for zero-emission shipping. However, a key challenge is that policy discussions often take place on a technical level and require active participation in the discussions. Sharing knowledge and insights across companies and knowledge partners is critical.

Spotlight on best practices

Many members engage actively with the IMO by, for example, participating in discussions through their national shipowners' associations, international associations such as the **International Chamber of Shipping**, or through task forces like the Getting to Zero Coalition's Policy Action Group. Many companies also actively engage through their national governments. Some companies indicated having joined their national delegations at the IMO and have coordinated with their national delegations to highlight the need for a universal GHG levy. For example, some Getting to Zero Coalition members have actively engaged with the Indian government to showcase how a universal GHG levy is in the best economic interest of the country and how it can unlock their renewable energy and hydrogen potential.

5. National or regional policy engagement (49%)

Action explained

Engagement with national and regional policymakers to advocate for ambitious policies, regulations, and legislation helps drive the necessary changes to accelerate decarbonisation efforts. The progress companies can make in relation to this action is as follows:

- **Tier 3:** The company aligns its positions and messages with relevant industry associations
- **Tier 2:** The company supports positions and messaging that go beyond the industry association's positions in terms of scope, specificity, or climate ambition
- **Tier 1:** The company supports positions and messaging aligned with those communicated by the Getting to Zero Coalition

Action analysed

Member companies reported engaging with national and regional governments at a similar level to their engagement with the IMO, with responses averaging a bit higher at 49%. This aligns with the fact that much of this engagement appears to be linked to IMO positioning, resulting in an overlap with Action 4, 'IMO policy engagement'. Nonetheless, there appear to be strong connections between Getting to Zero's membership and national governments.

For both IMO and national policy engagement, companies indicated a preference to engage indirectly in policy processes, with some wary of direct engagement being perceived as lobbying. Many companies highlighted the role of the Getting to Zero Coalition as messengers. This action applied to all actors. 62 companies filled in this action, of which 49 received a score (18 were scored Tier 3, 7 were scored Tier 2, and 24 were scored Tier 1).

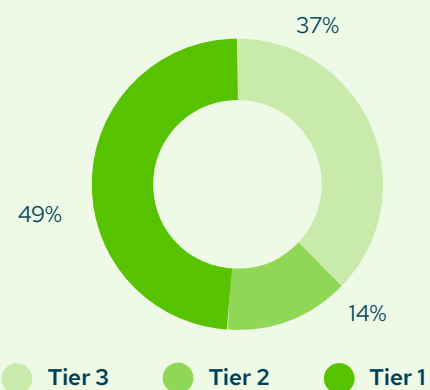


Figure 9: Share of each tier making up the total score of "national policy engagement"

Challenges and opportunities

Companies indicated that challenges were similar to those faced in engaging with IMO policy processes.

Spotlight on best practices

The members of the Australia-East Asia Iron Ore Green Corridor and the Getting to Zero Coalition Task Force have been engaging actively with their national governments through their green corridor work. The group published a [position paper](#) in March 2024 to highlight the national policy opportunity to support international shipping decarbonisation. This has resulted in more active engagement of the **Australian government** in this work and Australia is now exploring wider green corridor support.

6. Rules and guidelines by classification societies (42%)

Action explained

Classification societies should increase their focus on zero-emission-ready vessels and zero-emission fuels. They can develop and publish rules and guidelines for these types of vessels and fuels, as well as establish design, construction, maintenance, and survey standards. Activities were graded as follows:

- **Tier 3:** Classification societies have started working on developing the relevant rules and guidelines
- **Tier 2:** Some rules, guidelines, and/or standards are already developed while others are still in progress
- **Tier 1:** All aforementioned items are in place and are common practice

Action analysed

Given that only a few member companies are directly involved in setting rules and guidelines, this score reflects the broader progress in developing such guidelines for zero-emission fuels, which are at various stages of development. This action applied to classification societies. 15 companies, of which three classification societies, filled in this action. Only classification societies received a score (two were scored Tier 2, and one was scored Tier 1).

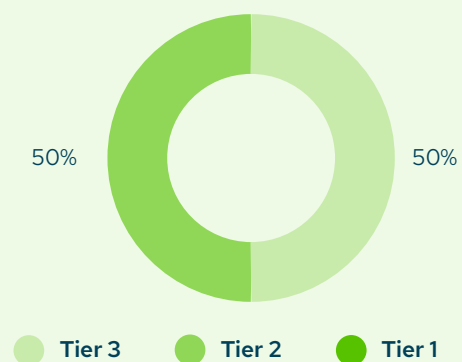


Figure 10: Share of each tier making up the total score of "rules and guidelines by classification societies"

Challenges and opportunities

Respondents did not specify any particular challenges related to this action.

Spotlight on best practices

China Classification Society has publicly released three rules and [guidelines for zero-emission-ready vessels](#). **ClassNK** released "Guidelines for Ships Using Alternative Fuels (Edition 3.0)" in May 2024. This latest edition, in addition to providing safety requirements for ships using methanol, ethanol, liquefied petroleum gas, and ammonia as fuel, also includes requirements related to hydrogen-fuelled ships and provides guidance for their design.

Looking at the wider stakeholder group, **Renewable Hydrogen** is collaborating with a leading classification society to plan two-way cargo ships between Australia and export markets. These ships would transport liquid e-fuels (e.g., ammonia or methanol) from Australia to international markets. This can feed into the classification societies' development of relevant guidelines.

Incentives and market-making (average score: 42%)

Companies can help create the markets for zero-emission shipping by providing information, offering incentives, or making commercial connections. Getting to Zero Coalition members taking actions in these five areas include financial institutions, which provide transparent information about ship finance and incentives in the form of green loans; charterers and shipowners, which can also provide transparency about the emissions associated with their services; and ports, which may offer incentives to customers for greener operations but also can play a match-making role between buyers and sellers of zero-emission fuels.

Transparency in ship finance	Transparency in shipping services	Port incentives	Zero-emission fuel matchmaking	Green loans
------------------------------	-----------------------------------	-----------------	--------------------------------	-------------

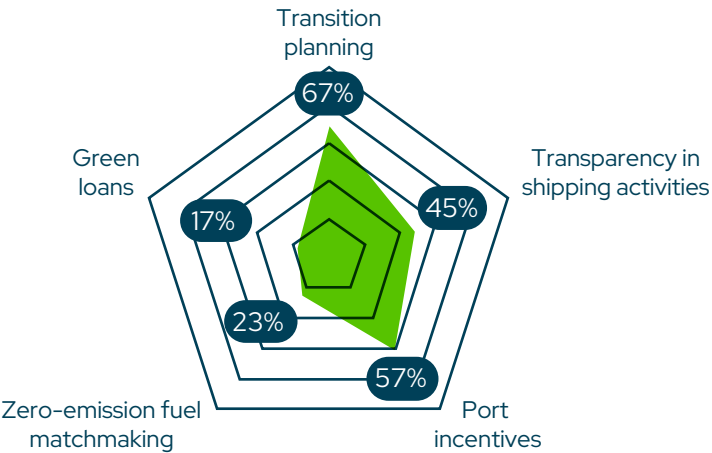


Figure 11: Scores of actions within the category of “Incentives and market-making” as a % of the maximum score

7. Transparency in ship finance (67%)

Action explained

A first step financial institutions can take towards embedding environmental considerations and incentivising international shipping decarbonisation is to increase transparency and adopt stringent ESG standards through initiatives like the Poseidon Principles. Reporting for this action was graded as follows:

- **Tier 3:** Transparent disclosure of portfolio emissions in annual reports
- **Tier 2:** Benchmarking against other companies, for example, through membership in ESG transparency organisations
- **Tier 1:** Benchmarking against the IMO trajectories or SBTi, through membership in ESG transparency organisations like the Poseidon Principles

Action analysed

This action applied to financial institutions only. 25 companies filled in this action but only four were financial institutions. All financial institutions received a score (all were scored Tier 1). Within the small sample of financial institutions that provided responses, there was a high degree of transparency, with companies who are also signatories of the Poseidon Principles benchmarking their emissions against the IMO's revised GHG strategy. All banks in the Coalition (seven) are part of the Poseidon Principles and all insurers in the Coalition (three) are part of the Poseidon Principles for Marine Insurance.

It is worth noting that a larger number of financial institutions within the Coalition— beyond just those that submitted the Action Framework this year— overlap with Poseidon Principles signatories. This overlap enhances the credibility and reliability of the Coalition's overall transparency, which further strengthens the relatively high score this action achieved.

