

SCIENCE BASED TARGET- SETTING IN THE MARITIME TRANSPORT SECTOR

GUIDANCE LAUNCH WEBINAR

6 December 2022

PARTNER ORGANIZATIONS



United Nations
Global Compact



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BUSINESS
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VIDEO-CONFERENCE GUIDELINES

- This is a **zoom webinar**. Your camera and microphone are automatically muted.
- Participants can **send questions via the Q&A button**.
- **Slides from this webinar will be shared** after this meeting.
- Please note that this webinar will be **recorded** for the benefit of those who cannot attend.



AGENDA

1. Housekeeping and agenda
2. Introduction to the SBTi
3. The SBTi Maritime Guidance
 - Context
 - Development process, applicability and scenarios
 - Sector criteria and target boundaries
 - Examples
4. Q&A
5. Closing

TODAY'S WEBINAR TEAM

EMCEE



ZNIKO NHLAPHO
Engagement Manager
SBTi

PANELISTS



**FERNANDO
RANGEL VILLASANA**
Head of Sector Development
SBTi



**JEAN-MARC
BONELLO**
Principal Consultant
UMAS



ALAN LEWIS
Technical Director
SFC

INTRODUCTION TO THE SBTi

What is the Science Based Targets initiative?



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

The Science Based Targets initiative (SBTi) is a **global body** enabling businesses and financial institutions to set **ambitious emissions reductions** targets in line with **climate science**.

Founding Partners



United Nations
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In collaboration with



INTRODUCTION TO THE SBTi

Progress to date



2,019

with science-
based targets

4,150+

companies taking action

1,537

net-zero
commitments

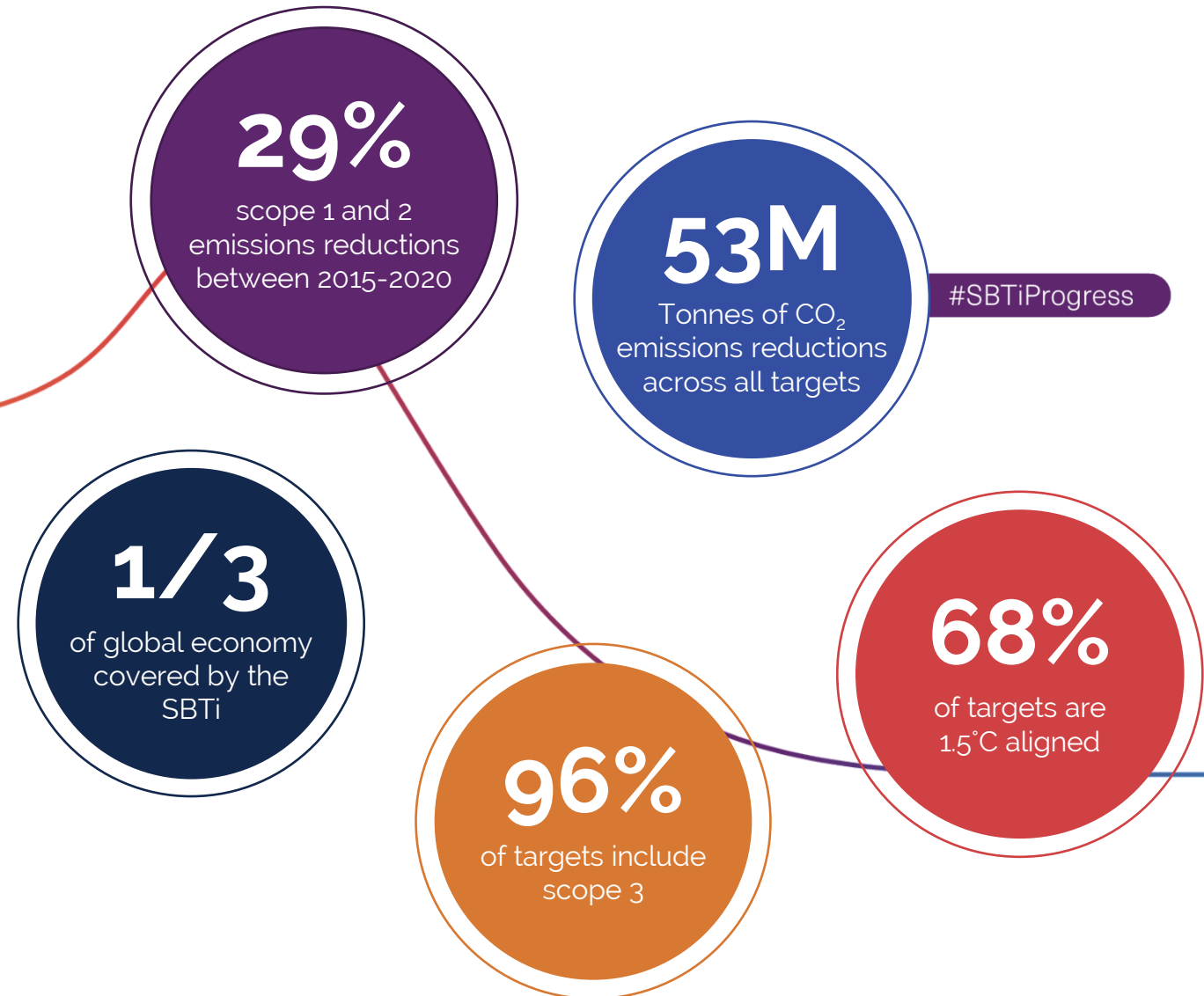
To learn more about the progress of the initiative, consult the [SBTi Progress Report 2021](#)

