Nouryon

Reporting Principles

for the Nouryon Sustainability Report 2024

This document explains the reporting principles of the sustainability performance indicators presented in the annual report 2024 and on the corporate website. This document is to be read in conjunction with the Sustainability Report 2024.

Last update: April 28th, 2025

Contents

1. Reporting Context

1.1 Organizational Boundaries and Changes

The reporting of our performance indicators is based on financial reporting in alignment with the Financial Control approach outlined by the Greenhouse Gas Protocol: operations and activities, fully owned or with more than 50% ownership by Nouryon are 100% included in the reporting process. Operations and activities that are owned 50% or less by Nouryon are not included in this reporting. Our integrated supply chain uses specific criteria[1] when reporting the total number of manufacturing sites, which may differ from the Financial Control approach in select cases due to competitive or organizational reasons.
Acquired operational activities are included in our performance reporting as of the month in which financial consolidation takes place. Divested activities cease reporting as of the month in which financial consolidation takes place. Exception: the Fort Amanda Joint
Venture, does report only on Safety as the employees operating the production facility have a Nouryon contract while the Environmental indicators are part of facility owned by the Joint Venture which is 50% owned by Nouryon and not part of the reporting process.
Offices and research facilities (except for our Deventer Innovation Center) are excluded from reporting in Energy and Environment but included in Scope 3, Category 8 Leased Assets. The three warehouses which we own, are excluded in the Energy and Environmental reporting as their contribution to the company total is considered immaterial (historically, it was confirmed to be below the minimum reporting limits). However, they report on Health Safety and Security.

Changes in Nouryon Metrics reporting entities 2024 YTD

Changes to Health, Safety and Security (HSS) reporting entities:

L1	L2	L3	L4	Comment
Nouryon	Americas	Mexico City Office	L4 Mexico City Office COR Organization	New office as of Jan 2024
Nouryon	Americas	Projects Americas	L4 Project Americas Savanna	Project completed in Dec 2025
Nouryon	Americas	Projects Americas	L4 Project Americas Thor	Project completed in Nov 2023
Nouryon	Americas	Ribas do Rio Pardo	L4 Ribas do Rio Pardo Organization	New manufactring site as of Feb 2024
Nouryon	EMEA	Milan Office	L4 Milan Office COR Organization	New office as of Feb 2023

<u>Specifics:</u>

- The reporting entity for the Thor construction site (Grass Root, expansion of Howard) has been
- closed since December 2023.
- A new HSS reporting entity for the new site Ribas was created from February 2024.
- A temporary reporting entity called “Singapore Alkoxylation PF organization” was active between January and March 2023. Both Singapore plants are operating under the same management, so it was decided not to continue with two separate questionnaires. A new questionnaire and site were set up in January 2023. In April, this was no longer used, and all site activity has been incorporated in one reporting entity.
- New sales offices were opened in Milan and Mexico City in February 2023 and July 2024, respectively.

[1] Example criteria for what are considered sites when speaking about our manufacturing operations and activities could include: 100% wholly owned sites, sites that perform some unit operation for raw material conversion to finished goods, sites where Nouryon staff are operating the assets, in cases where Nouryon finances the inventory and capex, or where end product serves Nouryon’ s customers. Sites meeting these criteria could be less than 50% owned by Nouryon and/or not reporting HSE performance indicators.

New and closed Energy and Environment reporting entities:

L1	L2	L3	L4	Indicator	Change	As of
Nouryon	Americas	Ribas do Rio Pardo	L4 Ribas do Rio Pardo Chlorate Plant	Production quantity As Is [t [metric]]	New Plant	Q1 2024
Nouryon	Americas	Ribas do Rio Pardo	L4 Ribas do Rio Pardo ClO2 Plant	Production quantity As Is [t [metric]]	New Plant	Q1 2024
Nouryon	Americas	Ribas do Rio Pardo	L4 Ribas do Rio Pardo Hydrogen Peroxide Plant	Production quantity As Is [t [metric]]	New Plant	Q1 2024
Nouryon	Americas	Paulinia	L4 Paulinia MA plant	Production quantity As Is [t [metric]]	New Plant	Q1 2024

Specifics:

- New Energy and Environment reporting entities for the new site Ribas were created starting in first quarter of 2024.
- A dedicated entity for the Paulinia site was created starting in the first quarter of 2024.

Newly acquired sites will be enrolled in an onboarding process to comply with the Nouryon internal HSE procedures for the first year in operation. During this first year the HSE Safety performance will not be included in the Nouryon HSE performance.

1.2 Reporting Criteria

We assess our greenhouse gas (GHG) emissions annually with the aim to align as much as possible with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard and Corporate Value Chain Accounting and Reporting[2]. Our footprint is measured across our value chain – including Scopes 1, 2 and Scope 3. Where relevant, we align metrics with the Sustainability Accounting Standards Board (SASB) Chemical sector reporting requirements. In addition, for a subset of metrics, we report with reference to the Global Reporting Initiative (GRI).

1.3 Healthy, Safety and Environmental (HSE) performance indicators

Reporting Systems:

For tracking and reporting health, safety, and environmental related performance indicators we use a software system, Enablon. This system includes several integrated modules. Performance indicators used for external reporting are tracked in the Metrics Module.

