# Evonik Carbon Footprint 2023







# **Contents**

4

8

9 9

1 Summary and results 2 Methodology

- 2.1 Organizational boundaries 2.2 Remarks concerning the "fast close" process 2.3 Operational boundaries 10 :
- Independent practitioner's limited 16 assurance report



# **Summary and results**

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Protecting the climate and the environment represents a major global challenge. Evonik Industries (referred to below as Evonik) takes climate and environmental protection very seriously as a key element of its corporate responsibility. Since 2008, we are therefore publishing a comprehensive greenhouse gas emissions inventory along the value chain, from the extraction of raw materials through production to the disposal of products. The important parameter here is the carbon footprint, or CO<sub>2</sub>e footprint. The carbon footprint indicates the amount of greenhouse gas emissions (CO<sub>2</sub> equivalent, also CO<sub>2</sub>e, i.e. CO<sub>2</sub> and other greenhouse gases) produced by a company, a process or an individual product.

The methodology for the report closely follows the Greenhouse Gas Protocol Corporate Standard (referred to below as the GHG Protocol) of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).<sup>1</sup> This standard is further detailed for chemical companies' scope 3 reporting in the Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain (referred to below as WBCSD Scope 3 Chemical Sector Guidance)<sup>2</sup> published by WBCSD Chemicals in January 2013, in whose preparation Evonik took an active part. Instructions defined in the WBCSD Scope 3 Chemical Sector Guidance document were taken into account for compilation of the Evonik Carbon Footprint (ECF).

The present report covers the greenhouse gas emissions of Evonik. Other potential environmental impacts, including impacts on health and safety, do not fall within the scope of the Evonik Carbon Footprint and are discussed in other publications of Evonik (such as the Sustainability Report and the environmental declarations of individual sites).

The balance accounts for Evonik's direct energy and process emissions (scope 1), emissions from purchased electricity and heat (scope 2) as well as relevant upand downstream emissions (scope 3). These include emissions from the production and provision of purchased raw materials, services and capital goods, energy-related emissions outside of scope 1 and scope 2, emissions from inbound and outbound shipments, from the disposal of waste generated in operations, caused by business travel and employee commuting, energy requirements of leased offices as well as emissions from the use, disposal and recycling of sold products. Due to the large number of Evonik solutions for diverse applications, category 1 "Use of sold products" only considers direct greenhouse gas emissions that are formed out of sold products and released during their use phase over the expected lifetime. The scope 3 category 10 "Processing of sold products" is not reported due to its complexity as well as missing data availability while the categories 13 "Downstream leased assets", 14 "Franchises" and 15 "Investments" are not disclosed due to their lacking applicability or insignificance.

included CO<sub>2</sub> removals (biological carbon sequestration by biomass at the beginning of the life cycle) and biogenic CO<sub>2</sub> emissions due to the for Evonik relevant use of biomass. To meet the requirements of the GHG Protocol Standard, these are no longer included in the inventory from 2022 onwards; instead, they are disclosed separately. The values shown in Table 1 cover fossil GHG emissions and biogenic GHG emissions other than CO<sub>2</sub>. The development of greenhouse gas emissions along the value chain of Evonik and the contribution made by the individual categories in the GHG

Until the 2021 report, the published GHG inventory

TABLE 1: Greenhouse gas emissions along the value chain of Evonik Industries in million metric tons (mt) CO2e<sup>a</sup>

Scope	Category	2021	2022 <sup>c</sup>	2023
Scope 1	Direct energy- and process-related emissions	4.4	4.2	3.8
Scope 2	Indirect emissions from purchased energy (gross, market-based approach)	1.9	1.8	1.5
Scope 3 <sup>b</sup>	Category 1: Purchased chemical raw materials, packaging materials as well as indirect goods and services	13.0	11.2	10.6
	Category 2: Capital goods	0.3	0.3	0.4
	Category 3: Fuel- and energy-related activities (outside of scopes 1 and 2)	1.7	1.5	1.0
	Category 4: Upstream transportation and distribution	1.1	1.0	1.0
	Category 5: Disposal and recycling of waste	0.3	0.3	0.3
	Category 6: Employee business travel	0.01	0.03	0.02
	Category 7: Employee commuting	0.06	0.05	0.04
	Category 8: Upstream leased assets (electricity and heating of administrative buildings)	0.00	0.00	0.00
	Category 9: Downstream transportation and distribution (to direct customers)	0.05	0.04	0.04
	Category 11: Use of sold products (direct emissions only)	4.2	3.1	3.2
	Category 12: Disposal and recycling of sold products	2.8	3.0	2.7
Total Scope 3		23.4	20.5	19.2
Total Scope 1, 2 and 3		29.7	26.5	24.6