INTRODUCTION TO THE SBTi

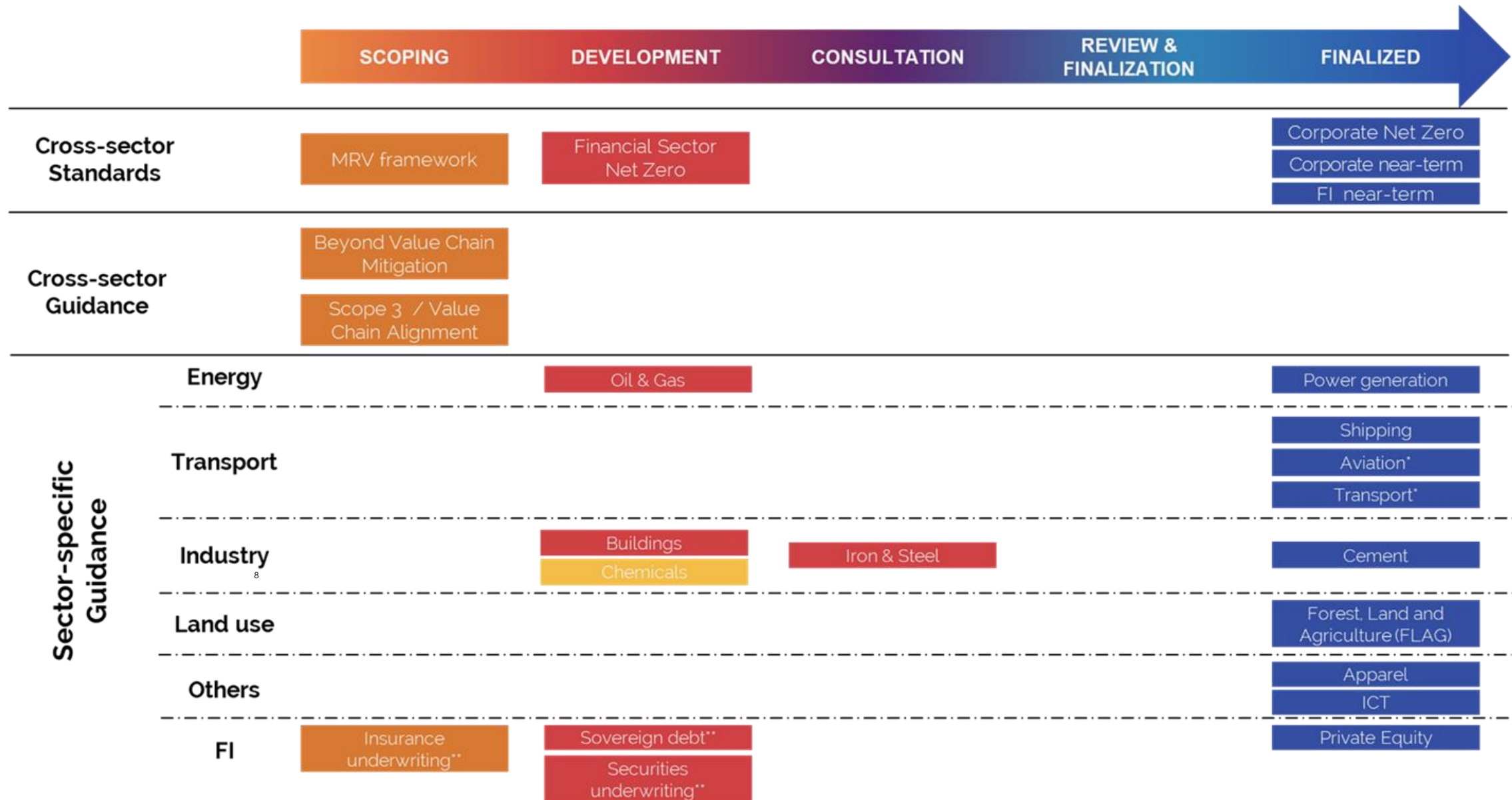
Progress to date

Companies with science-based targets are delivering emissions reductions at scale

- Reduced emissions by **29%** between **2015-2020**.
- **1.5B tonnes of annual CO₂e** emissions covered by the SBTi.
- **\$38trn** of global market capitalization.
- **70** countries and **15** industries.



SBTi UPCOMING WORK



*Phase 1 completed (WB2C) aligned. Planned update to align to 1.5°C

** Asset class alignment guidance / method



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THE SBTi MARITIME GUIDANCE

Image by Karsten Bergmann from Pixabay

THE CHALLENGE

Decarbonizing a critical link of global trade

- 80% of global trade by volume is carried by sea.
- 3% of global GHG emissions (~1GT of CO₂e).
- Completely reliant on fossil fuels.
- Highly heterogeneous (cargo categories, vessel types, vessel sizes, routes).
- Long asset replacement cycles.



INDUSTRY DEVELOPMENTS

Industry calls to action



Industry initiatives



COP27 Outcomes

- Green corridors development
- Repeated calls for 1.5 alignment/ambitions



Regulation



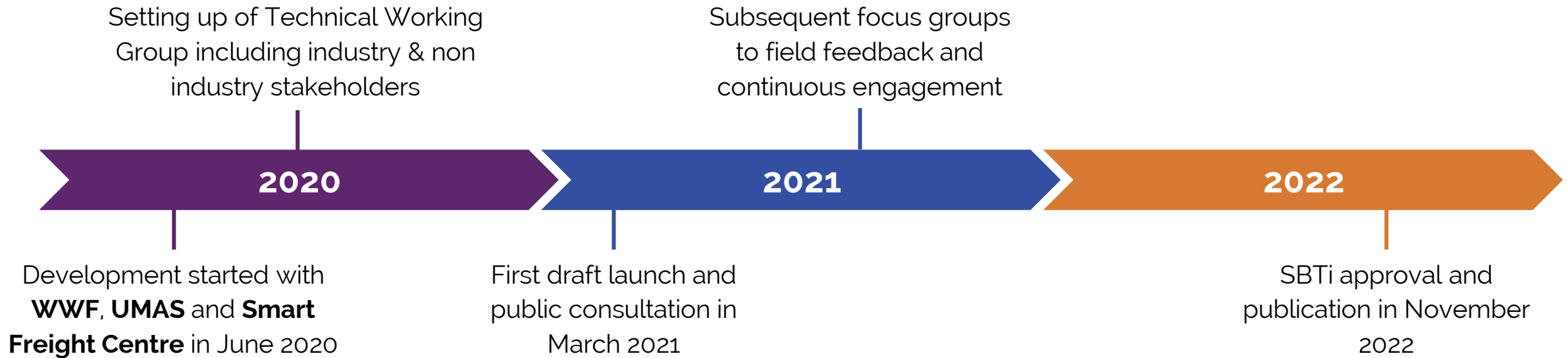
WHAT DOES MARITIME TRANSPORT GUIDANCE COVER?

All movement of goods and people on shipping vessels



A toolkit to **measure** carbon intensity of activity to **inform** decision-making around short-term **actions** towards a **long-term goal**

SBTi MARITIME GUIDANCE DEVELOPMENT PROCESS



TECHNICAL GUIDANCE AND TOOL



PARTNER ORGANIZATIONS



SCIENCE BASED TARGET SETTING FOR THE MARITIME TRANSPORT SECTOR

Version 1.0
November 2022



Sectoral Decarbonization Approach - Maritime Transport Tool

Version:

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[Disclaimer](#)

Contact: info@sciencebasedtargets.org

Section 1. Select type of vessel used for transport activity

Please select vessel type for transport activity

Section 2. Select vessel size category

Please refer to guidance document for details

Section 3. Enter emissions and activity data

Select a base year Any base year between 2018 and the current year is eligible

Select a target year Near-term targets must cover a maximum of 10 years from the date the target is submitted to the SBTi for validation

Well-to-Wake (WTW) emissions in base year metric tonnes of CO₂-equivalent (MTCO₂e)

Activity in base year gross tonne nautical miles (GT.nm)

Expected activity in target year gross tonne nautical miles (GT.nm)

