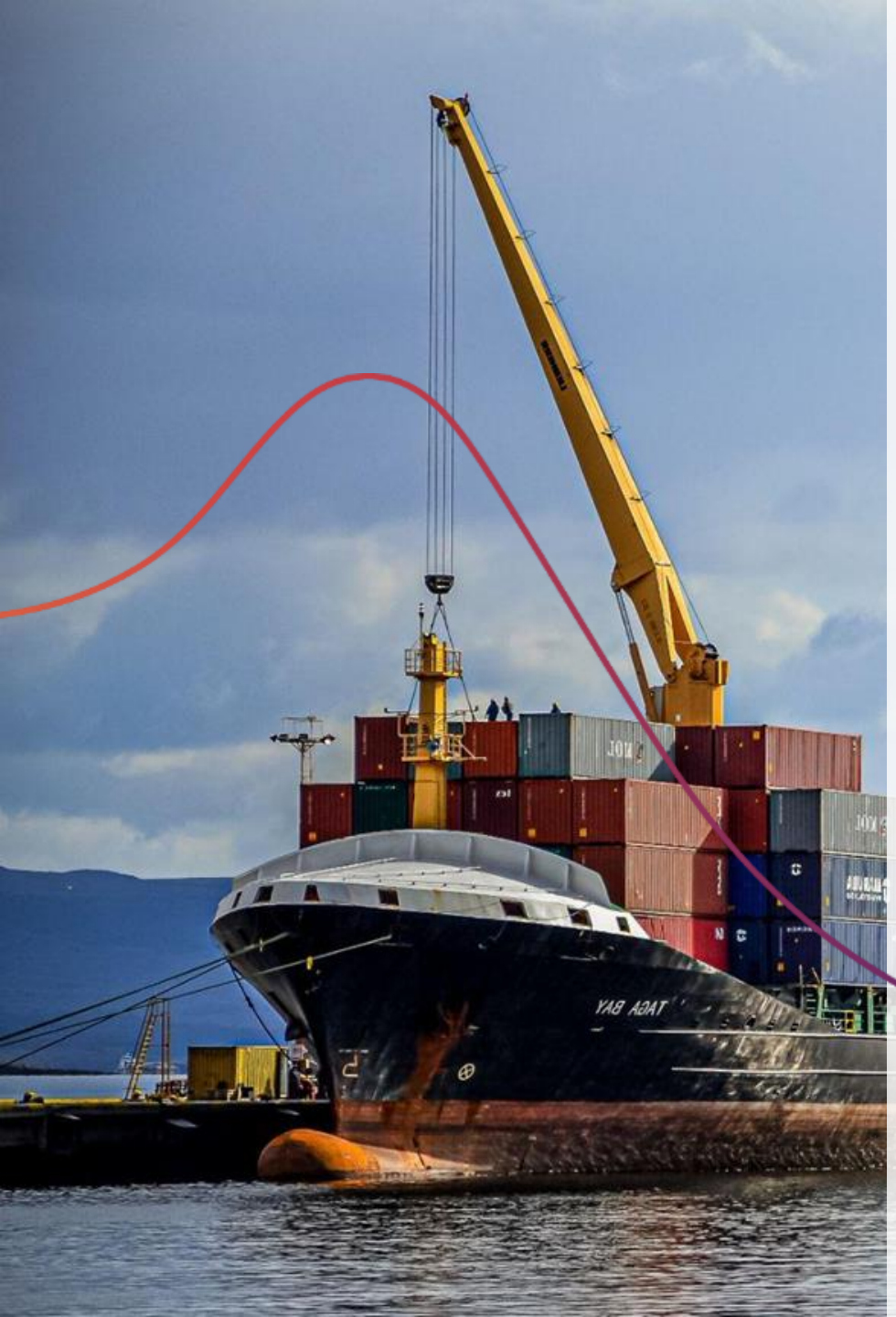


SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SCIENCE BASED TARGET-SETTING IN THE MARITIME TRANSPORT SECTOR

GUIDANCE LAUNCH WEBINAR

6 December 2022

PARTNER ORGANIZATIONS

CDP DISCLOSURE INSIGHT ACTION

United Nations Global Compact

WORLD RESOURCES INSTITUTE

WWF

IN COLLABORATION WITH

WE MEAN BUSINESS COALITION

VIDEO-CONFERENCE GUIDELINES

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- 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.

