

CO₂ Progression

Annual report 2024

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CO₂ PERFORMANCE LADDER

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1 Introduction to the CO₂ Performance Ladder

The CO₂ Performance Ladder is a management system that focuses on CO₂ reduction, energy savings and the use of sustainable energy within business operations and in projects and in the chain. The system requires continuous improvement of insight, further CO₂ reduction measures, communication and cooperation in business operations. It helps organizations structure internal business processes around sustainability and set up sustainability reporting with a focus on CO₂. In addition to the social importance of sustainability, it also offers opportunities for inspiring internal and external stakeholders, differentiating themselves from competitors, cost savings and complying with legislation. In addition, certification on the CO₂ Performance Ladder can be advantageous in tenders from (public) clients. The more an organisation makes an effort to reduce CO₂, the greater the chance of being awarded a contract.

The CO₂ Performance Ladder has five levels, with levels one, two and three focusing on the organisation's own organisation and levels four and five taking a step towards the organisation's chain. In order to climb the ladder to the next level, all mandatory standard requirements of the underlying levels must be met. Each level includes the following four perspectives:

- A. Insight** makes an organization aware of its own CO₂ performance, the risks and opportunities, provides the organization with information that it can use to formulate effective goals and measures to reduce CO₂ emissions, and where communication and cooperation should focus. Angle A encourages organisations to know their own emissions and in the chain. The organization achieves continuous improvement in the depth, scope, and efficiency of insight and quality of the emissions inventory.
- B. Reduction** creates opportunities for reducing energy consumption and CO₂ emissions, and promotes cooperation so that the most efficient options for reduction in the chain are addressed. The organization achieves continuous improvement in the efficiency of measures, in setting and achieving goals and demonstrating progress on objectives and measures.
- C. Transparency** encourages creative engagement among employees. Organizations also know about each other's commitments, and an organization can be held accountable by others for its ambitions and progress. The organization achieves continuous improvement in the depth and dissemination of communication and in the incorporation of input from internal and external stakeholders.
- D. Participation** allows an organisation to invest in collaboration, sharing its own knowledge and, where possible, making use of knowledge that has been developed elsewhere. The organization achieves continuous improvement in selecting useful initiatives and applying the knowledge in the organization.

A recognised certification body assesses the activities and determines the level of the CO₂ Performance Ladder. To do this, steps must be taken at all angles of the ladder. In the figure below, the above text is shown schematically with the corresponding weighting of the angles for certification (source: CO₂ Performance Ladder 3.1 Handbook, SKAO).

2 Plan, Do, Check, Act – Cycle (PDCA)

In order to maintain the CO₂ Performance Ladder, actions, schedules and responsibilities have been assigned within the organisation. These are shown in this chapter.