- <sup>a</sup> Differences between the data and totals are due to rounding. The inventory covers fossil greenhouse gas emissions and emissions of gases - other than  $CO_2$  - of biogenic origin. In 2023, relevant use of biomass and the associated net amounts of  $CO_2$  removals and biogenic  $CO_2$ emissions can be reported for scope 3 categories 1 (-1.3 million mt CO<sub>2</sub>), 11 and 12 (together +0.8 million mt CO<sub>2</sub>) and direct process emissions in scope 1 (+0.1 million mt CO<sub>2</sub>). Previously, the biogenic net amounts of CO<sub>2</sub> removals and biogenic CO<sub>2</sub> emissions were -1.4(2021)/-1.3(2022) million metric tons of CO<sub>2</sub> for scope 3 category 1 and for categories 11 and 12 combined +1.0(2021)/+0.9(2022) million metric tons of CO<sub>2</sub>. Corresponding direct scope 1 process emissions were constant at +0.1 million metric tons of CO<sub>2</sub> in 2021 and 2022.
- complexity; categories 13 "Downstream leased assets", 14 "Franchises" and 15 "Investments" are not disclosed as they are not applicable nor not significant.
- the first three quarters of 2022 using the "Fast Close" methodology, were overestimated. This makes it necessary to consider the emissions calculated on the basis of full-year activity data, so that the 2022 figures reported last year in this brochure differ from those in this report.

- The Greenhouse Gas Protocol. A Corporate Accounting and Reporting Standard (Revised Edition 2004),
- Required Greenhouse Gases in Inventories, Accounting and Reporting Standard Amendment (2013),

Protocol Standard are presented for Evonik's base year 2021, the previous year 2022 and the current reporting year 2023 in Table 1. Due to the weaker economy in the second half of 2022, the emissions of the fourth quarter of 2022, which were extrapolated on the basis of the first three quarters of 2022 using the "Fast Close" approach, were overestimated. This makes it necessary to consider the emissions calculated on the basis of full-year activity data, so that the 2022 figures reported last year in this brochure differ from those in this report.

<sup>b</sup> Some calculations are based on assumptions and estimates. Scope 3 category 10 "Processing of sold products" is not reported due to its

Due to the weaker economy in the second half of 2022, the emissions of the fourth quarter of 2022, which were extrapolated on the basis of

<sup>&</sup>lt;sup>1</sup> World Resources Institute, World Business Council for Sustainable Development

Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Supplement to the GHG Protocol Corporate Accounting and Reporting Standard (2011)

<sup>&</sup>lt;sup>2</sup> World Business Council for Sustainable Development: Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain (2013)



<sup>a</sup> Differences between the data and totals are due to rounding.

In 2023, greenhouse gas emissions decreased to 24.6 million metric tons  $CO_2e$ , compared with 29.7 million metric tons  $CO_2e$  in 2021 or 26.5 million metric tons  $CO_2e$  in the previous year. This was mainly due to a cyclical reduction in business activities, which was reflected in lower procurement, production, and sales volumes.

Effective June 30, 2023, the German site in Lülsdorf and the related cyanuric chloride business in Wesseling were sold to the International Chemical Investors Group (ICIG). Emissions from these activities in the first half of 2023 are included in Evonik's Carbon Footprint 2023. In addition, other minor methodological and structural methodological and structural changes were made; in the overall, however, this did not have a significant impact on the total emissions. In order to reflect the latest climate science in the calculation of emissions from 2023 onwards, IPCC AR6 is used to the extent possible also for the calculation of scope 3 emissions instead of the previously used impact assessment method CML2001. In addition to the implementation of reduction measures, the use of more specific emission factors, including a steadily increasing share of primary data, influenced the results in individual scope 3 categories.

