CARBON REPORT 2025

CLdN

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CLdN is one of Europe’s leading providers of integrated transport solutions, connecting the region’s major economic hubs by sea, rail and road.
CLdN

Introduction

Moving goods over long distances creates a significant carbon footprint. Freight transportation accounts for around 8% of global greenhouse gas (GHG) emissions, rising to as much as 11% if ports and warehouses are included[1]. Around 90% of the world's freight has been on a ship at some point, which is why shipping – whilst the most energy-efficient form of freight transport – accounts for approximately 3% of global GHG emissions[2]. In 2023 the International Maritime Organization (IMO) launched an enhanced set of targets to reduce the sector's carbon footprint. These include an ambition to reach net-zero GHG emissions from international shipping by around 2050, and a commitment to ensure an uptake of alternative zero and near-zero GHG fuels by 2030. From a regulatory perspective, the extension of the EU Emissions Trading System to include maritime transport from 2024 is designed to incentivise improvements in energy efficiency and low-carbon solutions, and to reduce the cost of lower carbon shipping fuels.

At CLdN, we have been preparing for the introduction of more stringent emissions norms for close to a decade. Through investments in clean fuels, fuel efficient vessels, electrification, and efficiency technologies, as well as through the use of slow steaming when appropriate, CLdN contributes directly to the EU Green Deal and Clean Industrial Deal targets. In addition, through the approach outlined on the following pages, CLdN is also contributing to five of the United Nations' Sustainable Development Goals (SDGs). Investment in initiatives to further improve the energy efficiency of our shipping fleet and ports will continue to support **SDG 13**: Climate Action, together with **SDG 9**: Industry, Innovation & Infrastructure. At the same time, further initiatives to decrease our impact on the environment support **SDG 7**: Affordable & Clean Energy, **SDG 12**: Responsible consumption and production as well as **SDG 14**: Life below water.

1: https://climate.mit.edu/explainers/freight-transportation
2: https://www.transportenvironment.org/topics/ships/climate-impact-shipping

Our Commitment

At CLdN we recognize our opportunity to minimize environmental impact and contribute to the sustainable future of the maritime industry. We are committed to environmental stewardship across all operations, at sea or on land, in line with applicable international, regional, and national laws and voluntary standards.

Greenhouse gas (GHG) emissions/energy consumption

We seek to actively contribute to the goals set out in the International Maritime Organization's (IMO) 2023 GHG Strategy as well as the UN SDGs and the EU's Green Deal. This envisages a reduction in carbon intensity of international shipping and a reduction in CO_2 emissions per transport work by at least 40% by 2030, compared to 2008 levels.

CLdN's contribution to the IMO goals, which also supports the EU's Green Deal targets for 2030 and 2050, is focused on:

Decarbonising CLdN's operations through analysis of available energy saving devices and investments in efficient and competitive lower-carbon technologies.

Reducing our daily GHG emissions and being recognised as an excellent and competitive operator in our industry.

Being transparent about our GHG footprint and measuring and reporting using recognised frameworks and clear monitoring.

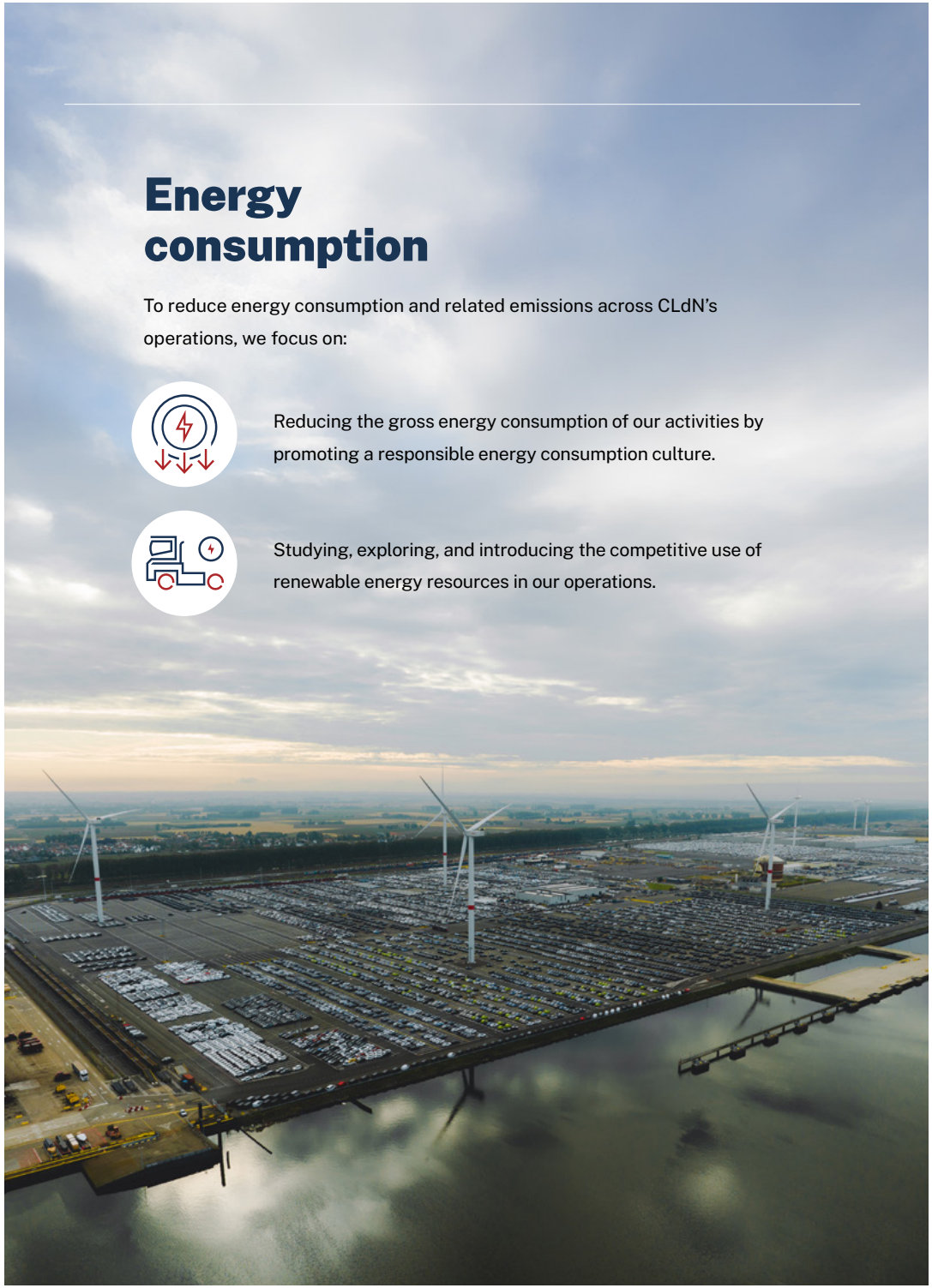
Promoting competitive and carbon-efficient intermodal transport solutions that balance transport by ferry, rail, barge, and truck and that have a lower overall GHG emission profile than road-only transport.