Minimum Level	Section	Action	Frequency	Planning	CO ₂ -leader	S. Management	Accounting	CI
GENERAL								
General		Meet continuous improvement according to the steering cycle	Continuous	Continuous	x	x		
General		Meeting project requirements	Continuous	Continuous	x	x		
General		Comply with mandatory internet publication on the SKAO website	Annual	Q3	x	x		
General		Fulfilling contribution obligation to the SKAO	Annual	Q3	x	x	x	
PLAN								
2	C	Update control cycle and TVB-matrix	Annual	Q1	x			
3	B	Update and approve energy management action plan	Bi-Annual	Q1 + Q3	x			
2	C	Updating internal and external stakeholders	Annual	Q1	x			
3	C	Update and approve communication plan	Annual	Q1	x			
General		Updating and approving organizational boundary	Annual	Q1		x		
General		Update organization size	Annual	Q1	x			
General		Scheduling internal audit	Annual	Q1	x			
General		Scheduling an external audit with the certifying body	Annual	Q3	x			x
1	A	Update list of energy flows	Bi-Annual	Q1 + Q3	x			
3	A	Updating CO ₂ emission factors	Annual	Q1	x			
3	B	Update and approve plan of action for scope 1, 2 and 3 (business travel)	Bi-Annual	Q1 + Q3	x			
3	B	SKAO Update Measure List and Ambition Determination	Annual	Q1	x			
3	B	Update and approve objectives of scope 1, 2 and 3 (business travel)	Bi-Annual	Q1 + Q3	x			
1	D	Identify potentially relevant initiatives	Annual	Q1	x	x		
2	D	Update, approve and plan a list of initiatives	Annual	Q1	x	x		
DO								
2	A	Collecting data for the CO ₂ emissions inventory	Annual	Q1			x	
3	A	Draw up an emission inventory report	Annual	Q1	x			
2	A	Carry out an energy assessment	Annual	Q1	x		x	
3	B	Plan of action implementation	Continuous	Continuous	x	x	x	
3	B	Determining progress for scope 1, 2 and 3 (business travel)	Annual	Q1	x			
3	C	Execute communication plan	Bi-Annual	Q1 + Q3	x			
3	D	Attending initiatives	Bi-Annual	Q1 + Q3	x	x		
CHECK								
3	A	Perform quality control on emissions inventory reporting	Annual	Q1	x		x	
3	B	Evaluating progress of the action plan	Bi-Annual	Q1 + Q3	x	x		
3	B	Evaluating progress on objectives	Bi-Annual	Q1 + Q3	x	x		
3	C	Evaluate the implementation of the communication plan	Bi-Annual	Q1 + Q3	x	x		
3	D	Evaluating attendance at the initiatives	Annual	Q1	x	x		
General		Perform internal audit	Annual	Q2	x			
General		Perform external audit	Annual	Q3	x	x		x
ACT								
General		Corrective actions from the internal audit	Annual	Direct	x	x		
General		Correcting deviations from the external audit	Annual	Direct	x	x		
General		Adjusting on points of attention from the "check" phase	Continuous	Continuous	x			
General		Include required budgets in the management review	Annual	Direct	x			
General		Conducting management review including the inclusion of outstanding action points	Annual	Direct	x	x		

3 CO₂ progress 2024

The figure below illustrates the emission flows and their respective tons of CO₂ emitted in 2024. The right column shows the progress compared to the base year, 2022.

- Scope 1 emissions have been reduced by 19%, due to the larger share of HVO30 and HVO100.
- Scope 2 emissions have decreased by 35% compared to 2022. This significant reduction is the result of LED lighting implementation in the office, as well as the optimisation the air conditioning system.
- Scope 3 emissions, including business travel, have declined by 8% compared to the base year. Flight-related emissions remain unchanged (see note below), meaning this reduction is due to fewer declared kilometres.

Overview CO ₂ Emissions			2024 Full year		
Scope 1	Amount	Unit	Conversion Rate (g CO ₂ per Unit)	Emission (ton CO ₂)	Progression (2022)
Natural Gas	8.593	m ³	2.134	18.3	
Fuel vessels - HVO100	1.150.985	litre	347	399.4	
Fuel vessels - HVO30	2.845.280	litre	2.532	7.203.4	
Fuel vessels - Marine Diesel Oil	2.900.131	litre	3.436	9.964.9	
Fuel company cars - diesel	11.097	litre	3.256	36.1	
Fuel company cars - petrol	5.440	litre	2.784	27.0	
Total scope 1	6.937.784		Total scope 1	17.685.8	-19%
Scope 2	Amount	Unit	Conversion Rate (g CO ₂ per Unit)	Emission (ton CO ₂)	
Electricity - Grey (imported)	72.992	kWh	536	39.1	
Electricity - Green (produced locally)	0	kWh	0	-	
Total scope 2	72.992		Total scope 2	39	-35%
Scope 3	Amount	Unit	Conversion Rate (g CO ₂ per Unit)	Emission (ton CO ₂)	
Business Travel - Declared Kilometres	10.821	km	193	2.1	
Business Travel - EVs	54	kWh	0	-	
Business Travel - Public Transportation	0	km	0	-	
Flights <700 km	17.295	km	234	4.0	
Flights 700-2500 km	57.935	km	172	10.0	
Flights >2500 km	15.086	km	157	2.4	
Total business travel	101.191		Total business travel	18	-8%
Total Emissions Scope 1, 2 and Business Travel				17.743	-19%

Figure 1: Overview of CO₂ emissions of 2024. Per 31 March 2025.

*We have revised our baseline flight data to align with 2024 figures, as previous estimates were too low due to a lack of records. Thereby, we ensure consistency across years and prevent the misleading conclusion that flight activity and CO₂ emissions increased significantly in 2024.