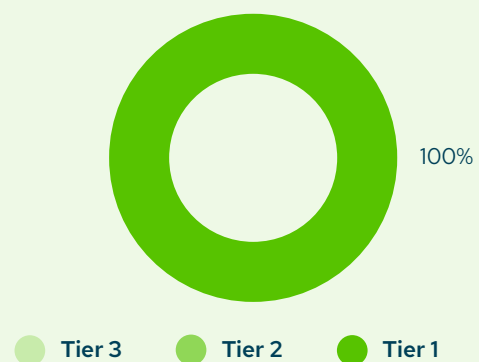


Figure 12: Share of each tier making up the total score of "transparency in ship finance"

Challenges and opportunities

A key challenge for banks joining the Poseidon Principles is the potential impact on their existing shipping portfolios, as stricter emissions reporting may reveal high climate risks, leading to pressure for portfolio restructuring. This could result in the need to reduce exposure to non-compliant clients, adjust lending criteria, or face reputational risks if the bank is perceived as financing high-emission vessels.

Spotlight on best practices

Citigroup is one of the founders of the Poseidon Principles. The company Citigroup invests in share comprehensive fuel consumption data with the bank. This transparency allows financial institutions to accurately assess the fleet's carbon intensity and evaluate whether its operations meet the environmental benchmarks set by the Poseidon Principles, promoting responsible investment and the transition to low-carbon practices. To illustrate how this could impact the sector, **Torm** secures 40% of its financing through ship finance institutions that are signatories to the Poseidon Principles. The company annually reports emissions data to Poseidon Principle signatories and holds regular progress review meetings with two of these financial institutions.

8. Transparency in shipping activities (45%)

Action explained

Charterers and shipowners can increase the transparency of their shipping activities' climate alignment (e.g., via the Sea Cargo Charter or Clean Cargo Initiative) in the following ways:

- **Tier 3:** Reporting their emissions in annual reports
- **Tier 2:** Benchmarking against other companies, for example through membership to ESG-transparency organisation(s)
- **Tier 1:** Benchmarking against IMO/ SBTi trajectories, for example through membership to ESG-transparency organisation(s)

Action analysed

This action applied to shipowners and charterers. 36 companies filled in this action, of which 23 received a score (12 were scored Tier 3, three were scored Tier 2, and eight were scored Tier 1). The Coalition's chartering, ship owning, and operating membership overlaps somewhat with membership in the Sea Cargo Charter and (less commonly) the Clean Cargo Initiative. Sea Cargo Charter members, in particular, received a Tier 1 score as they benchmark their emissions against the IMO's new GHG strategy.

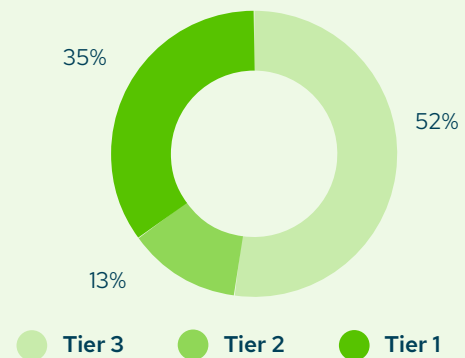


Figure 13: Share of each tier making up the total score of "transparency in shipping activities"

Challenges and opportunities

A key challenge for charterers and shipowners joining the Sea Cargo Charter is the increased scrutiny of their emissions performance, which could expose inefficiencies in their operations and fleet. This may lead to pressure to invest in cleaner technologies, adjust chartering strategies, or risk losing business from partners committed to decarbonisation goals.

Spotlight on best practices

BHP uses DNV Veracity as a platform to validate, verify, and report carbon emissions from its shipping activities. Thirteen members of the Coalition are also engaged in the Sea Cargo Charter. For example, **Klaveness** is a founding member of the Sea Cargo Charter, through which it reports both its ownership and chartering alignment to the IMO trajectory. It is also an active contributor to the Sea Cargo Charters's Steering Committee and Technical Committee, as well as an outreach working group to increase membership amongst the industry.

9. Port incentives (57%)

Action explained

Ports and port authorities play an important role in transitioning to a zero-emission future. They can offer commercial incentives for zero-emission shipping, such as reducing waiting times or port fee reductions. There were two tiers scored to assess the extent to which ports incentivise the energy transition:

- **Tier 2:** Ports and port authorities are exploring what relevant incentives can be offered
- **Tier 1:** Actively offering incentives

Action analysed

This action applied to ports and terminals only. Seven companies filled in this action, of which six received a score (one was scored Tier 2, and five were scored Tier 1). More than half of the ports and terminal operators who provided data already have incentives in place for greener shipping. Many of these are currently based on the [Environmental Ship Index \(ESI\)](#) and, therefore, do not primarily support the use of zero-emissions fuels and vessels. However, such incentives create a market precedent that can be expected to encompass new fuels in the future.

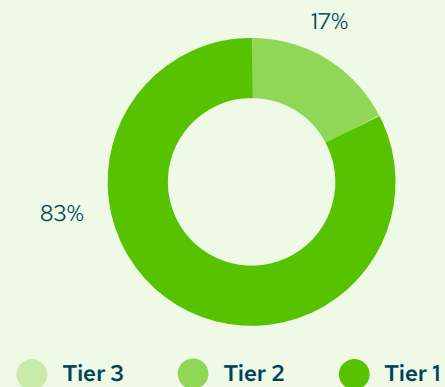


Figure 14: Share of each tier making up the total score of "port incentives"

Challenges and opportunities

Vessels that reduce emissions "virtually" through pooling under Fuel EU Maritime or through voluntary book and claim systems may wish to claim eligibility for fee reductions but would not be reducing local emissions at the port.

Spotlight on best practices

Various ports, including **Bremen/Bremerhaven** and the **Port of Antwerp-Bruges**, have been involved in the development of the ESI since 2011 and base their port fee reductions on the index. This index aims to reward the reduction of well-to-wake emissions and local air pollution. **Bremen/Bremerhaven**, for example, offers discounts on port fees for the best 25 performing ships per quarter, amounting to 15% for each port call, up to a maximum of €4,500. The discount is granted at the end of the year upon application. **Tata Steel** has secured priority status at ports in India to help reduce vessel waiting times and successfully negotiated port fee adjustments for lower-carbon vessels, aiming to encourage the adoption of alternative fuels across Indian ports.

10. Green loans (17%)

Action explained

Loans directed at zero-emission shipping (including zero-emission fuel production, infrastructure and/or vessels) are considered green loans for the purpose of this Action Framework. To incentivise the energy transition, financial institutions can offer better terms on green loans to companies in the shipping value chain, i.e. discounts or longer maturities. Coalition members were asked to disclose the details of their green loan terms compared to conventional loans, along with the technology/fuel focus, total green loan portfolio, and the ratio of green loans to their total portfolio. Grading went as follows:

- **Tier 3:** Exploring the possibility of green loans
- **Tier 2:** Implementing the practice of offering better terms for green loans
- **Tier 1:** Tracking the annual growth in the number of green loans

Action analysed

This action applied to financial institutions. Three companies filled in this action, of which only one received a score (Tier 2). While very few members provide green loans, many noted that they were inhibited by structural factors, including the EU Taxonomy's treatment of green loans, which excludes dual-fuel ships capable of running on fossil fuels.

Multiple respondents noted their activity in transition finance, highlighting that it is currently a more suitable alternative to green finance for hard-to-abate sectors. Unfortunately, transition loans are not focused on zero-emission alternatives, thus indicating a structural mismatch between what incentives financial actors can currently offer and the Coalition's ambitions.



Figure 15: Share of each tier making up the total score of "green loans"

Challenges and opportunities

Green loans to shipping are limited due to the current focus on dual-fuel vessels. As these can still run on fossil fuel, it's more challenging for banks to provide better loans. As a result, financial institutions are turning to transition financing, which focuses on short-term solutions rather than supporting the shift to zero-emission alternatives.

Spotlight on best practices

DNB Bank provides green loans with a rebate of ten base points. Furthermore, it has developed the [Transition Finance Framework](#) together with member **Odfjell** to support transition investments through bonds and loans for retrofits and new builds, amongst other purposes.

Whilst many shipowners indicated that "better terms" for green loans are generally rare in the current market, some indicated that they have signed ESG-linked loans for their newbuilds, all of which were linked to reducing the fleet's carbon intensity. For example, **Star Bulk** entered into agreements with three European financial institutions in 2021 for three sustainability-linked facilities totalling approximately \$245 million. These facilities feature an annual sustainability margin adjustment mechanism tied to Star Bulk's commitment to progressively reduce the carbon intensity of its fleet.

11. Zero-emission fuel matchmaking (23%)

Action explained

Ports, alongside fuel service providers, have a unique position in the shipping value chain and can act as matchmakers between the supply and demand sides of zero-emission fuels, for example, by enabling the bunkering of these fuels. These matchmaking abilities were graded as follows:

- **Tier 3:** Launching a request for proposals or an expression of interest for the production and bunkering of zero-emission fuels
- **Tier 2:** Procuring a solution for bunkering zero-emission fuels
- **Tier 1:** Full-scale zero-emission fuel bunkering

Action analysed

Activity levels remain limited, though a handful of ports are entering this space. This action applied to ports and terminals. 11 companies filled in this action, of which six received a score (four were scored Tier 3 and two were scored Tier 2).

