

# Welcome to your CDP Climate Change Questionnaire 2023

## C0. Introduction

### C0.1

#### **(C0.1) Give a general description and introduction to your organization.**

Our Mission: We are globally recognized as a leading provider of fragrances, flavors, active ingredients and aroma chemicals as well as sensorial and nutritional solutions for the perfume, cosmetic, pharmaceutical, food, beverage and pet food and baby food industries. We combine our knowledge about consumers' ever-changing needs with creativity and ground-breaking technologies. In doing so, we concentrate on the development of solutions that provide our customers with added value. We ensure sustained value creation by allowing our employees and shareholders to participate in our company's success.

Our Vision: We possess a unique value-adding portfolio and are the most successful company in the industry. We challenge the status quo and constantly explore new ideas.

This enables us to perform at our highest levels and set new standards.

We provide our customers with innovations and inspirations that fulfil our promise of always inspiring more...

### C0.2

#### **(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.**

##### **Reporting year**

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##### **Start date**

January 1, 2022

##### **End date**

December 31, 2022

##### **Indicate if you are providing emissions data for past reporting years**

No

### C0.3

#### **(C0.3) Select the countries/areas in which you operate.**

Argentina  
Australia  
Brazil  
Canada  
Chile  
China  
Colombia  
Costa Rica  
Ecuador  
Egypt  
France  
Germany  
Hungary  
India  
Japan  
Madagascar  
Mexico  
Netherlands  
Russian Federation  
Singapore  
South Africa  
Spain  
Thailand  
United Kingdom of Great Britain and Northern Ireland  
United States of America

## C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

EUR

## C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Operational control

## C-CH0.7

**(C-CH0.7) Which part of the chemicals value chain does your organization operate in?**

Row 1

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**Bulk organic chemicals**

## Bulk inorganic chemicals

### Other chemicals

Specialty chemicals

## C0.8

**(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	DE000SYM9999

## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

#### C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	<p>At Symrise AG, the direct responsibility for climate-related aspects regarding our strategy and governance lies with the Chief Executive Officer (CEO). The CEO receives regular reports on the progress of all sustainability activities in bilateral exchanges with the CSO on a daily basis, with particular focus on those with climate specific relevance. Additionally, the CEO is informed about climate-related topics via meetings of the Sustainability Board (SB), chaired by the CSO, which incorporates the corporate functions and the Sustainability Directors of the Taste, Nutrition &amp; Health and Scent &amp; Care segments.</p> <p>The CEO continuously advances our approach to sustainability in all areas of the company. He does so through multiple ways: First and foremost, the CEO defines specific sustainability objectives for all managers. These objectives are then refined into individual performance goals. To illustrate this with an example: The CEO sets a corporate goal to reduce Scope 1 + 2 greenhouse gas emissions by 6.6% per year. This objective subsequently became a part of, for example, the sustainability goals for supply chain managers. Similarly, the goal to reduce</p>

	<p>Scope 3 emissions 30% from 2020 to 2025 affects the procurement and transport of raw materials.</p> <p>In addition, the CEO can also make climate-related decisions directly: One example is the investment decisions for a waste incineration facility at Holzminden. This plant saves us fossil-based fuels and realizes emission reductions. Another example is our Low Carbon Transition Project initiated by the CEO, demonstrating our commitment to sustainable practices. As part of this initiative, a pilot project has been launched in Holzminden, aiming to define pathways to climate positivity by 2030. To achieve this, reduction areas are identified (energy efficiency, process optimization), additional CO2 reduction potential is determined (biomass/electrode boilers, heat pumps), goals are defined and the economic impact is being assessed.</p> <p>Furthermore, the project focuses on investigating the energy consumption of the most energy-intensive sites within the Taste, Nutrition &amp; Health segment. The project aims to steer our company away from dependency on fossil fuels and towards the utilization of renewable energy sources such as wind, solar, hydrogen, and biomass.</p>
<p>Other, please specify</p> <p>Supervisory Board</p>	<p>The Supervisory Board advises and oversees the Executive Board in the management of the company. It is involved in strategy and planning as well as all other decisions of fundamental significance to the company.</p> <p>In 2022, our company has actively addressed regulatory requirements, including EU Taxonomy, CSRD, ESRS, and others, paving the way for Symrise to implement Integrated Reporting. This important initiative is also overseen by our Supervisory Board, ensuring compliance and transparency. Additionally, an annual strategic Supervisory Board meeting is held every September, providing a platform for the Board and the Supervisory Board to exchange vital strategic information. Discussions during these meetings consistently encompass crucial topics such as sustainability and climate-related issues, underscoring their significance on our agenda.</p> <p>Another task of the Supervisory Board is to verify all non-financial data according to the CSR Richtlinie Umsetzungsgesetz, the §289 of the German Commercial Code, the GRI standards as well as other key figures and information presented in sustainability publications. Please find even more detailed information in our Sustainability Record 2022 (<a href="http://www.symrise.com/corporatereport/2022/">www.symrise.com/corporatereport/2022/</a>).</p>