Annual overview CO₂-emissions since reference year.

Below tables show CO₂-emissions per scope and per (half) year from 2022 onwards.

	2022	2023	2024
TYPE EMISSIONS ROOM Scope 1	Full year	Full year	Full year
Natural Gas	15.9	15.9	18.3
Fuel vessels - Marine Diesel Oil	21.622.8	23.287.7	9.964.9
Fuel vessels - HVO8	61.7	-	-
Fuel vessels - HVO30	-	-	7.203.4
Fuel vessels - HVO100	-	-	399.4
Fuel company cars - diesel	70.2	45.5	36.1
Fuel company cars - petrol	11.2	15.3	27.0
Total Scope 1	21.781.8	23.364.5	17.649.1
TYPE EMISSIONS ROOM Scope 2			
Electricity - Grey (imported)	60.4	38.1	39.1
Electricity - Green (produced locally)	-	-	-
Total Scope 2	60.4	38.1	39.1
TYPE EMISSIONS ROOM BUSINESS TRAVEL			
Business Travel - Declared Kilometres	3.6	1.5	2.1
Business Travel - EVs	-	-	-
Business Travel - Public Transportation	-	-	-
Flights <700 km	4.0	4.0	4.0
Flights 700-2500 km	10.0	10.0	10.0
Flights >2500 km	2.4	2.4	2.4
Total BUSINESS TRAVEL	20.0	17.9	18.5
TOTAL EMISSIONS (tCO₂)	21.862.3	23.420.5	17.706.7

* For the years 2022 and 2023, the reported figures for electricity consumption have been adjusted (increased). The reason for this is that two business locations were not included in the calculation. The electricity for 2022 was 21.4 tons of CO₂, in 2024 it was 16.8 tons of CO₂.

	2022	2023	2024
TYPE EMISSIONS ROOM Scope 1	Half Year	Half Year	Half Year
Natural Gas	7.9	8.0	8.0
Fuel vessels - Marine Diesel Oil	10.811.4	11.643.9	4.340.4
Fuel vessels - HVO30	30.9	-	5.114.3
Fuel vessels - HVO100	-	-	-
Fuel company cars - diesel	35.1	22.8	16.2
Fuel company cars - petrol	5.6	7.7	11.3
Total Scope 1	10.890.9	11.682.3	9.490.1
TYPE EMISSIONS ROOM Scope 2			
Electricity - Grey (imported)	30.2	19.1	9.6
Total Scope 2	30.2	19.1	9.6
TYPE EMISSIONS ROOM BUSINESS TRAVEL			
Business Travel - Declared Kilometres	1.8	0.7	1.2
Business Travel - Public Transportation	-	-	-
Flights <700 km	2.0	2.0	4.0
Flights 700-2500 km	5.0	5.0	10.0
Flights >2500 km	1.2	1.2	2.4
Total BUSINESS TRAVEL	10.0	8.9	17.5
TOTAL EMISSIONS	10.931.1	11.710.2	9.517.2

4 CO₂ reduction targets and progress

The objectives below are based on CO₂ reduction measures that can be found in the action plan in the Excel document "Actions, planning and responsibilities". Here you will also find the calculations of the scope 1, 2 and business travel objectives.

4.1 Main objective

MAIN OBJECTIVE

Glomar Offshore aims to reduce CO₂ emissions by 81% by 2031 compared to 2022

This target is primarily based on the annual increase in the percentage of HVO usage relative to fossil diesel, with the goal of sailing on 100% HVO, resulting in a 81% reduction in CO₂ emissions.

