SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

FREQUENTLY ASKED QUESTIONS ON MARITIME TRANSPORT TARGETS

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Frequently Asked Questions on the Science Based Target Setting Guidance for the Maritime Transport Sector were compiled from public webinars and queries received through the Science Based Targets initiative (SBTi) inbox.

Please contact info@sciencebasedtargets.org for additional questions not answered here.

GENERAL QUESTIONS

Where can we find the SBTi Maritime Guidance document and tool?
The SBTi target-setting resources for the Maritime Transport Sector can be found here: https://sciencebasedtargets.org/sectors/maritime-sector.

How do we reach the SBTi with any questions or comments?
Please direct any questions or comments to info@sciencebasedtargets.org**.**

Are there plans for a revision to the SBTi Maritime Guidance?
There are currently no plans for short-term revisions to the guidance and tool. The SBTi will assess the potential future need for guidance-and-or tool revisions as the tool is applied and targets set.

How do the SBTi targets align with the Poseidon Principles, Poseidon Principles for Marine Insurance, and Sea Cargo Charter?
All these initiatives share the long-term purpose of supporting net-zero transition, however, their intended users, mode of operation and implementation is intrinsically different. While the SBTi Maritime Guidance aims to support near- and long-term corporate target setting, the above initiatives focus on disclosure of climate alignment of shipping portfolios for various types of institutions. Whilst there are many implementation differences between the SBTi and the two Poseidon Principles and Sea Cargo Carter, the two major differences are:

1. The SBTi considers lifecycle greenhouse gas (GHG) emissions (Well-to-Wake - WTW); however, the two Poseidon Principles and Sea Cargo Charter only consider operational CO_2 emissions (Tank-to-Wake - TTW).

2. The SBTi aims to meet the Paris Agreement's 1.5°C target 2050. The two Poseidon Principles and Sea Cargo Charter aim to achieve the IMO's Initial Strategy, absolute emission reduction ambition of at least 50% by 2050 on 2008 levels. It's important to note that the Poseidon Principles for Marine Insurance has an additional trajectory, which aims at 100% operational CO_2 reduction by 2050 on 2008 levels.

Does the requirement to have a long-term target for vessel owners and operators mean that they must use the SBTi net-zero form and cannot use the near-term one?
Both, near- and long-term target submission forms need to be prepared and submitted simultaneously.

Is there an updated submission form available which reflects the specifics from the SBTi Maritime Guidance?
There is no separate submission form for maritime transport targets, please use the latest SBTi submission form.

Is target progress validated through annual reports or directly reported to the SBTi? How many years should companies validate and recalculate targets or target progress?
As per the general SBTi Criteria, all companies shall publicly report its company-wide GHG emissions inventory and progress against published targets on an annual basis. To ensure consistency with the most recent climate science and best practices, targets must be reviewed, and if necessary, recalculated and revalidated, at a minimum every 5 years.

GUIDANCE APPLICABILITY QUESTIONS

What vessel types are covered by the SBTi Maritime Guidance?
For the complete list of "all vessel" types included please refer to the SBTi Maritime Guidance, page 29.

What kind of activities are covered by the SBTi Maritime Guidance? For instance, are fishing vessels included?
Under the current scope the SBTi Maritime Guidance, only vessels conducting transport activity, i.e., carrying cargo or passengers between two ports, are considered. This means, sea operating vessels, such as fishing or mining vessels are nor included under the current scope. Please note that there are currently no plans to expand the scope of the guidance to include sea operating vessels.

What maritime transport types are covered by the SBTi Maritime Guidance (i.e., deep sea, inland, coastal shipping)?
All maritime transport journey types are covered in the SBTi Maritime Guidance, including deep sea, inland, and coastal shipping.

