

Accounting policies

The report boundary includes assets in the parent company, subsidiaries and joint ventures, as well as employees in the parent company and subsidiaries. This report is published annually and covers the period 01.01.14-31.12.2014. The last CSR report was published on March 11th 2013 and covered the period 01.01.2013-31.12.2013.

The reporting boundary can be divided into several categories: NORDEN's owned vessels, owned vessels which are operated by NORDEN, owned vessels which are in technical management by NORDEN, all operated vessels (owned and chartered), chartered vessels and owned vessels on contract to 3rd parties. Operated refers here to commercially operated which includes but is not limited to purchasing bunker and paying ports and agent costs. Technical management includes but is not limited to repair and maintenance of the vessel, staffing and waste. Throughout the report, it is specified what category the data refers to.

ENERGY AND CLIMATE

CO₂ emissions

NORDEN's CO₂ emissions are calculated in accordance with the Greenhouse Gas Protocol and the financial control approach, where emissions are divided into scope 1, 2 and 3, is applied. Scope 1 emissions include emissions from owned vessels as well as owned company cars. Scope 2 emissions include emissions from land-based activities at NORDEN's offices worldwide, except the Annapolis office since electricity is integrated in rental costs. Scope 3 emissions include emissions from chartered vessels, leased company cars and business travel by air transport.

NORDEN uses the internal shipping system called IMOS (Integrated Maritime Operating System). In IMOS, fuel figures for tanker and dry cargo vessels are registered when arriving/bunkering/departing a port. For tankers the figures are partly updated manually by the operators or they can import the fuel figures stated by the Captain via MOEPS through an established integration to IMOS. For dry cargo vessels, the fuel figures are manually entered by the operator into IMOS.

The total fuel consumption for tanker and dry cargo is calculated by adding the fuel that already exists on the vessel at the beginning of the voyage with the purchased bunker during the voyage, thereafter subtracting the remaining fuel on the vessel when the voyage ends. This is done for each vessel and registered in IMOS.

CO₂ emissions from vessels are calculated on the basis of the fuel quantity consumed on a voyage multiplied by the duration

of the voyage (calculated pro rata) multiplied by the CO₂ emissions factor for each fuel type. In order to be in accordance with the IMO "Guidelines for Voluntary Use of the Ship Energy Efficiency Operational Indicator (EEOI)" from 2009, the CO₂ emission factors have been slightly changed from 3.13 in previous years to 3,1144 in 2013 for residual fuel oil, and from 3.19 in previous years to 3.2060 for marine diesel oil and marine gas oil. This data is applicable for all NORDEN operated vessels.

Scope 1

Besides CO₂ emissions from owned vessels as described above, Scope 1 includes CO₂ emissions from owned company cars.

CO₂ emissions from owned company cars are calculated based on the following assumptions: all the cars are diesel cars with a yearly usage of 20,000 km per car, 12 km/l, and CO₂ emissions of 2.65 kg/l. The conversion factor is from Key2Green.

Scope 2

Emissions from offices are based on electricity, heating and air condition consumption for each office, except the Annapolis office where the electricity costs are integrated in the rental costs and therefore cannot be specified. The electricity, heating and air condition consumption data has been provided by each office by reading the meter at the beginning and end of the year. These figures are converted to CO₂ emissions from kWh using the International Energy Agency's conversion indicators for 2009 in the specific countries we are located in. (United States 508 grams CO₂/kWh, Denmark 303 grams CO₂/kWh, India 951 grams CO₂/kWh, Singapore 519 grams CO₂/kWh, China 743 grams CO₂/kWh and Brazil 64 grams CO₂/kWh)

The energy from our headquarters in Hellerup comes from the following primary energy sources: coal, natural gas, biofuel, oil, garbage and nuclear power. We do not have the data for our other offices.

Scope 3

Emissions from chartered vessels based on their fuel consumption are calculated in the same way as described for owned vessels in scope 1.

Leased company cars are calculated based on the following assumptions: all the cars are diesel cars with a yearly usage of 20,000 km per car, 12 km/l, and CO₂ emissions of 2.65 kg/l. The conversion factor is from Key2Green.