## C1.1b

**(C1.1b) Provide further details on the board’s oversight of climate-related issues.**

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
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<p>Scheduled – all meetings</p>	<p>Overseeing major capital expenditures  Reviewing and guiding strategy  Overseeing and guiding the development of a transition plan  Monitoring the implementation of a transition plan  Monitoring progress towards corporate targets</p>	<p>The Chief Sustainability Officer (CSO), Chairman of the Sustainability Board, is responsible for the development and implementation of the sustainability agenda and defines the sustainability objectives. He reports on a daily basis directly to the Chief Executive Officer (CEO), who is responsible for all aspects of sustainability as well as the all-over strategy of Symrise AG. Via this reporting line, further details on the board’s oversight of climate-related issues are provided, enabling the Executive Board to undertake appropriate decisions, which are then directly implemented in the respective divisions.</p> <p>The Sustainability Board, headed by the CSO, is a cross-divisional committee that, with representatives from the segments, helps translate our sustainability management into operational business. It has been established already in 2009 in order to facilitate the integration of sustainability in our core processes. It also includes cross-divisional functions such as Human Resources, Investor Relations, Corporate Communications and Corporate Sustainability.</p> <p>This Sustainability organization is supported by a network of more than 150 Sustainability Ambassadors worldwide, drawing attention of Symrise employees to the sustainability agenda and, in addition to implementing the strategic, Group-wide goals, drives forward targeted initiatives at the company sites. In the process of implementation, Symrise AG approach the topic of sustainability systematically and is guided by the 17 sustainability goals of the United Nations. In the area of “Climate”, Symrise AG seeks to minimize its environmental footprint, translating ambitions into concrete targets.</p> <p>Regional coordinators contribute to networking among the ambassadors, including through workshops and surveys. Symrise AG believes that economic success, sustainability, and social acceptance are inextricably linked. For this reason, sustainability – including climate related topics – is an integral component of corporate strategy as well as of corporate governance. The goal is to permanently increase the value of the company and to minimize any kind of risks.</p>
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Scheduled – some meetings	Overseeing and guiding employee incentives	<p>The Personnel Committee (formed by members of the Supervisory Board) is dealing with the development of the Executive Board remuneration system – specifying the amount of remuneration and the related target agreements, and making corresponding recommendations at the full Supervisory Board meetings.</p> <p>Since 2021, Symrise has linked the remuneration of its Executive Board to climate and sustainability key performance indicators (KPIs): 20% of the annual bonus for the Executive Board members is linked to ESG targets, such as environmental and climate protection (among others greenhouse gas (GHG) emissions, water consumption and electricity from renewable energies). This way, Symrise AG is incentivizing and anchoring the reduction of emissions as well as climate change mitigation and sustainability measures within the personal goals of each Executive Board member. Therefore, it is ensured that climate protection becomes an intrinsic part of the corporate strategy.</p> <p>Please find even more detailed information in our Remuneration Report 2022, page 4ff.</p>
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## C1.1d

**(C1.1d) Does your organization have at least one board member with competence on climate-related issues?**

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	<p>All members of the Executive Board are appointed by the Supervisory Board. The Executive Board is responsible for managing the company's business operations in the interest of the company with a view to creating sustainable value. In determining the composition of the Executive Board, the Supervisory Board bases its decisions especially on the relevant professional knowledge, of course also considering existing knowledge and expertise regarding climate-related topics. In addition to the specialist knowledge and management and leadership experience, the members of the Executive Board should cover the widest possible spectrum of knowledge, experience and educational and professional background. All members of the Executive Board currently meet these criteria.</p> <p>Our CEO, a highly experienced Chemist, leverages his expertise to</p>