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

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

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

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

CDP DISCLOSURE INSIGHT ACTION

United Nations Global Compact

WORLD RESOURCES INSTITUTE

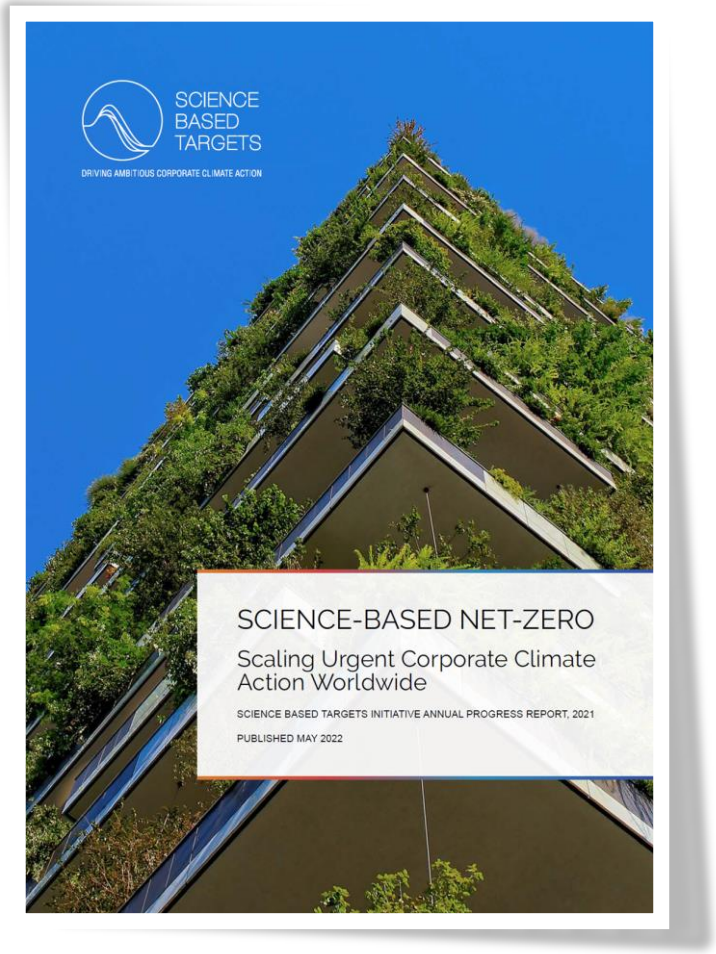
WWF

In collaboration with

WE MEAN BUSINESS COALITION

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

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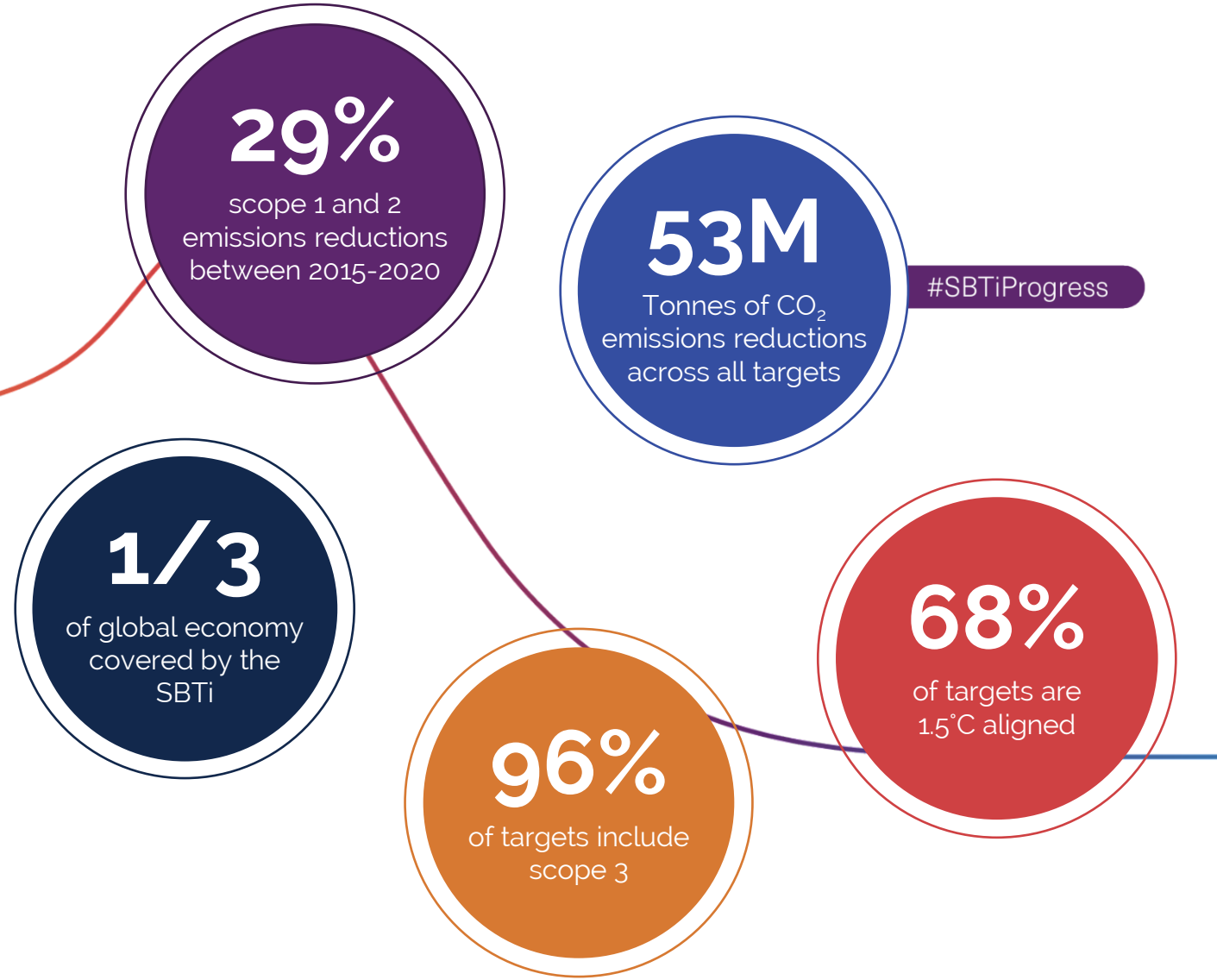
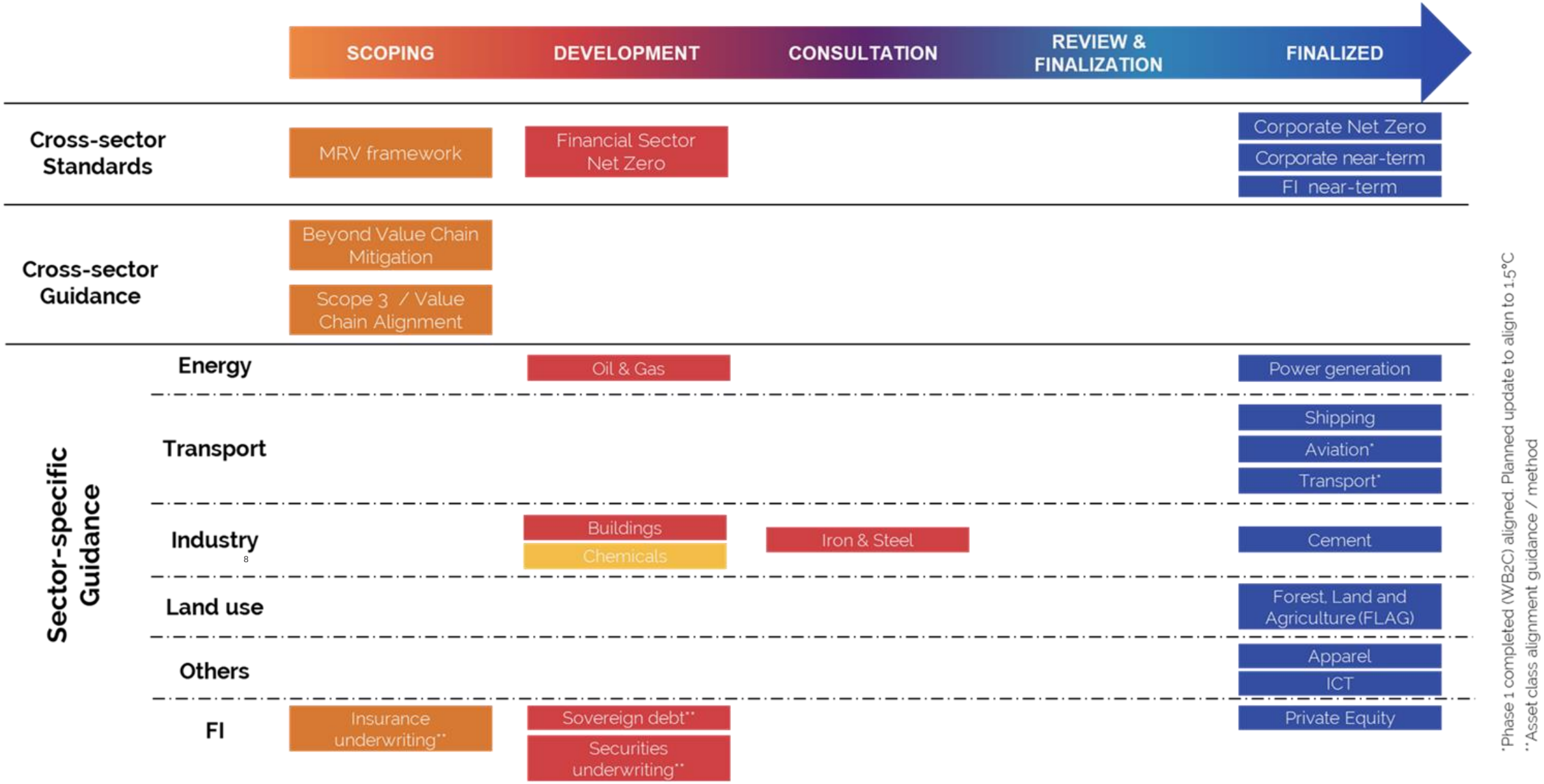
Companies with science-based targets are delivering emissions reductions at scale

- Reduced emissions by **29%** between **2015-2020**.
- **1.5B tonnes of annual CO_2e** emissions covered by the SBTi.
- **$38trn** of global market capitalization.
- **70** countries and **15** industries.



Source: SBTi Progress Report 2021.

SBTi UPCOMING WORK



SCIENCE BASED TARGETS

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THE SBTi MARITIME GUIDANCE

Image by Karsten Bergmann from Pixabay

THE CHALLENGE

Decarbonizing a critical link of global trade

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- 80% of global trade by volume is carried by sea.
- 3% of global GHG emissions (~1GT of CO_2e).
- Completely reliant on fossil fuels.
- Highly heterogeneous (cargo categories, vessel types, vessel sizes, routes).
- Long asset replacement cycles.

Image by Pete from Pixabay

INDUSTRY DEVELOPMENTS

SCIENCE BASED TARGETS
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Industry calls to action

COZEV
CARGO OWNERS FOR ZERO EMISSION VESSELS

GETTING TO ZERO COALITION

Industry initiatives

POSEIDON PRINCIPLES

POSEIDON PRINCIPLES FOR MARINE INSURANCE

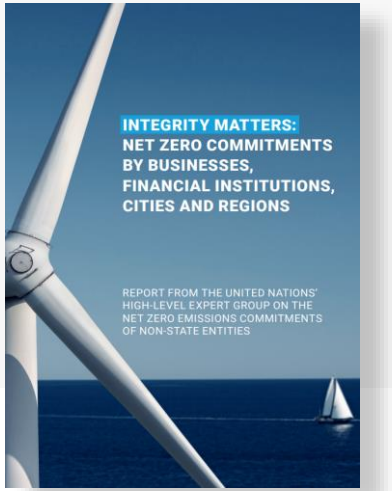
Regulation

IMO

EUROPEAN COMMISSION

COP27 Outcomes

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



WHAT DOES MARITIME TRANSPORT GUIDANCE COVER?

All movement of goods and people on shipping vessels

SCIENCE BASED TARGETS
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- Ship owners
- Ferry operators
- Commodity traders
- Consumer goods companies
- Cargo owners
- Charterers
- Cruise companies
- Commuters
- Logistics service providers
- Ship operators
- Other
- FIs portfolios, recreational, fishing not covered

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

SCIENCE BASED TARGETS
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2020

Setting up of Technical Working Group including industry & non industry stakeholders

Development started with **WWF**, **UMAS** and **Smart Freight Centre** in June 2020