Section 4. Review target modelling results

Target modelling results - 1.5C

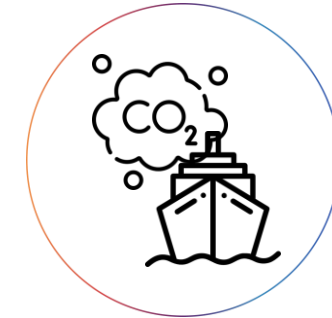
PATHWAY DESIGN



CARBON
BUDGET



TRANSPORT
WORK DEMAND

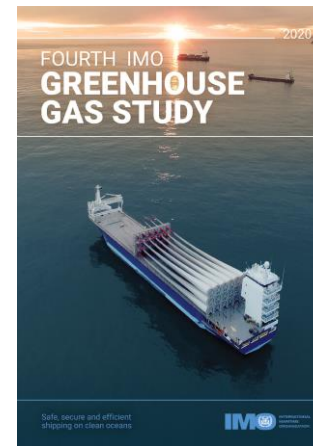


CARBON INTENSITY

Well Below 2°C

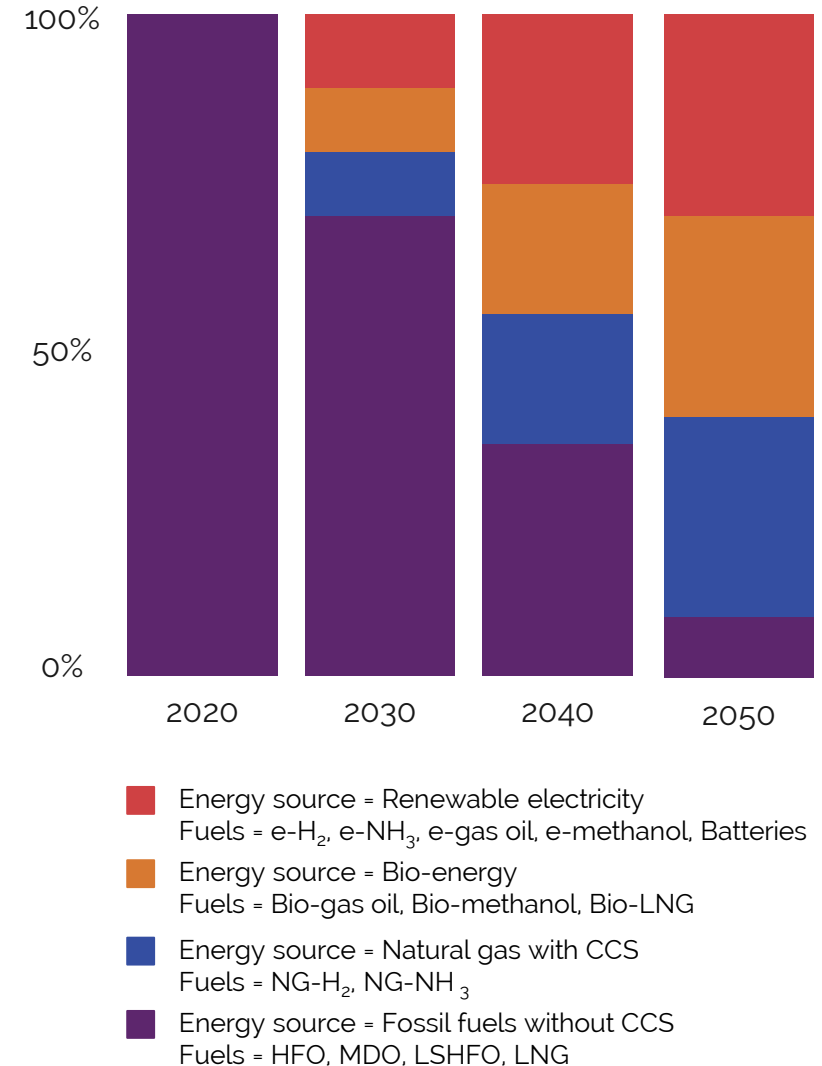


1.5°C

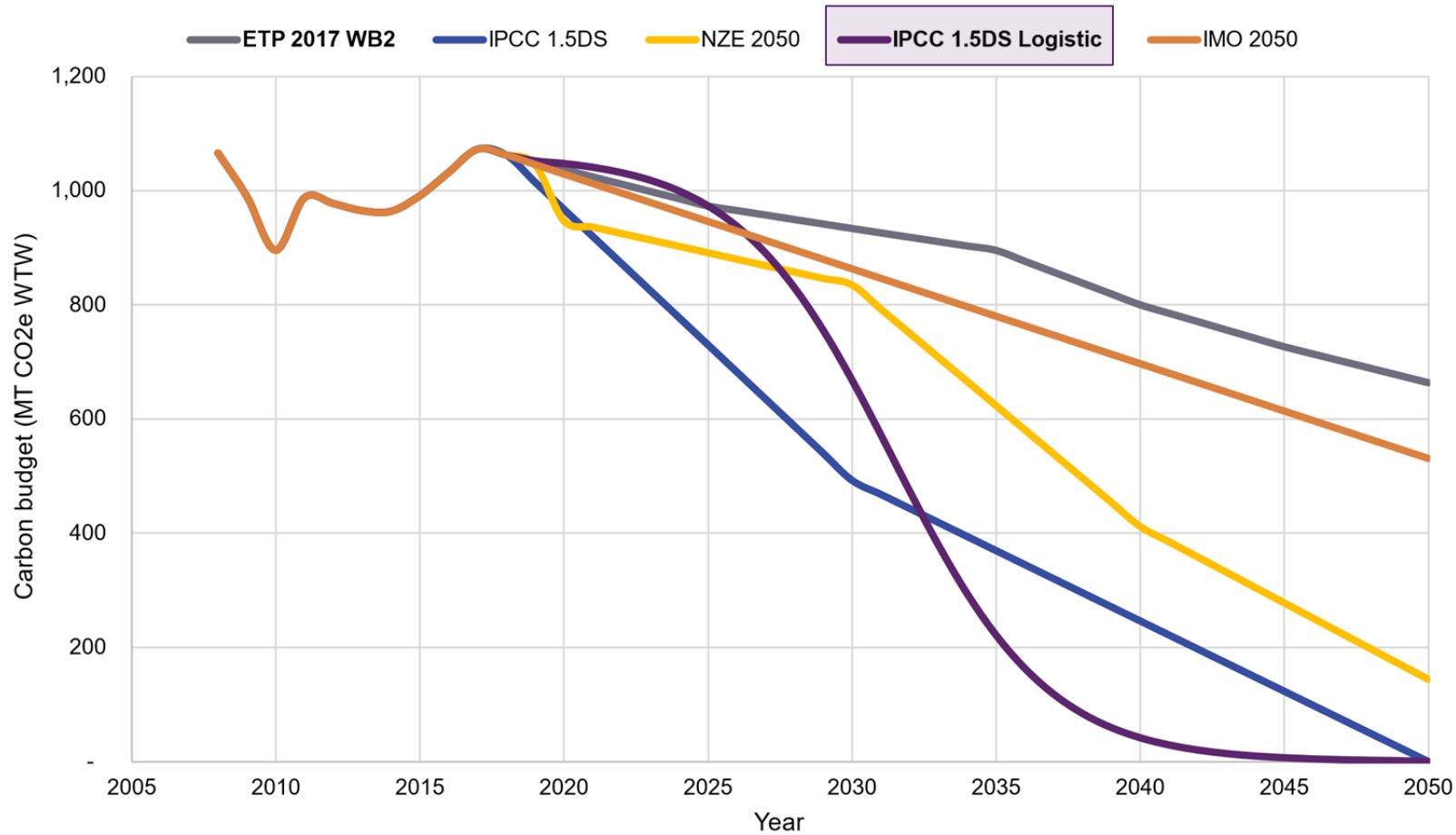


CARBON BUDGET ALLOCATION - 1.5°C SCENARIO

- From IPCC: *"In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO₂ emissions decline by about 45% from 2010 levels by 2030..., reaching net-zero around 2050..."*.
- 2010 TtW levels from Third IMO GHG Study.
- Assumed equal fuel mix scenario from Lloyd's Register and UMAS (2019) to get WtW emissions based on decarbonization in 2050.