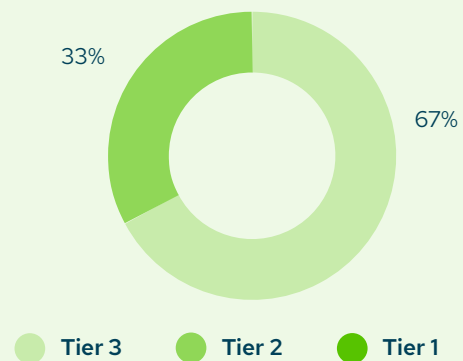


Figure 16: Share of each tier making up the total score of "zero-emission fuel matchmaking"

Challenges and opportunities

This action is naturally limited by the currently scarce demand for zero-emission fuels and the limited production and availability of these fuels.

Spotlight on best practices

The **Port of Amsterdam** actively approaches fuel service providers, offering its public quays for potential pilots aimed at bunkering new alternative fuels. The **Port of Seattle** is spearheading the development of a Sustainable Maritime Fuels Collaborative in the Pacific Northwest, with the aim of bringing together supply and demand stakeholders to accelerate the development and uptake of sustainable maritime fuels in the region. The initiative seeks to overcome competitive barriers, aggregate demand, foster supportive policies, and leverage the Pacific Northwest's strengths in clean technology and maritime innovation.

First movers and niche market development (average score: 24%)

In recent years, several first-mover companies have started initiatives to plan, coordinate, and make initial investments in niche markets that prove the concept of zero-emission shipping. Coalition members provided input about five such actions related to pilots and demonstrations, green shipping corridors, and the commercialisation of premium-based shipping services.

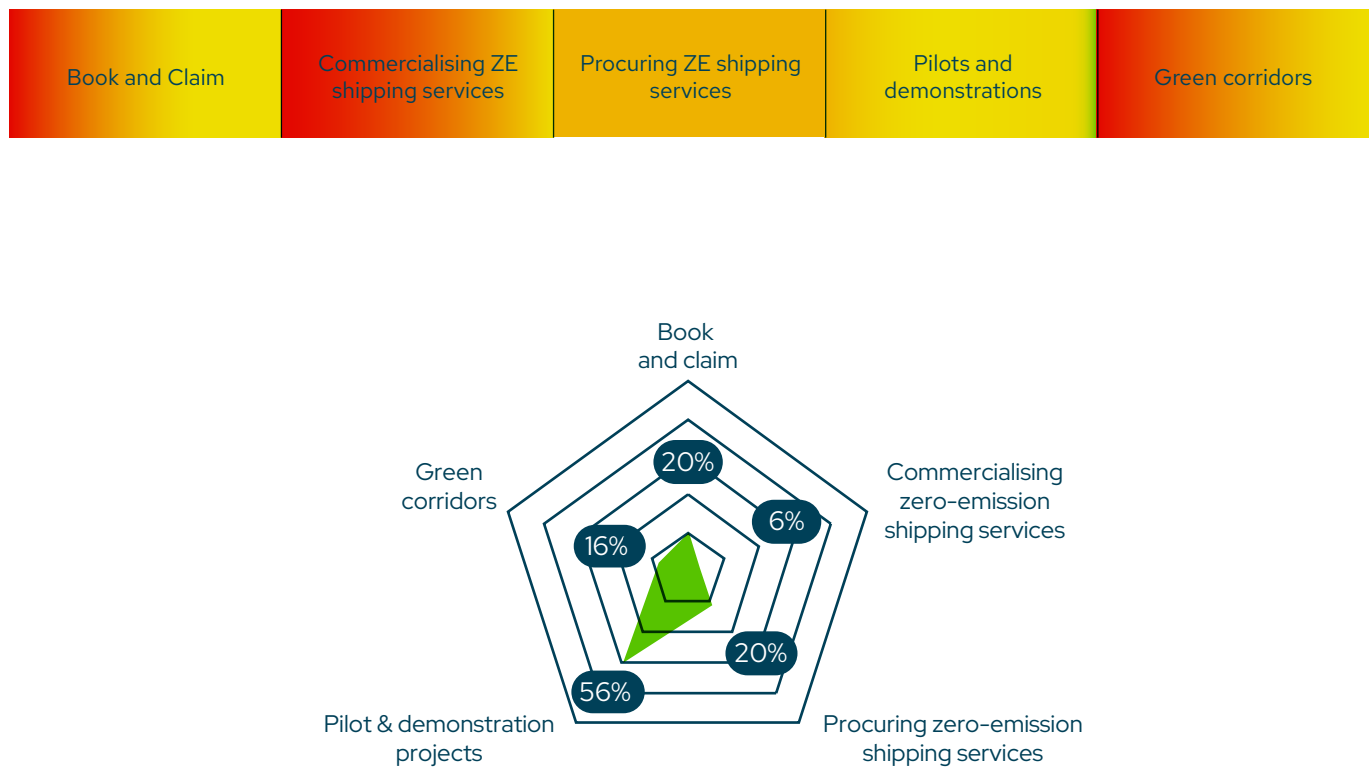


Figure 17: Scores of actions within the category of “First movers and niche market development” as a % of the maximum score

12. Book and Claim (20%)

Action explained

This action looks at the extent to which charterers and shipowners are developing and/or implementing robust book and claim chain of custody systems.

A book and claim chain of custody system is a method for tracking specific attributes of fuel (such as GHG emissions) separately from the actual physical movement of the fuel within the transportation supply chain. Low-emission solution providers can “book” the emissions profile associated with fuels into a tracking system. The system then allows a different customer, regardless of location, to “claim” the emissions profile of that fuel for climate disclosures. Book and claim systems assume the acceptability of at least one kind of “insetting” or transferring credits for emissions reductions from a company’s vessel that uses zero-emission fuel to another of the company’s vessels that does not. This enables companies to support low-carbon fuel production and reduce their reported emissions, even if the fuel they physically receive isn’t the exact batch of fuel produced by the low-emission provider.

Here’s how we graded company actions:

- **Tier 3:** Company actively engages in working groups or initiatives related to book-and-claim
- **Tier 2:** Company offers verified insets
- **Tier 1:** Adding additionality assurance to the offered insets

Action analysed

This action applied to shipowners/-operators and charterers. 29 companies filled in this action, of which 10 received a score (four were scored Tier 3, five were scored Tier 2, and one was scored Tier 1). Companies scored 20% of the total possible points on this action. The analysis showed that book and claim activities are a mix of proprietary programmes and participation in third-party initiatives. While many companies expressed interest, their views on the demand for insets varied widely. This likely reflects the early stage of the voluntary market and the uncertainties surrounding the requirements for a credible offering.

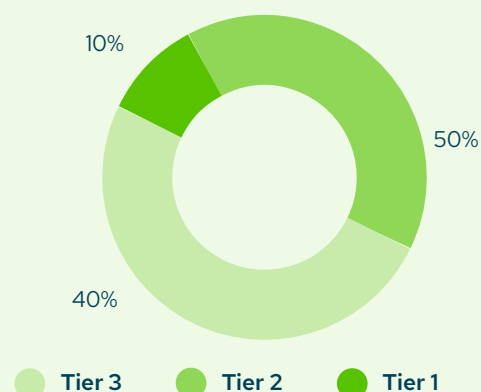


Figure 18: Share of each tier making up the total score of “book and claim”

Challenges and opportunities

Book and claim faces multiple challenges. Firstly, the demand for carbon insetting through book and claim is still limited, though companies have indicated a growth in volumes. Secondly, “additionality” is a key challenge for book and claim in shipping because it requires clear proof that the zero-emission fuel used—and sold as a claim—actually leads to real, extra emissions reductions that would not have happened without the scheme; ensuring this is difficult in a global, complex shipping market where tracking, verification, and avoiding double counting are major concerns. Thirdly, certification and verification are challenges because they require robust,

transparent, and widely accepted systems to verify that zero-emission fuels have been produced, used, and properly accounted for.

Spotlight on best practices

Hapag-Lloyd has developed its own book and claim system, called [Ship Green](#), for its biofuel product. While the process is verified and the biofuel is certified through International Sustainability and Carbon Certification (ISCC), no additionality assurance is offered yet. Besides this, Hapag-Lloyd has supported the Getting to Zero Coalition on projects and papers

Actions

regarding book and claim. On the fuel producer side, **Yara International** operates an internal book and claim scheme to expand access to its green fertilizers for more customers. Additionally, Yara is actively involved in developing and piloting a global ammonia book and claim scheme in collaboration with the Ammonia Energy Association.

While the Action Framework targeted companies, the Coalition's supporting organisations also actively contribute to book and claim systems. The **Maersk-McKinney Møller Center**, for example, has developed "**Katalist**", a book and claim registry that connects shipping companies running on alternative fuels with cargo owners aiming to reduce their Scope 3 emissions.