Does it mean that companies would need to set separate targets for each vessel category/size?
Users that operate or transport cargo on vessels in more than one size category can generate combined targets addressing multiple vessel size categories with the optional 'aggregator tab' of the SBTi Maritime Transport Tool. The aggregator tool allows the user to take the tool outputs from individual vessel type and size class combinations and combine the results into a single organizational target. Note that this aggregation can only be done for groups of vessel type that use the same unit to measure transport activity. The main benefit of using the aggregator tool comes when combining different vessel types or when there are different target reductions for the individual vessel type and size class combinations (e.g., when different growth rates are forecast within a vessel type).

Can the SBTi Maritime Guidance be applied to ship builders?
The SBTi Maritime Guidance is focused on targets associated with providing and or purchasing marine transportation activity. The guidance does not directly address targets associated with the manufacture of ships. Please note that there are currently no immediate plans to expand the scope to include ship builders.

Does the SBTi Maritime Guidance apply to vessels that are mostly stationary (i.e., floating storage, FSO, FPSO, FSRU)?
The current scope of the SBTi Maritime Guidance only applies to vessels carrying out transportation work. Therefore, as mostly stationary vessels are not carrying out any transportation

work, they are not included under the current scope of the SBTi. Please note that there are currently no immediate plans to expand the scope of the guidance to include floating storage, FSO, FPSO, FSRU.

Are cruise vessels included in the SBTi Maritime Guidance?
Yes, several cruise vessel size categories are included in the SBTi Maritime Transport Tool. Available cruise ship size categories are included on page 48 of the guidance document.

How does the SBTi Maritime Guidance address the boundary on emissions responsibility between port and port users/tenants/stakeholders (i.e., shipping vessel companies)?
The SBTi Maritime Guidance is focused on targets associated with providing and or purchasing marine transportation activity. As such the guidance does not directly address targets associated with the port operations themselves. Nonetheless a port would be at liberty to use the guidance to set a scope 3 target related to the transport operations that use its facilities if it chooses to do so. Please note that there are currently no immediate plans to expand the scope of the guidance to include ports.

How does this guidance affect ports? How should ports set a target?
The SBTi Maritime Guidance is on transportation activity by vessel, rather than the ports where vessels call. Ports can set targets following the SBTi general criteria and guidance. A port may also use this maritime transportation specific guidance to inform scope 3 targets related to transport activities in its facilities. Please note that there are currently no immediate plans to expand the scope of the guidance to include ports.

Are embodied emissions considered in this methodology? (I.e., emissions produced during shipbuilding or decommissioning of vessels).
This guidance only targets emissions from transport activity, and not embodied emissions. Please note that there are currently no immediate plans to expand the scope of the guidance to include embodied emissions.

Which guidance should be used by producers of ship engines? Should they use the cross-sectoral approach?
The SBTi Maritime Guidance is focused on targets associated with providing and, or purchasing marine transportation activity. The guidance does not directly address targets associated with vessel/engine manufacturing or use of sold products or services. Please note that there are currently no plans to expand the scope of the guidance to include vessel/engine manufacturing or use of sold products or services.

Is the Sectoral Decarbonization Approach used in the SBTi Maritime Transport Tool mandatory for any companies wanting to submit a science-based target or could they still use the absolute contraction approach (i.e., would a ship owner be able to set an absolute contraction target instead)?
Please refer to the section titled "Sector Specific Requirements" (page 26) in the guidance document for details on this matter.

Is the SBTi Maritime Guidance an IMO regulation? Do vessel owners and operators have to submit long term targets to IMO?
The SBTi is a voluntary initiative. It is not related to any IMO scheme or national/international regulations.

How does the SBTi Fossil Fuel Policy apply to shipping?
Users of the SBTi Maritime Transport Tool wishing to submit targets covering activities related to transportation of fossil fuel products are advised to review the current status of the SBTi Fossil Fuel Policy, as well as sector specific requirements stated in the latest version of the SBTi Criteria. Different vessel types (i.e., chemicals, oil and liquefied gas tankers, as well as offshore vessels) may be subject to the SBTi Fossil Fuel Policy.