#### EVONIK'S PARTICIPATION IN THE CARBON DISCLOSURE PROJECT

The Carbon Disclosure Project (CDP) is a globally active non-profit organization that uses standardized questionnaires to collect data on greenhouse gas emissions, climate risks as well as companies' reduction targets and strategies every year as part of its "CDP



Climate Change" program. The information is provided on a voluntary basis. Evonik was awarded a grade of "A-" in the 2020 to 2023 CDP Climate Change reporting cycles. By comparison, the average for the chemical sector and the average for European companies reporting climate change data for the 2023 reporting period are both in the lower "B" range.



The GHG Protocol provides the methodological framework for quantifying the Evonik Carbon Footprint. Accounting and reporting of greenhouse gas emissions follow the principles relevance, completeness, consistency, transparency and accuracy.

 $CO_2$  equivalents ( $CO_2e$ ) and thus enable to total all greenhouse gas emissions.<sup>3</sup> The WBCSD Scope 3 dard procedures for implementing the requirements chemical industry.

The GHG Protocol refers to equivalence factors, which are used to convert greenhouse gases into Chemical Sector Guidance of 2013 describes stanof the GHG Protocol for scope 3 reporting of the



<sup>3</sup> Intergovernmental Panel on Climate Change (IPCC): Fifth Assessment Report (AR5): Climate Change 2013 – The Physical Science Basis, Chapter 8, Table 8.A.1

# 2.1 ORGANIZATIONAL BOUNDARIES

Rules from Evonik's financial and environmental reporting are adopted for the GHG emissions accounting, whereby the "operational control approach" is applied. Emissions arising from discontinued activities

# 2.2 REMARKS CONCERNING THE "FAST CLOSE" PROCESS

To ensure uniform environmental reporting, starting in 2020, the reporting of Evonik Carbon Footprint data was sped up ("fast close" process).

In the "Fast Close" process, the data is compiled once a year on September 30 (the Q3 closing date) and for the remainder of the year, i.e. the fourth quarter, the emission amounts are estimated. Together with the respective experts, possible deviations from regular operations in the fourth quarter, seasonal effects and forecasts are taken into account. In the first quarter of the following year, calculations with actual Q4 data are performed and results are compared with the calculated data for the fast close report. Any discrepancies will be analyzed and measures to continuously improve the calculation methodology will be introduced as necessary.



are not reported. In case of structural changes, there can be delays in displaying such changes depending on the timing of the des-/investments.

If the calculated emissions resulting from the actual full-year activity data differ by more than 5 percent from the data published in the previous year, they will be corrected in the next report and the adjustment will be reported in the relevant tables.

While starting with the 2023 reporting year emissions from scope 1 and scope 2 as well as from the scope 3 categories 3 (Fuel- and energy-related activities outside of scopes 1 and 2) and 5 (Disposal and recycling of waste) are essentially calculated on the basis of the data for the entire reporting year, the calculation of emissions for the other reported scope 3 categories continues to follow the "fast close" approach as described above.

# **2.3 OPERATIONAL BOUNDARIES**

The calculation of the Evonik Carbon Footprint is based on the principles of the GHG Protocol,

following the scope concept of operational boundaries<sup>4</sup> (see Figure 2).



Scope 1 covers direct energy- and process-related emissions of Evonik, while indirect emissions from purchased electricity and thermal energy for company use are combined in scope 2. Emissions from other sources along the value chain are included in scope 3. The GHG inventory displayed in Table 1 includes the gross scope 2 emission volume using the market-based method. More detailed information concerning scope 1 and scope 2 emissions is available in the Evonik Sustainability Report.



Evonik's scope 3 data include emissions from the following categories:

- Category 1: Purchased chemical raw materials, packaging materials as well as indirect goods and services
- Category 2: Capital goods
- Category 3: Fuel- and energy-related activities (outside of scopes 1 and 2)
- Category 4: Upstream transportation and distribution
- Category 5: Disposal and recycling of waste
- Category 6: Employee business travel
- Category 7: Employee commuting
- Category 8: Upstream leased assets (electricity and heating of administrative buildings)
- Category 9: Downstream transportation and distribution (to direct customers)
- Category 11: Use of sold products (direct emissions only)
- Category 12: Disposal and recycling of sold products

<sup>4</sup> Refer to the GHG Protocol (http://www.ghgprotocol.org) for further details on the definition of principles and scopes.