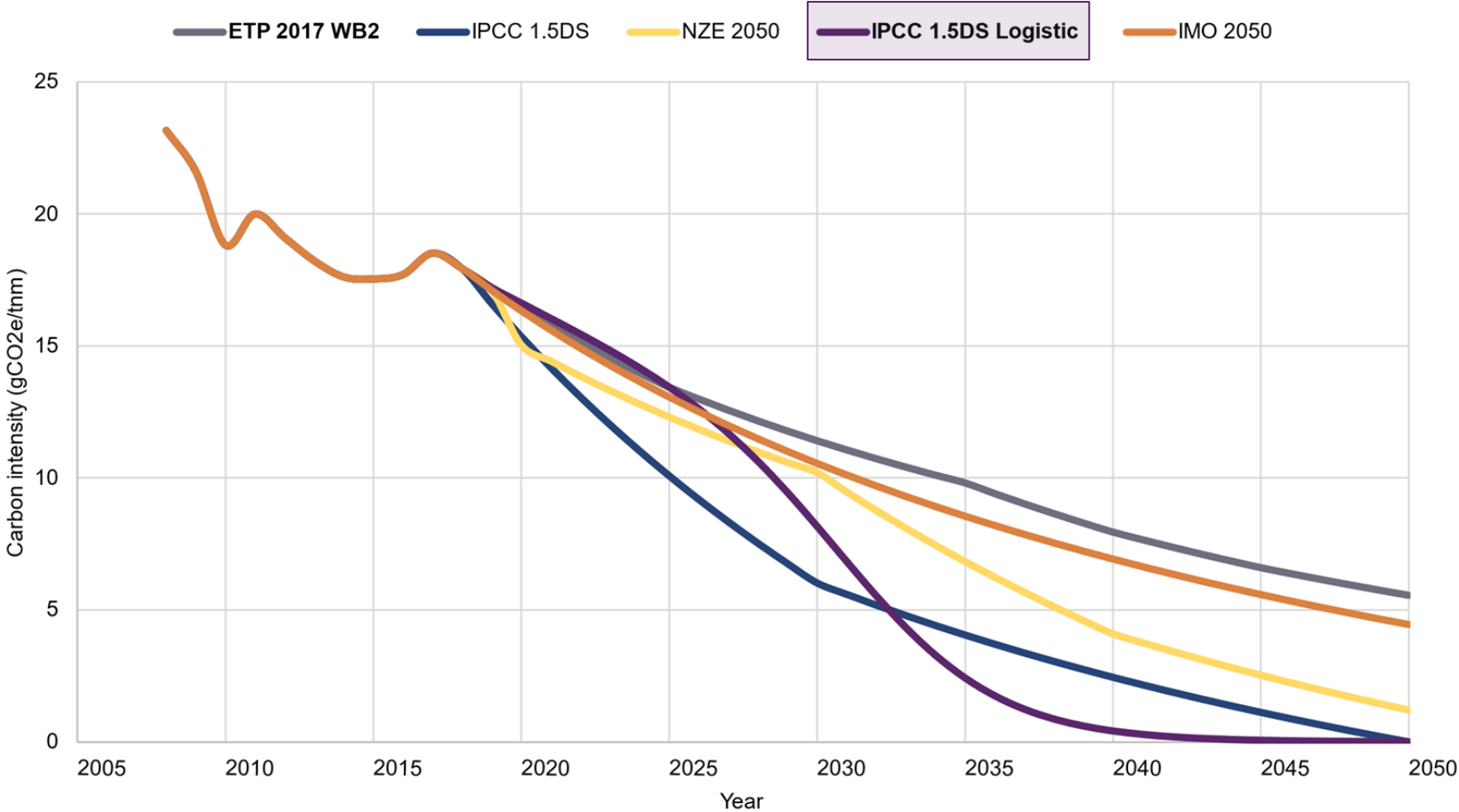


CARBON BUDGET



- Well-to-Wake Emissions (Upstream + Operational).
- CO₂, N₂O, CH₄ (methane).
- IMO curve adapted to include WTT phase.

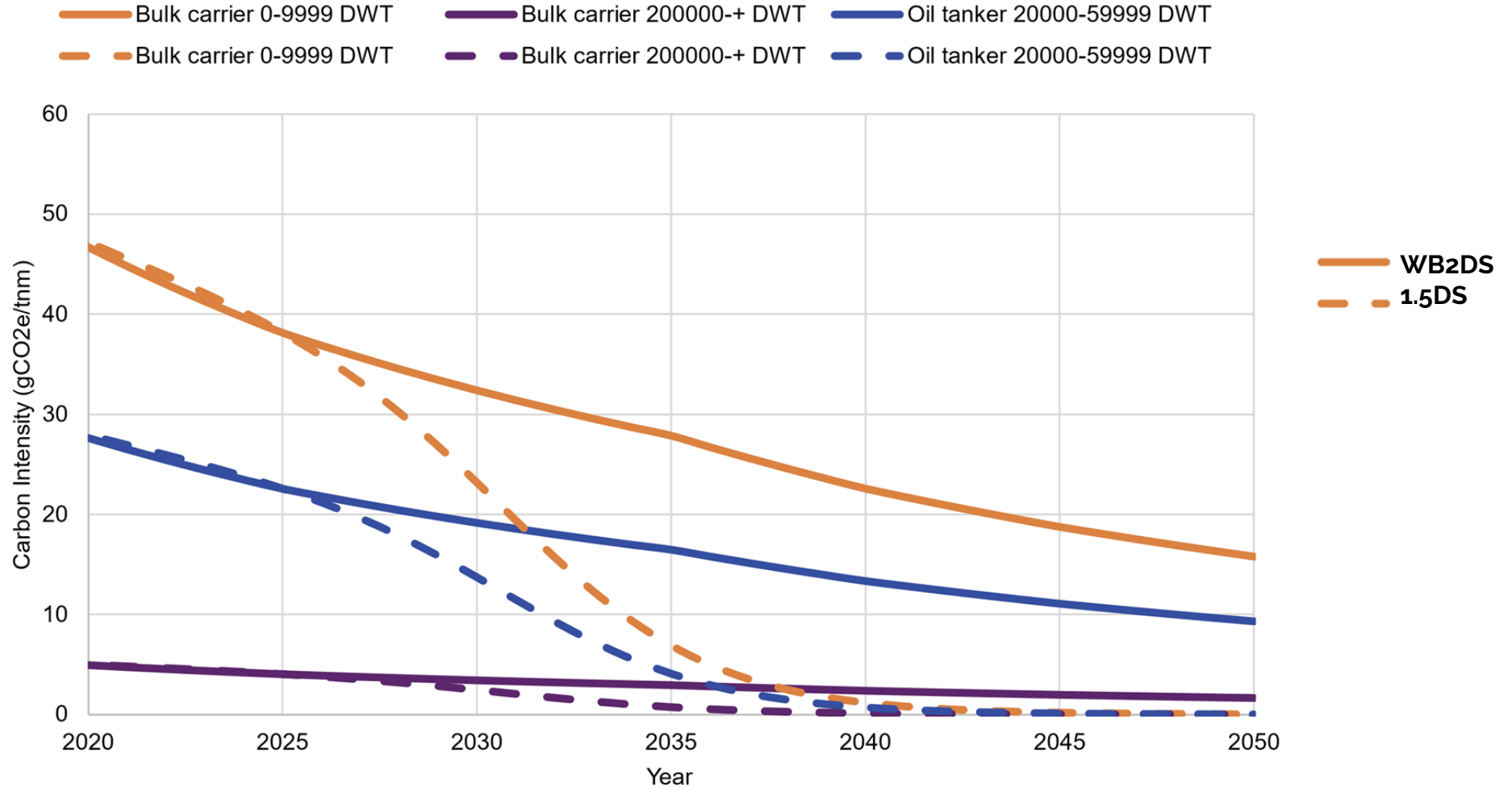
CARBON INTENSITY



- Metric: gCO₂ / transport work.

CATEGORY SPECIFIC TARGET

Comparing apples with apples



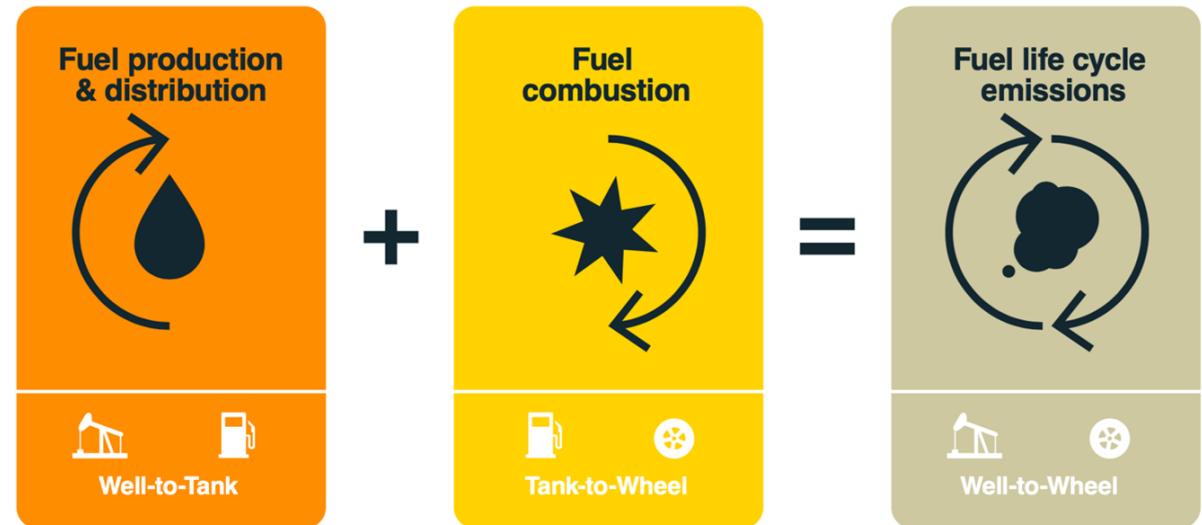
EMISSIONS BOUNDARY

All targets must cover **Well-to-Wake (WTW)** emissions (in metric tonnes of CO₂ equivalent (CO₂e))

WTW emissions are emissions generated across the life cycle of a fuel.