2021

Subsequent focus groups to field feedback and continuous engagement

First draft launch and public consultation in March 2021

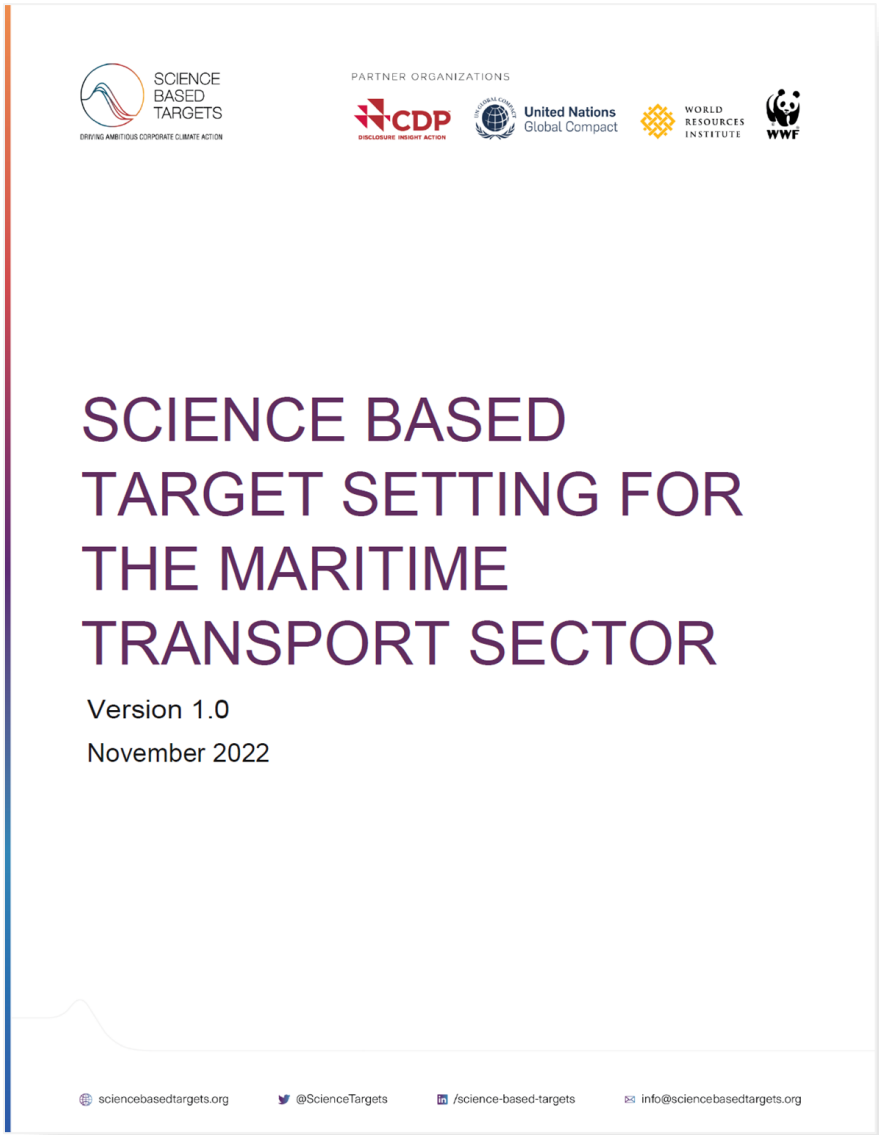
2022

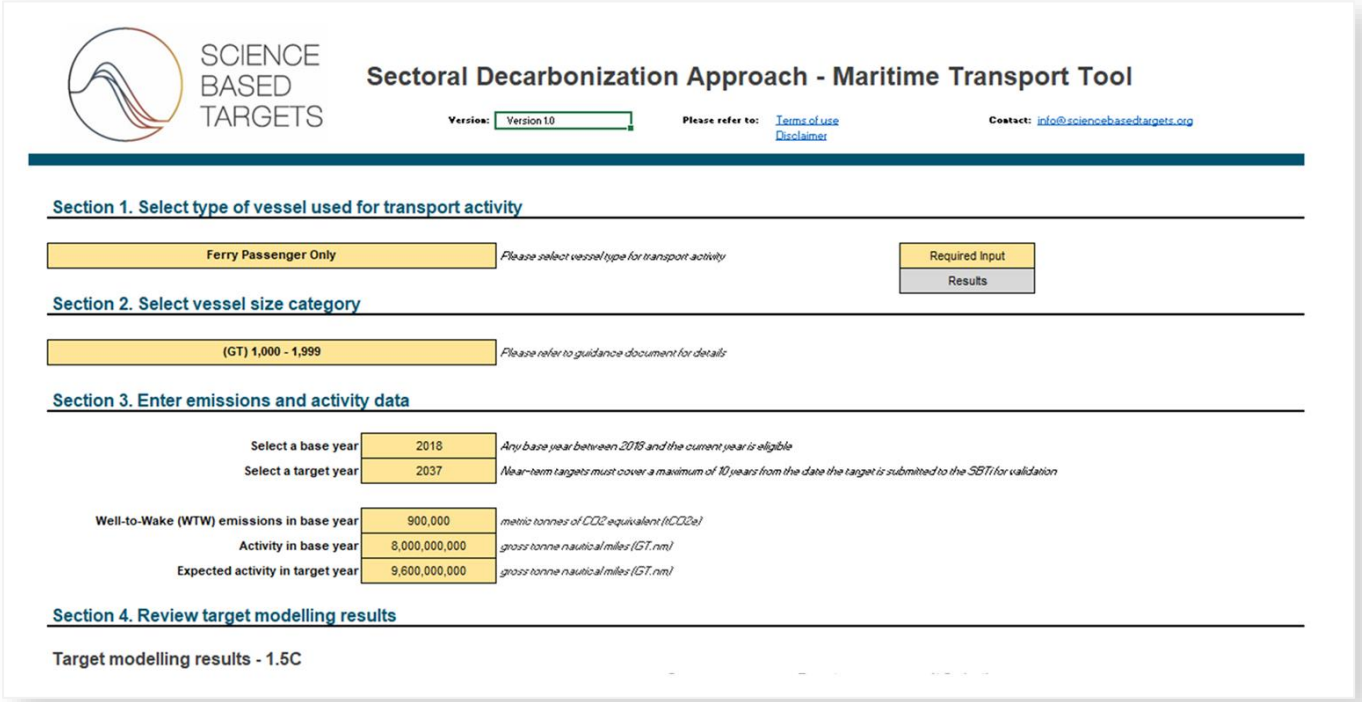
SBTi approval and publication in November 2022

Image by Freddy from Pixabay

TECHNICAL GUIDANCE AND TOOL

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION





PATHWAY DESIGN

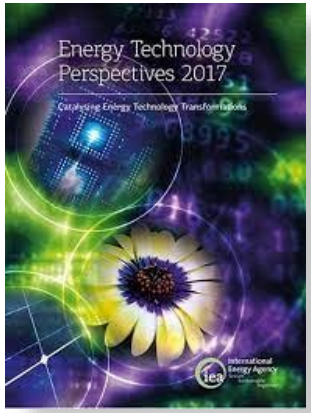
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