Are tanker companies ineligible to submit science-based targets? (I.e., companies with more than 50% of revenues from oil and gas tanker/transport operations).
If a tanker company makes more than 50% of its revenue from oil and gas tanker/transport operations, they are currently ineligible to commit or submit targets to the SBTi.

Shouldn't vessels used for fossil fuel distribution be treated like dry bulks or containers?
Details on the SBTi Fossil Fuel Policy are included on page 27 of the guidance document.

When does the SBTi envisage including companies in the oil and gas sector operating offshore supply fleets (with different categories), tugboats, anchor handlers, etc, including oil platforms?
Companies operating in the oil and gas sector making more than 50% of revenue from oil and gas are not eligible to commit, nor set science-based targets through the SBTi. More details can be found in the Fossil Fuel Policy document here: https://sciencebasedtargets.org/sectors/oil-and-gas#what-is-the-sbtis-policy-on-fossil-fuel-companies

Do the SBTi Maritime Guidance support IMO CII compliance?
The IMO CII regulation uses a different metric and has a different target so there is no relation between the two initiatives.

Is it expected to expand the SBTi Maritime Guidance to other types of vessels (i.e., offshore/dredging)?
The SBTi does not have immediate plans to expand available categories. This will be considered in a future update to the guidance along with other revisions/improvements as relevant.

How about emissions from building, retrofitting or decommissioning vessels?
This guidance is aimed at maritime transport rather than shipbuilding.

How should companies with the majority of revenue coming from maritime transport but some from air, rail, and road freight use the sector guidance tool?
A company with different business activities can use these maritime transport resources to model targets over their vessel operations, and utilize other available SBTi target-setting methods for other transport categories.

TECHNICAL QUESTIONS

What is the reason IEA Energy Technology Perspectives (ETP) 2020 was not used? Will you update the guidelines using the new ETP 2023?
Please see footnote two on page 17 of the guidance document. There are no immediate plans to update the tool or guidance based on forthcoming IEA publications.

Which approach is used in this pathway, bottom-up or top-down?
The numbers used in SBTi Maritime Guidance and Tool are calculated using a bottom-up methodology and validated against a top-down estimate. The decarbonization trajectory (yearly emissions reduction rate) is provided in the methodology.

How are the projections for clean fuel based on availability forecasted? Especially in terms of near-term targets.
Please refer to the background provided in the SBTi Maritime Guidance document regarding fuel, including the assumptions around the diffusion of technologies. Please also note that the trajectory is top-down by nature, and is fuel and technology agnostic; thus, it defines what must happen for alignment, rather than how that is achieved.

Is setting a near-term target just about selecting a given year's corresponding point along the curve?
No, the Sectoral Decarbonization Approach (SDA) method takes into account the relative growth rate of the company to the sector growth and the company carbon intensity in the base year in order to calculate the required intensity reduction in the selected target year.

How are technological energy efficiency solutions such as sails and rotors considered?
Energy efficiency technologies will reduce overall fuel consumption, thus, reducing carbon intensity associated with any transport work contributing towards achieving the emission reduction targets set by the user.

What carbon intensity metric is used?
The carbon intensity metric used is the Energy Efficiency Operational Indicator (EEOI). The EEOI comprises the Well-to-Wake GHG emissions divided by transport work. Refer to page 21 of the SBTi Maritime Guidance.

What is the emission boundary of the SBTi Maritime Guidance?
The emission factors cover the full lifecycle of the energy source (i.e., Well-to-Wake) and are expressed as CO_2 equivalent, including the full global warming impact of all UNFCCC pollutants on a 100-year timeframe.