13. Commercialising zero-emission shipping services (6%)

Action explained

Zero-emission shipping should be encouraged through incentives on both the supply and demand sides. Freight forwarders and carriers can help drive adoption by offering and promoting these services to end customers. In the Action Framework, companies were asked to provide an explanation of what/how zero-emission shipping is offered, and grading was as follows:

- **Tier 3:** Zero-emission product offered
- **Tier 2:** Zero-emission products on offer grow annually
- **Tier 1:** Zero-emission products constitute 10% of the total products offered

Action analysed

This action applied to freight forwarders, shipowners/operators, and charterers. 11 companies filled in this action, of which four received a score (two were scored Tier 2 and two were scored Tier 1). While many shipowners and charterers expressed interest in offering zero-emission shipping as a premium service, demand for such services remains limited. However, among those already providing zero-emission options, several reported consistent year-on-year growth, suggesting that while the market is still fragmented and underdeveloped, there is emerging potential. Current offerings are largely centred around the blending of biofuels, which, while not fully zero-emission, should still be compatible with zero-emission services when scalable zero-emission fuels become available.

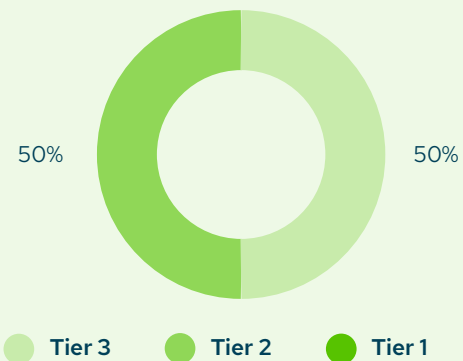


Figure 19: Share of each tier making up the total score of "commercialising zero-emission shipping services"

Challenges and opportunities

The main challenge is that demand for zero-emission shipping is still low, making it hard for companies to invest in and scale up these services. Without strong customer demand, many companies are hesitant to commit resources.

Spotlight on best practices

Höegh Autoliners has been commercialising zero-emission shipping through biofuel and had a record-high delivery in 2023 of around 10,380 metric tonnes of ISCC-certified sustainable biofuel (B100), more than doubling its 2022 volumes. At the same time, Höegh is preparing for its vessels to run on green ammonia, facilitating the opportunity for zero-emission shipping to its customers.

14. Procuring zero-emission shipping services (20%)

Action explained

This action focuses on the extent to which cargo owners are procuring zero-emission shipping services. Companies were asked to report the total volume of cargo transported using zero-emission services and the percentage this represents of their total annual cargo volume.

- **Tier 3:** Procurement of some zero-emission shipping services
- **Tier 2:** Procurement of zero-emission shipping services increases year-on-year
- **Tier 1:** Total cargo procurement of at least 10%

Action analysed

This action applied to cargo owners and charterers. 10 companies filled in this action, of which four received a score (three were scored Tier 3 and one was scored Tier 1). Compared to the commercialisation of zero-emission shipping services, more cargo-owning member companies reported attempting to procure zero-emission shipping services. However, many of these companies noted that the current offerings are insufficient to meet their emission reduction goals, largely due to limited fuel availability.

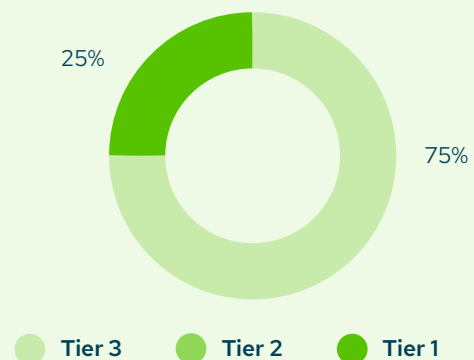


Figure 20: Share of each tier making up the total score of "procuring zero-emission shipping services"

Challenges and opportunities

While more cargo-owning companies are trying to use these zero-emission shipping services, the limited supply of the necessary clean fuels is a challenge to meeting their emission reduction goals.

Spotlight on best practices

Mining company and cargo owner **BHP** published an expression of interest for the long-term charter of ammonia-fuelled Newcastlemax bulk carriers for iron ore shipping between Australia and East Asia, to be awarded by June 2025. The first ammonia vessel delivery is expected in the second half of 2026 or the first half of 2027.

15. Pilot and demonstration projects (56%)

Action explained

This action applied to all actors. 64 companies filled in this action, of which 51 received a score (eight were scored Tier 3, six were scored Tier 2, and 37 were scored Tier 1). Before large-scale implementation of zero-emission fuels and vessels, their testing through pilots and demonstration projects is crucial. Since the projects and technologies can vary in nature, companies were asked to explain the technology/fuel focus, project scale, technological/commercial maturity, and the organisations' role in the project.

- **Tier 3:** A consortium or partnership is formed, and a pilot or demonstration project is planned
- **Tier 2:** Pilot or demonstration project enters its laboratory testing phase
- **Tier 1:** The project is either completed or currently in the phase of normal operations

Action analysed

As documented in the annual [Mapping of Zero-Emission Pilot and Demonstration Projects](#) report, Coalition members are very active in this space. The strong performance within this action is attributed to a significant number of completed pilot projects and the ongoing transition toward full commercialisation for many relevant technologies. Ports, charterers, shipowners, and fuel producers all achieved high scores in this area.

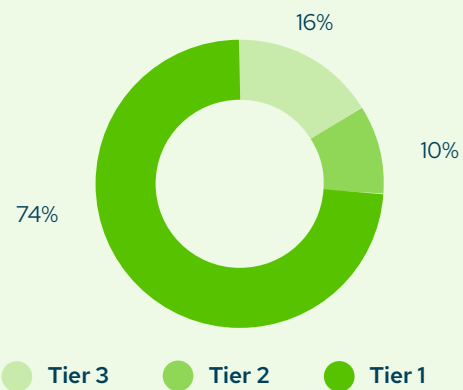


Figure 21: Share of each tier making up the total score of "pilot and demonstration projects"

Challenges and opportunities

Respondents did not indicate any specific challenges related to undertaking pilot and demonstration projects.

Spotlight on best practices

Woodside Energy developed a liquid hydrogen ship with its partners. [This pilot](#) focuses on a flexible offtake of hydrogen in shipping and build upon previous pilots studying vessel design and technological improvements. Many shipowners have also completed projects involving ammonia-fuelled ships, which have now led to vessel designs and orders. For example, **ONE** has been awarded an approval in principle for an [ammonia dual-fuelled vessel](#). Pilot projects are also taking place on the technology side. **Lubrizol** has tested technologies for methanol fuels, which are now approved and expected to scale up. Several Coalition members, including **Rio Tinto**, **Yara Clean Ammonia**, and **Lloyd's Register**, were also involved in a [consortium](#) led by the Global Centre for Maritime Decarbonisation, which successfully conducted ship-to-ship transfers of ammonia at anchorage.

16. Green corridors (16%)

Action explained

Industry actors across the entire shipping value chain are encouraged to engage in deep-sea, zero-emission green corridors, with the goal of deploying them before 2030. Green corridors are specific trade routes where the feasibility of zero-emission shipping is catalysed by public and private action. This collaborative action can play a vital role in accelerating the industry transition to zero emissions. As a result, companies were asked to provide a brief explanation of their role in a green corridor, along with examples and/or details regarding project scale, focus, and technological/commercial maturity.

The maturity of the action was divided into the following stages:

- **Tier 3:** The green corridor is in the planning stage (including feasibility assessments and an implementation plan)
- **Tier 2:** The green corridor is in the execution stage (including asset-specific plans and investment decisions)
- **Tier 1:** The green corridor is in operation

Action analysed

This action applied to all actors. 47 companies filled in this action, of which 23 received a score (10 were scored Tier 3 and 13 were scored Tier 2). The level of activity was broad but at an early stage, in line with the findings of the [Annual Progress Report on Green Shipping Corridors](#), which noted that many such initiatives are hitting a “feasibility wall,” struggling to implement corridors without government support to reduce costs and mitigate risks.

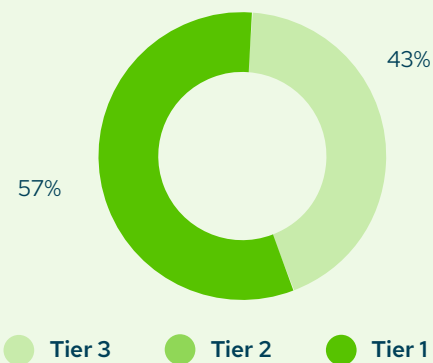


Figure 22: Share of each tier making up the total score of “green corridors”

Challenges and opportunities

The green premium for e-fuels presents a challenge for green corridors because the significantly higher cost of e-fuels makes it difficult to ensure consistent demand and uptake along the routes. This risks undermining investments in zero-emission infrastructure and slowing down the transition to clean shipping. Without reward schemes from the IMO and support from national governments to reduce costs and risks, green corridors will continue to face a significant green premium.