Energy consumption

To reduce energy consumption and related emissions across CLdN's operations, we focus on:

Reducing the gross energy consumption of our activities by promoting a responsible energy consumption culture.

Studying, exploring, and introducing the competitive use of renewable energy resources in our operations.



Our Footprint Today

This chapter presents an overview of CLdN's greenhouse gas emissions profile, including direct emissions (Scope 1) and indirect emissions (Scope 2 & 3) calculated in accordance with the GHG Protocol Corporate Accounting and Reporting Standard.

Calculating a comprehensive GHG inventory (Scopes 1, 2 and 3) enables us to better understand and manage the emissions linked to our full value chain, which includes our own operations as well as activities downstream and upstream. The chapters that follow will provide a more detailed breakdown of emissions sources and outline the actions we are taking to reduce our footprint across the three core pillars of our business: Shipping, Ports, and Multimodal.

About emission scopes

Greenhouse gas emission "scopes" first appeared in the Greenhouse Gas Protocol of 2001 and today these "scopes" are the basis for GHG reporting around the world. There are three scopes of emissions:

Scope 1 emissions

This covers the emissions that CLdN makes **directly** — in our case this is primarily linked to the fuel used to power our ships and our shore-based vehicles in our terminals.

Scope 2 emissions

These are the emissions CLdN makes **indirectly** – specifically electricity that we purchase and use for the operation of some terminal equipment, port lighting and for powering our office buildings.

Scope 3 emissions

In this category go all the emissions **up and down the value chain** – in our case this is primarily linked to well-to-tank emissions of fuels used by CLdN, transport work carried out by suppliers in our multimodal business, and various services required to run our business (e.g. port services, contractors etc). For detailed information on the operational scope of the emissions reporting, please see page 9.

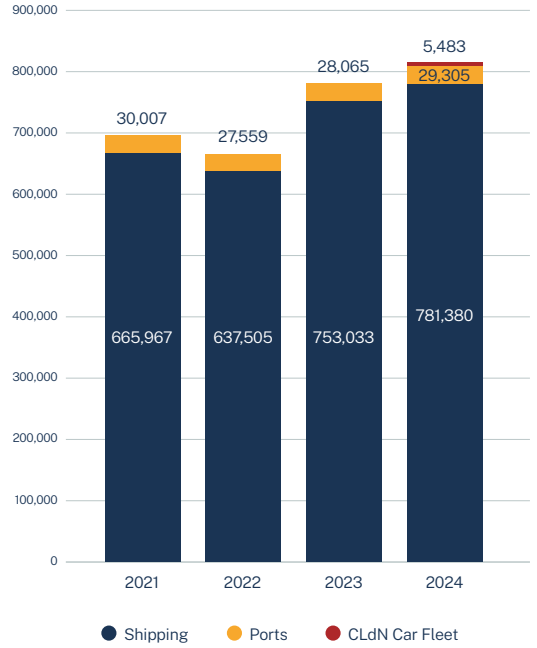
Scope 1 emissions

In 2024 CLdN's total Scope 1 emissions were 816,258 tonnes of CO_2 equivalent (CO_2e). The most significant proportion of these emissions (781,380 tonnes CO_2e) are related to the burning of fuel used to power CLdN's ships. Scope 1 emissions attributed to CLdN's port operations amounted to 29,305 tonnes of CO_2e. This is related to fossil fuel powered port equipment at CLdN's terminals in Zeebrugge, Rotterdam, Vlissingen, London, and Killingholme as well as any CLdN-owned equipment at the terminals used by CLdN RoRo Ltd. in the ports of Heysham, Liverpool, Warrenpoint and Dublin. See Figure 1 for the evolution of total Scope 1 emissions (Shipping and Ports). The reason for the 3.7% increase in Scope 1 emissions in 2024 in the Shipping operations (781,380 tonnes CO_2e compared to 753,033 tonnes CO_2e in 2023) primarily relates to an increase in kilometres sailed. The 4.4% increase in Scope 1 emissions in 2024 in the Ports operations (29,305 tonnes CO_2e compared to 28,065 tonnes CO_2e in 2023) relates to the first-time inclusion of the Distriport terminal (Rotterdam) in the scope, as well as to increased levels of activity at the ports used by CLdN RoRo Ltd. For more detailed information on CLdN's Scope 1 emissions please see pages 10 (Shipping) and pages 16 (Ports).