Reporting Process:

Health Safety and Security reporting is done on a monthly basis. Energy and Environment reporting is done on a quarterly basis. With the mentioned frequencies, questionnaires (datasheets) are generated and sent to representatives of the selected reporting entities. These questionnaires are partly prefilled with data extracted from other Enablon modules, and site representatives enter the remaining data. Automatic calculations are done within the Enablon system for consolidation. Calculations are explained in internal system documents. The Enablon system can generate reports in different forms, periods, and cross sections of the company.
HSE data are entered at the reporting entity level data by a designated contributor who sends the completed questionnaire on to a validator (usually the site manager). After completion of the Q3 reporting campaigns, an extended data integrity check is executed involving Regional and Corporate HSE experts. This exercise is repeated after the closing of the Q4 reporting campaigns for year end.

[2] The following standards: GHG Protocol. A Corporate Accounting and Reporting Standard Revised edition. WRI and WBCSD 2004., GHG Protocol Scope 2 Guidance. An amendment to the GHG Protocol Corporate Standard. WRI and WBCSD 2015., GHG Protocol. Technical Guidance for Calculating Scope 3 Emissions Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard, 2013.

1.4 Suppliers acknowledging our Business Partner Code of Conduct

The progress on signed Business Partner Code of Conduct declarations across Nouryon is reported on a yearly basis using our Ariba Purchase Order system. Nouryon's Business Partner Code of Conduct is embedded in our General Terms and Conditions as well as all Contract Templates. Supplier acknowledgement is executed via Purchase Order acceptance or signed contract agreement as standard practice.

Data on suppliers covered by the Business Partner Code of Conduct are consolidated at corporate level with the percentage of spend covered extracted from our Ariba Purchase Order system and reviewed annually.

1.5 Site certifications

Nouryon tracks ISO, OSHAS, and related certificates for all manufacturing sites.
Many of the certificates are combined regional certificates (e.g., we have an ISO14001 management system standard for sites in South America). Certificates are available on our public Nouryon.com site.
ISO information per site such as certificate type and expiration date are collected yearly and consolidated at the corporate level. Our ISO certification percentage metric includes sites that have been in our portfolio for one year or more. This is to allow sufficient time required for activities reviewed by the certification process (*e.g.,* pre-start up safety reviews, management reviews, production, and/or internal audits if relevant). Any exceptions will be identified.

1.6 Human Resources (HR) Data

Nouryon uses SuccessFactors as a global HR system for managing employee data, including talent and performance management, recruitment and learning data. The system stores a range of personal and job information, including reporting line, salary, job history, etc. SuccessFactors is a real time system running Nouryon's processes and forms the basis of monthly or quarterly internal reporting as well as HR reporting in the sustainability report. Data is entered and authorized at defined levels in country and business organizations.

2. Metrics

2.1 Production Quantity

The Production Quantity of a reporting entity is the number of metric tons of commercial products produced and leaving the reporting entity on “as is basis”. This means that solvents which are added to the reactive components are included in this amount. If a commercial product from one reporting entity is used as a raw material for another reporting entity this quantity is still included. This is not the case with non-commercial intermediates like nitriles in our product line Amines Surfactants: these are not included in the production quantity, because the volumes are included in the resulting end products.

Intensity-based metrics are based per unit of production.

2.2 Health and Safety

2.2.1 People Safety

Hours worked

Hours worked are used in the calculation of the OSHA Incident Rate (OIR), and the Lost Time Injury Rate (LTIR). In Sweden, The Netherlands and the US, we record working hours for our own employees with the Kronos system. These three main countries represent approximately 50% of Nouryon employees. Kronos system configurations are aligned to local regulations and may differ by location. In other countries, working hours are tracked at the site level. There is no central system – each site office is responsible for establishing one. Many sites use a badge or card-based registration system to track the presence on the workplace. Employee work locations are recorded in the Success Factors system.

Hours worked for temporary workers and contractors need to be collected at site level. The hours for temporary workers are usually submitted by the employment agencies to the sites. The hours for contractors can be generated in different ways depending on the situation on site and the activities executed.
Data in these systems are consolidated to allocate the correct hours worked to different reporting entities in Enablon.

OIR

All injuries are as much as possible reported following OSHA[3] guidelines. In countries outside the US, substantiated deviations may occur on an exception basis. Recordable injuries are reported as Medical Treatment, Restrictive Work, Lost Time Injuries or Fatalities.

The OSHA Incident Rate (OIR) is the total number of recordable injuries per 200,000 hours worked. This is reported as the OIR for (1) Nouryon employees and temporary workers, and (2) for contractors.

LTIR

The Lost Time Injury Rate (LTIR) is the number of Lost Time Injuries (including Fatalities) per 200,000 hours worked. This is reported as the LTIR for (1) Nouryon employees and temporary workers, and (2) for contractors.

[3] US Occupational Safety and Health Administration

2.2.2 Process Safety

Process Safety Events

Process Safety Events are reported according to the API RP 754 guidelines. The incident investigations of PSE level 1 and level 2 incidents are supported by the Process Safety Management (PSM) expert team.

PSTIR

The Process Safety Total Incident Rate (PSTIR) is the number of Process Safety Incidents per 200,000 hours worked. It is reported as (1) a PSTIR for PSE1 incidents and (2) as a PSTIR for the combined number of PSE1 and PSE2 incidents. It is reported in two different indicators: PSIR (PSE1) and PSTIR (PSE1 + PSE2).