ANNUAL TARGETS

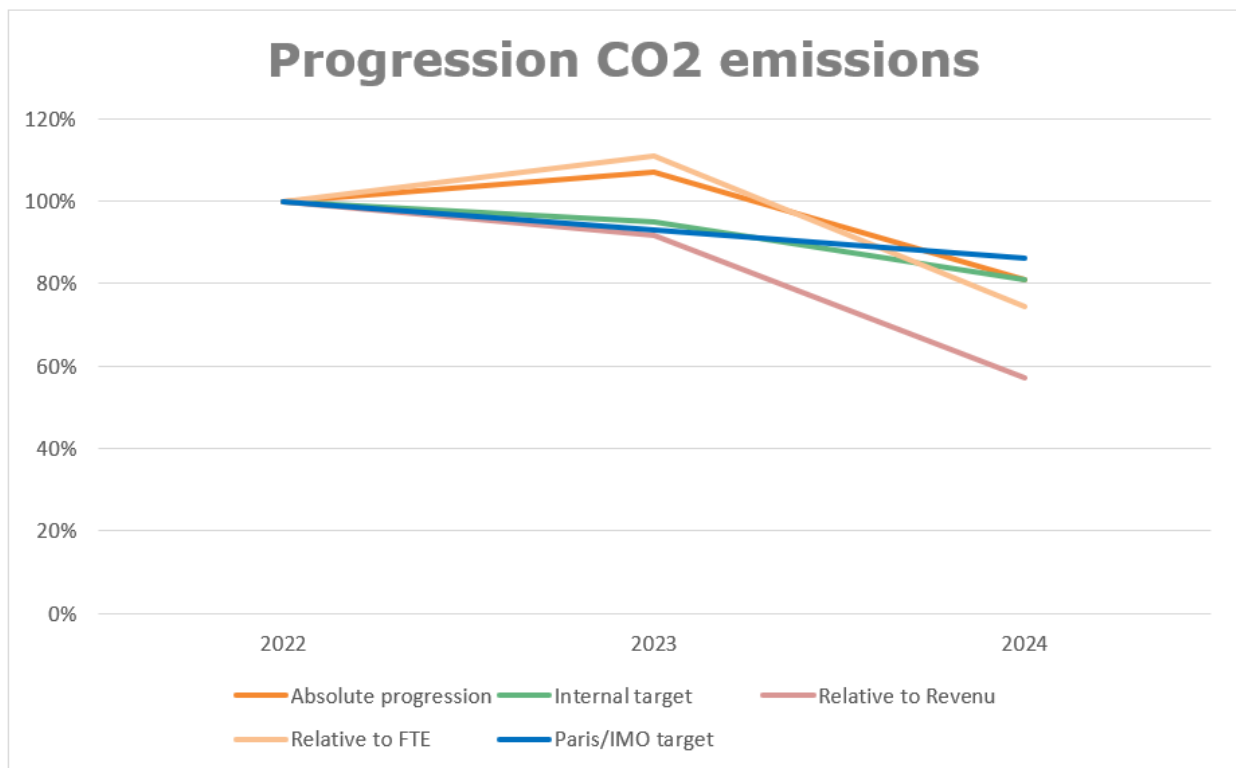
ANNUM	PLANNED	PROGRESS
2022	Base year	Base year
2023	5%	+7%
2024	19%	19%
2025	26%	-
2026	36%	-
2027	45%	-
2028	53%	-
2029	65%	-
2030	71%	-
2031	81%	-

* Glomar has revised its annual CO₂ reduction targets to reflect a more accurate emissions baseline. Initially, we projected a 90% CO₂ reduction by 2031, based on the expected performance of HVO compared to traditional marine gas oil (MGO). However, it is important to note that ChangeXL—a lower-emission fuel blend—had already been part of our fuel mix for several years prior to 2022, offering up to 9% lower CO₂ emissions compared to pure fossil MGO.

As we are measuring our progress relative to 2022 emissions levels, which were already approximately 9% lower than conventional fossil diesel, we have adjusted our targets accordingly. The annual reduction trajectory has been recalibrated downward by 9 percentage points, and the ultimate CO₂ reduction target for 2031 is now set at 81%.

4.2 Sub-objectives

SUB-OBJECTIVES		
FLOW	2031 OBJECTIVES	PROGRESS
Scope 1	81%	Scope 1 emissions have been reduced by 19%
Scope 2	75%	Scope 2 emissions have been reduced by 35% thanks to LED lights and optimisation of climate control unit and printers.
Business travel	3,5%	Business travel emissions reduced by 8%. However, they are already limited so should remain relatively stable over the years.



5 Plan of action

5.1 Measures per scope

Several measures can be further implemented to advance on cutting back emissions. The overview below shows what measures per scope are planned for 2025, who is responsible and what means will be used. Further, the current status and action points for this year should provide a clear picture on the progression on the measure compared to the stated deadline.