CARBON BUDGET

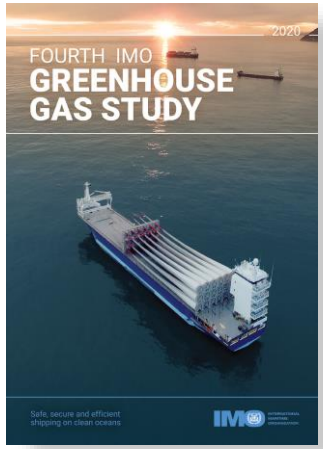
TRANSPORT WORK DEMAND

CARBON INTENSITY

Well Below 2˚C



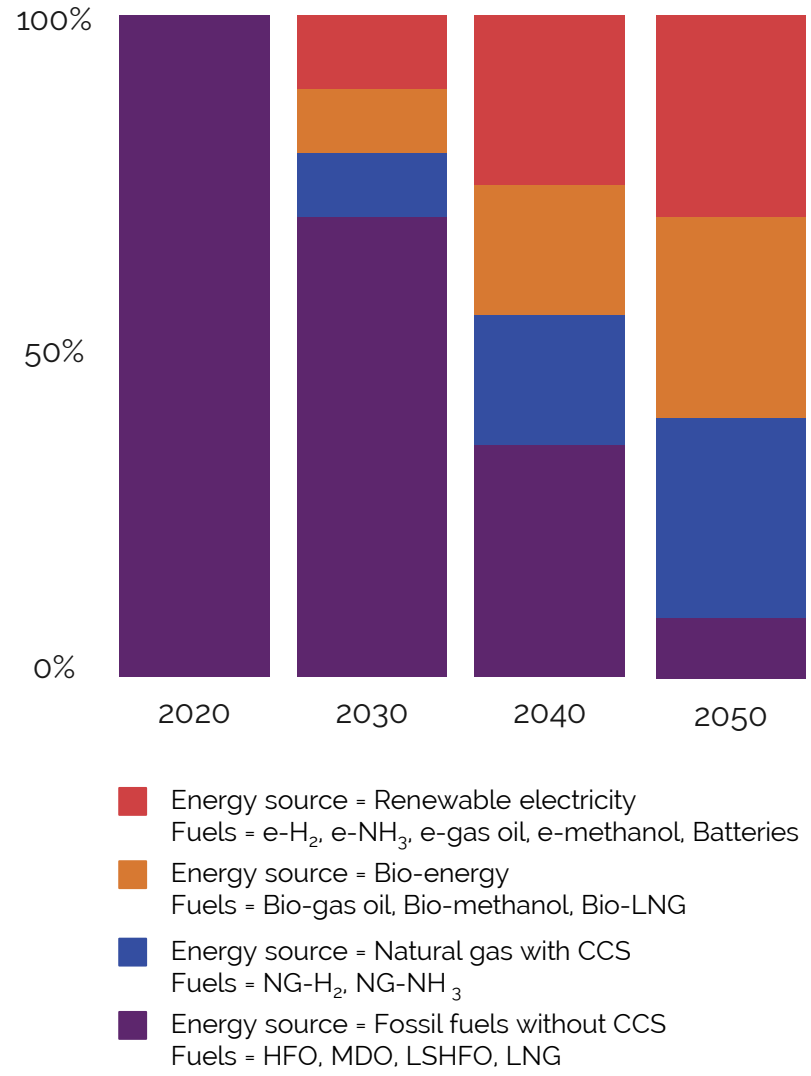
1.5˚C



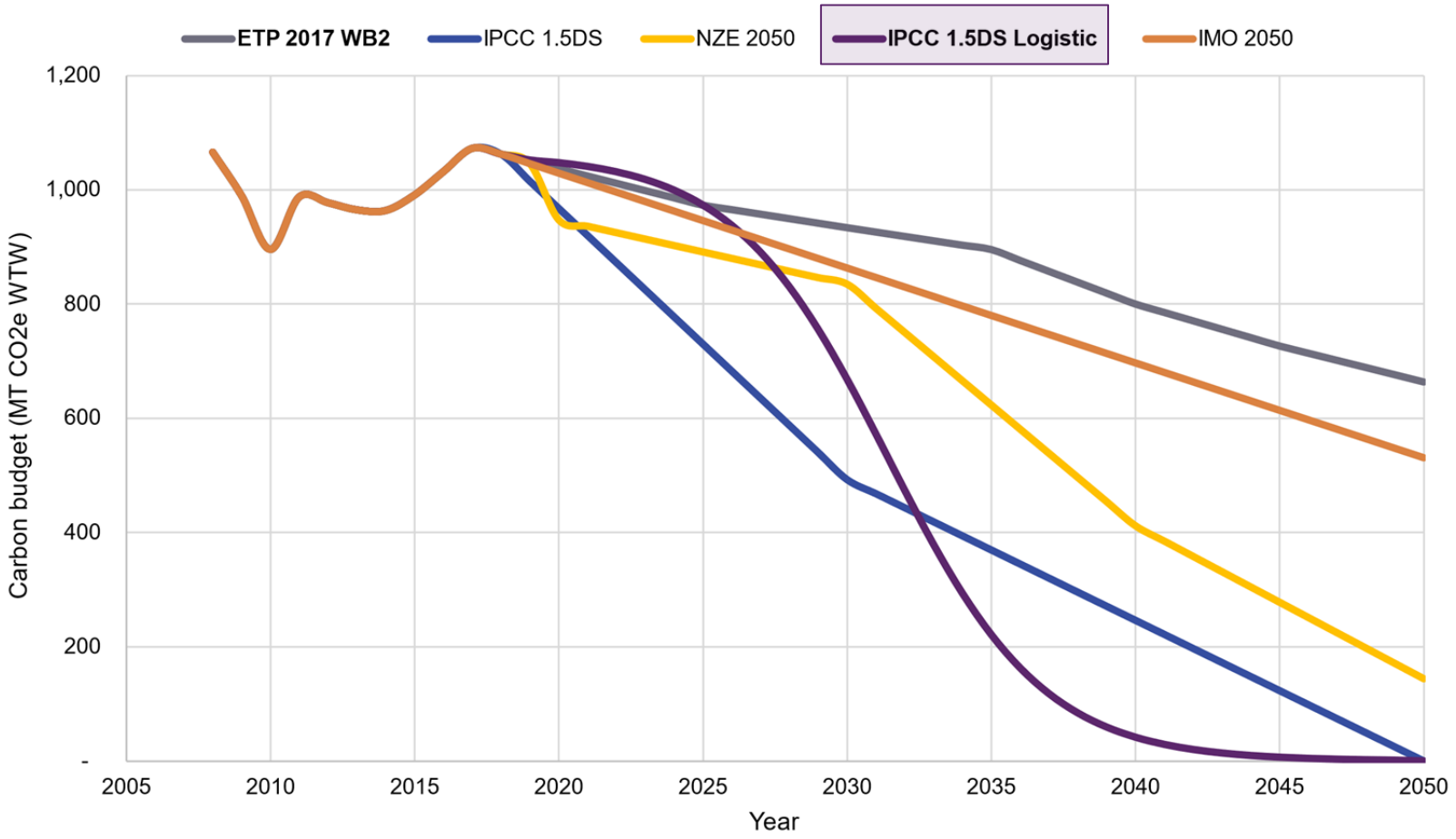
CARBON BUDGET ALLOCATION - 1.5˚C SCENARIO

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- From IPCC: *"In model pathways with no or limited overshoot of 1.5˚C, global net anthropogenic CO_2 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.

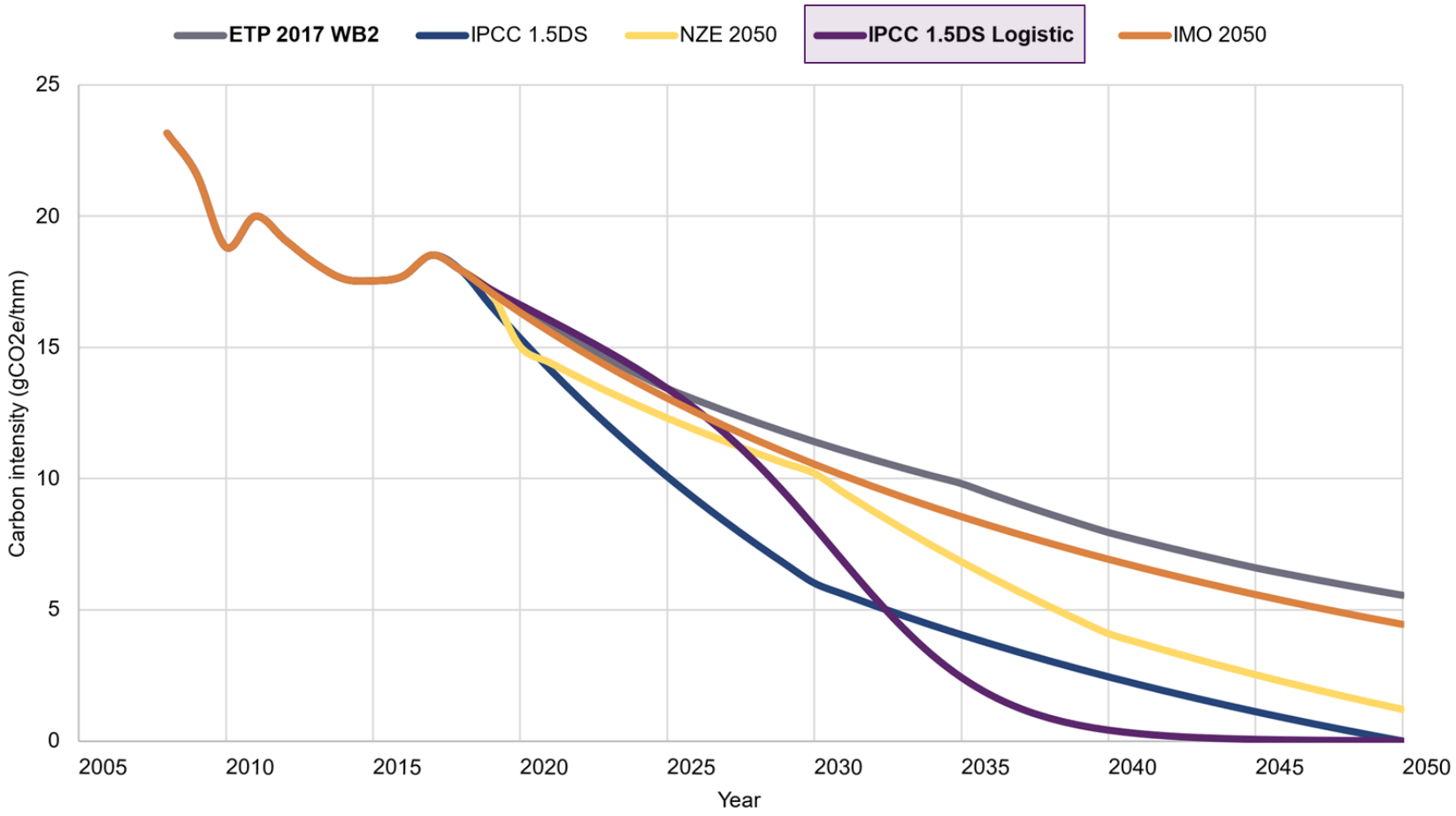


CARBON BUDGET



- Well-to-Wake Emissions (Upstream + Operational).
- CO_2, N_2O, CH_4 (methane).
- IMO curve adapted to include WTT phase.