Lastly, 5,483 tonnes of CO_2 equivalent Scope 1 emissions correspond to the fleet of fuel-powered company cars (diesel, petrol & hybrid) owned by CLdN. Since 2023, all cars added to this fleet are exclusively electric, so we expect these emissions to decrease in the coming years. For more information, please see page 23.

FIG. 1

Scope 1 Emissions (Total) tonnes CO_2e



Scope 2 emissions

Scope 2 emissions relate to the use of electricity in CLdN's port and office locations. By far the most significant portion of our electricity consumption is used for lighting, IT/administrative activities and powering refrigerated units at CLdN's own terminals in Zeebrugge, Rotterdam, Vlissingen, London and Killingholme and the facilities in the ports of Heysham, Liverpool, Warrenpoint and Dublin used by CLdN RoRo Ltd. In recent years CLdN has secured green energy contracts for the majority of its port operations. Such contracts accounted for 100% of all purchased electricity in 2024 for terminals and 84% of all consumption, including company offices outside the ports.

CLdN has also been working with energy providers to install renewable energy infrastructure in its ports (see case study on page 19). These onsite installations can provide renewable electricity directly to our operations. In total, of our electricity consumption in 2024, 13% came from these on-site renewables. See Figure 2 for the evolution of electricity consumption at our ports and offices.

Figure 3 shows the emissions that would have been part of CLdN's Scope 2 if the electricity had been sourced from the grid and standard CO_2 conversion factors for each country or region where the electricity was consumed were applied. This location-based methodology would have indicated emissions amounting to 4,959 tonnes CO_2e. Of this total, 4,819 tonnes CO_2e (representing approximately 97%) are eliminated due to sites powered by renewable energy (green contracts & on-site generation). The remaining 141 tonnes CO_2e, or approximately 3%, come from brown electricity sources. This breakdown highlights the significant contribution of low carbon energy sources to the lowering of CLdN's Scope 2 emissions profile. For more information, please see page 24.

FIG. 2

Electricity consumption in MWh

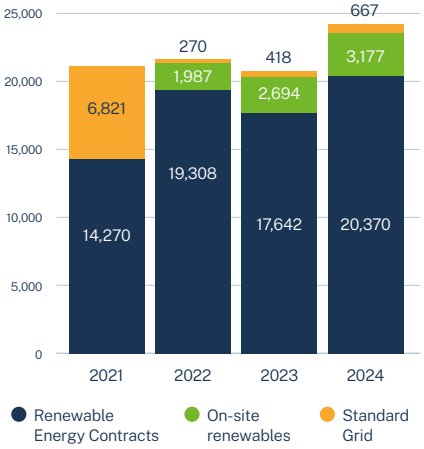
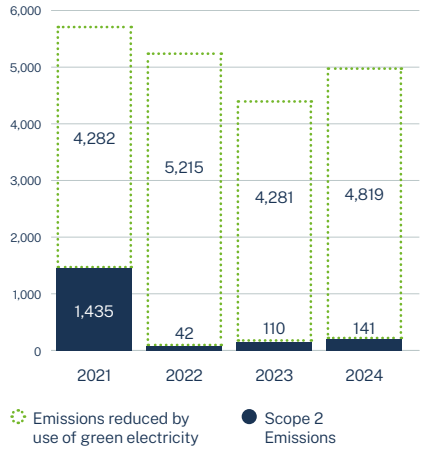


FIG. 3

Scope 2 Emissions (tonnes CO_2e)



Scope 3 emissions

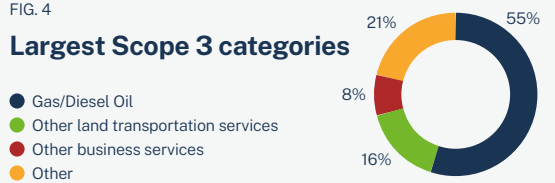
Scope 3 relates to emissions generated in CLdN's supply chain and therefore outside CLdN's operational scope and control. In 2025 CLdN conducted an exercise to estimate these emissions using a "spend-based" methodology in line with provisions of the GHG protocol[3]. This "spend-based" methodology converts operational and capital expenses into emissions using emission factors sourced from the latest version of a global database (Multi-Regional Environmentally Extended Input-Output Table (MR-IOT)). Additional information on this methodology can be found on page 24.

Using this methodology, CLdN's Scope 3 emissions for 2024 have been estimated to be 47,000 tonnes CO_2e.