CO2 Reduction Measures	Deadline	Responsible	Means	Status	Action points 2025
Scope 1 - Fuel consumption					
Annually increase HVO-blend by 10 percentage points	Annual	Senior Management	Availability of HVO and cooperation with fuel supplier (FincoEnergies)	Implemented HVO40 per 1 January 2025	Continuous research into emission reduction effects and environmental impact of alternative fuels
Refit more SSV's with NOx reduction systems	Annual	Senior Management	E.g. DISCOM ERS	2 SSV's done in 2024	Refit 2 more SSV's
Increase personnel awareness	Annual	QHSE	Continuous awareness programme	Shared outcomes of internal reports	Schedule another information session for the end of 2025
Using shore power where possible	2030	Operations	Adequate harbor facilities and cost effective power supply	Limited use, keeping track of developments of the PoDH	Initiate communications between company and PoDH
Scope 2 - Electricity consumption					
Increase personnel awareness Office	Annual	QHSE	Continuous awareness programme	First report issued internally	Share next annual report
Installment of solar panels at the office	2027	Senior Management	Reinforcement of the roof necessary	Adjustment approved, planned for Q3 2025	Ensure panels are ready to go
Scope 2 - Natural Gas consumption					
Increase personal awareness energy consumption	Annual	Senior Management	Communication	Periodical reminders though informative sessions	Communicate on energy reducing measures
Scope 3/Business travel					
Cars: Mimizing travel by online meetings	Bi-annual	Senior Management	Microsoft Teams	Ongoing	Bi-annual reminders
Cars: Stimulate carpooling and economical driving	Annual	QHSE	Promotion letter	Sent promotion letter	Repeat annual promotion letter
Public Transportation: promote PT usage for long distance travelers	Annual	Senior Management	Financial compensation for Public Transport	No specific actions	Inform personnel of action points, if any
Flights: already limited to necessary travel only					
Energy consumption					
Increase personal awareness energy consumption	Annual	Senior Management	Communication	No specific actions	Communicate on energy reducing measures

5.2 Measures and quantitative targets

Scope 1

Measures fuel consumption fleet	Reduction on emission flow	Reduction on whole	Reduction in tonnes
Annually increase HVO-blend by 10 percentage points	81%	80.7%	17.643.26
Refit more SSV's with NOx	0.3%	0.3%	72.61
Increase personnel awareness	0.3%	0.3%	72.61
Using shore power where possible	0.3%	0.3%	72.61
Total	82%	82%	17.861.08

Scope 2

Measures electricity consumption	Reduction on emission flow	Reduction on whole	Reduction in tonnes
Increase personnel awareness Office	5.0%	0.014%	3.02
Installment of solar panels at the office	70.0%	0.2%	42.28
Total	75%	0.207%	45.30

Measures energy consumption (heat)	Reduction on emission flow	Reduction on whole	Reduction in tonnes
Increase personal awareness energy consumption		0%	-
Total	0%	0%	-

Scope 3/Business travel

Maatregelen business travel	Reduction on emission flow	Reduction on whole	Reduction in tonnes
Cars: Mimizing travel by online meetings			
Cars: Stimulate carpooling and economical driving	2.5%	0.0004%	0.09
Public Transportation: promote PT usage for long distance travelers	1.0%	0.0002%	0.04
Flights: already limited to necessary travel only		0%	-
Total	3.5%	0.001%	0.13

6. Participation in initiatives

The CO₂ Performance Ladder asks for participation in a sector or chain initiative. In doing so, the company should familiarize itself with the initiatives that are taking place within the industry. This can be done on the SKAO website (<https://www.co2-prestatieladder.nl/nl/initiatieven-en-programmas>). Here you can find a complete overview of all initiatives and reduction programmes. Any suitable initiatives have been discussed with the project leader and with management.

Every year, the project leader and management evaluate whether participation in the initiatives is still seen as relevant and current and/or whether any other suitable initiatives are applicable.

The idea behind participating in an initiative is that through interaction with other companies, information can be exchanged and new ideas and developments in the field of CO₂ reduction can be created in collaboration. Based on this goal, the standard requires active participation, for example through working groups. Reports of meetings and of consultations and presentations made by the company in the working group may serve as evidence of active participation to the auditor.