2.3 Environmental

Environmental indicators are obtained in many ways using different measurements: weight, volume, flow, concentration, process information systems and Nouryon calculations. They are described in our internal KPI documents. Where possible, internal measurements are aligned with external measurements: invoices from utility suppliers (electricity, steam, water) and service providers (waste handling, wastewater treatment facilities). Sites define how primary inputs are obtained (governed by our HSE procedures). In many cases, reporting overlaps with reporting required for regulatory authorities.

2.3.1 Emissions factors

Several emission factors are refreshed annually to ensure that accurate and up-to-date factors are used over the year.

NOx values have been updated based on updated emission factors (expressed in kg NOx per TJ of fuel for all reported fuels) for all years back to 2019[4]. This re-baselining provides a consistent basis for comparing performance on NOx versus the base year.

CO2e emissions from other greenhouse gases (GHGs) CH_4, N_2O, HFCs have been included in our emissions inventory since 2024. Data has been updated for prior years, back to our base year of 2019. This re-baselining provides a consistent basis to track performance against our 2030 GHG target.

2.3.2 Direct CO_2e (Scope 1)

Direct CO2e from Fuels

We identified the following standard fuels used in Nouryon operations: natural gas, LPG, fuel oil, and coal. The consumed quantities are multiplied by a Lower Heating Value (standards provided but sites are to enter site specific factors if available). The resulting Fuel Energy measured in TJ is multiplied by a Fuel Emission Factor (registered in our internal KPI documents) to calculate the Direct CO2e from Fuels. In case a non-standard fuel is consumed, sites need to provide the related Lower Heating Value and Fuel Emission Factor for the energy and Direct CO2e calculations.

4 Factors are based on “Non-CO2 emissions from stationary combustion”, Annex 1, “The aggregated emission factors”, table 4 “NOx default (uncontrolled) emissions factors (kg/TJ). https://www.ipcc-nggip.iges.or.jp/public/gp/bgp/2_2_Non-CO2_Stationary_Combustion.pdf

Direct Process CO2

For processes where CO2 is generated as a result of a chemical reaction (excluding combustion), - for example during the production of Ethylene Oxide - the resulting CO2 quantities are calculated by the reporting entities and entered in the Enablon Environmental Questionnaire under Direct Emissions.

Direct Process CO2e emissions from other greenhouse gases (GHGs)

Starting in 2024, we include CO2e emissions from other greenhouse gases (GHGs) CH_4, N_2O, HFCs in our emissions inventory (PFCs are not used in our manufacturing processes).. The calculation methods and assumptions are described in our internal KPI documents. Data has been updated for prior years, back to our base year of 2019. This provides a consistent basis to track performance against our 2030 GHG target.

2.3.3 Indirect CO2e (Scope 2)

Indirect CO2 related to Electricity Purchase

Indirect CO2e related to electricity is calculated from the quantity of purchased electricity and emission factor. Aligned with the GHG Protocol, we report market and location-based emissions and apply the GHG Protocol's emission factor hierarchies. Allocation of our purchased Renewable Energy Certificates (RECs) are included in this procedure.

Starting in 2024, we include CO2e emissions from other greenhouse gases (GHGs) CH_4, N_2O, for electricity generated with 100% biomass. Calculation methods and assumptions are described in internal KPI documents. Data has been updated for prior years, back to our base year of 2019.For market-based scope 2 emission factors, in cases where energy attribute certificates, renewable contracts or supplier-based emissions factors are not available, we use eGrid for grid average emission factors in the US for 2022 (created January 30, 2023) and for Europe, we use the residual grid factors from the Association of Issuing Bodies (AIB, published May 30, 2024). Where residual grid factors are not available and in other regions, we use national electricity emission factors from the International Energy Agency (IEA). For 2024 data, this was based on IEA 2022 final data published and purchased in September 2024 (see the table below showing which yearly data we used per year). Scope 2 market and location-based CO2e emissions do not include emissions from CH4 and N2O where IEA national grid factors or AIB residual grid factors are applied, except for the US.

Reporting year						
	2019	2020	2021	2022	2023	2024
National Grid factors bought in 2023	IEA data 2017 final	IEA data 2018 final	IEA data 2019 final	IEA data 2020 final		
National Grid factors bought in 2024					IEA data 2021 final	IEA data 2022 final

Indirect CO2e related to Steam Purchase

The Indirect CO2 related to Steam is calculated from the energy content of the purchased steam and a carbon emission factor for steam (from our internal emissions factor document). This steam emission factor depends on the type of fuel used to generate the steam and how it is generated (for example: steam boiler or Combined Heat Power unit). In case steam is generated by using biomass, one emission factor representing Black-Liquor is used. This factor is also used for our site Kvarntorp where steam is generated from Wood-pellets. The deviation in using the Black-Liquor factor instead of the factor for Wood-Waste is negligible on site and company level. The calculation methods and assumptions are described in our internal documents.

2.3.4 Emissions related to biomass

As of 2024, we report GHG emissions from purchased electricity and steam generated from biomass. CO_2e emissions from CH_4 and N_2O will be reported in Scope 2. Biogenic CO_2 emissions are reported as a separate category, outside of scopes 1, 2, and 3 – in accordance with the GHG Protocol

2.3.5 Energy and Electricity

Total Energy Consumption

The Total Energy Consumption in TJs is the sum of Energy Fuels, Energy Electricity, Energy Steam and Energy Hot Water (condensate).