CARBON INTENSITY

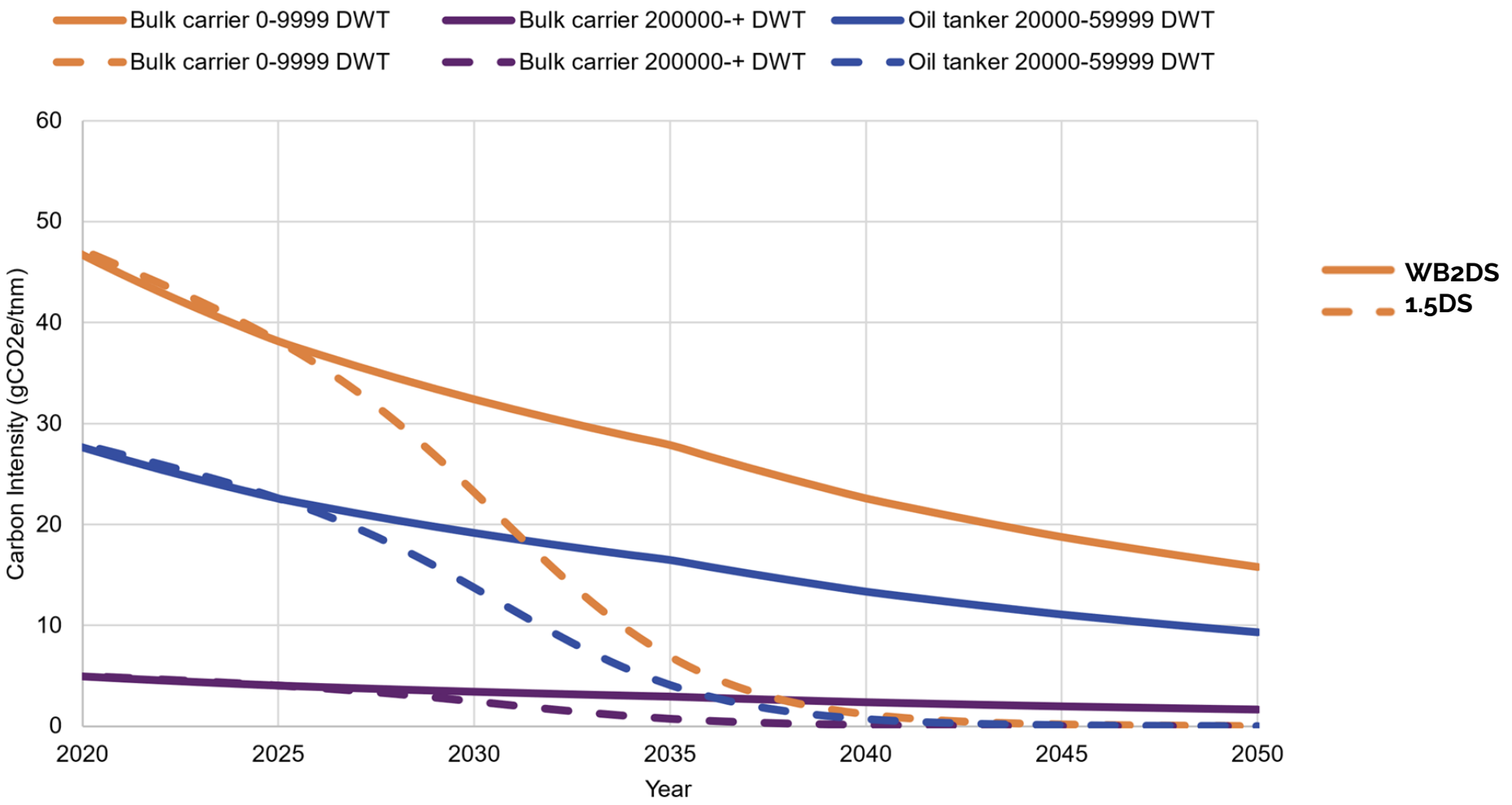


- Metric: gCO_2 / transport work.

CATEGORY SPECIFIC TARGET

Comparing apples with apples

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

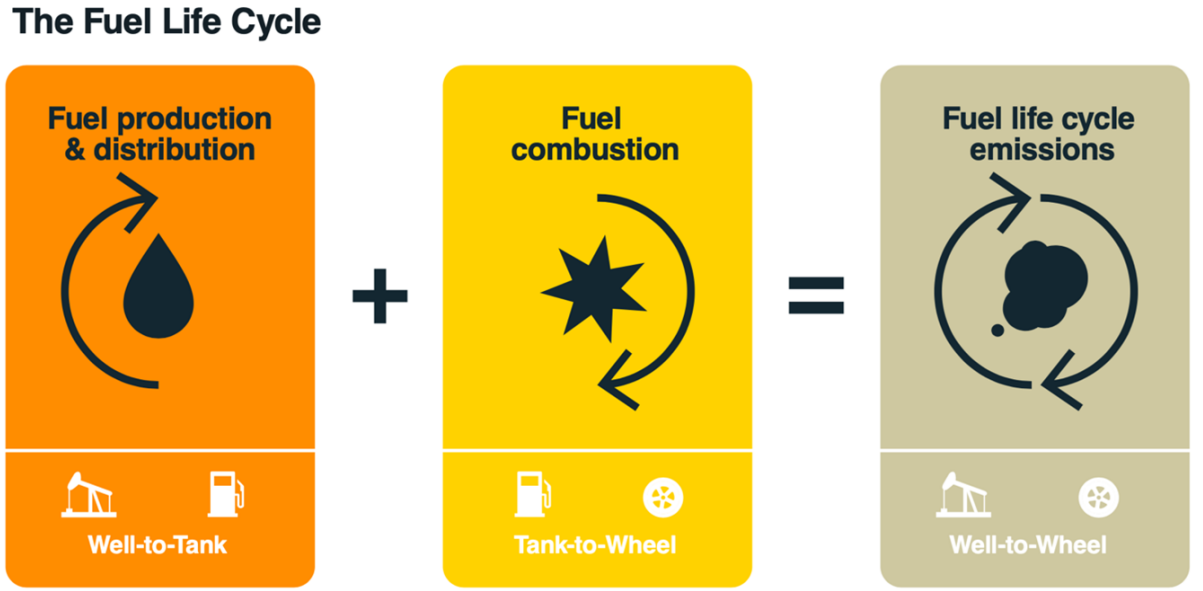


EMISSIONS BOUNDARY

All targets must cover Well-to-Wake (WTW) emissions (in metric tonnes of CO_2 equivalent (CO_2e)

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.



© Smart Freight Centre 2019

TARGET COVERAGE

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

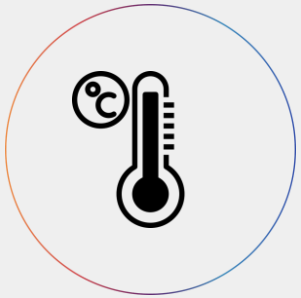
Type of shipping related emissions		WTW base year GHG emissions	Base year activity data*
Vessel owners / operators	Passenger	Scope 1 Scope 3	tonne-nautical mile
	Freight	Scope 1 Scope 3	tonne-nautical mile
Cargo shippers / Logistics Service Providers	Passenger	Scope 3 category 5 or 6	tonne-nautical mile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

SCIENCE BASED TARGETS

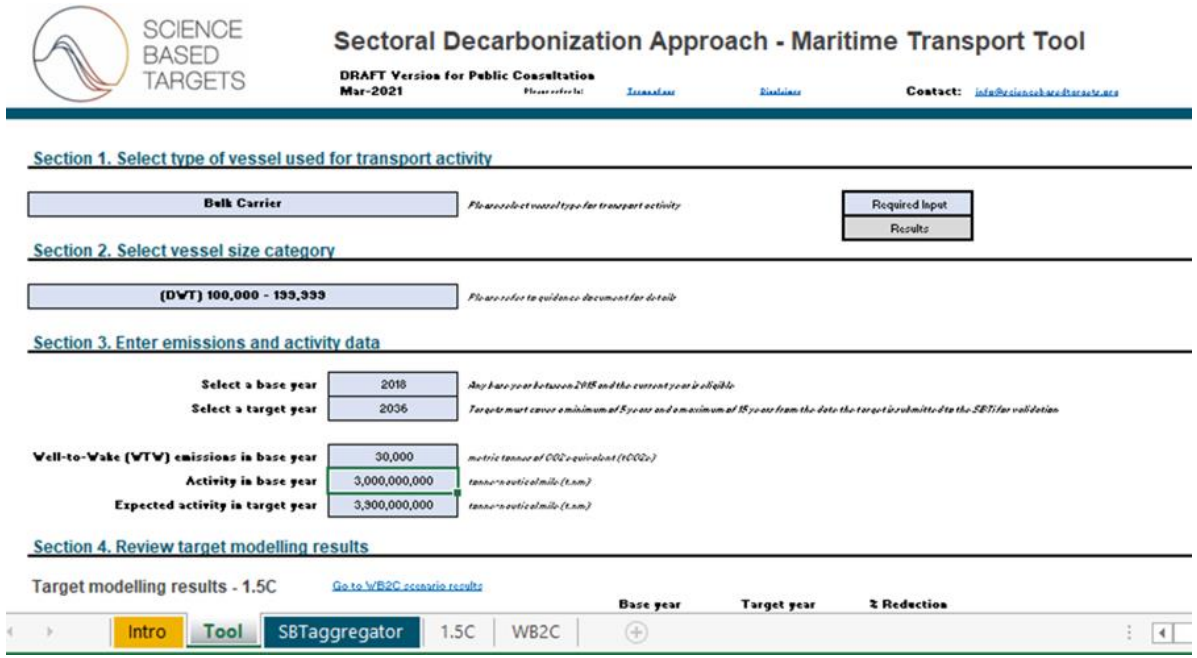
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