Spotlight on best practices

Many of our members are involved in green corridors that cover a variety of fuels, mostly focused on e-fuels such as e-ammonia and e-methanol. Many Coalition members, including **BHP, Rio Tinto, Yara, Woodside Energy**, and **Starbulk**, are involved in the Global Maritime Forum’s Australia-East Asia Iron Ore Green Corridor. Should this project develop in accordance with its feasibility study, more than 20 vessels could operate on clean ammonia on the corridor by 2030, scaling up to roughly 360 vessels by 2050.

Transition investments (average score: 23%)

Beyond developing first-mover niches, companies also need to make capacity investments that will support the sector’s full, mass-market transition. Member companies provided information about five action areas: seafarer capacity, land-based zero-emission infrastructure, engines and vessel construction, zero-emission retrofits, and direct finance of zero-emission assets.

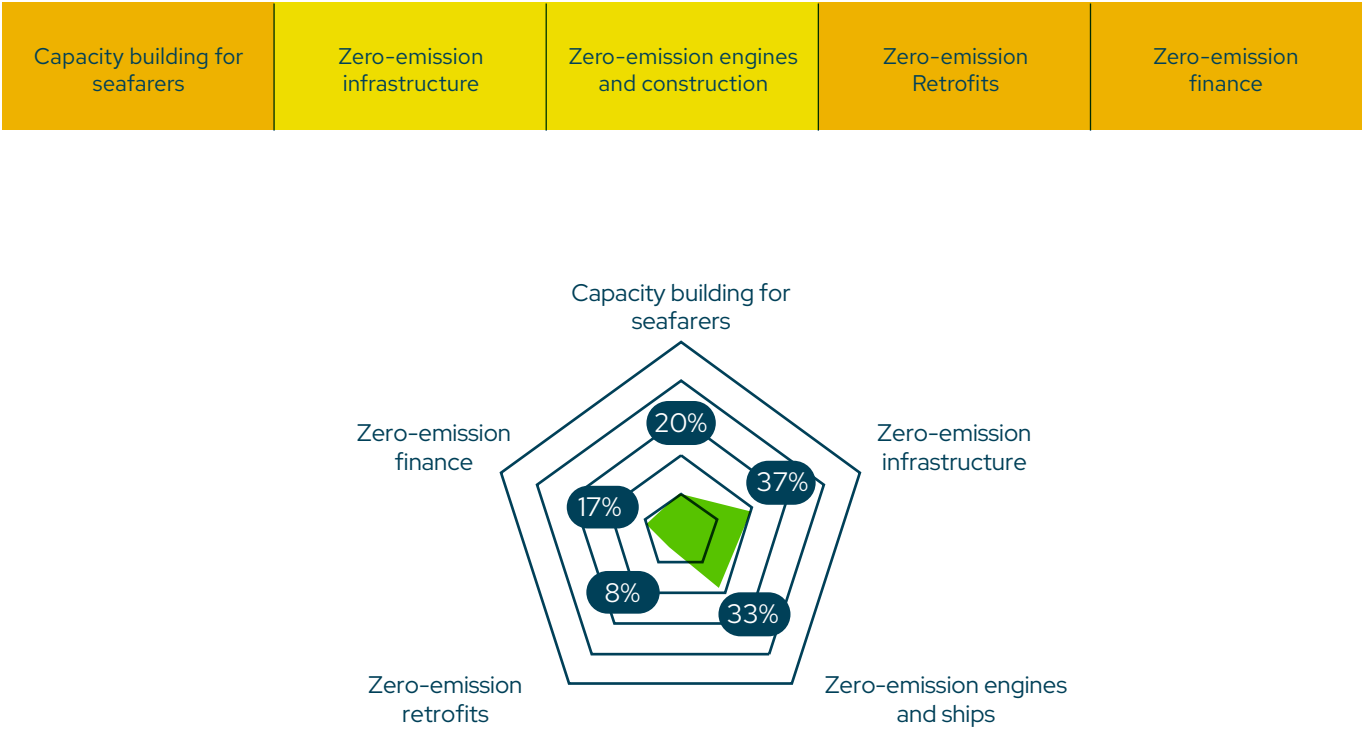


Figure 23: Scores of actions within the category of “Transition investments” as a % of the maximum score

17. Capacity building for seafarers (20%)

Action explained

Zero-emission fuels can be dangerous if not handled properly. Shipping companies should participate in capacity building, training development, and other similar activities to prepare seafarers to safely handle zero-emission fuels.

- **Tier 3:** Guidelines and documentation in place for handling zero-emission fuels
- **Tier 2:** Training programmes are being developed
- **Tier 1:** Programmes and guidelines are publicly reported and/or communicated

Action analysed

This action applied to ship managers and shipowners/operators. 33 companies filled in this action, of which 12 received a score (five were scored Tier 3, five were scored Tier 2, and two were scored Tier 1). Progress in training seafarers to manage zero-emission fuels has been slow, with many respondents highlighting that uncertainties around regulations and a lack of established training centres are major investment barriers. In general, companies are adopting a tiered approach, prioritising training based on the expected commercial availability of fuels, typically focusing on methanol, followed by ammonia and then hydrogen.

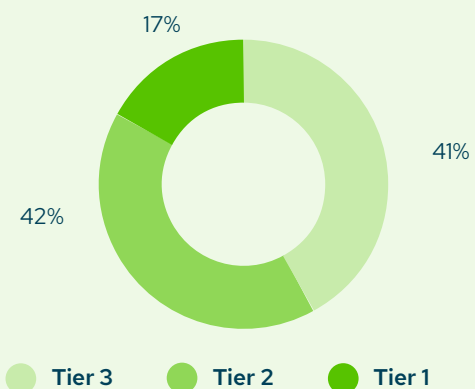


Figure 24: Share of each tier making up the total score of "capacity building for seafarers"

Challenges and opportunities

The transition will require approximately 450,000 seafarers trained to handle zero-emission fuels in 2030, up to 1.2 million by 2040. This will require a significant scale-up of seafarer training in the coming years. Early adoption of e-fuels and early training through initiatives like the Green Pioneer are critical to ensure this learning curve.

Spotlight on best practices

Anglo-Eastern developed training courses and shipboard procedures for Green Pioneer, using this experience to train crews for upcoming vessels. Engineers are undergoing specialised training, and simulators are being created for shipboard and training centre use. In another example, **Synergy** joined the **Maritime Energy Training Facility**, an initiative of the Maritime and Port Authority of Singapore that will focus on training seafarers in the use of zero-carbon fuels on ships. Synergy will support the development of the curriculum and promote the training programme to owners and relevant stakeholders.

18. Zero-emission infrastructure (37%)

Action explained

In order to operationalise zero-emission fuels, zero-emission (ready) infrastructure like bunkering and storage facilities is essential. Therefore, ports, infrastructure providers, and port handling companies should make the relevant investments. Companies were asked to provide a brief explanation of given investment projects, including information pertaining to scale, technological focus, and the company's role in the project. Grading went as follows:

- **Tier 3:** Zero-emission infrastructure is planned, and bunkering guidelines are in place
- **Tier 2:** Zero-emission infrastructure is financed or under construction
- **Tier 1:** Zero-emission infrastructure is in operation

Action analysed

This action applied to ports and terminals. 21 companies filled in this action, of which eight ports. Seven ports received a score (four were scored Tier 3, two were scored Tier 2, and one was scored Tier 1).

Ports—as well as the companies working within them—need to invest in developing infrastructure for the transport, storage and bunkering of zero-emission fuels. Several ports have begun taking relevant action on these investments, while some of those not currently investing are taking a specialised approach, expecting to see small-scale ship-to-ship bunkering in their ports with land-side bunkering provided elsewhere.

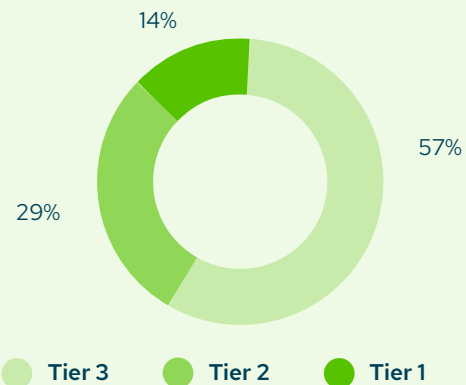


Figure 25: Share of each tier making up the total score of "zero-emission infrastructure"

Challenges and opportunities

Ports have indicated that space constraints pose a major challenge for zero-emission bunkering infrastructure. Ports also indicated that the ability to invest in zero-emission infrastructure hinges on the port's governance structure. For example, the role of the port authority defines the port's ability to explore spatial planning for storage and infrastructure. Terminals where public land is leased by private companies may hinder the companies' ability to invest in spatial planning. Finally, many ports also indicated that their proximity to densely populated areas complicates storage constraints.