They include both **Well-to-Tank (WTT)** emissions, generated in the fuel's production and distribution, and **Tank-to-Wake (TTW)** emissions, generated in the combustion of the fuel.

The Fuel Life Cycle



© Smart Freight Centre 2019

TARGET COVERAGE

Type of shipping related emissions		WTW base year GHG emissions	Base year activity data*
Vessel owners / operators	Passenger	Scope 1 Scope 3	tonne-nautical mile
	Freight	Scope 1 Scope 3	tonne-nautical mile
Cargo shippers / Logistics Service Providers	Passenger	Scope 3 category 5 or 6	tonne-nautical mile
	Freight	Scope 3 category 4 or 9	tonne-nautical mile

* Except cruises

SECTOR SPECIFIC REQUIREMENTS*



TARGET YEAR
ELIGIBILITY

- For all companies, near-term target year must be **no earlier than 2030**.



TARGET
AMBITION

- Vessel owners or operators must also submit **long-term science-based targets** (net-zero targets) along with their near-term target submission.
- For maritime transport emissions, a long-term science-based target means reducing emissions to a residual level **in line with 1.5°C** scenarios by no later than 2040.

* In addition to the SBTi [general](#) and [Net-Zero](#) criteria.

LIMITATIONS ON FOSSIL FUEL ACTIVITIES

- The SBTi [Fossil Fuel Policy](#) affects the extent to which companies engaging in fossil fuel businesses can commit to climate aligned targets.
- Currently the SBTi is unable to accept commitments or validate targets from companies in the oil and gas or fossil fuels sectors.
- Users of the [SBTi Maritime Tool](#) with activities related to transportation or extraction of fossil fuel products are advised to **review the current status of this policy** as well as the latest version of the [SBTi Criteria](#).





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DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

WORKED EXAMPLES

Image by Karsten Bergmann from Pixabay

EXCEL TOOL TO SUPPORT TARGET SETTING FOR THE MARITIME SECTOR

Calculates science-based targets for different vessel types and sizes following the SDA (convergence approach)



Sectoral Decarbonization Approach - Maritime Transport Tool

DRAFT Version for Public Consultation
Mar-2021

Section 1. Select type of vessel used for transport activity

Please select vessel type for transport activity

Section 2. Select vessel size category

Please refer to guidance document for details

Section 3. Enter emissions and activity data

Select a base year: Any base year between 2018 and the current year is eligible
Select a target year: Targets must cover a minimum of 5 years and a maximum of 15 years from the date the target is submitted to the SBTi for validation

Well-to-Wake (WTW) emissions in base year: metric tonnes of CO₂ equivalent (tCO₂e)
Activity in base year: tonnes nautical mile (t.nm)
Expected activity in target year: tonnes nautical mile (t.nm)

Section 4. Review target modelling results

Target modelling results - 1.5C [Go to WB2C scenario results](#)

	Base year	Target year	% Reduction
Intro	1.5C	WB2C	
Tool			
SBTaggregator			

One interface for calculating SBTs for all maritime transport categories and one additional (non target setting) feature are included:

SBT tool

Vessel operators can model emission reduction targets for freight and passenger maritime transport activities. Shippers and Logistics Service Providers can also use this tool to model emission reduction targets for scope 3 category 4/9 emissions.

SBT aggregator

Additional feature to help companies combine targets across multiple maritime transport categories into a single metric.

CONTAINER SHIPPER, DEFAULT



Sectoral Decarbonization Approach - Maritime Transport Tool

Version: Version 1.0

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[Disclaimer](#)

Contact: inf@sciencebasedtargets.org

Section 1. Select type of vessel used for transport activity

Container

Please select vessel type for transport activity

Required Input

Results

Choose vessel type from drop-down

Section 2. Select vessel size category

Default

Please refer to guidance document for details

Choose vessel size or default

Section 3. Enter emissions and activity data

Select a base year

2021

any base year between 2018 and the current year is eligible

Select a target year

2033

Year-term targets must cover a maximum of 10 years from the date the target is submitted to the SBTi for validation

Input data associated with base year

Well-to-Wake (WTW) emissions in base year

1,750,000

metric tonnes of CO2 equivalent (tCO2e)

Activity in base year

168,898,488,121

tonne-nautical mile (t.nm)

Expected activity in target year

236,457,883,369

tonne-nautical mile (t.nm)

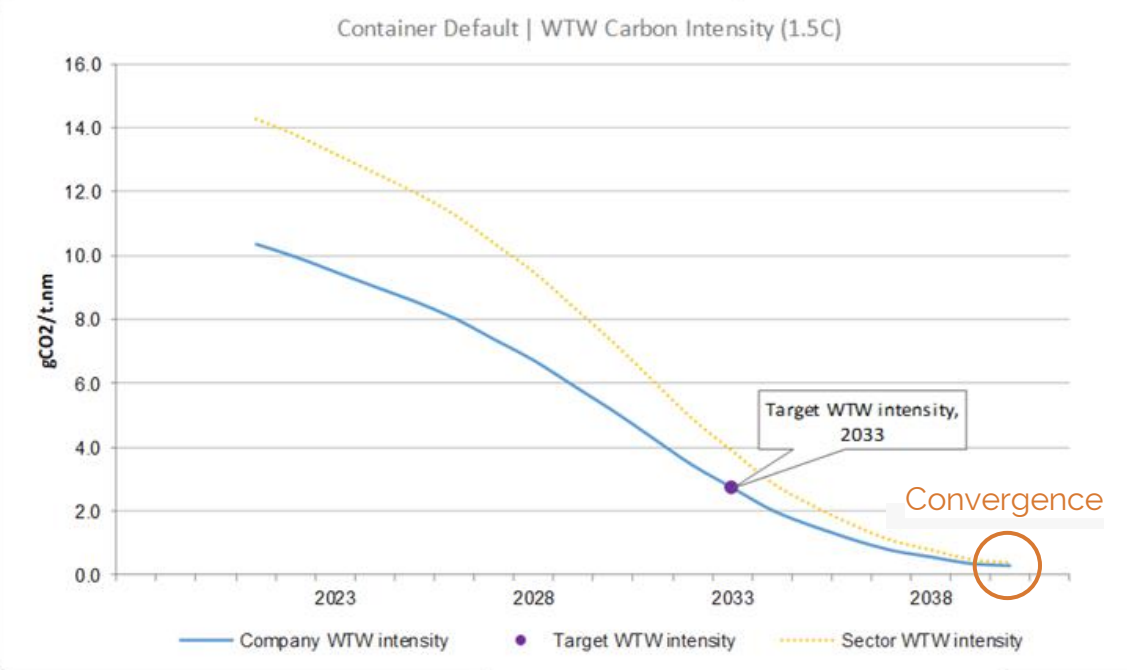
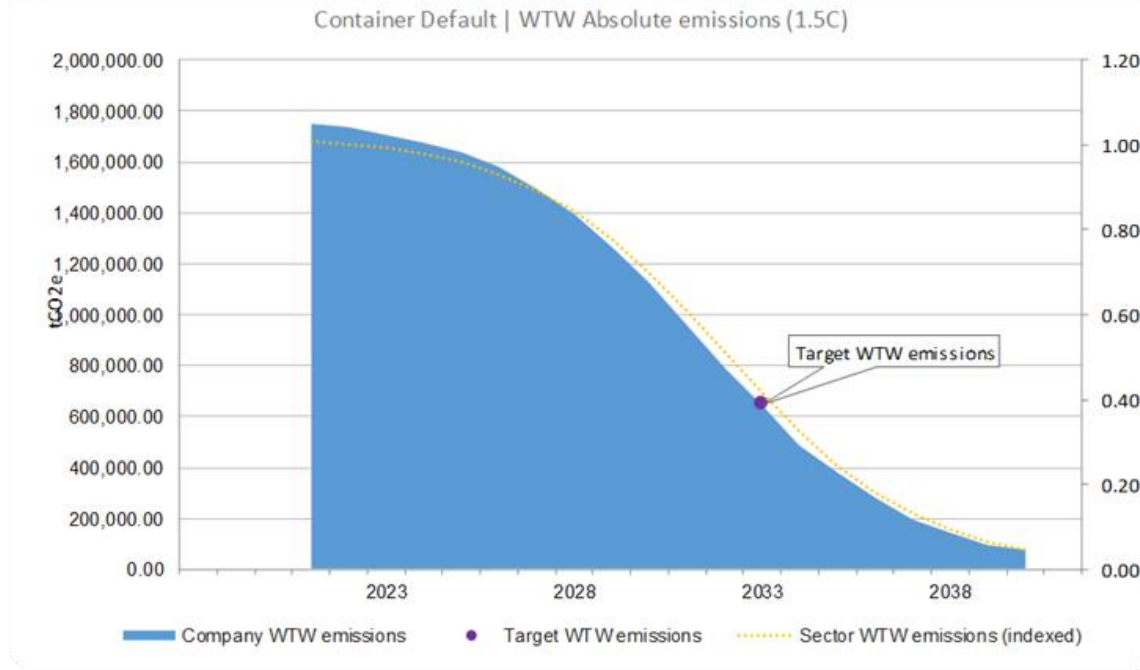
State projected activity in target year