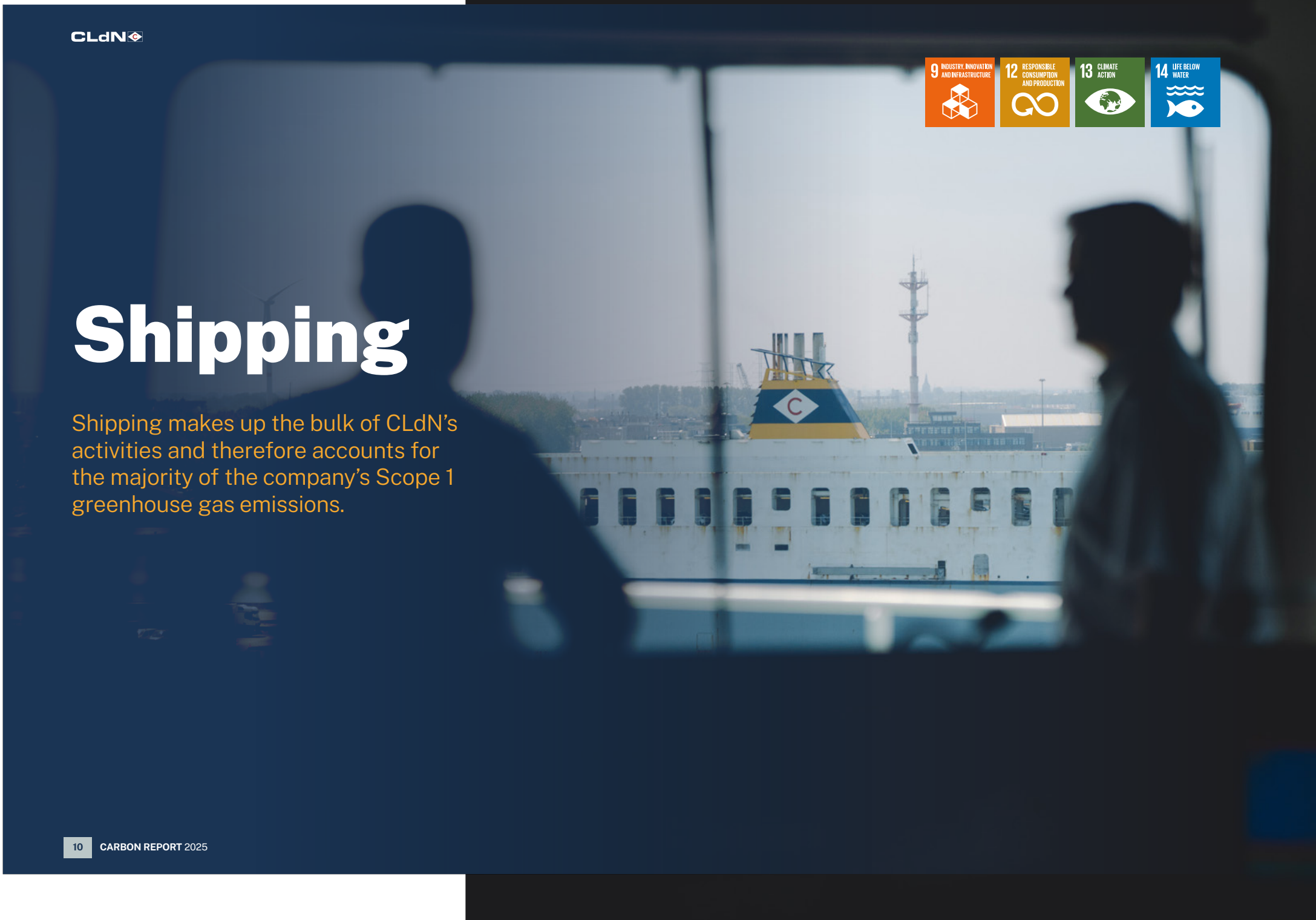
By far the most significant Scope 3 category, accounting for more than 55% of the total, was linked to well-to-tank emissions of fuels used by CLdN. 16% was linked to transportation services provided by our multimodal network partners offering land transportation services, while 8% of the emissions relate to various services required to run our business (e.g. port services, contractors etc). See also Figure 4. In addition, a breakdown of the total Scope 3 emissions by category, as defined in the GHG Protocol's Scope 3 standard, can be found on page 24.

FIG. 4

Largest Scope 3 categories



3: https://ghgprotocol.org/scope-3-calculation-guidance-2



Shipping

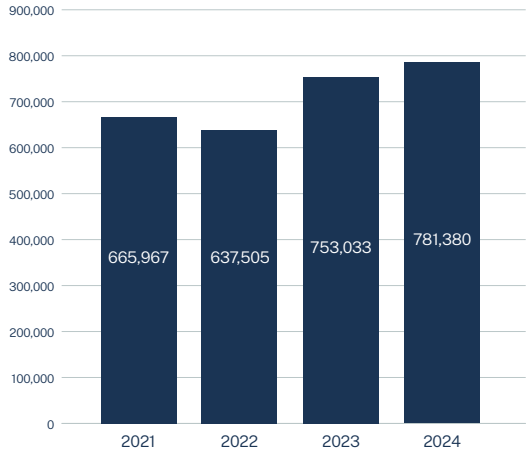
Shipping makes up the bulk of CLdN's activities and therefore accounts for the majority of the company's Scope 1 greenhouse gas emissions.

In 2024, Scope 1 emissions from CLdN's fleet were 781,380 tonnes of CO_2 equivalent (see Figure 5). This is compared to 753,033 tonnes of CO_2e emitted in 2023. The 3.7% increase in Scope 1 emissions by CLdN's fleet in 2024 compared to 2023 primarily relates to a 5.2% increase in kilometres sailed by our vessels, with 4,286,265 kilometres sailed in 2024, compared to 4,073,167 in 2023.

Despite an absolute increase of fleet emissions in 2024 due to the expansion of our operations, in terms of efficiency the performance of our fleet has improved during the same period. Please refer to the overleaf "Investing in our fleet" for more information.

FIG. 5

Scope 1 Emissions (Shipping) tonnes CO_2e



Investing in our fleet

CLdN's fleet achieved increased operational efficiency in 2024, transporting more cargo for our customers while having a lower environmental footprint.

37g CO_2/tonne-km

To reduce fuel consumption and emissions CLdN has been investing in new, larger, more fuel-efficient ships, and in eco-upgrades of its existing vessels. CLdN has invested some EUR 750 million in these ships over the past decade. The result is that CLdN operates more than 30 technologically advanced ships with an average vessel age in 2024 of only 14 years compared to a peer group[4] average fleet age of 18 years. The investments, combined with a daily focus on fuel consumption reduction in its operations, have led to consistent improvement in the carbon efficiency performance of CLdN's fleet as reported in the European Commission's Monitoring, Reporting and Verification (EU-MRV) platform. This enables a comparison of the Energy Efficiency Operational Indicator (EEOI) of each ship as calculated in CO_2 emissions for the transport work done in tonne/kilometres in EU waters. CLdN's results from its own fleet in 2024 showed weighted average emissions of 37g CO_2/tonne-km compared to 39g CO_2/tonne-km recorded in 2023. This was 9% better than CLdN's next-best performing short sea competitor[5], more than 30% better than the peer group average[6] and twice as efficient as road transport by heavy goods vehicles[7].