The CO₂ emissions from business travel are calculated according to the guidelines from the travel agencies which have provided us with the data. For voyage distances of less than 1,000

km, the factor 0.18 per km is used to calculate the CO₂ emissions, while for voyage distances of more than 1,000 km, the factor 0.11 per km is used.

Energy Efficiency Operational Indicator (EEOI)

EEOI is defined as: CO₂ emitted per metric ton of cargo transported, per nautical miles sailed. The formula used to calculate EEOI is:

$$\text{Average EEOI} = \frac{\sum_{ij} (FC_{ij} \times C_{Fj})}{\sum (m_{\text{cargo},i} \times D_i)}$$

Where:

- **j** is the fuel type
- **i** is the voyage number
- **FC_{ij}** is the mass of consumed fuel **j** at voyage **i**
- **CF_j** is the fuel mass to CO₂ mass conversion factor for fuel **j**
- **m_{cargo}** is cargo carried (tonnes) or work done (number of TEU or passengers) or gross tonnes for passenger ships
- **D** is the distance in nautical miles corresponding to the cargo carried or work done.

The Total EEOI, as defined by the IMO, may be regarded as made up of three contributions, which are the cargo, ballast and port parts of the journey. See below table.

Climate action plan

Regarding the reduction of CO₂ emissions from the initiatives in the climate action plan, the effect is calculated based on assumptions about engine size, engine type and ballast conditions, and the effect of the initiatives is estimated based on guidelines from IMO and Intertanko. The data is applicable for owned vessels.

SO_x and NO_x

NORDEN has gone from reporting on simple average sulphur content to weighted average sulphur content in 2012, as the latter is a more fair depiction of our SO_x emissions. In 2013, NORDEN continued reporting on weighted average sulphur content. When buying bunkers the amount of low sulphur fuel is registered in IMOS. SO_x emissions are weighted as SO₂ emissions since this is presumably what the emissions will eventu-

ally become in time. SO₂ emissions are calculated from the fuel quantity consumed during the year multiplied by the average sulphur content in the fuel (in 2014 2.14%) multiplied by 2 since sulphur is about twice as heavy as oxygen. The formula is provided by MAN Diesel & Turbo SE. The data is applicable for all NORDEN operated vessel.

NO_x emissions are weighted as NO₂ emissions since this is presumably what the emissions will eventually become. NO₂ emissions are calculated from the energy that the main engine produces multiplied by the Tier I NO_x limit which is 17 gr/kwh, as NORDEN's owned and operated vessels are Tier I compliant. The energy produced is calculated using the fuel oil consumed in kg divided by the SFOC which in this case is estimated to be 0.173 kg/kWh. Source: "Project Guide for MAN S50MC-C7 two-stroke engine, 6th Edition, January 2009". The data is applicable for all NORDEN operated vessel.

Waste

The data for waste is applicable for owned vessels which are in technical management by NORDEN. The waste handled on board is categorized in nine categories in accordance with the MARPOL convention. The amendment to the convention was enforced 1st of January 2013 and the different categories were renamed. These categories are listed in the table below. The waste data reported in the CSR report does not include category G – "Cargo Residues" for dry cargo vessels.

In 2013, Category G (former category 4) has been excluded (as was the case in 2012) as this category is dependent on the type of cargo transported. This is a commercial decision and the choice of cargo has a direct effect on the amount of waste and hence the target. Therefore, we have decided to base our new target on categories where our procedures and crew on board can influence the amount of waste.

The amount of waste is reported to the office by the master of a vessel each month. The records of the disposed waste are registered in the garbage record book. Our waste is disposed of in accordance with Marpol Annex V. All records are conducted in cubic meters. See table on page 3.