Due to the large number of Evonik solutions for diverse applications, category 11 (Use of sold products) only considers direct greenhouse gas emissions that are formed out of sold products and released over their expected lifetime during the use phase. The scope 3 category 10 "Processing of sold products" is not reported due to its complexity as well as missing data availability (cf. WBCSD Scope 3 Chemical Sector Guidance, p. 10) while the categories 13 "Downstream leased assets", 14 "Franchises" and 15 "Investments" are not disclosed separately due to their lacking applicability or insignificance. The calculations of greenhouse gas emissions described below do not include the setting up of infrastructure.

The following methodological approaches, partly based on estimates and assumptions, were used to determine greenhouse gas emissions within the different scope 3 categories:

#### CATEGORY 1:

PURCHASED CHEMICAL RAW MATERIALS, PACKAGING MATERIALS AS WELL AS **INDIRECT GOODS AND SERVICES** 

Emissions from extraction, production, and transports (except for the transports to Evonik reported in category 4) of purchased chemical raw materials, packaging materials as well as indirect goods and services were calculated in this category.

#### Chemical raw materials:

The CO<sub>2</sub>e "backpack" calculation is based on a list of all purchased chemical raw materials provided by Evonik's procurement department. All those raw materials and associated amounts for which carbon footprint values were available at the time of calculation were taken into account. By this approach, a considerably higher coverage than 90 percent of the total purchasing volume was reached. An extrapolation of greenhouse gas emissions was carried out for the remaining quantities.

Supplier-specific emission factors are preferred and increasingly used to calculate emissions. Otherwise, generic data from recognized database providers such as Sphera Solutions GmbH or EcoInvent are used for the calculation. Where available, geographically representative factors are used to determine emission factors; otherwise, averages from multiple countries (e.g., global, EU) are used whenever possible, with country-specific data used last. This approach is used to minimize potential uncertainties related to regional differences in manufacturing processes and energy generation. If an appropriate substance-specific emission factor cannot be determined, average emission factors are used or estimates are made based on similar products.

#### Packaging materials as well as indirect goods and services:

Accounting emissions for production and provision of purchased services and goods (except for chemical raw materials) started from a compilation of all positions with purchase values by the procurement department. All positions were assigned to the categories 1 and 2 (capital goods) with the help of industry codes

("Standard Industrial Classification" (SIC)). For instance, packaging materials, IT hardware as well as technical services are accounted for in category 1.

The emission amounts for the purchased materials and services in 2023 were then calculated by using spendbased emission factors for the respective codes. Those emission factors were extracted from a guidance document provided by the UK Department for Environment, Food & Rural Affairs (DEFRA).<sup>5</sup>

## CATEGORY 2: **CAPITAL GOODS**

As described under category 1, a list of all indirect purchasing positions as well as a categorization via industry branches enabled identifying all capital goods relevant for category 2. Machines and technical devices fall into this group. Again, calculating emissions was based on multiplying purchase values with respective emission factors according to the industrial classification as listed in the source mentioned above and subsequently adding up all positions.

# CATEGORY 3: **ENERGY-RELATED ACTIVITIES** (OUTSIDE OF SCOPES 1 AND 2)

Greenhouse gas emissions from the production of the quantities recorded for solid, liquid and gaseous energy sources that are utilized in Evonik's power plants and processes were determined by the use of representative region-specific emission factors from Managed LCA Content (GaBi Databases, as of: 2023). Depicting upstream emissions for externally purchased energy amounts of steam and electricity occurred via adequate assumptions concerning the mix of energy carriers and associated emission factors. In addition, emissions resulting from power sales were covered in category 3.

Calculations were performed via quantities and CO<sub>2</sub> emission factors based on supplier information, and adding corresponding upstream CO2e-emissions for the respective energy source mix. Again, regionspecific upstream emission factors for energy carriers were used and obtained from Managed LCA Content (GaBi Databases, as of: 2023).