As of 2024, we also report the total energy consumption by source being fossil, nuclear, renewable (from Solar, Hydro, Wind, and Biomass), and self-generated.

Renewable Electricity %

The Renewable Electricity % is the ratio of external electricity from renewable (wind, solar, hydro and biomass) sources divided by total electricity consumption. For sites that have a zero or near zero emission factor from a mix of low carbon electricity sources (e.g. renewable, and nuclear), we include the portion that is from renewable sources, excluding nuclear).
In reference to the GHG hierarchy for Scope 2 market based emissions as mentioned in chapter 2.3.3, in case RECs are purchased and retired on a site, the equivalent MWh are included in the Renewable Electricity calculation.

Renewable Energy %

The renewable Energy % is the sum of external electricity from renewable (wind, solar, hydro and biomass) sources as stated in the renewable electricity % definition, and external steam supply from renewable (biomass) sources and renewable fuel (biomass) relative to the Total Energy Consumption.

2.3.6 Air Emissions

NOx

The Total NOx emission is the sum of Direct NOx emissions from processes and Fuel Related NOx from combustion of fuels.

For chemical processes that generate NOx, the resulting NOx quantities are calculated by reporting entities and entered under Direct. Direct NOx emission is a manual input provided by reporting entities based on measurements or calculations as described in our internal KPI documents. NOx related to fuels is calculated based on emission factors specific to each fuel type (described in our internal KPI documents) which has been updated in 2024. All NOx emissions until 2019 were updated by using these updated emission factors. If a site has primary data available (for example based on stack measurements), sites are requested to use these measured values.

Sox

The Total SOx emission is the sum of Direct SOx emission and Fuel Related SOx.
For chemical processes that generate SOx, the resulting SOx quantities are calculated by reporting entities (based on measurements or calculations) and entered under Direct Emissions.
SOx related to fuel, is calculated based on the sulfur content of the fuel. Reporting entities enter the mass % of sulfur within the quantities of fuel oil and/or coal from which the SOx emission is calculated in Enablon on a mass balance basis.

VOC / HAP

VOC (Volatile Organic Compounds) and HAP (Hazardous Air Pollutants) emissions to air are calculated by the reporting entities based on either spot measurements, modelling, or mass balance. This method and calculations are described in our internal KPI documents.

2.3.7 Waste

Reported waste is waste related to normal operations and shipped off site during the reporting period. The reported waste is grouped in 8 different categories related to hazardous and non-hazardous classifications, reusable and non- reusable destinations, and the waste processing method. Hazard classification follows local regulations. In many cases, our sites utilize certified external waste handling contractors that manage waste, aligned with local and regional regulations.

Exclusions:
Project waste such as construction demolition or soil remediation projects is not included as this waste in not generated from normal operations.

2.3.8 Water

Fresh water intake

Fresh water intake is reported as intake from Ground water, Surface water, or provided by a supplier (Potable and Process).
Total Fresh Water Intake in 1000 m^3 is the sum of these indicators.

Fresh water use

Per definition, the total Fresh water use equals the total Fresh water intake. Fresh water use is reported as Use Cooling, Use Process and Use Other.

- Use Cooling is specifically for open (once through) cooling systems where cooling water is returned to the same water body from where it was taken – the only difference being an increase in temperature.
- Use Process includes water usage for cleaning, rinsing, extraction, reaction dilution and water contained in products. Use process also includes water evaporation from cooling towers.
- Use Other is a calculated indicator[5].

Fresh water consumption

The Fresh Water Consumption is the sum of the Fresh Water Use Process and the Fresh Water Use Other.

Wastewater

Most Nouryon sites have on-site wastewater treatment facilities. In cases where facilities do not have wastewater treatment facilities, wastewater is sent to an off-site wastewater treatment facility. Reporting entities report the COD (Chemical Oxygen Demand) in metric tons in water sent to surface water and COD sent to off- site wastewater treatment facility. In the latter case, if COD measurements are not available, the reporting entity estimates the COD quantity for example by means of a mass balance approach.

2.3.9 COD

COD (Chemical Oxygen Demand) emissions in metric tons to water is calculated by the reporting entities based on either spot measurements or mass balance combined with flow measurements. We are disclosing COD absolute emissions to surface water as well as to external wastewater treatment facilities.

2.3.10 Scope 3 Calculations

For scope 3, we strive to utilize data sources that are temporally relevant and geographically representative. Where possible, we prioritized physical quantities (mass of purchased raw materials and generated waste, miles traveled) vs. spend-based data.

Primary and Secondary Data Definitions

Per the GHG Protocol[6]

Primary Data: Data from activities within a company's value chain, including data provided by suppliers or other value chain partners. Primary activity data may be usage or spend, or emissions data calculated by suppliers specific to suppliers' activities.

Secondary Data: Data that is not from specific activities within a company's value chain. This includes industry-average data (e.g., from published databases, government statistics, literature studies, and industry associations), or financial data.

In certain cases, companies may use specific data from one activity in the value chain to estimate emissions for another activity in the value chain. This type of data (i.e., proxy data) is considered secondary data, since it is not specific to the activity whose emissions are being calculated.

5 It is calculated from the difference between the Total Fresh Water Use and the sum of the use of Cooling and Process water

6 GHG Protocol. Technical Guidance for Calculating Scope 3 Emissions Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard.