EEOI total	=	EEOI cargo	+	EEOI ballast	+	EEOI port
Σ ton CO ₂ total		Σ ton CO ₂ laden		Σ ton CO ₂ ballast		Σ ton CO ₂ port
Σ distance * cargo		Σ distance * cargo		Σ distance * cargo		Σ distance * cargo

The records of the disposed waste		
A	Plastics	Garbage that consists of or includes plastic in any form, including synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products. Garbage under this category is prohibited to be discharged at sea.
B	Food wastes	Spoiled or unspoiled food substances. Food wastes may be discharged at sea under specific circumstances/requirements.
C	Domestic Wastes	Garbage generated mainly in the accommodation spaces on board the ship (e.g. drinking bottles, papers, cardboard etc). Garbage under this category is prohibited to be discharged at sea.
D	Cooking Oil	Edible oil or animal fat used for the preparation or cooking of food. Garbage under this category is prohibited to be discharged at sea.
E	Incinerator ashes	Ash and clinkers resulting from shipboard incinerators used for the incineration of garbage. Garbage under this category is prohibited to be discharged at sea.
F	Operational wastes	Solid wastes (including slurries) that are collected on board during normal maintenance or operations of a ship. Garbage under this category is prohibited to be discharged at sea.
G	Cargo residues	Remnants of any cargo which remain on the deck or in holds following loading or unloading. This category does not include cargo dust remaining on the deck after sweeping or dust on the external surfaces of the ship. Such garbage may be discharged at sea under specific circumstances/requirements.
H	Animal Carcasses	Bodies of any animals that are carried on board as cargo and that die or are euthanized during the voyage.
I	Fishing Gear	Garbage under this category is prohibited to be discharged at sea.

VESSEL SAFETY

Vetting

Vetting inspections are performed by inspectors from oil companies in accordance with the Ship Inspection Report Programme (SIRE). Observations identified during the inspection are reported to vessel and office by the inspector (results are also recorded in the SIRE database by OCIMF). The data is applicable for owned vessels which are in technical management by NORDEN.

Port State Control

Port State Controls (PSC) are performed by inspectors from a relevant PSC MOU, and the result of the inspection is reported to the master of the inspected vessel, who forwards the inspection report to office. The data is applicable for owned vessels which are in technical management by NORDEN.

NORDEN's Port State Control target is to have lower deficiencies per owned vessel technically managed by NORDEN per PSC than the peer group benchmark average (as measured by Tanker Safety Forum Benchmark and Boston Consulting Group Benchmark).

The average number of deficiencies per PSC from the Boston Consulting Group's peer group was the following for 2013 (which is used as a reference as 2014 data is not available by the time NORDEN's CSR report is published):

- 1.5 deficiency per PSC for tankers
- 1.1 deficiencies per PSC for bulk
- 1.3 deficiency per PSC for both bulk and tankers

However the Boston Consulting Group's peer group consists primarily of tanker vessels; had the peer group had the same distribution between tankers and bulkers as the NORDEN fleet, the average of the peer group would have been 1.3. We therefore used 1.3 deficiencies per PSC as our target for 2014.

Near-miss, LTIF and TRCF

The data is applicable for employees at sea on NORDEN owned vessels which are in technical management by NORDEN.

Near-miss, Lost Time Injury Frequency and Total Recordable Case Frequency are reported monthly from the master of the vessel to office in accordance with OCIMF's 'Marine Injury Reporting Guidelines'.

Near-misses refer to situations, which could have led to an accident if they had developed further.

NORDEN measures Lost-Time Injury (LTI) frequency rate as work-related incidents per 1 million working hours which result in occupational illness causing absence from work for more than 24 hours. The LTI frequency rate is measured as an average over the past 12 months.

EMPLOYEE CONDITIONS

The number of employees has been divided according to GRI by gender, age, employment contract and type. We have divided our reporting into employees at sea and employees on shore.

Employees at sea

When an employee at sea is hired, his information is put into our system "Omega" manually by an employee on shore. All the employees at sea are full-time.

An indefinite or permanent contract is a contract with an employee for full-time for an undefined period.

A fixed-term or temporary contract is a contract of employment that ends when a specific time period expires, or when a specific task, that has a time estimate attached, is completed.

Total employed

When calculating total employed, the goal is to determine the total number of sea farers by the end of the year ("Calculation date"). This will be any employee that has been hired before or at the calculation date, has not (yet) been dismissed and at the calculation date has an active status (an active status is any status code but 9 = dismissed or 5 = PH-pool).

To attain this goal there are three factors to consider:

- I Employment date
- II Dismissed date
- III Start date (of activities)
- IV Status code (of last activity with a start date <= to the calculation date)

These three factors can be found by combining following datasets:

- A Omega\Om01Crew Om01Crew
- B Omega\Om01CrewHist Om01CrewHist

To determine the last status code (IV), the query will have to sort out any activity with a start date (III) after your calculation date, and then grouping the data to get the last status code per employee. This should end up with a dataset consisting of one row per employee.