Spotlight on best practices

Whilst the developments in these actions are just getting started, ports in the Coalition are already undertaking concrete action. For example, the **Port of Gothenburg** has bunkering regulations and guidelines in place for liquified biogas and methanol, with an ammonia approach underway. **Royal Vopak** is exploring the expansion of its ammonia storage infrastructure at some of its terminals and is actively developing infrastructure to support low-carbon marine fuels, including biofuels, methanol, and ammonia. Vopak also facilitated Singapore's first ship-to-ship bio-methanol bunkering operation at its Sakra terminal, supporting the world's first methanol-enabled container vessel.

While not in the scope of this report, all ports indicated developments of onshore power development, which is now mandated by the Alternative Fuels Infrastructure Regulation, which requires the use of onshore power from 2030 in EU ports. For example, the **Port of Kiel** will have installed onshore power in all ports and berths by 2026, four years ahead of time.

19. Zero-emission engines and vessel construction (33%)

Action explained

This action involves engine manufacturers and shipyards constructing and supplying zero-emission engines and ships. The action was graded as follows:

- **Tier 3:** Ongoing development of zero-emission engines or vessels
- **Tier 2:** Orders for zero-emission engines or vessels have been delivered
- **Tier 1:** Delivery of zero-emission engines and/or vessel orders in multiple sizes with appropriate technology

Action analysed

This action applied to the category of shipbuilder, equipment and technology. 13 companies filled in this action, of which six received a score (four were scored Tier 3 and two were scored Tier 1). The Getting to Zero Coalition membership includes only a handful of technology manufacturers and shipbuilders, and several of these did not submit a reporting form for this year's Action Framework. For these reasons, this score may be an incomplete representation of progress.

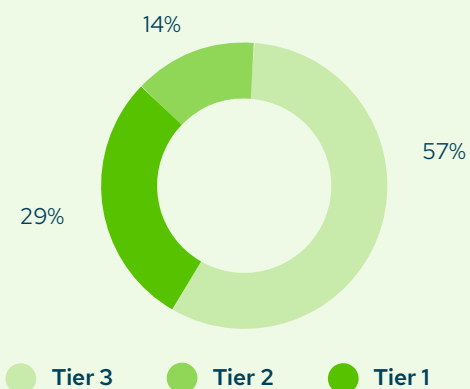


Figure 26: Share of each tier making up the total score of "zero-emission engines and vessel construction"

Challenges and opportunities

Respondents indicated that Initial technical challenges such as nitrogen oxide emissions are increasingly being seen to be manageable. Future challenges may relate to being able to meet market demand across multiple segments, vessel types and sizes.

Spotlight on best practices

Members of the Coalition are actively developing zero-emission engines. For example, **Wärtsilä** has received initial orders for its forthcoming ammonia engine and has sold 200 methanol engines.

20. Zero-emission retrofits (8%)

Action explained

In addition to building or purchasing new vessels that run on zero-emission fuels, shipping companies should invest in zero-emission retrofits (i.e., converting their existing fleet to use new fuels). Companies were asked to provide details on the relevant characteristics of their vessels, including their recorded level according to Lloyd's Register's 'Zero Ready Framework,' total number of vessels, fuel type, deadweight tonnage (DWT), and their status (whether ordered, delivered, or in operation). They were also asked to specify the proportion of zero-emission ready vessels in their fleets. Here's how it was graded:

- **Tier 3:** Companies have ordered one or more zero-emission-ready vessels
- **Tier 2:** Retrofitting booked at a shipyard
- **Tier 1:** Already have retrofitted vessels running on zero-emission fuels

Action analysed

This action applied to shipowners/-operators. 29 companies filled in this action, of which seven received a score (five were scored Tier 3, one was scored Tier 2, and one was scored Tier 1). While some companies are taking action via orders for and the development of zero-ready vessels, most reported that actions were modest or delayed due to uncertainty around IMO policies and the future fuel mix. For these, some are choosing to focus on orders of zero-emission-capable, dual-fuel new builds instead of developing a retrofit strategy.

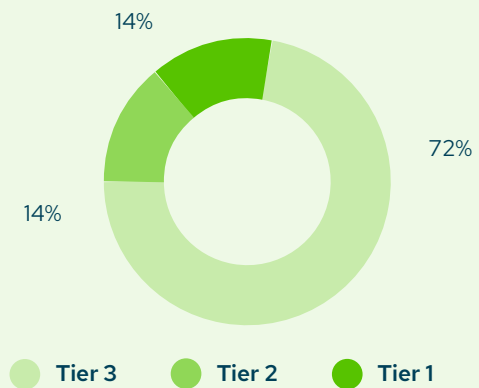


Figure 27: Share of each tier making up the total score of "zero-emission retrofits"

Challenges and opportunities

The initial expectation of the transition was that shipowners would invest in zero-emission-ready vessels and then plan for retrofits as the transition progresses. Instead, the submissions have shown a preference for investing in dual-fuel vessels. A lack of clarity on regulation and uncertainty on fuel availability require shipowners to remain flexible, which explains their preference for dual-fuel vessels that can switch back to conventional fuels.

Spotlight on best practices

Shipowners are at various stages of this action. For example, **U-Ming** also expects to have its first methanol-ready vessel by 2026. **Hapag-Lloyd** has already booked conversions for five of its vessels of 115,000 DWT each, accounting for roughly 2% of its total capacity.

21. Zero-emission finance (17%)

Action explained

Investments made by financial institutions in zero-emission shipping will be key to delivering the full-scale transition to zero-emission shipping. Companies were asked to provide a brief description of projects they are financing and to include information pertaining to the type of fuel, total investment, share of portfolio, and relevant time horizon. This action has two tiers of progress:

- **Tier 2:** Investments in zero-emission shipping projects are made
- **Tier 1:** These investments have increased year on year

Action analysed

This action applied to financial institutions. Four companies filled in this action, of which three received a score (Two were scored Tier 2 and one scored Tier 1). Among the small cohort of financial institutions participating in the report, there was a low level of direct investment activity, hindered both by the uncertainty related to IMO policy and by the EU Taxonomy, which does not recognise dual-fuel ships as "green" investments.

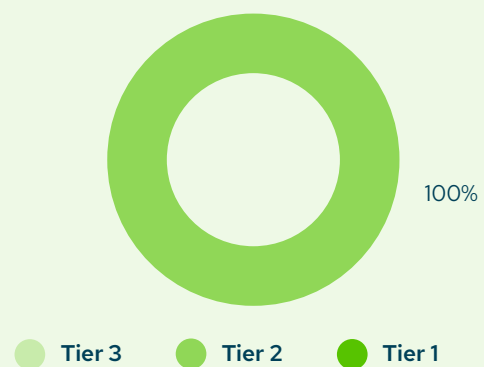


Figure 28: Share of each tier making up the total score of "zero-emission finance"

Challenges and opportunities

Uncertainty in fuel availability, infrastructure development, and future regulations reduces the bankability of zero-emission projects as financial institutions struggle to assess long-term returns. Additionally, the lack of standardised risk assessment models for emerging fuels like ammonia and hydrogen makes it difficult to evaluate the financial viability and insurability of these vessels.

Spotlight on best practices

Citi is actively investing in one of the world's largest green ammonia plants. Developed by AM Green, this project aims to produce five million tonnes of green ammonia in India by 2030. This amounts to approximately 5% of the global green ammonia production today. On the insurance side, **Gard** enables the use of methanol and biofuels on its insured vessels and has supported pilot projects, including on bunkering and ship-to-ship ammonia transfers.

Deployment of zero-emission shipping (average score: 26%)

Despite a climate of policy, economic, and technological uncertainties, companies are already beginning to invest in and even deploy some zero-emission assets. Coalition members provided input across five action areas in this category: fuel production facilities, fuel production in developing countries, fuel supply to the maritime sector, fuel offtake by shipowners and charterers, and orders and deployment of zero-emission vessels.