Category 1 – Purchased Goods and Services

Category definition: This category includes upstream emissions from the production of products purchased by Nouryon as raw materials in the reporting year as well as packaging and services. The upstream emissions are related to the extraction, production, and transportation of goods and services purchased by Nouryon in the reporting year, not otherwise included in Categories 2– 8:

Primary data:

- Raw materials – Average-data Method – Mass of purchases
- Packaging – Spend-based Method – Spend on purchases
- Services – Spend-based Method – Spend on purchases
- Expenses - Spend on company credit cards (P-cards)

Secondary data:

- Raw materials – Average-data Method – Mass-based ecoinvent and Sphera Emission Factors (Global focused, ecoinvent 3.11 (IPCC 2021: climate change: total (excl. biogenic CO2), global warming potential (GWP100) and GaBi 2022.1

The top 100 material groups by mass are mapped to ecoinvent v3.11 factors or proxies. (from literature, historical primary data, and other sources). Other material groups not part of the top 100, are assigned to categories, which are mapped to ecoinvent v3.11 emission factors.

- Packaging – Spend-based Method – US EPA EIO factors v1.3, 2024 dataset. Released December 21, 2024.
- Services – Spend-based Method – US EPA EIO factors v1.3, 2024 dataset. Released December 21, 2024.

Nouryon's Category 1 footprint is calculated as the total of raw materials, packaging and services. Raw materials emissions are estimated by multiplying the mass of raw material purchases by emission factors with the closest matching material label. On some occasions like for Ethylene, a market based ecoinvent 3.11 emission factor is used as the best possible. This includes transport which is a double count with category 4 but this is negligible. Packaging and services emissions are estimated by and multiplying packaging and services spend by emission factors with the closest matching sector label.

There is some overlap in data (for example hotel stays) provided for P-card spend and data provided for category 6. Spend categories from the P-card data that are accounted for in category 6 are excluded from the category 1 calculations. As such, there is no overlap in the calculated emissions between category 1 and category 6.

Category 2 – Capital Goods

Category definition: This category includes upstream emissions from the production of capital goods (for example, plant equipment used in manufacturing) purchased by Nouryon in the reporting year. Emissions from the use of capital goods by the reporting company are accounted for in either Scope 1 (e.g., for fuel use) or Scope 2 (e.g., for electricity use), rather than in Scope 3.

Primary data:

- Spend-based Method – Spend on capital projects

Secondary data:

- Spend-based Method – US EPA EIO factors v1.3, 2024 dataset. Released December 21, 2024.

  Nouryon's Category 2 footprint is calculated by multiplying Fixed-assets spend by emission factors with the closest matching sector label.

Category 3 – Fuel- and energy-related activities, not included in Scope 1 or Scope 2

Category definition: This category includes emissions related to the production of fuels and energy purchased and consumed by Nouryon in the reporting year that are not included in Scope 1 or Scope 2. Activities include:

- Upstream emissions of purchased fuels – Extraction, production, and transportation of fuels consumed by the reporting company.
- Upstream emissions of purchased electricity – Extraction, production, and transportation of fuels consumed in the generation of electricity, steam, heating, and cooling that is consumed by the reporting company.
- Transmission and distribution (T&D) losses – Generation (upstream activities and combustion) of electricity, steam, heating, and cooling that is consumed (i.e., lost) in a T&D system.

Primary data:

- Quantity of purchased fuels, steam, and electricity used

Secondary data[7]:

- T&D Losses for Electricity – Average-data Method – Country specific Emission
- Factors from IEA 2024 dataset, T&D Loss factor (2022)
- Well to tank (WTT) for Fuel – Average-data Method – DEFRA Emission Factors
- by fuel type, 2024, WTT-Fuels
- WTT for Electricity – Average-data Method – DEFRA 2021 Emission Factors (latest version) by country and grid loss from IEA 2024 dataset, T&D Loss factor (2022)
- WTT, steam generation – Average-data Method – DEFRA 2024T-heat and steam (for all geographies)
- T&D, purchased steam – Average-data Method – DEFRA 2024T-heat and steam.
- WTT, steam consumption – Average-data Methods - UK-specific WTT factors from DEFRA 2024 (sed as a proxy for all geographies).

Nouryon's Category 3 footprint is calculated by multiplying fuel, electricity, and steam use by emission factors for upstream fuel extraction and transmission & distribution losses.

For fuel related calculations, the most commonly used fuels (natural gas, LPG, fuel oil, coal) and other fuels (fuel gas) are included. Calculations for biomass fuel and other smaller use fuels (gasoline for fork lift trucks) are excluded as their contributions are very minor.

Category 4 – Upstream Transport

Category definition: This category includes emissions related to the transportation and distribution of products purchased in the reporting year, between Nouryon's tier 1 suppliers and its own operations in vehicles not

[7] The T&D loss % for each country was back-calculated using the emission factors for T&D losses and electricity consumption from IEA 2024. The well-to-tank (WTT) impacts of electricity T&D losses were calculated using the estimated T&D losses for each site and WTT factors for electricity consumption from DEFRA 2021. The tank-to-wheel (TTW) emissions from the T&D losses were calculated using the estimated T&D losses and electricity generation emission factors from IEA 2024.

owned or operated by Nouryon (including multi-modal shipping where multiple carriers are involved in the delivery of a product, excluding fuel and energy products).