CONTAINER SHIPPER, DEFAULT

Section 4. Review target modelling results

Target modelling results - 1.5C

	Base year 2021	Target year 2033	% Reduction 2021 - 2033
Container Default WTW emissions tCO ₂ e	1,750,000	643,348	63.2%
Container Default WTW carbon intensity gCO ₂ /t.nm	10.36	2.72	73.7%



CONTAINER OPERATOR



Sectoral Decarbonization Approach - Maritime Transport Tool

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Section 1. Select type of vessel used for transport activity

Container *Please select vessel type for transport activity*

Required Input
Results

Section 2. Select vessel size category

(TEU) 8,000 - 11,999 *Please refer to guidance document for details*

Operator selects relevant size categories and enters one by one

Section 3. Enter emissions and activity data

Select a base year	2021	<i>Any base year between 2018 and the current year is eligible</i>
Select a target year	2033	<i>Near-term targets must cover a maximum of 10 years from the date the target is submitted to the SBTi for validation</i>

Well-to-Wake (WTW) emissions in base year	171,058	<i>metric tonnes of CO2 equivalent (tCO2e)</i>
Activity in base year	10,691,144,708	<i>tonne-nautical mile (t.nm)</i>
Expected activity in target year	12,829,373,650	<i>tonne-nautical mile (t.nm)</i>

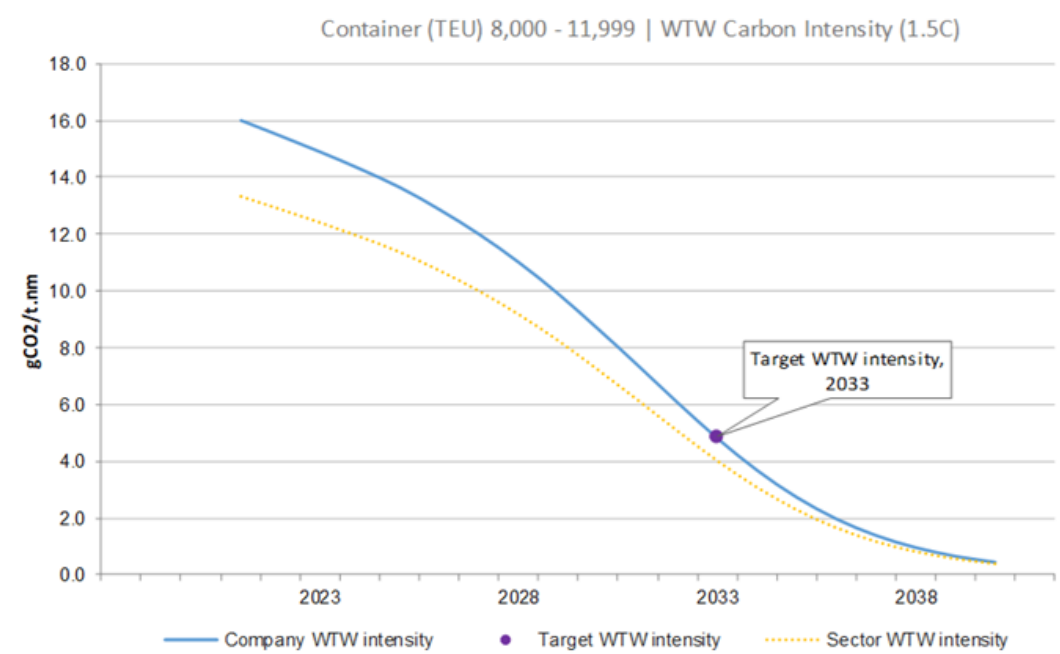
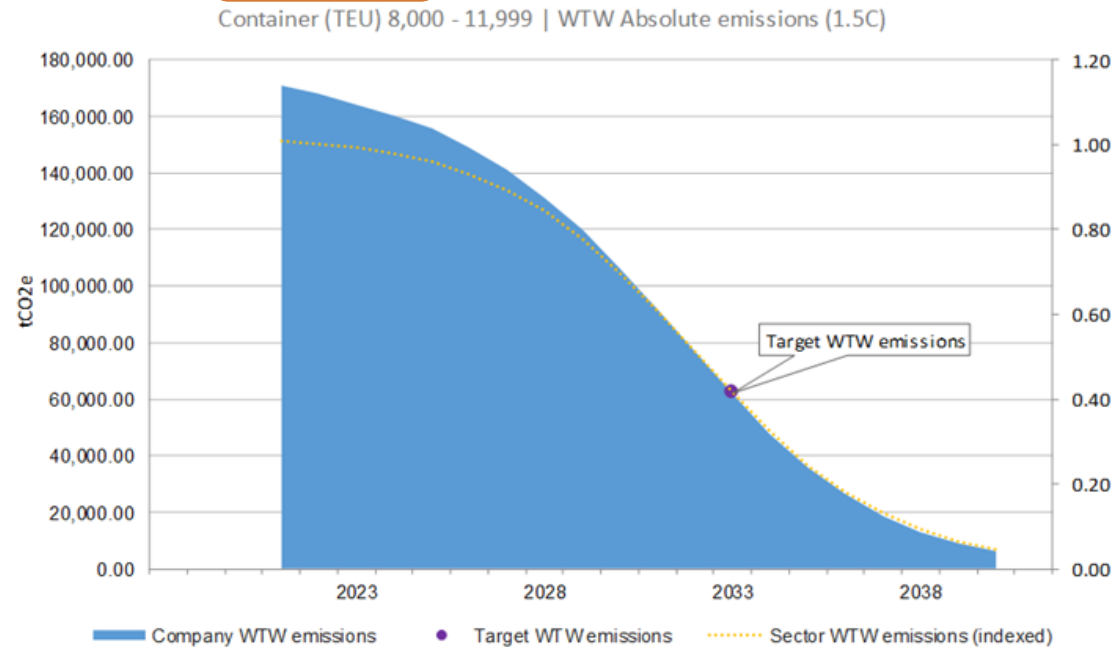
CONTAINER OPERATOR

Section 4. Review target modelling results

Target modelling results - 1.5C

			Base year 2021	Target year 2033	% Reduction 2021 - 2033
Container (TEU) 8,000 - 11,999	WTW emissions	tCO ₂ e	171,058	61,787	63.9%
Container (TEU) 8,000 - 11,999	WTW carbon intensity	gCO ₂ /t.nm	16.00	4.82	69.9%

Results calculated for each size category



CONTAINER OPERATOR



Sectoral Decarbonization Approach - Maritime Transport Tool

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OPTIONAL - Target aggregation sheet

Step 1: List the vessel type, size, base year emissions (WTW), activity, and target year activity in columns D, E, G, H and J for each different vessel type or size category for which targets are to be calculated.