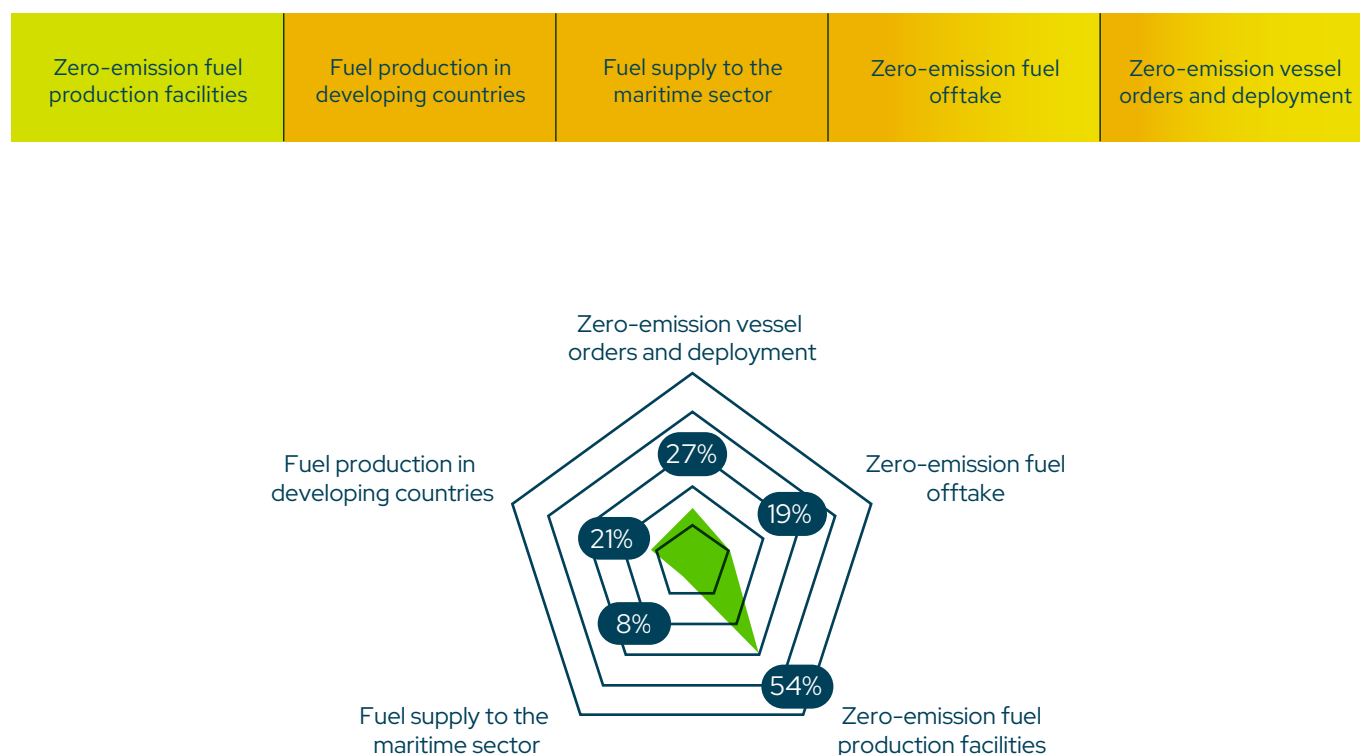


Figure 29: Scores of actions within the category of "Deployment of zero-emission shipping" as a % of the maximum score

22. Zero-emission fuel production facilities (54%)

Action explained

The production of zero-emission fuels is impossible without the necessary equipment and infrastructure. Fuel producers should be developing zero-emission fuel production facilities, including those based on renewable energy and electrolyser capacity. Companies were asked to indicate their total production capacity, both planned and in use, as well as their ability to scale up, indicating technological and commercial viability. See the tiers below:

- **Tier 3:** Production capacity for zero-emission fuels is planned
- **Tier 2:** Production capacity for zero-emission fuels is under construction
- **Tier 1:** Production capacity for zero-emission fuels is in operation

Action analysed

This action applied to fuel producers. 13 companies filled in this action, of which 9 received a score (five were scored Tier 3, two were scored Tier 2, and two were scored Tier 1). The [annual Climate Action in Shipping](#) report suggests that fuel production is beginning to advance from the demonstration phase to commercial deployment. While relatively few fuel producers provided input to this report, a few now have facilities ready to run at a commercial scale, with a significant pipeline of new facilities due to come online before 2030.

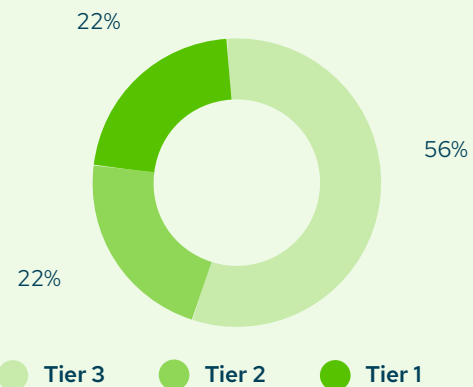


Figure 30: Share of each tier making up the total score of "zero-emission fuel production facilities"

Challenges and opportunities

A key challenge for e-fuel production is achieving a Final Investment Decision (FID) due to uncertainty in future demand, pricing, and regulatory frameworks. Investors hesitate to commit capital without offtake agreements from shipowners, who in turn are reluctant to order zero-emission vessels without a guaranteed fuel supply. This chicken-and-egg problem slows the scaling of zero-emission fuel production, delaying the broader transition.

Spotlight on best practices

The **ACME Group** aims to have a portfolio of ten million metric tonnes per annum (MMTPA) by 2032. Today, the company has an operational pilot plant of five metric tonnes per day (MTPD) and has multiple ongoing projects, including in India, Oman, and the USA. **ETFuels** is developing seven e-fuel projects in both Europe and the US. These projects have secured their feedstocks, including power, water, and biogenic CO₂.

23. Fuel production in developing countries (21%)

Action explained

The transition to zero-emission energy sources is a global matter. By enhancing collaboration with developing countries, companies can unlock opportunities for a just and equitable transformation, as well as innovation within the sector. Therefore, fuel producers are encouraged to invest in zero-emission fuel projects in developing countries. See this action's grading below:

- **Tier 3:** Investment in zero-emission fuel production in developing countries is in the planning stage
- **Tier 2:** Production capacity for zero-emission fuels is under construction
- **Tier 1:** Production is in its operational phase

Action analysed

This action applied to fuel producers. Seven companies filled in this action, of which six received a score (five were scored Tier 3 and one was scored Tier 2). Fuel producer activity in developing countries varies, with about half of the Coalition's producers already considering or operating in these regions. Those focused on the Global North often prioritise being close to early markets and benefiting from lower costs of capital. This suggests that mechanisms may be needed to lower financing costs and that there may also be opportunities to share insights from fuel producers in the Global South.

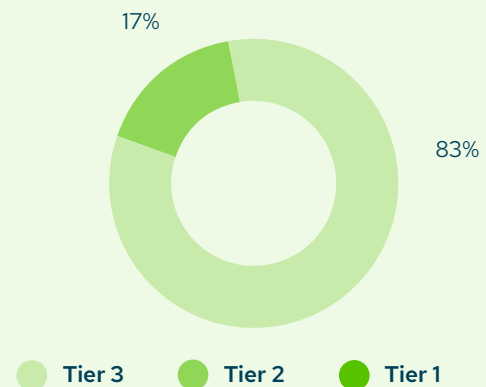


Figure 31: Share of each tier making up the total score of "fuel production in developing countries"

Challenges and opportunities

Zero-emission fuel production in the Global South faces significant challenges, including high capital costs and limited access to financing, making it difficult to scale projects to commercial viability. Many countries also struggle with infrastructure gaps, such as underdeveloped renewable energy grids and insufficient port facilities for fuel storage and bunkering. Additionally, policy uncertainty leads to lacking demand for these fuels and further limits the ability of these plants to reach FID. Technology transfer and workforce capacity further complicate the transition, as local expertise in handling fuels like green ammonia or hydrogen is still developing.

Spotlight on best practices

Port of Antwerp-Bruges is operating the Port of Duqm in Oman, which is planned to handle significant volumes of green molecules. It is also investing in a new port in South Africa together with the Port Authority of Namibia and Coalition member **CMB**. Finally, **Yara Clean Ammonia** is developing and signing agreements for production facilities in Egypt and India. Activities are also surging in Chile, with **Ultrana** and **AES Gener** actively exploring fuel production opportunities.

24. Fuel supply to the maritime sector (8%)

Action explained

This action mirrors Action 25 (Zero-emission fuel offtake) and focuses on fuel producers signing offtake agreements for zero-emission fuels with the maritime sector. It was important for companies to indicate in their responses fuel type and total annual offtake, alongside information on the expected carbon intensity of the fuel (0-30, 30-70, 70-90, or 90+ gCO₂e/MJ³) and the status of the offtake agreement(s).

- **Tier 3:** Initial expressions of interest are executed or feasibility studies are undertaken
- **Tier 2:** Offtake agreements are signed with maritime buyers
- **Tier 1:** Maritime offtake is growing year on year

Action analysed

This action applied to fuel producers. Seven companies filled in this action, of which three received a score (two were scored Tier 3 and one was scored Tier 2). In comparison to fuel production, maritime fuel offtakes are lagging. Among the surveyed fuel producers, there is an understanding of the strategic opportunity within the sector, but progress in connecting that supply to maritime demand remains slow.