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)



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

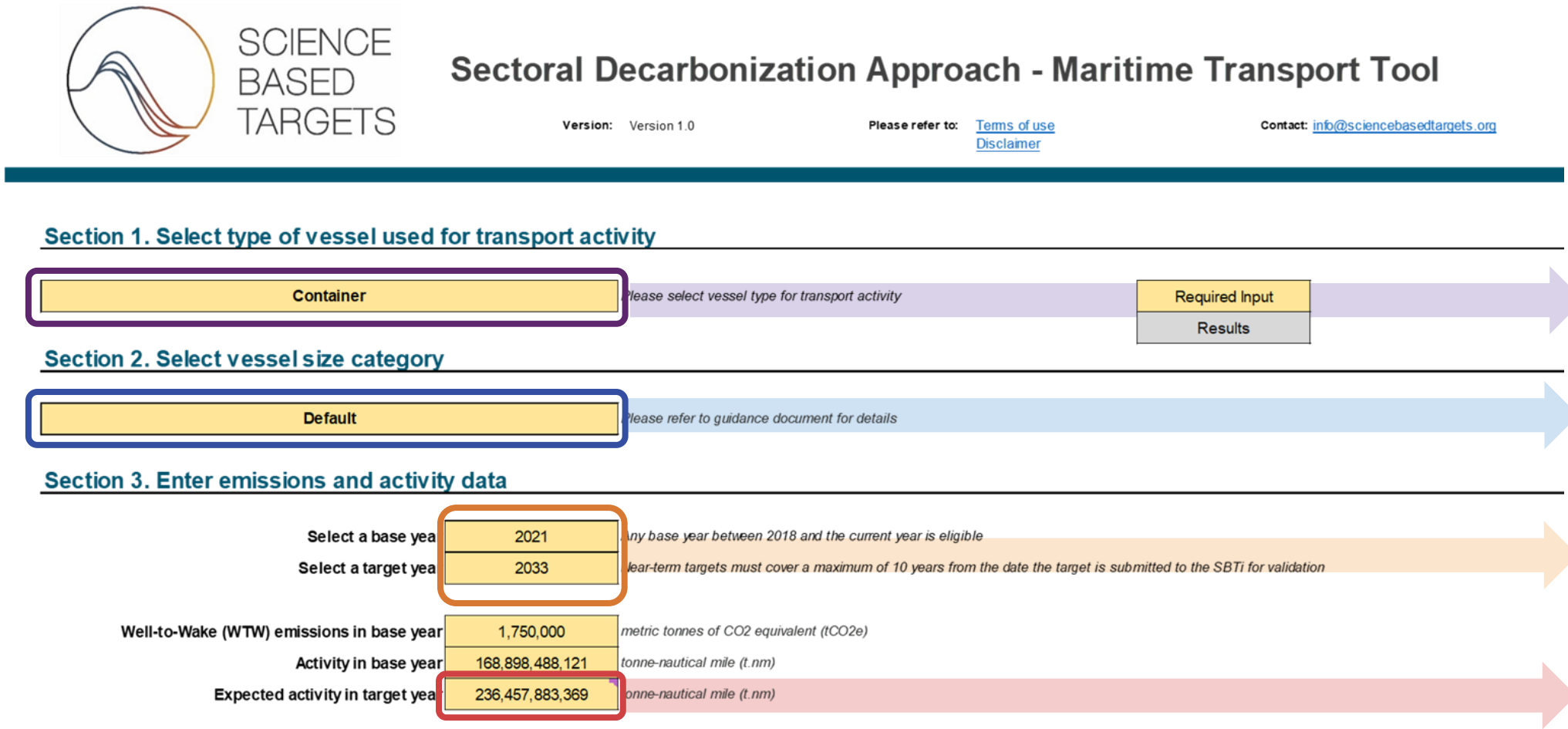
SBT tool

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



Choose vessel type from drop-down

Choose vessel size or default

Input data associated with base year

State projected activity in target year

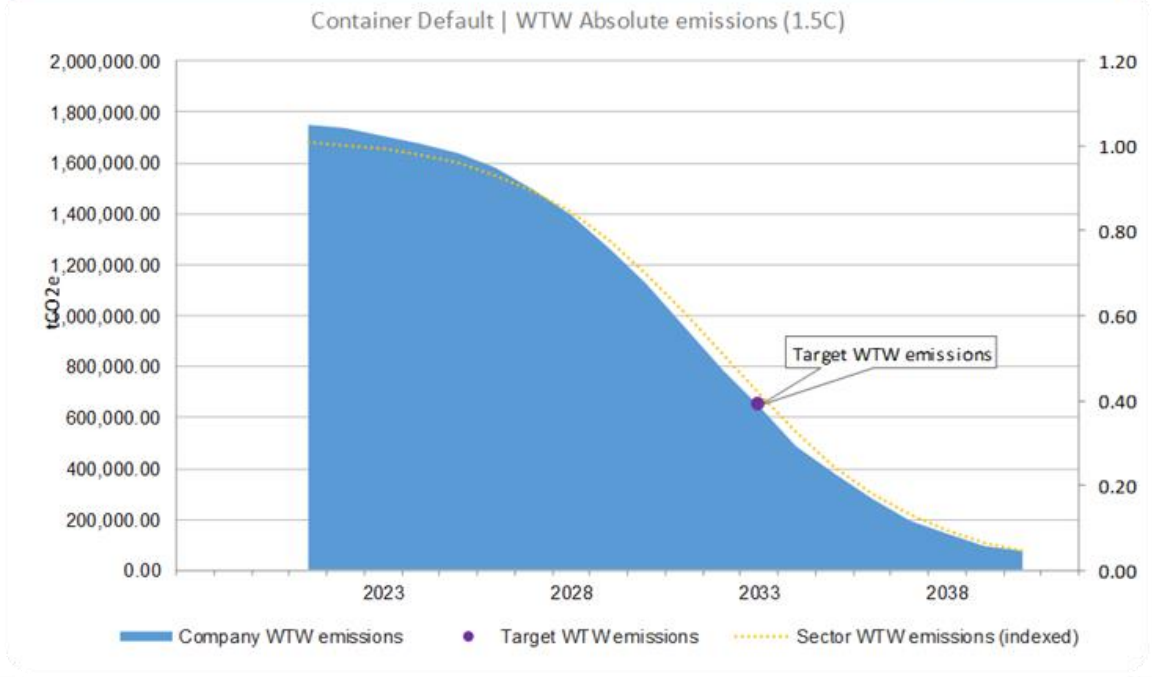
CONTAINER SHIPPER, DEFAULT

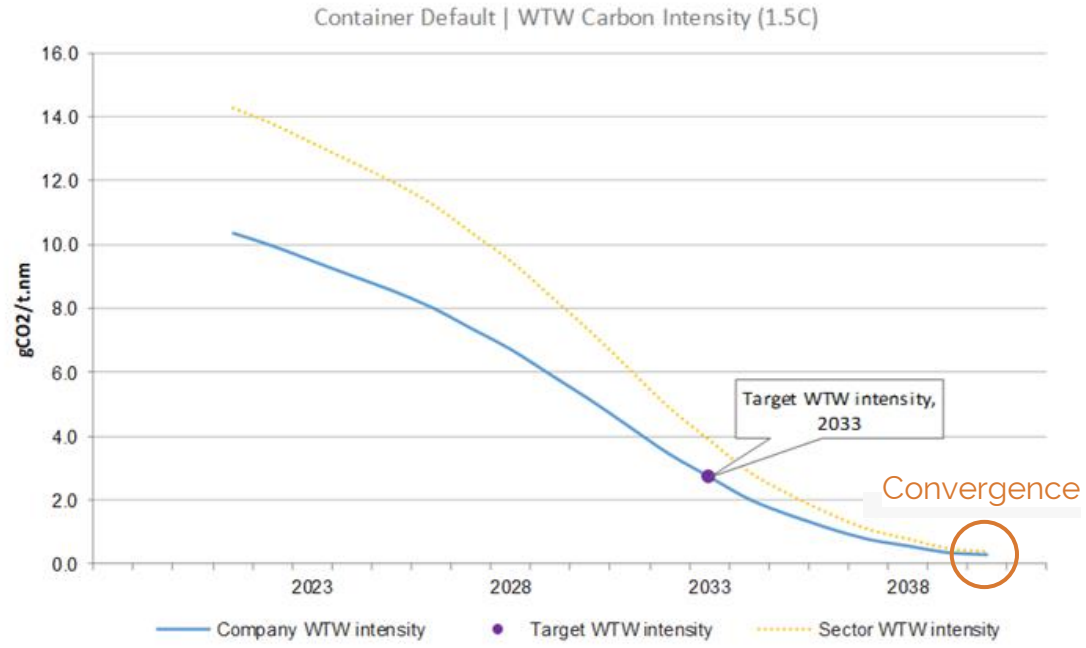
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Section 4. Review target modelling results