Step 2: Calculate the targets for each different vessel type or size category using the "Tool" tab.

Step 3: Input the results calculated in step 2 into columns L through T of the SBTaggregator tab. The aggregated results and prorated reduction target are shown in at the bottom of row of this table.

Please note that only intensity targets with the same activity denominatos (i.e., unit) can be aggregated.

Emissions and activity data (as entered in tool interface)						Target modelling results - 1.5C				
	Vessel type	Vessel size	Base year		Target year	Target year		Target year		
			WTW emissions (tCO2e)	Activity (t.nm or G.T.nm)	WTW carbon intensity (gCO2e/t.nm or gCO2e/G.T.nm)	Activity (t.nm or G.T.nm)	WTW emissions (tCO2e)	% reduction	WTW carbon intensity (gCO2e/t.nm or gCO2e/G.T.nm)	% reduction
1	Container	(TEU) >20,000	760,259	86,393,088,553	8.80	120,950,323,974	308,470	59.4%	2.55	71%
2	Container	(TEU) 14,500 - 19,999	449,028	45,356,371,490	9.90	58,963,282,937	175,707	60.9%	2.98	70%
3	Container	(TEU) 12,000 - 14,499	369,654	26,457,883,369	13.97	37,041,036,717	144,647	60.9%	4.21	70%
4	Container	(TEU) 8,000 - 11,999	171,058	10,691,144,708	16.00	14,967,602,592	61,787	63.9%	4.82	70%
5										
20										
Combined results			1,750,000	168,898,488,121	10.4	231,922,246,220	690,611	60.3%	3.07	70.5%

FERRY OPERATOR



Sectoral Decarbonization Approach - Maritime Transport Tool

Version: Version 1.0

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Section 1. Select type of vessel used for transport activity

Ferry Passenger Only *Please select vessel type for transport activity*

Required Input
Results

Section 2. Select vessel size category

(GT) 1,000 - 1,999 *Please refer to guidance document for details*

Size categories expressed in GT

Section 3. Enter emissions and activity data

Select a base year 2022 *Any base year between 2018 and the current year is eligible*

Select a target year 2033 *Near-term targets must cover a maximum of 10 years from the date the target is submitted to the SBTi for validation*

Well-to-Wake (WTW) emissions in base year 100,000 *metric tonnes of CO2 equivalent (tCO2e)*

Activity in base year 1,000,000,000 *gross tonne nautical miles (GT.nm)*

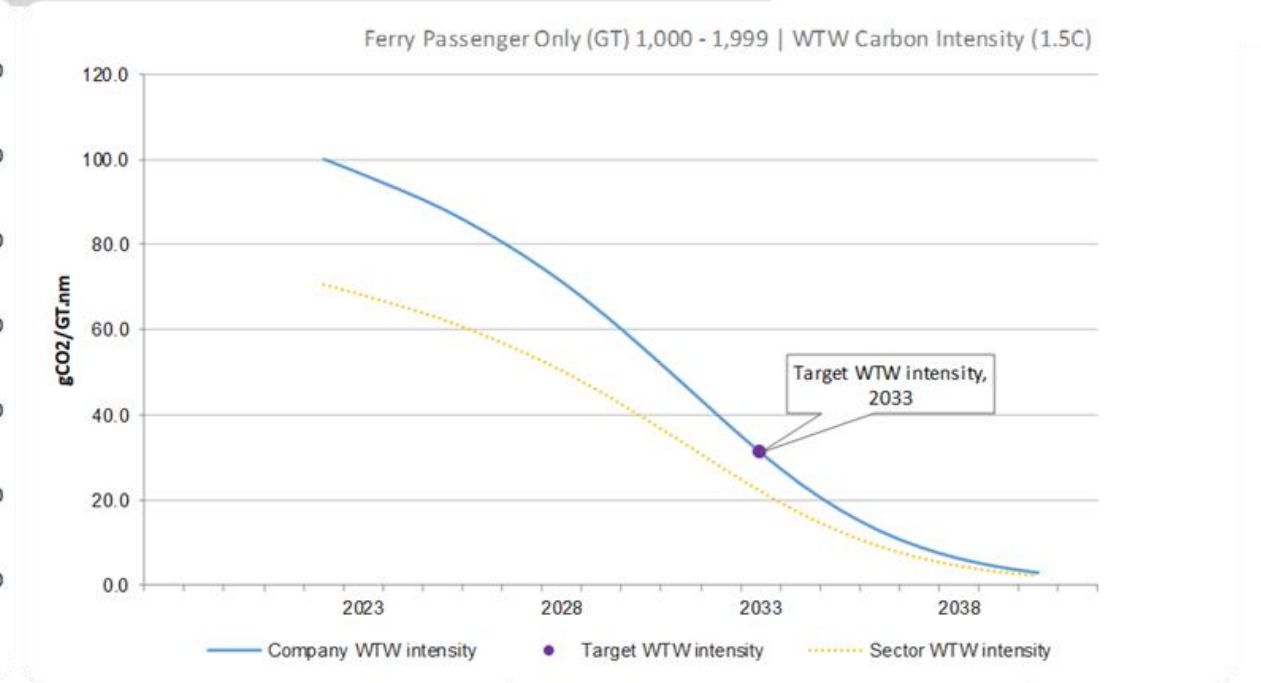
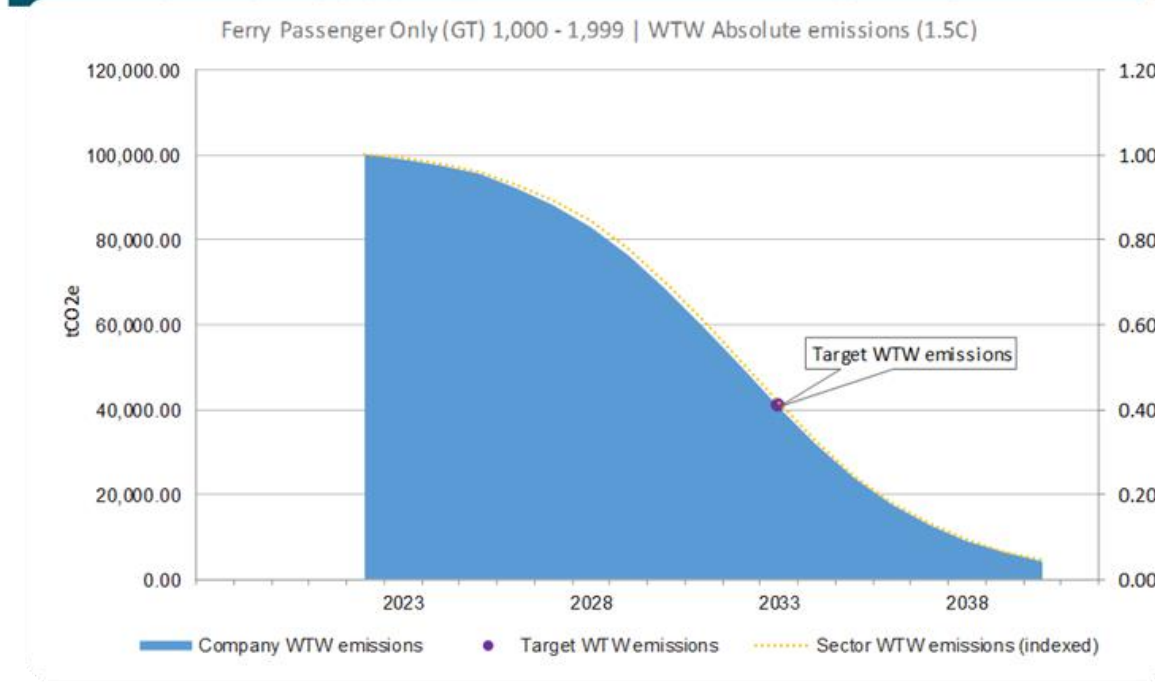
Expected activity in target year 1,300,000,000 *gross tonne nautical miles (GT.nm)*