How is the carbon budget for 1.5°C trajectory derived?
The carbon budget allocation for the maritime transport sector was derived from representative industry emissions levels using 2018 as base year and an IPCC-derived emissions trajectory declining linearly between 2018 and 2030 and then at another, less aggressive, linear trajectory down to 2050 in line with IPCC (IPCC, 2018). The operational carbon inventory for the maritime transport sector in 2018 published in the Fourth IMO Greenhouse Gas Study (Faber et al., 2020) was selected as the reference historic emissions inventory. The IMO's publication is consistent with relevant work in the literature considering a relatively stable share of carbon global carbon budget for the shipping sector with sector emissions levels in 2018 corresponding to 0.94 GT CO_2e. For further details, please refer to pages 13-15 of the SBTi Maritime Guidance.

To clarify, do companies need to create their own carbon budget to set the target?
No. The sector's carbon budget has been calculated by the SBTi based on a set of assumptions explained in the maritime guidance. Individual company targets are developed based on how their emissions are projected to change as a result of their projected transport activity, in relation to the overall sector budget.

Is the carbon budget set specifically for shipping or by share of overall transportation?
The carbon budget under the SBTi for the maritime sector is set specifically for maritime transportation activities.

Why do these resources still include Well-Below 2°C ambition?
The SBTi minimum ambition level for scope 3 targets is Well-Below 2°C. That means that companies subcontracting maritime transport can still use these resources. Please refer to pages 17-19 of the SBTi Maritime Guidance.

Why is the IPCC SR 1.5°C report (2018) used for deriving the SBTi Maritime Transport Sector's trajectory, and not the newer IEA Net Zero by 2050 report (2021)?
The IEA Net Zero by 2050 report (2021) takes a different tack considering shipping a hard-to-abate sector which should be afforded a larger share going into the future, with emissions being reduced from other sectors before. This implies that shipping does not decarbonize as a sector roughly until 2070 and the scenario is not 1.5°C compliant. Furthermore, the IEA modeling has a heavy reliance on biofuels with minimal considerations for change of land use and demand issues, as shipping will be competing with other industries that do not have many options for decarbonization. Additionally, the modeling does not consider the possibility of low or zero-carbon fuel being retrofitted onto existing tonnage, rather than only being available to newbuilds. This goes against several sources that show how retrofitting is essential for timely decarbonization (Bullock et al., 2020; IMO, 2021). Therefore, for this guidance IPCC SR 1.5°C report (2018) was used.

Why is there a minimum of 10 years to set a minimum target?

The s-curve approach allows organizations to “emit more” in the near term, in exchange for emitting less later. An organization that sets a 2030 target, then, may not necessarily be making significant emission reductions on that timescale. The approach taken by the SBTi attempts to forestall some organizations setting and receiving a validated target without necessarily committing to concrete action.

GHG ACCOUNTING QUESTIONS

How are carbon removals factored in the GHG accounting?
Carbon removals such as Carbon Capture and Storage (CCS) would be accounted for through the emission factors associated with the fuel in question. Carbon removals through offsets are not accepted by the SBTi.

Will carbon insetting programs, such as book and claim, be a viable pathway for cargo owners to meet their targets? What is the SBTi's stance on mass balancing approaches for emissions reductions?
Use of book and claim instruments is a topic that requires further research and clarification from GHG accounting standards. The SBTi acknowledges that book and claim instruments are not well-defined in the market, however, it is beyond the scope of this guidance to endorse or recommend specific frameworks that are not formally recognized by the Greenhouse Gas Protocol (GHGP). The SBTi is following up and participating in multiple discussion groups working on this topic.

What is the definition of sub-contracted transport? Do they include chartered ships?
Contracted transport may include chartered ships. The exact answer depends on the nature of the contract. An organization that bareboats in a vessel, for example, should report this as direct Well-to-Wake emissions (e.g., scope 1 and scope 3 category 3) as they have operational control and set their targets accordingly. In contrast, an organization that time charters a crewed-managed vessel should set Well-to-Wake scope 3 targets and the associated target trajectory.