4/5/6: Please refer to "Fleet efficiency data" under the "Notes" section

7: Freighting goods-HGV (all diesel)-Articulated (>33t)-Average laden: 74 g CO2e/t-km, DEFRA 2024

Carbon Intensity Indicator: CLdN remains a leader in its class

The 2023 Greenhouse Gas Strategy of the International Maritime Organization called for carbon intensity of international shipping to decline by at least 40% by 2030, compared to 2008. In 2023 it became mandatory for owners to calculate the Energy Efficiency Existing Ship Index (EEXI) for their ships and to initiate the collection of data for the reporting of an annual Carbon Intensity Indicator (CII) rating in 2024.

What is a Carbon Intensity Indicator rating?

The CII determines the annual reduction factor needed to ensure continuous improvement of a ship's operational carbon intensity within a specific rating level. The actual annual operational CII achieved must be documented and verified against the required annual operational CII. This enables the operational carbon intensity rating to be determined.

How do the ratings work?

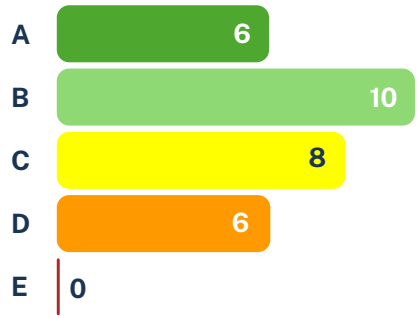
Based on a ship's CII, its carbon intensity is rated A, B, C, D or E (where A is the best). A ship rated D for three consecutive years, or E for one year, must submit a corrective action plan to show how the required index of C or above will be achieved. The rating thresholds become increasingly stringent every year until 2030. Administrations, port authorities and other stakeholders, as appropriate, are encouraged by the IMO to provide incentives to ships rated as A or B.

CLdN's ratings

Our investment in new, more energy-efficient ships means that of our fleet of 30 CLdN-owned vessels, 53% were rated A or B in 2024, accounting for 50.7% of our carbon emissions for the year. This demonstrates the significant strides that CLdN has made in ensuring a high level of carbon efficiency for its fleet.

FIG. 6

CII Vessel Ratings 2024



Our investment in new, more energy-efficient ships means that of our fleet of 30 CLdN-owned vessels, 53% were rated A or B in 2024, accounting for 50.7% of our carbon emissions for the year.

Driving operational efficiency

We take a range of measures to optimise the fuel and emissions performance of our fleet. These include:

- a systematic programme of propeller and hull inspection and cleaning to reduce drag.
- the fitting of sensors and utilisation of information systems to continuously monitor the performance of every ship in our fleet.
- the application of premium hull coatings to reduce drag.
- providing our captains and crews with data to monitor and optimise sailing speeds.

Keeping a clean keel

At sea, a ship's keel, hull, and rudder blades attract organisms such as algae and barnacles. This 'fouling' of the underwater part of the ship leads to drag, requiring greater power to maintain the same speed and therefore results in higher fuel consumption/carbon emissions. At CLdN we conduct a systematic programme of propeller and hull inspection and cleaning to remove this fouling and reduce drag. We use our digital fleet performance tool (see page 15 of the 2023 Carbon report[8]) to detect possible performance issues linked to fouling, and cleaning usually takes place every 1-2 years and during scheduled dry docking. Propeller blades are polished approximately every six months. We also make use of the latest anti-fouling coating technology to prevent fouling. In recent years, CLdN has been applying the newest generation of silicone-based anti-fouling coatings to the hulls of its newbuilt vessels at the end of the construction process. On average, the application of these advanced silicone coatings results in fuel/CO_2 savings of 1-2% compared to conventional copper or zinc-based coatings, while also being less polluting to the marine environment. We have recently applied silicone coatings to several of our older ships despite the added complexity and expense of conducting a full blasting/stripping of the hull before the coating can be applied. This programme was extended to a further four ships in 2025.

8: https://www.cldn.com/sites/default/files/cldn.com/csr/CLdN%20Carbon%20Report%20v14.pdf

Cleaner fuels, lower emissions

One of the main reasons for the shipping industry's significant carbon footprint is its heavy reliance on fossil fuels, particularly heavy fuel oil and marine diesel oil. The EU has adopted the FuelEU Maritime regulation to increase the share of renewable and low-carbon fuels in the fuel mix of international maritime transport in the EU. At CLdN, we fuel some of our newest vessels with liquified natural gas (LNG) - a clear, colourless, and non-toxic liquid formed when natural gas is cooled to -162°C. LNG emits 15% less CO_2 than marine diesel[9]. Two of our largest and newest vessels - the MV Faustine and MV Seraphine - can be powered by LNG. In 2025 we started to use RED II certified bio-LNG in these vessels. This fuel reduces direct CO_2 emissions and can also help CLdN generate significant carbon credits for third parties to meet FuelEU Maritime compliance needs. Find out more about Fuel EU Maritime pooling and CLdN's Carbon Services on our website.

In 2025 we welcomed two new G9e hybrid vessels to the CLdN fleet. These ships – the MV Chaumine and MV Leonine – are equipped with two conventional main engines as well as two large shaft generators of 6 MW each, which can be used for generating power or for electric propulsion. In full electric mode, a cruising speed of 16-17 knots can be achieved. The vessels have a high degree of flexibility allowing for a seamless integration of new fuels, fuel cells and/or battery technology in the future. Compared with our conventional G9 class ships, Celine and Delphine, the new ships further reduce CO_2 emissions by 25%[10] while having higher cargo capacity.