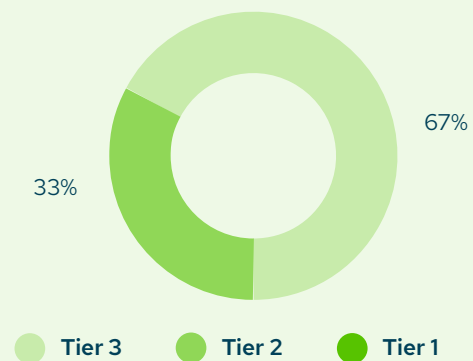


Figure 32: Share of each tier making up the total score of "fuel supply to the maritime sector"

Challenges and opportunities

Maritime offtake of e-fuels is particularly challenging due to the required long-term commitment and financial risk required from shipowners and operators. Securing offtake agreements is essential for fuel producers to reach FID, but shipowners are hesitant to lock in high-cost fuel supply without certainty on future fuel prices and regulatory mandates. Additionally, very few companies have sufficiently large balance sheets to provide the security of offtake. Even the companies that do are hesitant to commit their balance sheets to fuel procurement as this may bind capital that could otherwise be used for fleet renewal or operational efficiency improvements, making it a significant financial risk. This lack of alignment between fuel producers and maritime offtakers slows investment in e-fuel infrastructure and delays the transition to zero-emission shipping. Demand aggregation can be a significant opportunity to overcome this challenge because it bundles purchasing commitments from multiple shipowners and operators, creating larger, more

predictable offtake volumes that make fuel production projects more bankable and help unlock investment. By reducing individual financial risk and improving economies of scale, demand aggregation can accelerate infrastructure development, lower e-fuel costs, and ensure a more stable supply for the maritime sector.

Spotlight on best practices

While members indicated growing demand for biofuels in general (incl. liquid bio-blended fuels and biomethane), many fuel producers indicated a lack of offtake agreement on e-fuels due to a high cost gap. E-fuel producers indicated that no offtake agreements have been signed, but all are having initial conversations with shipowners. **ETFuels** has been supporting this process by analysing the business case for e-methanol under the EU's FuelEU Maritime scheme. The next step is to progress from non-binding letters of intent to binding terms with customers for fixed-price offtakes.

3 Grams of carbon dioxide equivalent per megajoule

25. Zero-emission fuel offtake (19%)

Action explained

To stimulate the production of zero-emission fuels, shipowners can sign offtake agreements with zero-emission fuel producers. In essence, these agreements involve the upfront purchase of zero-emission fuels that have not yet been produced, providing the necessary funding for fuel production. The companies were asked to indicate in their responses fuel type and total annual offtake, alongside information on the expected carbon intensity of the fuel (0-30, 30-70, 70-90, or 90+ gCO₂e/MJ) and the status of the offtake agreement(s).

- **Tier 3:** The initial expressions of interest/feasibility studies are signed
- **Tier 2:** Offtake agreements for zero-emission fuels are signed
- **Tier 1:** More than 5% of fuel offtake is zero-emission

Action analysed

This action applied to charterers and shipowners/-operators. 27 companies filled in this action, of which 12 received a score (eight were scored Tier 3 and four were scored Tier 2). Most shipping companies indicated that they are at an early stage of the process, with many in discussions with fuel producers or participating in feasibility studies rather than being at the stage of signing offtake agreements.

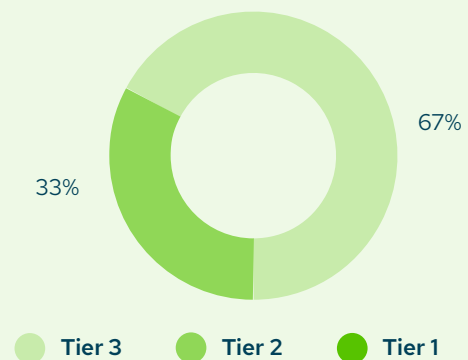


Figure 33: Share of each tier making up the total score of "zero-emission fuel offtake"

Challenges and opportunities

The offtake of zero-emission fuels faces challenges similar to those of fuel producers in terms of investment risks. Shipowners indicate lacking fuel availability and high prices as the main constraints to offtaking zero-emission fuels. Furthermore, due to remaining regulatory uncertainty, the business cases for e-fuels remain unclear.

Spotlight on best practices

Various shipowners indicated having ongoing conversations with fuel producers on their offtake. **Pacific Basin** aims to have green methanol and biofuels (and possibly other synthetic fuels) make up 5% of its fuel mix by 2030 and indicates conversations with fuel producers to ensure access to these fuels. **X-Press Feeders** has already signed offtake agreements for bio-methanol ranging from 10,000 to 15,000 tonnes for each year starting from mid-2024, with a carbon intensity in the range of 30-33 gCO₂e/MJ.

26. Zero-emission vessel orders and deployment (27%)

Action explained

This action evaluates shipping companies' orders and deployment of zero-emission vessels designed to operate on zero-emission fuels. This includes both Level 1 and Level 2 vessels as defined by Lloyd's Register's 'Zero Ready Framework'. A Level 1 vessel is a near-net-zero-GHG vessel that operates entirely on zero-emission fuels. A Level 2 vessel, classified as a low-GHG vessel, can bunker and use zero-emission fuels for primary propulsion in most operating modes, although fossil fuels may also be used to operate the vessel.

Companies were asked to provide details on the relevant characteristics of their vessels, including their level according to the framework, the number of vessels, fuel type, DWT, and their status (whether ordered, delivered, or in operation). Additionally, they were asked to specify the proportion of zero-emission ready vessels ordered or present in the fleet. The following tiers are outlined for this action:

- **Tier 3:** The company has ordered dual-fuel/zero-emission vessels
- **Tier 2:** The company owns a zero-emission vessel but is currently operating it on conventional or low-carbon fuels
- **Tier 1:** The company operates zero-emission vessels using zero-emission fuels

Action analysed

This action applied to charterers and shipowners/-operators. 35 companies filled in this action, of which 13 received a score (six were scored Tier 3, five were scored Tier 2, and two were scored Tier 1). While there have been limited deployments to date, the "average" shipowner/charterer included in this analysis has dual-fuel vessels on order, with a higher concentration among orders for container ships and dry bulkers. In line with the sector-wide findings of the Climate Action in Shipping report, many also noted orders of new liquefied natural gas vessels, which, combined with uncertainties around retrofit strategies, could create the risk of stranded assets for some Coalition members.

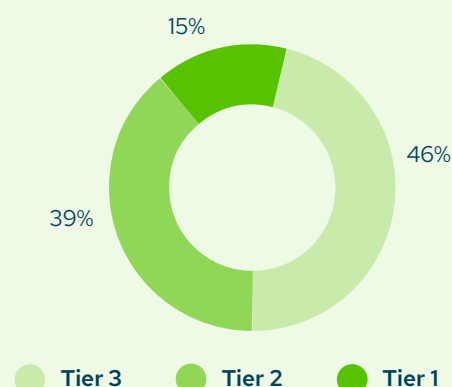


Figure 34: Share of each tier making up the total score of "zero-emission vessel order and deployment"

Challenges and opportunities

Similar to what is seen within fuel offtake, the ordering of zero-emission vessels is challenged by the lack of fuel availability. Members indicated that these investments are especially challenging in tramp shipping due to the higher uncertainty of fuel availability.

Spotlight on best practices

ONE has signed shipbuilding contracts with Jiangnan Shipyard and Yangzijiang Shipbuilding for a total construction of 12 methanol dual-fuel container ships with 13,000 twenty-foot equivalent unit (TEU) capacity. Each shipyard will build six vessels, which are all scheduled to be delivered from 2027. In addition, ONE has been awarded an approval in principle for an ammonia dual-fuelled vessel. **Diana Shipping Inc.** has made a \$92 million investment in two 81,200 DWT methanol dual-fuel Kamsarmax vessels to be delivered in the second half of 2027 and the first half of 2028. **X-Press Feeders** has placed an order for 14 dual-fuel methanol vessels with capacity ranging from 950 to 1,250 TEUs with 16,300 DWT each. Three vessels from this class are operating on ISCC EU-certified bio methanol in the Baltic Sea.

Conclusion

As this is the first year of the Getting to Zero Coalition Action Framework, and with just under half of member companies providing input, it is difficult to provide definitive conclusions about the state of action on zero-emission shipping among members. As year-on-year data becomes available, and with future editions of this report hopefully covering more of the Coalition, a clearer picture will likely develop.

Nonetheless, with 76 companies providing input across 26 action areas, a general picture emerges of a Coalition that is grappling with many of the same challenges faced by the wider sector. To name some: a lack of clarity around the IMO's forthcoming mid-term measures and how they will impact the business case for investments; uncertainty about the relative competitiveness of various fuel pathways; and the challenges of connecting future supply and demand for zero-emission fuels and shipping services.

Nonetheless there are clear signs of Coalition members embracing their roles as leaders in the sector. This is most apparent in the efforts to promote enabling conditions, whether through target-setting and reporting, advocating for strong decarbonisation policy, or efforts to make the sector's greenhouse gas emissions more transparent.

At the other end of the transition spectrum, there are clearly leaders in the Coalition that are making progress on developing and deploying zero-emission assets today. Progress remains weak in niche markets such as green premium-based offerings and green shipping corridors. Such niche markets are intended to overcome policy and economic uncertainty through strategic commitments and risk and cost-sharing. While many member companies are involved in these initiatives, most of their activity remains at an exploratory level, and more needs to be done to deliver on the promise of these first-mover efforts.



GETTING TO ZERO
COALITION
GLOBAL MARITIME FORUM