Targets should cover the entire GHG inventory of a company, according to their organizational boundary. Please refer to the SBTi Criteria and/or Target Validation Protocol for more details on emissions boundaries and mandatory target coverage.

The SBTi Maritime Guidance stipulates that the Global Logistics Emissions Council (GLEC) Well-to-Wake emission factors should be used. Should it be the European or American emission factors?
The user can make a choice as to what is most appropriate to the transportation in question. Note that the GLEC Framework will be updated to a version 3 later in 2023 which will result in the use of an updated and more comprehensive set of emission factors in line with the latest knowledge of fuel pathways and methodology developments.

What standards (or set of emission factors) should be utilized when calculating Well-to-Tank and Tank-to-Wake emissions?
Well-to-Wake emission factors for a variety of marine fuels are available in the GLEC Framework. These values will be updated later in 2023 in a new version of the GLEC Framework, which will follow

the approach for calculating emission factors set out in Annex J of ISO 14083. For more on emission factors, see pages 30-31 of the guidance document.

Are scope 3 categories (other than Category 3 – Fuel and Energy Related Activities to account for Well-to-Tank emissions) part of the target setting for shipowners? (I.e., Category 1 – Purchased Goods and Services; Category 2 – Capital expenses, etc.)
Targets should cover the entire GHG inventory of a company, according to their organizational boundary, including all other scope 3 categories. Please refer to the SBTi Criteria and or Target Validation Protocol for more details on emissions boundaries and mandatory target coverage.

How is the total distance sailed calculated for a voyage?
It is calculated by aggregating the distance traveled between all stopping points in a voyage. Total distance sailed is calculated in nautical miles (nm).

For example, a vessel travels from port A to port B to port C, and then finally ends its voyage at port D. In this scenario, the total distance sailed will be = Total distance traveled between port A and port B + Total distance traveled between port B and port C + Total distance traveled between port C and port D.

How are carbon offsets/removals treated within the SBTi framework? Is there guidance from the SBTi on what kind of offsets/removals should be used?
The SBTi requires that companies set targets based on emissions reductions through direct action within their own boundaries or their value chains. Offsets are only considered to be an option for companies wanting to finance additional emission reductions beyond their science-based target (SBT) or net-zero target. Avoided emissions are also not counted towards SBTs.

Which greenhouse gases are considered in Well-to-Wake emission factors?
For Well-to-Wake, emission factors are translated as Carbon Dioxide equivalent (CO_2e), which primarily consist of CO_2, N_2O, and CH_4. For further details please refer to the SBTi Maritime Guidance, pages 16-17.

Are there any plans to revise SBTi's Well-to-Wake factors used in its Maritime methodology?
Yes, Smart Freight Centre will update these Well-to-Wake factors pending on the publication of the new GLEC Framework and ISO Standard 14083 (Quantification and reporting of GHG emissions arising from operations of transport chains).

What guidance should port authorities use when calculating and conducting GHG emissions inventories?
Companies must follow the GHG Protocol Corporate Standard, Scope 2 Guidance, and Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Please also review the latest SBTi general Criteria, Corporate Target-Setting Manual and Target Validation Protocol.

Can the use of biofuels (insetting) be counted as emissions reduction to achieve SBTs? Are there any requirements to fulfill for the use of biofuels to be able to count it towards SBTs?
Regarding insetting, further work is required to standardize the definition of insetting projects and to develop a clear accounting methodology. For these reasons, the SBTi will assess insetting projects on a case-by-case basis during the validation process and may not approve their use.

Can you please explain how marine biofuel insetting programs are accounted for in the sector guidance?
Regarding insetting, further work is required to standardize the definition of insetting projects and to develop a clear accounting methodology. For these reasons, the SBTi will assess insetting projects on a case-by-case basis during the validation process and may not approve their use.

Are port emissions included in voyage carbon intensities?
Yes, emissions at ports should be included.