Category 4 also includes emissions from third-party transportation and distribution services purchased by Nouryon in the reporting year (either directly or through an intermediary), including inbound logistics, outbound logistics (e.g., of sold products), and third-party transportation and distribution between Nouryon's own facilities.

Outbound logistics services purchased by Nouryon are categorized as upstream because they are a purchased service, as per the GHG Protocol.

Primary data:

- Spend-based Method – Spend on transportation, distribution, and logistics (with a breakdown by mode of transportation), including:

  - Spend on inbound transportation, logistics and warehousing.
  - Spend on outbound transportation, logistics and warehousing.
  - Spend on combined customer deliveries ('milk runs')
  - Spend on transportation between Nouryon sites.
  - Spend on leased iso tanks and rail cars.
  - Spend on leased storage tanks.

Secondary data:

- Spend-based Method – US EPA EIO factors v1.3, 2024 dataset. Released December 21, 2024.

  Nouryon's Category 4 footprint is calculated by multiplying spend by mode-specific emission factors for truck, rail, air, sea, and warehousing.

Category 5 – Waste Generated in Operations

Category definition: This category includes emissions from third-party disposal and treatment of waste generated in Nouryon's owned or controlled operations in the reporting year. This category includes emissions from disposal of both solid waste and wastewater.

Primary data:

- Waste-type Specific Method – Mass, region, and type of waste generated

Secondary data:

- Ecoinvent 3.11 EFs (IPCC 2021: climate change: total (excl. biogenic CO2), global warming potential (GWP100)).
- US EPA EIO factors v1.2, 2024 dataset. Released December 21, 2024

A Waste-type Specific Method is used: Nouryon's Category 5 footprint is calculated by multiplying mass of waste generated by treatment-route-specific emission factors relevant to the region.

Category 6 – Business Travel

Category definition: This category includes emissions from the transportation of employees for business related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars. Estimated emissions from hotel stays are also included in the footprint for Category 6 per the GHG Protocol.

Primary data:

- Spend-based Method – Spend broken down by travel category – Public transit.
- Distance-based Method – Mileage broken down by flights, personal car, and rental car.

- Hotel broken down by nights.
- Travel Expenses – Spend on company credit cards (P-cards)

Secondary data:

- Spend-based Method – US EPA EIO factors v1.3, 2024 dataset for spend-based category (US EPA EIO Released December 21, 2024.
- DEFRA Flights Emission factors for flight miles from DEFRA 2024.
- DEFRA Hotel Emission factors for hotel nights from DEFRA 2024.
- DEFRA Business travel-land Emission factors for car miles from DEFRA 2024.
- WTT-pass vehs & travel-land DEFRA 2024 emission factors for WTT emissions for vehicles.
- WTT-business travel-air DEFRA 2024 emission factors for WTT emissions for flights.

Nouryon's Category 6 footprint is calculated by the sum of the following:

- Spend-based Method - Spend broken down by travel category – Public transit
- Average-data Method - Mileage broken down by flights, personal car, and rental car; Hotel broken down by nights
- Spend-based activity data multiplied by sector-specific emission factors.
- Spend-based on the remaining travel expenses

Category 7 – Employee Commuting

Category definition: This category includes emissions from the transportation of employees from their homes to place of work. Estimated emissions from remote employees are also included in Nouryon's inventory.

Primary data:

- Headcount of full-time employees by country Average employee commute distance. It was assumed that 100% of employees commute by car unless data was provided on use of company supplied shuttle bus or public transportation, as emission factor for passenger vehicle is most conservative when compared to other modes of transport. For public transportation, the bus emission factor was used.

- Estimated percentage of shuttle traveling per country

- Number of remote full-time employees.

Secondary data:

- For full time employees - Average-based Method – DEFRA 2024, Passenger Vehicles, average car (by size), unknown fuel source
- For remote full-time employees - Average method for IEA 2024 factors for electricity, DEFRA for WTT electricity

Numbeo.com traffic data is used as a source for average commute distances where more accurate study data is not available. The distances used are Overall Average Travel Distance to Work by country.

Nouryon's Category 7 footprint is calculated by multiplying average commute distance traveled (country data) by an activity-based emission factor (DEFRA). Countries with less than 10 employees are grouped under rest of world which uses average commute distance from other countries. Select shuttle information for various countries is used where available.

For 2024, we assume all commuting (except for commuting per shuttle) is done via car.

Category 8 – Leased Assets

Category definition: This category includes emissions from the operation of assets that are leased by Nouryon in the reporting year and not already included in Nouryon's scope 1 or scope 2 inventories. Leased assets are our offices, 3 warehouses and research facilities (except for our Deventer Innovation Center).

Primary data:

- Area information per facility

Secondary data:

- Energy intensity factors – Average method - US EIA's 2018 Commercial Buildings Energy Consumption Survey (CBECS) dataset
- TTW emission factors for natural gas and fuel oil – Average method - EPA GHG Hub 2025.

The emissions were calculated using estimated area data from Nouryon and information/emission factors from secondary sources. The energy usage at the leased facilities was estimated using the estimated areas of the facilities and energy intensity factors from the US EIA's 2018 Commercial Buildings Energy Consumption Survey (CBECS) dataset. Electricity, natural gas, and fuel oil were estimated using the CBECS dataset as these are the only energy sources used at the leased facilities and included in CBECS.