#### <sup>5</sup> 2012 Guidelines to DEFRA/DECC's GHG Conversion Factors for Company Reporting, Annex 13 (Indirect emissions from the supply chain) (2012).

#### CATEGORY 4:

### **UPSTREAM TRANSPORTATION** AND DISTRIBUTION

Upstream transportation and distribution comprises of inbound transports from direct suppliers to Evonik as well as product transportation services purchased by Evonik between Evonik sites and those from the company to customers. The CO<sub>2</sub>e emissions in the reporting year performed transportation activities of (intermediate) products were calculated by using transport mode-specific emission factors. Those emission factors were extracted from a guideline jointly published by Cefic and the Smart Freight Centre in 2021.6 Calculations were based on the logistics procurement department's data on goods quantities, determined or partly estimated transportation distances to direct customers or other sites and were performed per specific mode of transport. Since Evonik does not have full knowledge of the transport distances and means of transport for incoming raw materials, an average emission factor per metric ton of shipped product was calculated by using the data for outbound transports. The use of this average emission factor is based on the assumption that the average means of transport and distance can be transferred to inbound transportation. Associated emissions were then calculated for the overall quantity of purchased raw materials in 2023 (see category 1).

# CATEGORY 5:

### DISPOSAL AND RECYCLING OF WASTE

The emissions resulting from the disposal of waste generated in operations were calculated based on the waste quantities for each type of disposal as recorded in an internal database. Externally treated amounts of wastewater as well as solid production, construction and demolition waste were included in the computation. The average data method was applied. Representative and partially region-specific emission factors per type of disposal were determined with the help of Managed LCA Content (GaBi Databases, as of: 2023) and adequate assumptions (concerning the c-content).

# **CATEGORY 6: EMPLOYEE BUSINESS TRAVEL**

The CO<sub>2</sub>e emissions generated by business trips were calculated based on the travel distances provided by Evonik Travel Management and using corresponding emission factors of the means of transport used. Emission factors take fuel supply into account and were adopted from publications of the UK Department for Business, Energy & Industrial Strategy (BEIS).7 For instances where travel data was not completely available for individual regions, greenhouse gas emission amounts were extrapolated by means of comparison with the global headcount.

# CATEGORY 7:

## **EMPLOYEE COMMUTING**

Emissions caused by employee commuting were estimated with the aid of representative statistics for means of transport, commuting distances and working days in combination with average emission factors. Regional differences were considered and adopted for the corresponding number of employees. In addition, the impact of the opportunity to work a defined part of the time from home, offered in the context of #Smartwork, was taken into account. Emission factors per passenger kilometer for car and public transportation were taken from BEIS data and take fuel supply into account.7

## CATEGORY 8: **UPSTREAM LEASED ASSETS<sup>8</sup>**

CO<sub>2</sub>e emissions caused by power and heating requirements of administrative buildings are already covered in scope 1 and scope 2 emissions, provided that a production plant subject to official CO<sub>2</sub>e reporting is located at the site. For those buildings and offices that are not recorded, the respective headcounts were determined. The calculation of greenhouse gas emissions was then performed by means of average statistical data for electricity and heating requirements per employee and region-specific emission

<sup>&</sup>lt;sup>5</sup> Smart Freight Centre and Cefic: Calculating GHG transport and logistics emissions for the European Chemical Industry (2021) (https://cefic.org/app/uploads/2021/09/Calculating-GHG-transport-and-logistics-emissions-for-the-European-Chemical-Industry-Guidance.pdf)

<sup>&</sup>lt;sup>7</sup> UK Department for Business, Energy & Industrial Strategy (BEIS): Greenhouse gas reporting: Conversion factors 2022 (https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022)

<sup>&</sup>lt;sup>8</sup> The use of leased company cars is – from reporting 2022 onwards (also retrospectively for 2021) – no longer part of scope 3 category 8 but proportionally considered in scope 1, scope 2 and scope 3 category 3.



factors obtained from Managed LCA Content (GaBi Databases, as of: 2023)

#### **CATEGORY 9:**

# DOWNSTREAM TRANSPORTATION AND DISTRIBUTION (TO DIRECT CUSTOMERS)

 $CO_2e$  emissions of downstream goods transports from Evonik to direct customers (except for those activities already covered in category 4) were computed analogous to category 4 by the help of transport mode-specific emission factors.<sup>6</sup> Calculations were based on the goods issue quantities, the determined or partly estimated transportation distances to the direct customers as well as the specific modes of transport.