		<p>drive technological advancements for the development of climate-friendly products and facilities. For example, there is a dedicated focus on specializing on advancing technology to the state of the art at our Holzminden subsidiary, TESIUM, particularly in the areas of energy and process optimization. The Managing Director of TESIUM reports directly to our CEO, ensuring regular updates and facilitating daily bilateral discussions.</p> <p>The Board's and especially the CEO's sustainability expertise plays a crucial role in developing and implementing Symrise's climate strategy. Recognizing the consequences of climate change on the environment and society, Symrise continually strengthens its approach through the advancement of innovative solutions, comprehensive assessment of climate-related opportunities and risks, and strategic financial decision-making.</p>
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## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

### Position or committee

Chief Executive Officer (CEO)

### Climate-related responsibilities of this position

Developing a climate transition plan  
 Implementing a climate transition plan  
 Integrating climate-related issues into the strategy

### Coverage of responsibilities

### Reporting line

Reports to the board directly

### Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

### Please explain

The direct responsibility for our overall as well as our climate strategy lies with the Chief Executive Officer (CEO). The decision to assign climate-related responsibilities to the CEO is based on the significant decision-making authority held by this position at the board level. This decision-making power enables effective adjustments to our corporate and sustainability strategy, particularly concerning the progress made in climate-related areas. This includes the implementation of climate-related measures, targets, and objectives, which are most effectively handled at this executive level. In order to be adequately informed about the progress made on this sustainability and climate topics,

the CEO receives reports by the CSO on a daily basis, who is in overall charge of the development and implementation of the sustainability agenda and defines the sustainability objectives. In addition to that, the CEO receives reports from the Sustainability Board quarterly which is chaired by the CSO. The CEO then reports directly to the Supervisory Board on a regular basis or whenever there are important climate-related issues to discuss – especially during the strategic meetings with the Supervisory Board where climate-related topics are discussed in a wide range. The CEO continuously promotes Symrise's approach to sustainability in all areas of the company by setting specific sustainability objectives for all managers which are integrated into individual performance goals.

He manages sustainability in corporate processes using our Integrated Management System, based on the international standards on quality (ISO 9001), environmental protection (ISO 14001), work safety (OHAS 18001), sustainability (ISO 26000), energy (ISO 50001), social responsibility (SA 8000), the audit standards of the Global Food Safety Initiative (GFSI) among other recognized local standards.

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**Position or committee**

Chief Sustainability Officer (CSO)

**Climate-related responsibilities of this position**

Developing a climate transition plan

Implementing a climate transition plan

Integrating climate-related issues into the strategy

**Coverage of responsibilities****Reporting line**

CEO reporting line

**Frequency of reporting to the board on climate-related issues via this reporting line**

More frequently than quarterly

**Please explain**

The Chief Sustainability Officer (CSO), who serves as the Chairman of the Sustainability Board, holds the responsibility for developing and implementing the sustainability agenda and defining sustainability objectives. The CSO provides regular reports directly to the Chief Executive Officer (CEO), who oversees all aspects of sustainability and the overall strategy of Symrise AG. Through this reporting line, it is ensured that the Executive Board receives detailed information on climate-related topics, enabling it to make informed decisions that are subsequently implemented across relevant divisions. Under the CSO's chairmanship the Symrise Sustainability Board regularly convenes. Established already in 2009, it's a global and cross-business committee that has the responsibility to integrate climate and sustainability principles more strongly in our core processes and operational business. Together with representatives from management the CSO ensures in this framework that climate related topics and the concerns of our



important stakeholder groups are considered along our entire value chain. The Sustainability Board sets sustainability and climate objectives, which are then directly implemented in the respective divisions.

This Sustainability organization is supported by a global network of over 150 Sustainability Ambassadors. These ambassadors raise awareness among Symrise employees regarding the sustainability agenda and, in addition to implementing Group-wide strategic goals, drive targeted initiatives at company sites. Symrise AG systematically approaches sustainability, guided by the United Nations' 17 sustainability goals. Within the area "Climate", Symrise AG strives to minimize its environmental impact and translates its ambitions into concrete targets.

Regional coordinators play a role in fostering networking among the ambassadors, facilitating workshops, and conducting surveys.

## C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

### C1.3a

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

#### Entitled to incentive

Board/Executive board

#### Type of incentive

Monetary reward

#### Incentive(s)

Bonus - % of salary

#### Performance indicator(s)

Achievement of climate transition plan KPI

Progress towards a climate-related target

Implementation of an emissions reduction initiative

#### Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

#### Further details of incentive(s)

The Personnel Committee (formed by members of the Supervisory Board) is dealing with the development of the Executive Board remuneration system – specifying the amount of remuneration and the related target agreements, and making corresponding recommendations at the full Supervisory Board meetings.