EU Emissions Trading System

The EU Emissions Trading System (ETS) is a cornerstone of the EU's policy to combat climate change and a key tool for reducing GHG emissions. As part of the European Commission's 'Fit for 55' package, the shipping industry was included in the ETS from January 2024. The introduction of this compliance-based carbon cost is phased over three years as follows:

Carbon cost		
40% from 1 January 2024	**70%** from 1 January 2025	**100%** from January 2026

Sailings between EU and non-EU countries are liable for the purchase of emission rights for 50% of the distance between the two ports. Hence, on CLdN's EU-UK routes, ETS is initially only applied on 50% of the voyage. However, the UK will likely extend its own version of the ETS to cover the maritime sector in the coming years. The ETS was introduced as a component of our 'Energy Surcharge' mechanism at the beginning of 2024. This combines the typical fuel bunkering charge (fuel component) with a carbon component and is based on market prices for low sulphur marine gas oil (LSMGO) and CO_2.

9: https://www.transportenvironment.org/uploads/files/2019_06_Dr_Elizabeth_Lindstad_commentary_LNG_maritime_GHG_emissions.pdf
10: Or ~40% per manufacturer specifications, under ideal conditions

CASE STUDY

Trialling wind propulsion at CLdN

To explore the potential of wind power for our fleet, in 2023 CLdN's MV Delphine was fitted with a rotor sail wind propulsion system comprising of two 35m x 5m sails. The ship, which has a cargo capacity of over 8,000 lane metres and operates between the UK, Ireland and Europe, is already one of the most fuel-efficient short sea roll-on/roll-off vessels in the world, emitting just 26g of CO_2 per tonne of cargo shipped per km travelled in 2024[11].

CLdN's MV Delphine

One of the most fuel-efficient short sea roll-on/roll-off vessels in the world

11: Based on 2024 EU MRV data

Ports

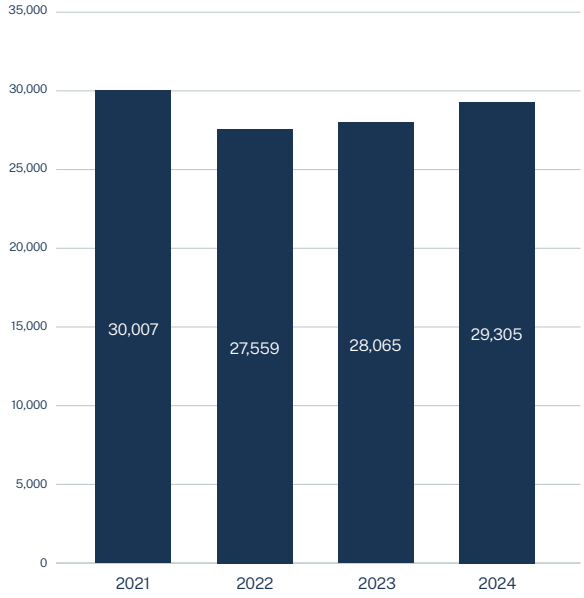
At the end of 2024, CLdN owned and operated 6 ports in Belgium, the Netherlands and United Kingdom[12].

12: This was expanded to 7 during 2025 with the completion of the investments in the Brocklebank terminal in Liverpool. This terminal will be included in CLdN's full emissions scope as from 2025

Scope 1 CO_2e emissions from CLdN's port activities amounted to 29,305 tonnes in 2024 (See Figure 7). The increase from 2023 to 2024 is explained by the first-time inclusion of Distriport which more than offset a reduction in total Scope 1 emissions in CLdN's other ports. Ports have an important role to play in the maritime industry's decarbonisation agenda. At CLdN we are implementing measures to reduce the footprint of our port operations. Readers may refer to pages 18 and 19 for examples of the initiatives being taken.

FIG. 7

Scope 1 Port Emissions (tonnes CO_2e)



Greening our fleet of port vehicles

In 2024 and early 2025 we tested a range of proof-of-concept 4x4 electric tugmasters in our Belgian and UK operations. A tugmaster is a powerful and manoeuvrable tractor for towing and shunting cargo in a port and onto and off RoRo ships. The results of the tests were positive, and we await the commercial development of the vehicles. CLdN is also trialling an electric reach stacker (a vehicle used for lifting and moving containers). This is the first electric reach stacker from the manufacturer Kalmar to be deployed in the Benelux region. The trial is progressing well and CLdN's operators are satisfied with the performance of the vehicle. In addition to the full-electric reach stacker, CLdN is also testing a Kalmar fully electric 25 tonne forklift truck.

It is CLdN's policy to progressively replace light vehicles (cars and small vans) used at our terminals with electric versions whenever feasible. We have also adapted our wider company car policy so that all new company cars ordered since mid-2023 are fully electric.

It is CLdN's policy to progressively replace light vehicles used at our terminals with electric versions whenever feasible.

Over 13,000 solar panels were installed at our terminals in Killingholme, Purfleet, Rotterdam, Vlissingen and Zeebrugge.

CASE STUDY

More solar power for CLdN ports

In 2024-2025 we expanded the use of photovoltaics as a means of generating even more clean energy in our port terminals. Over 13,000 solar panels were installed at our terminals in Killingholme, Purfleet, Rotterdam, Vlissingen and Zeebrugge. These installations complement the existing solar array at CLdN's Distriport terminal and together they have a combined maximum power generation capacity of over 6 megawatts.

Five wind turbines are installed at CLdN's facilities in Zeebrugge. Standing 150 metres high, the turbines have a combined capacity of 18 megawatts, producing up to 50 gigawatt-hours of green electricity per year. Some of that energy is used locally for lighting and to charge CLdN electric terminal vehicles and cars. A similar wind farm is in place at CLdN's Vlissingen terminal at North Sea Port and comprises of five turbines with a combined capacity of 24 megawatts.

Watch the video:
click or scan the QR code.