#### CATEGORY 11:

#### USE OF SOLD PRODUCTS (DIRECT EMISSIONS ONLY)

Accounting for category 11 focuses on direct greenhouse gas emissions that are formed and released due to metabolization or decomposition of sold products during the use phase in the downstream chain. The product amounts considered here do not require any explicit waste treatment. Calculations considered the quantities sold in 2023, products' carbon content and the stoichiometric conversion to CO<sub>2</sub>. For some product lines, only the main products (by amount sold) were regarded specificially and derived assumptions were transferred to the remaining amounts or averaging occurred. In some cases the products' carbon contents were estimated via the respective raw materials applied.

#### CATEGORY 12:

## DISPOSAL AND RECYCLING OF SOLD PRODUCTS

Since Evonik is often unaware of the end uses of its own products – especially intermediates – the emissions resulting from their disposal were not calculated for the applications themselves, but only for the Evonik products contained therein. Greenhouse gas emissions associated with the disposal of the product amounts sold in the reporting year – except for those quantity shares directly emitted during use and already accounted for in category 11 – were calculated by considering products' carbon contents and representative emission factors for the respective type of disposal (landfilling, incineration with or without energy recovery, recycling and wastewater treatment).

In case of incineration, wastewater treatment and landfilling of degradable products, emissions were calculated based on stoichiometric ratios. For landfilling and wastewater treatment of inert products that do not decompose within a period of 100 years (see WBCSD Scope 3 Chemical Sector Guidance), only the processing effort was depicted. Recycling was assigned an emission factor of zero. In cases where a relevant magnitude of energy recovery during treatment can be expected, adequate emission factors were applied. Statistics providing shares of the different disposal types for specific (end) product groups were consulted. For some lines, only the main products (by amount sold) were regarded specificially and derived assumptions were transferred to the remaining amounts or averaging occurred. If applications and the disposal route(s) were unknown, a treatment split between incineration and landfilling was assumed. Average shares per disposal type were determined beforehand via regional statistical data (e.g. OECDstat) and Evonik's sold volumes per continent.

<sup>&</sup>lt;sup>6</sup> Smart Freight Centre and Cefic: Calculating GHG transport and logistics emissions for the European Chemical Industry (2021) (https://cefic.org/app/uploads/2021/09/Calculating-GHG-transport-and-logistics-emissions-for-the-European-Chemical-Industry-Guidance.pdf)

Limited Assurance Report of the Independent Assurance Practitioner Regarding Greenhouse Gas Emission Data<sup>1</sup> To the Executive Board of Evonik Industries AG, Essen

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We have performed a limited assurance engagement on the disclosures marked with a "" "Greenhouse Gas Emission Data") in the "Evonik Carbon Footprint 2023" brochure (hereinafter "Brochure") of Evonik Industries AG, Essen (hereinafter "Evonik") for the period from January 1, 2023 to December 31, 2023. Our engagement relates exclusively to the disclosures marked with the " $\heartsuit$ " ("Greenhouse Gas Emission Data"). In addition to scope 1 and 2, these include the following eleven scope 3 emissions data sources:

- Purchased chemical raw materials, packaging materials as well as indirect goods and services
- Capital goods
- Fuel- and energy-related activities (outside of scope 1 and 2)
- Upstream transportation and distribution
- Disposal and recycling of waste
- Employee business travel
- Employee commuting
- Upstream leased assets (electricity and heating requirements of administrative buildings)
- Downstream transportation and distribution (to direct customers)
- Use of sold products (direct emissions only)
- Disposal and recycling of sold products

#### MANAGEMENT RESPONSIBILITIES

The legal representatives of Evonik are responsible for the preparation of the Brochure in accordance with the reporting criteria. The reporting criteria comprise in particular:

• The Corporate Accounting and Reporting Standard (scope 1 und 2) of the World Resources Institute (WRI) • The "GHG Protocol Corporate Accounting and Reporting Standard" and "Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Supplement to the GHG Protocol Corporate Accounting and Reporting Standard" of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) as well as the "Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain" of the WBCSD, which are closely followed by the methodology used to account for greenhouse gas emissions

This responsibility of the legal representatives includes the selection and application of appropriate methods to prepare the Brochure and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. The legal representatives are also responsible for such internal controls as they deem necessary to enable the preparation of the Brochure that is free from material misstatement, whether intentional or unintentional.