Since 2021, Symrise has linked the remuneration of its Executive Board to climate and sustainability key performance indicators (KPIs): 20% of the annual bonus for the Executive Board members is linked to ESG targets, such as environmental and climate protection (among others greenhouse gas (GHG) emissions, water consumption and electricity from renewable energies).

**Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan**

By integrating climate and sustainability key performance indicators into Symrise AG's remuneration system, we are incentivizing and anchoring the reduction of emissions as well as climate change mitigation and sustainability measures within the personal goals of each Executive Board member. Therefore, it is ensured that climate protection becomes an intrinsic part of the corporate strategy.

Please find even more detailed information in our Remuneration Report 2022, page 4ff.

## C2. Risks and opportunities

### C2.1

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

#### C2.1a

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	0	1	
Medium-term	1	5	
Long-term	5		

#### C2.1b

**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

Risks are assessed on a gross and a net risk basis. Gross risk is defined as risks without considering mitigating measures/controls. Basically, gross risks are only to be reported from a value of 500 T€. A net risk is defined as risks that remain after mitigating measures/controls.

For Symrise, the term „substantive financial or strategic impact“ (as asked for in question C2.3a) is defined as a gross risk that has a higher EBIT impact than the threshold level of 500 T€. Risks are generally assessed on a gross and a net risk basis. Gross risk is defined as risks without considering mitigating measures/controls. Generally gross risks are only to be reported

from a value of 500 T€. A net risk is defined as risks that remain after mitigating measures/controls. For opportunities the same definitions and thresholds apply.

## C2.2

**(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.**

### Value chain stage(s) covered

Direct operations  
Upstream  
Downstream

### Risk management process

Integrated into multi-disciplinary company-wide risk management process

### Frequency of assessment

More than once a year

### Time horizon(s) covered

Short-term  
Medium-term  
Long-term

### Description of process

The Risk Management System in the Symrise Group is structured according to the three lines of defence plus concept. Following this concept, the Group has three lines of defence ((1) Risk Owners, (2) Governance/Risk and Compliance, (3) Corporate Audit) plus an external auditor that help to identify risks at an early stage and manage them appropriately.

The climate related risks management process is integrated into this multi-disciplinary company-wide risk management process. It is based on the International Standard for Risk Management (ISO 31000:2018), looking at short-term, medium- and long-term risks. The following steps must be taken, involving a close interaction with constant monitoring and communication and consultation work:

A. Establish the context

B. Assess risks

B.1 Risk identification: We find, recognize and describe risks that might help or prevent us achieving our objectives. Relevant, appropriate and up-to-date information is important in identifying risks. Risk identification is a crucial step as it is a prerequisite to all following steps.

B.2 Risk analysis: We understand the nature of risk and its characteristics including, where appropriate, the level of risk. Risk analysis involves a detailed consideration of uncertainties, risk sources, consequences, likelihood, events, scenarios, controls and their effectiveness.

B.3 Risk evaluation: Based on the initial risk rating and the adequacy of the existing controls in place, we evaluate whether to accept the risk or that additional controls or

other actions are required to mitigate the risk e.g. risk treatment. We rank risks to identify management priorities.

C. Risk treatment: Treatment actions are required where the current controls are not managing the risk within defined tolerance levels. Selecting the most appropriate risk treatment option(s), i.e. acceptance, reduction, transfer or avoidance.

General risk reporting cycle procedure:

In a first step the Risk Manager initiates the risk reporting cycle by informing the Risk Owners and Risk Managers. The risk reporting cycle is being performed on a semi-annual basis (=more than once a year) in the first - (February-April) and third (August-October) quarter of every year.

After being informed about the reporting deadline for the respective cycle, the Risk Owners, and Risk Managers (delegated employees of the risk owner) are identifying (based on market surveys, conversation with clients, staff, suppliers, self-assessment, SWOT analysis) and assessing and evaluating the risks in the risk categories belonging to their area of responsibility until defined due dates. Depending on the risk mitigation/risk treatment strategy further measures are described by the Risk/Measure Owner and/or the Risk/Measure Manager and are linked to the respective underlying risk.

Once the reporting is completed, it is reviewed by the Corporate Risk Manager in cooperation with the respective risk owners & managers. The risks are enriched with best, normal and worst-case scenarios, simulated and finally clustered in terms of interdependencies and correlations.

In the next step, clustered risks are put together in a stress test (Monte Carlo Simulation, 10.000 iterations, 95% Confidence interval). We derive the conditional value at risk (CVaR), representing the probability-weighted average of all losses that exceed the value at risk. For risks with substantial financial impact, we apply a threshold of gross impact on EBITDA of 500,000 EUR.