13 CLIMATE ACTION

Multimodal

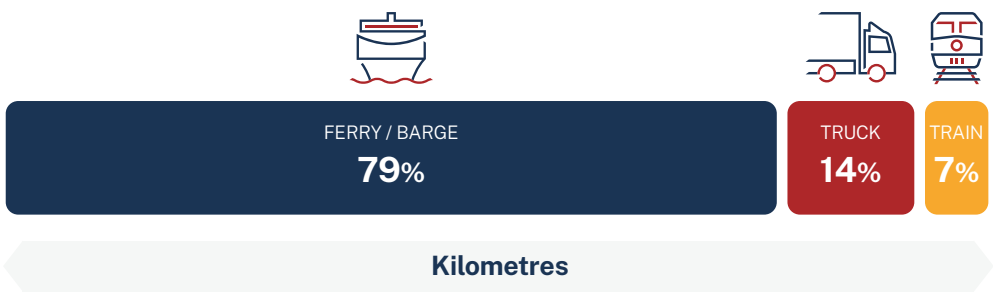
CLdN's door-to-door activity, CLdN Cargo, promotes the shift to more sustainable modes of transport.

Multimodal

CLdN's multimodal activities (CLdN Cargo) operate a fleet of more than 4,000 trailers and 45ft containers which are provided to customers for the transport of their cargo. CLdN Cargo uses CLdN's extensive shipping network complemented by a broad network of rail connections and road hauliers to move this cargo between destinations in Europe. To reduce the environmental impact of our logistics solutions, we strive for a workable balance between ferry/barge, truck, and train. In 2024 the split in kilometres travelled by our trailer/container fleet can be seen in Figure 8. Compared to 2023, this shows an increase in the proportion of ship and rail transportation and reflects the gradual long-term shift of customers using these more carbon-efficient modes of transport.

FIG. 8

Modal split in km



Promoting the modal shift

By limiting truck transport to the first and last mile of a journey, CLdN helps relieve highly congested roads and reduce GHG (greenhouse gas) emissions. Using a combination of sea, road, and rail transport instead of road-only, we can achieve significant CO_2 savings – here are some examples:

FIG. 10

Route	CO_2 Saving
Lisbon - Poznan	60% (2.8 tonnes)
Verona – Northampton	57% (1.2 tonnes)
Kolding - Salamanca	47% (1.7 tonnes)

Calculations based on a container / trailer of approx. 17 tonnes, and a rail ratio of approx. 75% electric and 25% diesel.

CLdN provides customers with estimations of GHG emissions between departure and arrival points in its network. This enables customers to optimise their carbon emissions and to understand the significant environmental benefits of using multimodal solutions compared to only using road transport.

Notes

10.1 General

i. Conversion factors - introduction

When calculating emissions, we use official conversion factors to translate fuel consumption and electricity use into emissions.

For the shipping operations we use the conversion factors published in October 2023 as annexes amending Regulation (EU) 2015/757 of the European Parliament and of the Council as regards the rules for monitoring greenhouse gas emissions and other relevant information from maritime transport.

ii. Conversion factors - ports and fossil fuel company cars

For port operations we use the official conversion factors available on the official platforms of the Belgian, Dutch and UK authorities (2024 versions). These are:

a. Belgium and Luxemburg: www.co2emissiefactoren.be

b. The Netherlands: www.co2emissiefactoren.nl

c. UK and Malta: www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

d. Ireland: conversion factors were gathered from the website from the Sustainable Energy Authority of Ireland (SEAI): www.seai.ie/data-and-insights/seai-statistics/conversion-factors

iii. Conversion factors - office locations

a. UK – office locations: for Ipswich, 2024 conversion factors from the UK "Department for Energy Security and Net Zero et al." were applied: www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

b. Luxembourg & Malta - office locations: official conversion factors from the Association of Issuing Bodies (European Residual Mixes 2024) were applied: www.aib-net.org/sites/default/files/assets/facts/residual-mix/2024/2024_Final%20_Residual%20mix%20calculation%20results_30052025%20pdf%20v1.pdf

iv. Conversion factors - fluorinated-gases: For fluorinated gases (F-gases) figures were taken from the Intergovernmental Panel on Climate Change (IPCC)- sixth assessment report: https://www.ipcc.ch/report/ar6/wg1/chapter/chapter-7/#7.6

v. Conversion factors - electric company cars

a. Belgium, The Netherlands and Luxembourg - electric company cars: figures were taken from www.nowtricity.com

b. UK- electric company cars: 2024 conversion factors from the UK "Department for Energy Security and Net Zero et al." were applied: www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

10.2 Scope 1 emissions

i. Scope 1 emissions Shipping

a. Shipping
These emissions are calculated using detailed voyage and fuel consumption data as entered in the IMO's Data Collection System (IMO-DCS) for all voyages and in the EU's Monitoring Verification and Reporting platform (MRV) for voyages using EU ports. These emissions are "tank-to-wake" i.e., they consider the emissions used in the burning of the fuel by the ship and not the emissions in the upstream refining process, which are considered as part of our Scope 3 calculations (see p9 & p24). To accurately reflect the scope of our activities, the scope for these calculations includes all CLdN SA & Ltd vessels as well as the emissions from vessels that we charter in but do not own. We do not include the emissions of CLdN vessels that are chartered out to third parties.

b. Fleet efficiency data
Fleet efficiency data (expressed as gCO2 per tonne-kilometre) as well as vessel age data is based on the information submitted to MRV/IMO-DCS. The MRV data is the only publicly available information on which to conduct a comparison of fleet efficiency between competitors. The data only covers shipping activity in EU waters and is therefore different in scope from CLdN's overall carbon reporting which covers activity/emissions within and outside the EU.