Target modelling results - 1.5C

			Base year 2021	Target year 2033	% Reduction 2021 - 2033
Container Default	WTW emissions	tCO2e	1,750,000	643,348	63.2%
Container Default	WTW carbon intensity	gCO2/t.nm	10.36	2.72	73.7%





CONTAINER OPERATOR

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SCIENCE BASED TARGETS

Sectoral Decarbonization Approach - Maritime Transport Tool

Version: Version 1.0 **Please refer to:** Terms of use, Disclaimer **Contact:** info@sciencebasedtargets.org

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	*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	171,058	*metric tonnes of CO2 equivalent (tCO2e)*
Activity in base year	10,691,144,708	*tonne-nautical mile (t.nm)*
Expected activity in target year	12,829,373,650	*tonne-nautical mile (t.nm)*

CONTAINER OPERATOR

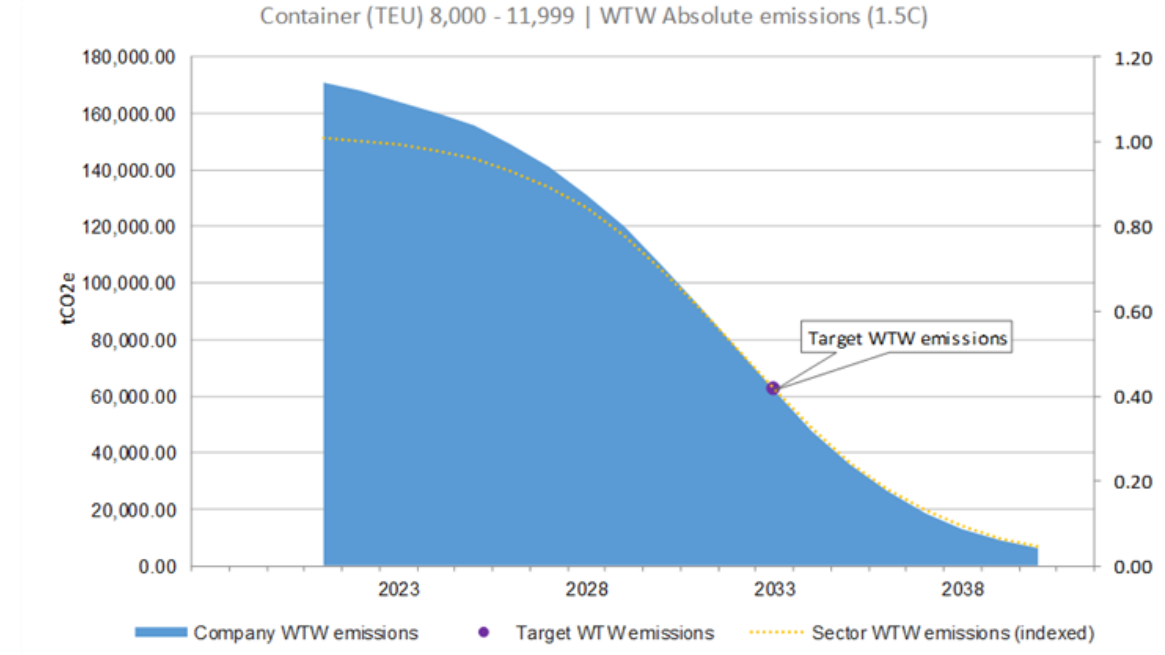
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

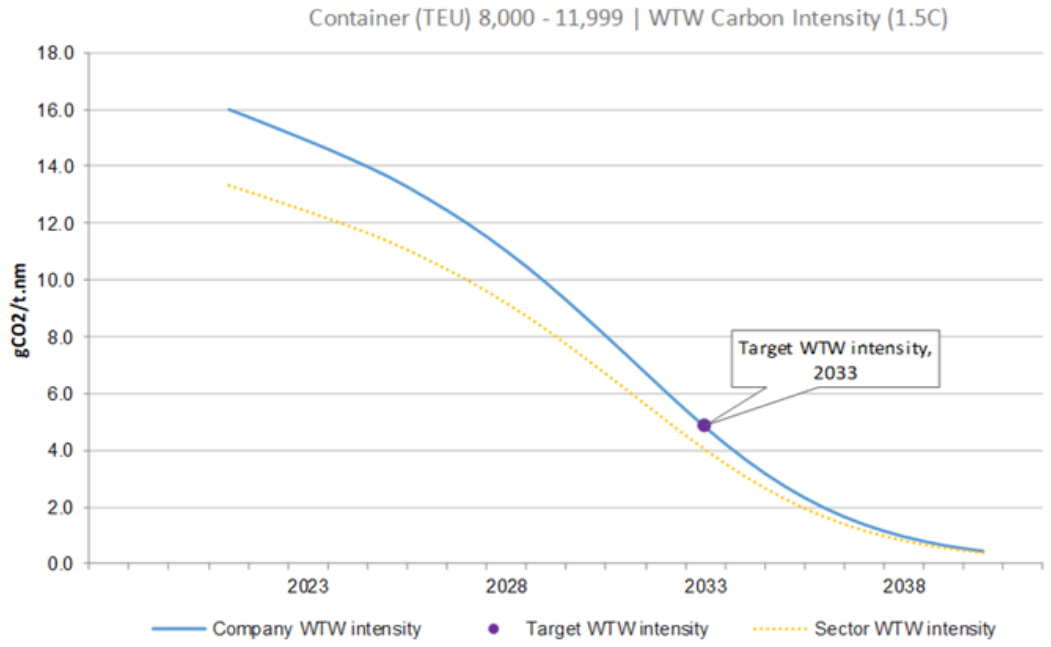
Section 4. Review target modelling results

Target modelling results - 1.5C

				Base year 2021	Target year 2033	% Reduction 2021 - 2033
Containe	(TEU) 8,000 - 11,999	WTW emissions	tCO2e	171,058	61,787	63.9%
Containe	(TEU) 8,000 - 11,999	WTW carbon intensity	gCO2/t.nm	16.00	4.82	69.9%

Results calculated for each size category





CONTAINER OPERATOR

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SCIENCE BASED TARGETS

Sectoral Decarbonization Approach - Maritime Transport Tool

Version: Version 1.0 Please refer to: Terms of use Disclaimer Contact: info@sciencebasedtargets.org

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			
			Base year			Target year	Target year		Target year	
	Vessel type	Vessel size	WTW emissions (tCO2e)	Activity (t.nm or GT.nm)	WTW carbon intensity (gCO2e/t.nm or gCO2e/GT.nm)	Activity (t.nm or GT.nm)	WtW emissions (tCO2e)	% reduction	WTW carbon intensity (gCO2e/t.nm or gCO2e/GT.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

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SCIENCE BASED TARGETS

Sectoral Decarbonization Approach - Maritime Transport Tool

Version: Version 1.0 **Please refer to:** Terms of use, Disclaimer **Contact:** info@sciencebasedtargets.org