When the dataset is complete and the factors know, the total number of sea farers will be the sum of employees that meet all the following requirements:

- Employment date <= Calculation date
- Dismissed date > Calculation date OR Dismissed date = NULL
- Status code <> 5
- Status code <> 9

Retention rate

In 2013, NORDEN switched from using a generic retention rate, established by dividing the number of employees that left in the reporting period by the average number of employees in that same period, to INTERTANKO Retention Formula from March 2009, which accounts for the type of termination. The new formula is as follows:

Retention rate (R) is calculated within a calendar year (CY) by using the following formula:

$$R = 1 - \frac{F_r}{E_t}, \text{ hvor}$$

$$F_r = F_t - F_b - F_u$$

E_t = Average number of employees within the CY

F_r = The number of terminations within the CY which cannot be categorized as "Beneficial" or "Unavoidable"

F_t = The total number of terminations within the CY

F_b = The number of terminations within the CY which can be categorized as "Beneficial"

F_u = The number of terminations within the CY which cannot be categorized as "Unavoidable"

To determine the elements required to calculate the retention rate, the following factors must be considered:

- **START DATE** – Date where an activity is started
- **END DATE** – Date where an activity is ended
- **STATUS** – The category of the activity (9 = dismissed, any other is considered work related)
- **DISMISSED REASON** – Static category of dismissal (0 = resigned; 1 = beneficial; 2 = Unavoidable)
- **NOTFORREHIRE** – Tag for employees NORDEN has a reason not to employ in the future (1 = reason not to employ)

A person is considered terminated (F_T) when:

- An activity has STATUS = 9 (START DATO = Termination date)

Categorizing the terminations, is done by the following:

Firstly NOTFORREHIRE is considered, if this is = 1, then the termination is considered to be “Beneficial”. Secondly DISMISSED REASON is considered; 1= “Beneficial” ; 2 = “Unavoidable”. Any other termination is considered to be part of (F_T).

The average number of employees (E_T) within the CY, is the total days each employee has had activities (excluding STATUS 9) within the CY divided by the number of days within the CY.

Example

John is hired 01-05-2013 afterwards he is fired 15-08-2013 and then he is rehired 20-10-2013. Which means he has been employed in two intervals of 106 days and 73 days, which means he counts as 0,49 employee.

The retention rate excludes employees from NORD QUEBEC and NORD MONTREAL, which are manned from Univan’s Manila office. The at-home pool management is not applicable for agent with only 2 vessels in crew management. The rotation includes other vessels under Univan management (non – NORDEN fleet) in order to uphold rotation. All off signers are removed from the pool count upon repatriation of vessels in order to avoid influencing the retention incorrectly.

Rest hours at sea

Rest hours are monitored in accordance with ILO and STCW conventions. All violations of rest hours conventions are recorded on board each vessel and they are all reported to office on a monthly basis. Rest hour non-conformity is calculated per full-time equivalent, i.e. how many violations have occurred per 1 crew member on board a vessel during 1 month. In 2014, NORD DELPHINUS was not included in the total rest hour figure due to missing data.

Employees on shore

Employees on shore are employees hired for a position on land in one of our offices.

When hired employees are registered manually in our HR system, People Focus, data such as gender, age, position and work office is recorded. Management includes employees above General Manager level.

Full-time employees are employees who work 37 hours a week, while part-time employees are employees who work under 37 hours a week. Student workers are included in part-time employees.

An indefinite or permanent contract is a contract with an employee for full-time or part-time work for an undefined period.

A fixed-term or temporary contract is a contract of employment that ends when a specific time period expires, or when a specific task, that has a time estimate attached, is completed. Trainees and maternity leave replacements are included in this category.

The retention rate is calculated based on the average number of employees in the reporting period. It is calculated as the number of employees that left in the reporting period divided by the average number of employees in that same period. The data is drawn from People Focus and sorted by employment date and eventual dismissal date.

ANTI-CORRUPTION

The external investigator has provided us with data on the amount of reported incidents.