Regarding MRV-based comparisons, please note that the closest competitor to CLdN in terms of efficiency was determined to be DFDS, while the peer group average was calculated using data from the following competitors: DFDS, Finnlines, Irish Ferries, P&O Ferries & Stena Line.

ii. Scope 1 emissions Ports:

The ports included in scope are the ones where CLdN has operational control i.e. Zeebrugge (Belgium), London (Purfleet), Killingholme (United Kingdom), Rozenburg (the Netherlands), Distriport (new port acquired in February 2024 in Rotterdam) and Vlissingen (the Netherlands). The scope also includes emissions from CLdN-owned port vehicles in Heysham, Warrenpoint, Liverpool and Dublin (CLdN RoRo Ltd).

The emissions do not include activities carried out by third parties to load/unload CLdN vessels in other destination ports not owned or controlled by CLdN (Esjberg, Gothenburg, Santander, Leixoes, Cork, Teesport).

Emissions linked to joint ventures where CLdN has operational control are included at 100%, as per the European Sustainability Reporting Standard guidance.

Port Scope 1 emissions are "tank to wheel" (TtW) i.e., they consider the emissions used in the burning of the fuel by the vehicle and not the emissions in the upstream refining process. For detailed information on upstream fuel emissions, see Scope 3 emissions on page 24.

a. Scope 1-company cars: This category concerns vehicles owned by CLdN and used for business purposes by CLdN employees. The scope is limited to Belgium, the Netherlands, United Kingdom, Luxembourg, and Malta. CLdN RoRo Ltd is not included.

b. Scope 1- fluorinated gases (F-gases): The calculation of emissions associated to F-gases include both office and port operations.
F-gases recharges were identified at the sites in Luxembourg, Malta, Ipswich (offices) and Vlissingen (port) and were included in the total Scope 1 emissions calculations, yet are not visually shown in Figure 1 due to their small proportion (90 tonnes) in relation to the rest of the figures.

10.3 Scope 2 emissions

i. Scope 2 emissions Ports and Offices

Scope 2 emission reporting covers electricity consumed at CLdN's own port operations (including offices on these locations) as well as office building in other locations with 10 employees or more. The scope of these "other locations" includes our headquarters in Luxembourg, our office in Valetta (Malta) and our office in Ipswich (UK). Electricity consumed where no specific meter-based data is available (Antwerp) is not currently included in Scope 2 emissions reporting.

CLdN consumes the majority of its electricity in Belgium (Flanders), the Netherlands and the United Kingdom, where we have our port operations. Each country has a different energy mix and methodology for determining the conversion factor from electricity use to location based CO_2e emissions (see "i. Conversion factors-introduction" on page 23). For market-based calculation, most of the company's electricity consumption is linked to contracts with suppliers that provide a contractual guarantee of provenance and can prove that the energy supplied was produced from renewable sources with zero associated emissions. For the purposes of the calculations relating to on-site power generation, the renewable energy is sourced from wind turbines in Zeebrugge (BE) and solar panel installations at Distriport (NL).

As per the Greenhouse Gas Protocol (GHG Protocol), CLdN reports its Scope 2 emissions using both the location-based and market-based calculation methods (see table below).

Scope 2 emissions	2024
Location-based CO_2e emissions (tonnes)	4,959
Market-based CO_2e emissions (tonnes)	231

ii. Scope 2 emissions Electric company cars

Since mid-2023 all company cars ordered by CLdN are fully electric. The calculation includes all electric vehicles owned by CLdN and used for business purposes by CLdN employees, where the scope includes Belgium, the Netherlands, United Kingdom, Luxembourg, Malta and CLdN RoRo Ltd. The emissions calculation is based on electric vehicle charging records at public charging stations and employee's homes. To avoid double counting, charging records at ports and offices are already considered in Scope 2 "ports and offices" calculations.

10.4 Scope 3 emissions

As also mentioned in the main body of this report (see p.9), for the first iteration of our Scope 3 reporting, we used the "spend-based method" for the entirety of our calculations, following GHG protocol guidelines. This method uses financial data (CAPEX & OPEX) to calculate emissions in a company's value chain, converting financial expenditure into emissions using appropriate activity-and country-specific emission factors. Please note that for CAPEX, the expenditures are considered at the year of capitalization. For our emission factors we used the latest version of EXIOBASE (3.9.6), a global, detailed Multi-Regional Environmentally Extended Input-Output Table (MR-IOT). EXIOBASE was selected out of several other such models for its fit with CLdN's value chain in terms of activities and countries covered. Since the entries in the database from which the emission factors derive are for past years (2022 in most cases), our expenses were adjusted via average inflation figures for enhanced accuracy. The calculation was applied to 80% of the CAPEX/OPEX and the result extrapolated to the full scope of expenditure.

The spend-based methodology presents several advantages yet also comes with some limitations. For more information on the characteristics of the spend-based methodology, please visit this indicative resource: Climatiq - The science behind spend-based emission factors[13].

The breakdown as per GHG Scope 3 category is as follows:

1. Purchased goods and services	8,620 tonnes, or 18.34% of the total.
2. Capital goods	1,820 tonnes, or 3.87% of the total.
3. Fuel-and energy-related activities	25,723 tonnes, or 54.72% of the total.
4. Upstream transportation & distribution	1,135 tonnes, or 2.42% of the total.
6. Business travel	954 tonnes, or 2.03% of the total.
8. Upstream leased assets	471 tonnes, or 1.00% of the total.
9. Downstream transportation and distribution	8,286 tonnes, or 17.63% of the total.

13: https://www.climatiq.io/blog/science-behind-spend-based-emission-factors

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With 30 purpose-built ships, over 200 sailings per week and terminal handling services at 15 ports, we are one of Europe's leading providers of short sea shipping solutions.

Our comprehensive network, which incorporates our own terminals, enables reliable, cost-effective connections between Europe's major economic hubs, delivered by an experienced team of over 2,500 people.

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