If, at some point, an initiative in which one participates is no longer relevant to the company (if no progress in the initiative or active participation can be demonstrated for six months or more) and the participation is terminated, the inventory of the initiatives can serve as a source for choosing to participate in another initiative.

6.1 Initiative 1: Event CO₂ Performance Ladder for Manual 4.0

On 21 January 2025, the CO₂ Project Leader attended the CO₂ Performance Ladder event, which focused on the publication of the new Manual 4.0. This updated manual is set to take effect from 2026.

The event aimed to inform participants about the contents of the new manual, its structure, the development process, and the key differences between the current certification manual (3.1) and the upcoming version (4.0).

In addition to the keynote speech, attendees had the opportunity to join two lectures:

The first lecture provided an in-depth comparison of Manual 3.1 and 4.0, using practical examples to demonstrate how companies can adjust their reports accordingly.

The second lecture explored the differences and similarities between the CO₂ Performance Ladder (CO₂PL) and the Corporate Sustainability Reporting Directive (CSRD).

The event concluded with a networking session where CO₂PL-certified companies exchanged perspectives on the new manual.

6.2 Initiative 2: Offshore Energy Exhibition & Conference 2025

On 25–26 November 2025, Glomar will participate in the Offshore Energy Exhibition & Conference (OEEC) at RAI Amsterdam. This key industry event brings together professionals from offshore energy sectors, including oil & gas, offshore wind, and marine renewables.

Our presence will include an exhibition stand, serving as a platform to engage with industry peers, showcase our capabilities, and discuss innovations in offshore safety and sustainability. The stand will

provide insights into our latest projects, vessel capabilities, and commitment to sustainable offshore operations.

Beyond the exhibition, we will take part in discussions and networking sessions, exchanging knowledge with stakeholders and exploring potential collaborations. OEEC 2025 offers a strategic opportunity to strengthen industry connections and stay at the forefront of offshore energy developments.

Our participation underscores our dedication to innovation and sustainability in the offshore sector, reinforcing our position as a trusted partner in the industry.

6.3 Initiative 3: Cooperation FincoEnergies (HVO-fuel)

Since 2022, we have been systematically reducing the proportion of fossil diesel used by our fleet, thereby significantly lowering our CO₂ emissions. In January of this year, we increased the share of Hydrotreated Vegetable Oil (HVO) in our fuel blend from HVO30 to HVO40, resulting in an immediate 35% reduction in CO₂ emissions compared to conventional diesel, and 26% compared to our own 2022 baseline.

This transition is part of our ongoing collaboration with FincoEnergies, with whom we actively coordinate the development and application of HVO fuels. Together, we regularly assess how and where this low-emission alternative can be implemented most effectively across our operations.

Since the beginning of our partnership, we have already saved thousands of tonnes of CO₂, and we are continuing to accelerate our progress. With the support of FincoEnergies, we are increasing the share of HVO in our fuel mix by 10 percentage points annually. This approach will enable us to cut emissions by nearly 10% each year, aiming to operate on 100% HVO (HVO100) by 2031. By then, we expect to achieve a total CO₂ reduction of 89% compared to fossil diesel, and 81% compared to our emissions in 2022.

6.4 Initiative 4: Focus Group Maritime and Ports Den Helder

Glomar Offshore is an active member of the Maritime and Ports sounding board group in Den Helder, an initiative led by DAMEN. This project group brings together key stakeholders from the maritime sector and government, including the Municipality of Den Helder, Port of Den Helder, the Holland Noorderkwartier Water Board, and TAUW IV-Infra.

In the past year, the group's efforts centred around dike reinforcement. Sustainability played a key role in the planning phase, with a strong focus on minimising CO₂ emissions during construction. Effective planning and implementation not only reduce environmental impact, but also enhance the long-term integrity of the dike—helping to prevent early maintenance and extend its service life.

The initiative becomes particularly relevant for Glomar as it evolves toward future fuel systems. Of specific interest is the potential installation of local Hydrogen Hubs to enable vessels powered by hydrogen to recharge directly in the port area. These developments are crucial for creating the infrastructure needed to support the maritime energy transition.