Category 9 – Downstream Transport

Category definition: This category includes the transportation and distribution of sold products in vehicles not owned or leased by Nouryon, after the point of sale of the product, where the transport cost is not paid for by Nouryon.

This category is not included in our scope 3 calculations.

Reasons for exclusion:

- Disaggregated data is not readily available to determine the amount in the selling price of a product that applies to transportation and distribution (customers typically pay for transportation). Warehousing costs are included in Category 4.

- Outbound transportation and distribution services that are purchased by Nouryon are excluded from category 9 and included in category 4 (upstream transportation and distribution) because Nouryon purchases the service.

Category 10 – Processing of Sold Products

Category definition: This category includes emissions from processing of Nouryon’s intermediate products by third parties. Intermediate products are products that require further processing, transformation, or inclusion in another product before use, and therefore may result in emissions from processing following Nouryon’s sale but before use by the end consumer.

This category is not included in our scope 3 calculations.

Reasons for exclusion:

- Nouryon sells intermediate chemical products. Given the wide variety of intermediate products sold by Nouryon and myriad of uses and applications, obtaining data for this category is prohibitive.

- The depth of data required cannot be reasonably collected with confidence. Estimates would be based on broad assumptions, lack accuracy and lead to a potential misrepresentation of Nouryon's Scope 3 footprint.

Category 11 – Use of Sold Products

Category definition: This category includes emissions from the use of goods and services sold by Nouryon in the reporting year. This includes the Scope 1 and Scope 2 emissions of end users – including for example consumers or business customers that use final products.

A product line is considered to contribute to category 11 if it is emitted, combusted, or otherwise released to the atmosphere during normal product use. Products that are emitted to the atmosphere and are considered GHGs with a GWP assigned by the IPCC AR6 report contribute to the category 11 footprint. Our only relevant product for inclusion in this category is Carbon Dioxide (a high-purity byproduct from the manufacturing

of Ethylene Oxide in Stenungsund) used in the beverage industry. We assume that this product is released to air during the use-phase and emissions are included.

Our product Dimethyl ether (DME) is used as an aerosol propellant but does not have a global warming potential (GWP) according to IPCC AR6 (2021). Thus, we assume no emissions from direct use-phase.

Primary data:

- Direct use-phase emissions – Sales volume by region and description of product end uses.

Secondary data:

- Direct use-phase emissions – IPCC AR6 (2021) global warming potentials

Category 12 – End-of-Life Treatment of Sold Products

Category definition: This category includes emissions from the waste disposal and treatment of products sold by Nouryon at the end of their life.

Primary data:

- Waste-type specific method – Sales volume by region and description of product end use

Secondary data:

- Waste fate by region - What a Waste 2.0
- ecoinvent 3.11 and Sphera MLC (formerly GaBi) emission factors (EF's) 2022.1 (with Global focus) for treatment of waste, wastewater and recycling.
- (WWT) pathways added for end of life (EOL). Information based on likely EOL pathways based on product sales, applications and end markets - whether WWT EOL scenarios apply.

Nouryon's Category 12 footprint is calculated by multiplying product sales volumes by waste fate by region and by treatment-route-specific emission factors. In case of dilutions in water, the product volumes have been revised to reflect the volume of active content. The water content of the products is determined by subtracting the active content of each product from the total product mass. It is assumed that the water contained in each product ends up in the wastewater stream. The water contained in each product is treated as part of the wastewater stream and an emission factor for wastewater treatment is applied to account for GHG emissions for this portion of the product. GHG emissions from wastewater treatment for product water are calculated separately from GHG emissions from the active portion of the product.

The impact of Packaging has historically been excluded from category 12 since packaging mass data is unavailable and cannot be reasonably extrapolated from the packaging expenditure data.

Products which are emitted directly to the atmosphere (DME, high purity Carbon Dioxide sold to the beverage industry) during use do not require end-of-life treatment and are excluded from the end-of-life model. Dimethyl ether (DME) is sold as an aerosol propellant and is emitted directly to the atmosphere during use. Carbon dioxide is sold to the food & beverage industry and is also emitted to the atmosphere during use.

Category 13 – Leased Assets

Category definition: This category includes emissions from the operation of assets that are owned by Nouryon (acting as lessor) and leased to other entities in the reporting year that are not already included in Scope 1 or Scope 2

This category is not relevant as Nouryon does not have downstream leased assets.

Category 14 – Franchises

Category definition: This category includes emissions from the operation of franchises not included in Scope 1 or Scope 2. A franchise is a business operating under a license to sell or distribute another company's goods or services within a certain location.

This category is not relevant as Nouryon does not own or operate any franchises.

Category 15 – Investments

Category definition: *This category includes scope 3 emissions associated with investments, not included in Scope 1 or Scope 2.*

This category is excluded as Nouryon's only investments are with other companies through joint ventures. However, data is not available due to competitive reasons.

2.4 Other metrics

2.4.1 Suppliers acknowledging our Business Partner Code of Conduct, % by spend

Defined as % Product Related (PR) and Non-Product Related (NPR) spend (measured by value in USD) with suppliers who have acknowledged our Business Partner Code of Conduct over total spend. This excludes vendors providing NPR services such as pension funds, tax consultants, or local authorities, and spend without a related PO.