#### **PRACTITIONER'S RESPONSIBILITIES**

Our responsibility is to express a conclusion with limited assurance on the Greenhouse Gas Emission Data based on our assurance engagement.

We conducted our assurance engagement in the form of a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3410: "International Standard on Assurance of Greenhouse Gas Statements", issued by the IAASB. Accordingly, we have to plan and perform the assurance engagement in such a way that we obtain limited assurance about whether any matters have come to our attention that

cause us to believe that Evonik's Greenhouse Gas Emission Data presented in the Brochure in the reporting period from January 1, 2023 to December 31, 2023, have not been prepared, in all material respects, in accordance with the reporting criteria. We do not, however, issue a separate conclusion for each disclosure. In a limited assurance engagement, the procedures performed are less comprehensive than in a reasonable assurance engagement, and, accordingly, a substantially lower level of assurance is obtained. The determination of assurance procedures is subject to the professional judgment of the auditor.

Within the scope of our engagement we performed, amongst others, the following procedures:

- A risk analysis, including media research, to identify relevant information on Evonik's Greenhouse Gas Emission Data in the reporting period
- Evaluation of the design and the implementation of systems and processes for the determining, processing and monitoring of disclosures, including the consolidation of Greenhouse Gas Emission Data
- Inquires of group-level personnel, that are responsible for the determination and consolidation of Greenhouse Gas Emission Data
- Inspection of selected internal and external documents •
- at group level by all sites
- Evaluation of local data collection, validation and reporting processes as well as the reliability of reported data based on a sample of seven sites
- Assessment of the overall presentation of the disclosures

In our opinion, we obtained sufficient and appropriate evidence for reaching a conclusion for the assurance engagement.

# INDEPENDENCE AND QUALITY ASSURANCE OF THE ASSURANCE PRACTITIONER'S FIRM

In performing this engagement, we have complied with the independence and quality assurance requirements set out in the national legal provisions and professional pronouncements, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QMS 1 (09.2022)).

#### ASSURANCE OPINION

Based on the procedures and the evidence obtained, nothing has come to our attention that causes us to believe that the disclosures marked with a "S" in the "Evonik Carbon Footprint 2023" brochure of Evonik Industries AG, Essen, for the period from January 1, 2023 to December 31, 2023 have not been prepared, in all material respects, in accordance with the reporting criteria.

**RESTRICTION OF USE/GENERAL ENGAGEMENT TERMS** 

This assurance report is issued for purposes of the Executive Board of Evonik Industries AG, Essen, only. We assume no responsibility with regard to any third parties.

Our assignment for the Executive Board of Evonik Industries AG, Essen, and professional liability as described above were governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (https://www.kpmg.de/bescheinigungen/lib/aab\_english.pdf). By reading and using the information contained in this assurance report, each recipient confirms to have taken note of the terms and conditions stipulated in the General Engagement Terms (including the liability limitations to EUR 4 Mio for negligence specified in item No. 9 included therein) and acknowledges their validity in relation to us.

Düsseldorf, February 27, 2024 KPMG AG | Wirtschaftsprüfungsgesellschaft

Analytical procedures for the evaluation of data and of the trends of guantitative disclosures as reported

<sup>&</sup>lt;sup>1</sup> The English language text below is a translation provided for information purposes only. The original German text shall prevail in the event of any discrepancies between the English translation and the German original. We do not accept any liability for the use of, or reliance on, the English translation or for any errors or misunderstandings that may arise from the translation.

EVONIK INDUSTRIES AG Rellinghauser Straße 1–11 45128 Essen Germany www.evonik.com

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