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)*

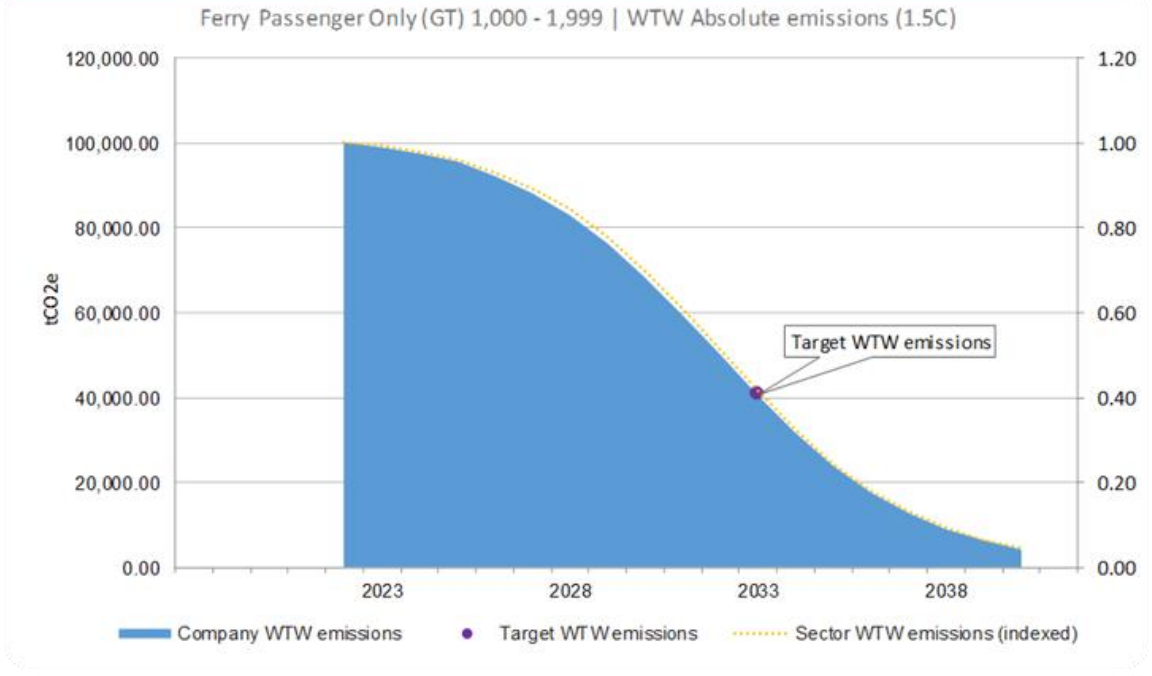
FERRY OPERATOR

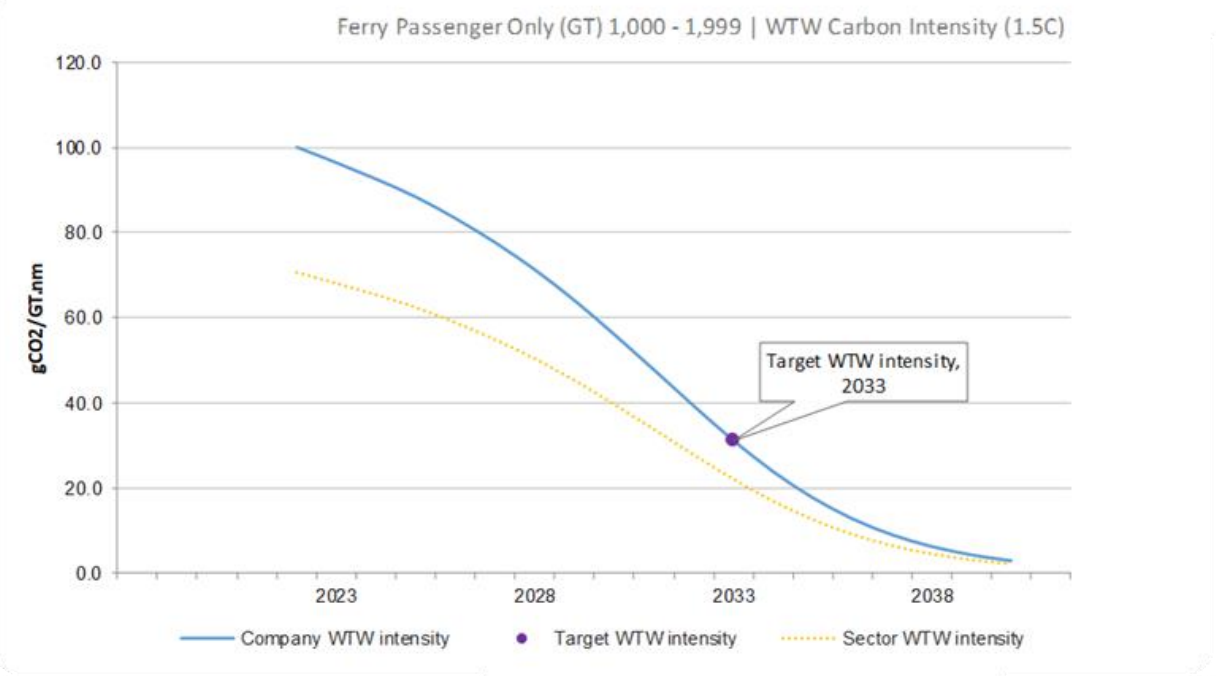
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

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	40,519	59.5%
Ferry Passenger Only (GT) 1,000 - 1,999	WTW carbon intensity	gCO2/GT.nm	100.00	31.17	68.8%





FERRY OPERATOR

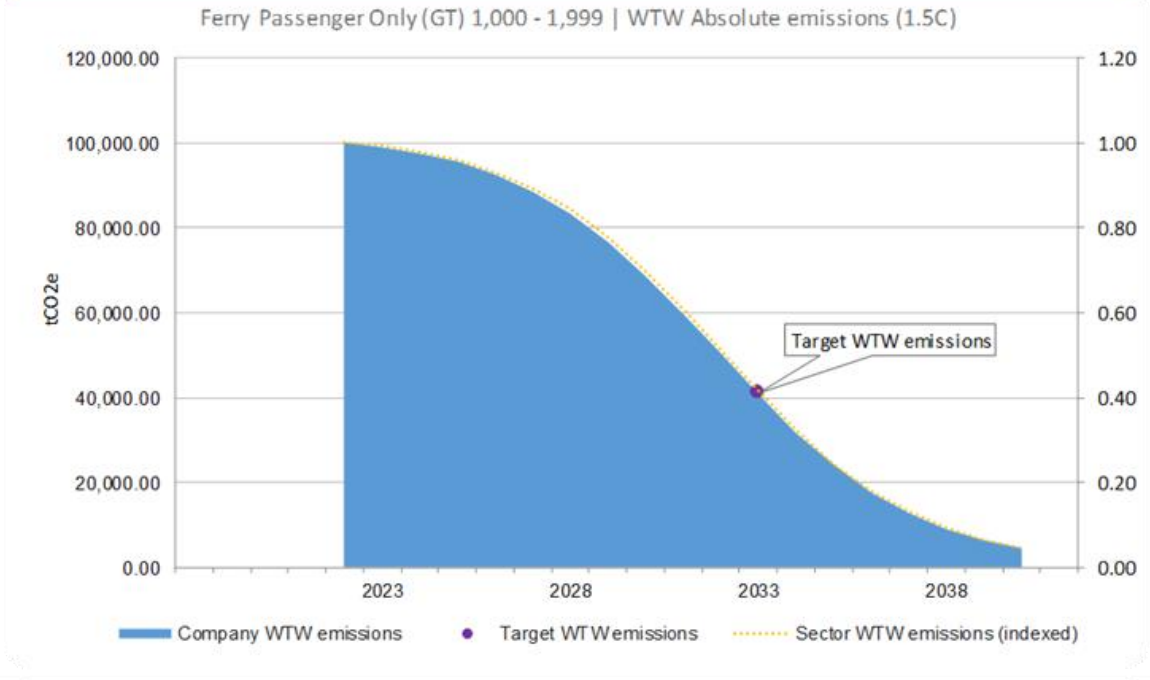
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

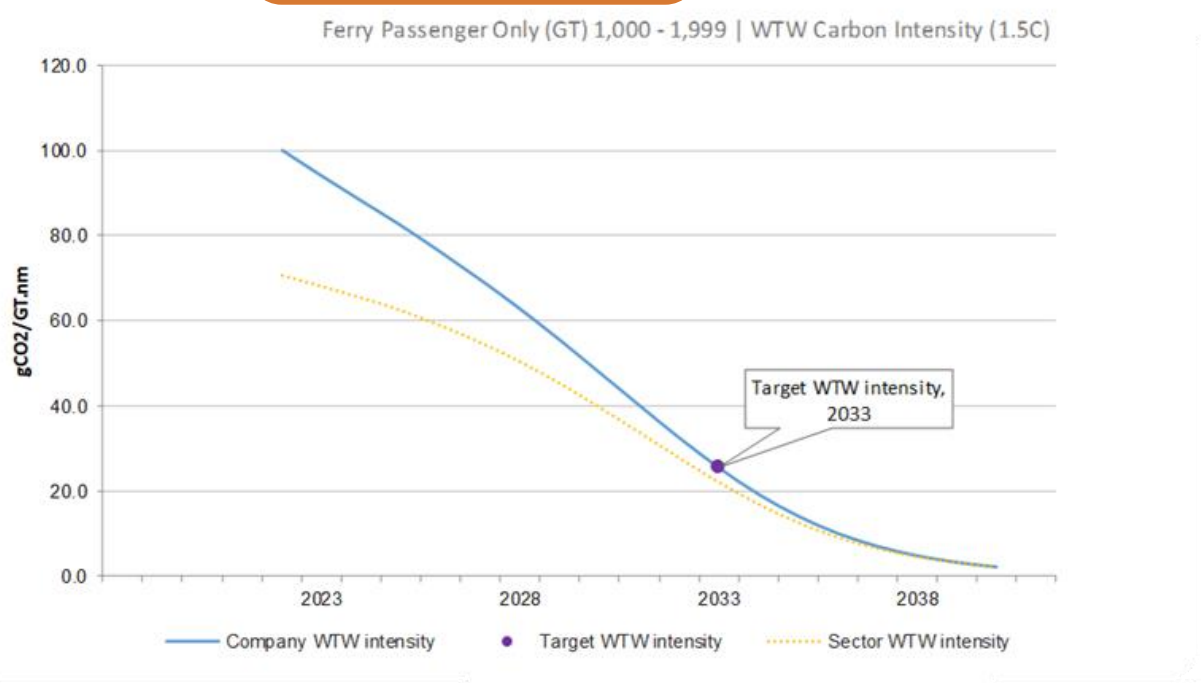
Section 4. Review target modelling results

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





SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Q&A SESSION

Image by Karsten Bergmann from Pixabay

SCIENCE
BASED
TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION
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

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

THANK YOU

PARTNER ORGANIZATIONS

CDP DISCLOSURE INSIGHT ACTION

United Nations Global Compact

WORLD RESOURCES INSTITUTE

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