2.4.2 Supplier spend scored by EcoVadis, % by spend

Defined as % external spend (measured by value in USD, including raw materials, packaging, indirect spend, Energy, Logistics) with suppliers who have been scored by EcoVadis over total addressable spend. Spend data is downloaded from Nouryon's spend analytics system Sievo monthly and matched with EcoVadis supplier data.

2.4.3 External spend assessed for CSR Risk Assessment (with EcoVadis IQ), % by spend

Defined as % external spend (measured by value in USD, including, raw materials, packaging, indirect spend, Energy, Logistics) with suppliers assessed for CSR Risk assessment using EcoVadis IQ divided by total spend. Spend is downloaded from Nouryon's spend analytics system Sievo periodically and uploaded into EcoVadis IQ using a supplier's Tax ID as a unique identifier for analysis. EcoVadis IQ analysis is then exported and analyzed. Nouryon Sustainable Procurement team members perform a CSR Risk assessment via this platform on an annual basis. The results from EcoVadis IQ are then used to identify required critical supplier assessments and CSR performance improvements.

2.4.4 Sites certified to ISO 14001, %

Defined as the % of our sites having a valid ISO/RC14001 certificate at a defined point in time (for the 2024 Sustainability report this was December 31, 2024). This is calculated by dividing the number of sites with valid certificates by the total number of sites in our portfolio. This is based on sites that have been in our portfolio for at least one year.

2.4.5 Sites certified to ISO 45001, %

Defined as the % of our sites having a valid ISO 45001 certificate at a defined point in time (for the 2024

Sustainability report this was December 31, 2024. This is calculated by dividing the number of sites with valid certificates by the total number of sites in our portfolio. This is based on sites that have been in our portfolio for at least one year

2.4.6 Employees who have completed Code of Conduct (incl Anticorruption) training, %

Percentage and number employees who have completed training on the Code of Conduct, including Anti-corruption – This is calculated by dividing the number of employees who have completed the Code of Conduct training by the total number of employees. Training records are extracted from the Success Factors system ("My Learning").

2.4.7 Employees undertaking "Respectful Workplace" training, number

Number of employees that have taken Respectful Workplace training: Defined as the count of employees who have completed the Respectful Workplace Training module. Training records are extracted from the Success Factors system ("My Learning").

2.4.8 Board members that the Code of Conduct/Anti-corruption policies have been communicated to, number

This metric represents the proportion of the total board of director members who have received and acknowledged the Code of Conduct and anti-corruption policies and procedures, expressed as a percentage. It is calculated by dividing the number of board members who have been communicated these policies by the total number of board members. We use prior Board of Director meeting resolutions to sow evidence.

2.4.9 Female workers (global employees), %

Percentage of total Female employees at all levels divided by total Nouryon employees as of year-end (December 31) in the reporting period. Data includes regular employees, expatriates, and interns derived from data, extracted from the SuccessFactors system.

2.4.10 Eco-Solutions

Defined as the % of our R&D NPI projects delivering Eco-solutions.

This is calculated by dividing the total number R&D NPI projects classified as Eco-Solutions by the total number of R&D NPI projects.

Criteria: The metric starts by assessing product safety and regulatory criteria – solutions are not expected to be regulated in a way that restricts their intended application over the next five years – then checks sustainability drivers. Eco-Solutions either:

1. have a Sustainable Feedstock Index (SFI)[8] greater than 50%,
2. are biodegradable[9], or

[8] The sustainable feedstock index is calculated based on the content of the final Nouryon product and is an assessment of what share of the product is derived from either bio-based organic materials, abundant inorganic materials, and/or recycled materials.

[9] The biodegradability criteria apply to all intentionally added components in the product and is applied only for solutions that will be used in applications which have been assessed to be relevant such as home and personal care applications and agricultural applications. It does not apply for example to certain applications in which our products are used as intermediates.

3. bring a significant sustainability advancement over the full life cycle[10].

For evaluating environmental footprint performance, we focus on emissions (including climate related GHGs and other air emissions), resource consumption, energy efficiency, and toxicity.

If products meet more strict criteria, they may be considered circular[11].

Scope: The scope of the Eco-Solutions metric includes all active NPI projects in the following stages:

- Stage 3: Creation
- Stage 4: Scale-up and pre-launch)

Stages 1 (Screening), 2 (Feasibility), and 5 (Launch and Monitor) are excluded. The metric is measured as the average percentage of projects per month over the past 12 months, providing an accurate representation of the NPI portfolio during that period.
The R&D projects in scope are all active/running projects in Accolade (the R&D project management system) that have passed gate 1 (Scoping) and are part of the innovation pipeline being NPI type 1, 2, and 3:

- Type 1: New product, *line extension*
- Type 2: New product, *existing* market
- Type 3: New product, *new* market

Only projects that have been assessed and validated are included (if assessments done after reporting deadlines, re-statements will be done for historical data). Projects that were stopped or put on hold are excluded.

[10] Sustainability advancement is the improved environmental impact of the solution as compared with the incumbent solution along the full life cycle. The improvement must be significant meaning greater than 10% when comparing the Nouryon product's cradle-to-grave impact vs. the incumbent solution.
[11] The circularity criteria are that products must have a Sustainable Feedstock Index of 100% and will be either biodegrade (i.e. mineralize), and feed into the biogeochemical cycles, or do not contain substances that inhibit the possibilities for recycling in their respective application.