FERRY OPERATOR

Section 4. Review target modelling results

Target modelling results - 1.5C

	Base year 2022	Target year 2033	% Reduction 2022 - 2033
Ferry Passenger Only (GT) 1,000 - 1,999 WTW emissions tCO ₂ e	100,000	40,519	59.5%
Ferry Passenger Only (GT) 1,000 - 1,999 WTW carbon intensity gCO ₂ /GT.nm	100.00	31.17	68.8%



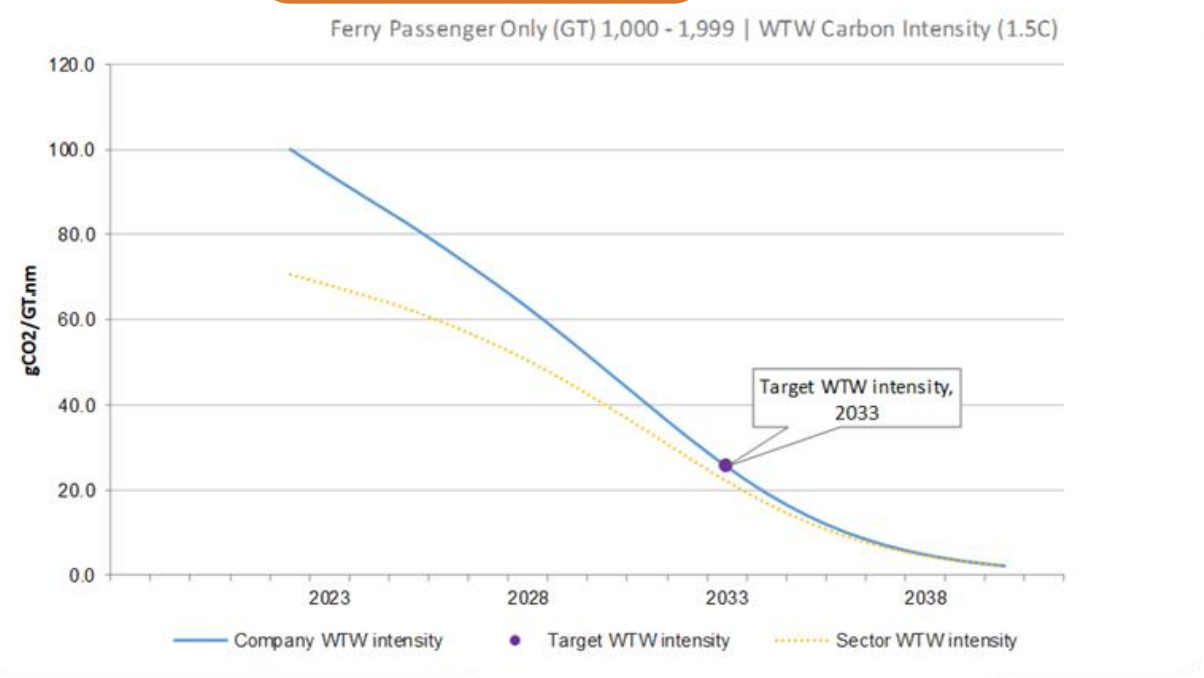
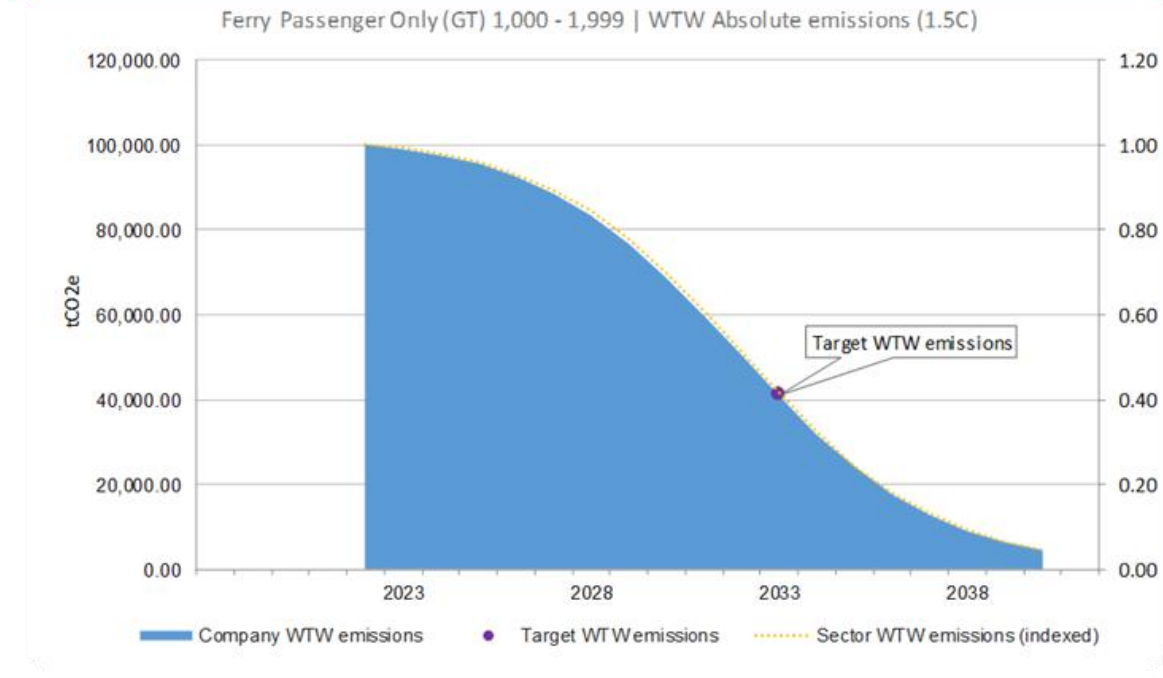
FERRY OPERATOR

Section 4. Review target modelling results

Target modelling results - 1.5C

	Base year 2022	Target year 2033	% Reduction 2022 - 2033
Ferry Passenger Only (GT) 1,000 - 1,999 WTW emissions tCO2e	100,000	40,830	59.2%
Ferry Passenger Only (GT) 1,000 - 1,999 WTW carbon intensity gCO2/GT.nm	100.00	25.52	74.5%

Business growth / increase in activity share requires more ambitious targets





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Q&A SESSION

Image by Karsten Bergmann from Pixabay



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CLOSING

Image by Karsten Bergmann from Pixabay

THE TIME TO ACT IS NOW!

- In January 2023 we will start with a **series of training webinars**. Join [our mailing list](#) to receive updates.
- Should you have any questions, contact us at info@sciencebasedtargets.org.
- The new guidance and materials, as well as the recording of this webinar can be found on the **NEW [SBTi maritime webpage](#)**.
- We are urgently calling on **all companies to set science-based** net-zero targets