Results from the stress test will be observed in a risk-bearing capacity analysis. For this purpose, equity (risk coverage potential) is compared with the value at risk (95% confidence interval). The result of the subtraction represents the company's free risk-bearing capacity.

Finally the Corporate Risk Manager prepares the Group Risk Report to be provided to the Executive Board and Audit Committee of the Supervisory Board.

Climate-related requirements in our risk management (GRI, the EU Taxonomy, CSRD and ESRS standards):

The starting point is the "materiality analysis", which forms the basis for scoping and the application of the ESRS standards and is therefore the core of the consideration. The materiality analysis was subject to an update in 2023 with regard to the expanded regulatory requirements.

In addition to the mandatory application fields of the ESRS 1 and 2 standards, Symrise has already operationally integrated the future requirements of the ESRS E1 standard into the existing opportunity and risk management within 2023. intensive work is being done on the further operational integration of the other ESRS standards from the areas of E-S-G that are relevant for Symrise into the existing opportunity and risk management within the year 2023.

With regard to the ESRS E1 standard, Symrise uses a scientifically based tool solution from a renowned provider, as required by the standard, in order to take the relevant regulatory requirements into account. Here all assets of the Symrise Group (ownership) and the entire value chain are analyzed with regard to acute and chronic climate risks in the 8.5 RCP scenario (3.2 - 5.4° C) in a short-, medium- and long-term time horizon. In addition, the opposite 2.6 RCP scenario (0.9-2.3°C) is also analyzed with respect to a short-, medium-, and long-term time horizon in terms of transition risks. Analogously, the corresponding opportunities are determined on the basis of scientific findings.

With regard to the overall portfolio and the respective individual assets as well as the value chain, monetary effects, i.e. opportunities and risks in the various RCP scenarios can already be determined and presented in 2023 with regard to the defined time horizons.

The results of the analysis represent gross risks that are mitigated accordingly through appropriate mitigation measures with regard to the mandatory net valuation. The mitigation measures are not mere plans, but are actively pursued by the management of the Symrise Group with a view to their realization.

With regard to the operational implementation, Symrise performs a detailed preliminary analysis of the incoming data points to determine the gross valuation. The (own) assets are fed into the existing tool solution based on replacement values (buildings and inventory) on the basis of a confirmation of the values by an insurance company (third party confirmation) and the building type (Production Plant, Office) as well as with regard to the determined GHG emissions and the respective address (geocoordinate longitude and latitude). With regard to the value chain, Symrise actively works with its suppliers to collect the relevant database for the analysis and always subjects it to a critical analysis with regard to the quantification of the collected data.

Based on the inputs, the tool determines various impact functions (the tool solution offers about 1,200 impact functions) that form the basis of the vulnerability analysis (gross risk determination).

## C2.2a

### (C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>Symrise has to comply with all legal regulations originating from climate related policy regulations and faces respective economic consequences. As our production is energy intensive, the resulting risks are relevant. Thus they are included in our risk assessment.</p> <p>An example is that our operation costs my risk due to the EU ETS risk. This creates CO2 costs that must be borne by operators in form of direct compliance costs from buying CO2 certificates and indirect costs (from price effects in electricity bills).</p> <p>2030 ETS target and effects from the market stability reserve CO2 prices may increase which would lead to higher operating costs: This affects both the direct ETS compliance costs for Symrise as well as</p>

		<p>indirect costs from rising power prices.</p> <p>Symrise currently operates one facility under the ETS with an output of 30 MWh. This is a CHP-plant located in our HQ in Holzminden. The volume of free-of-cost allocation shrinks year by year.</p> <p>Indirect costs originate from the passing carbon costs on to energy users. Utilities are able to do this, as the marginal power plant (power plant at the end of the merit order) defines the price at energy exchanges. In France, Germany, Hungary and the UK, Symrise is exposed to indirect ETS costs. We assess the risk by calculating the potential effects on operating costs. To do so, we have estimated direct and indirect EU-ETS related cost increases which are finally to be added up..</p>
Emerging regulation	Relevant, always included	<p>As our production is energy intensive, risks due to emerging regulations are relevant.</p> <p>We face emerging regulation risks for example in the context of the German Renewable Energies Act levy.</p> <p>In particular, the current partial exemption of the power produced in our highly efficient gas-fired CHP plant in Holzminden from the levy ("EEG-Umlage-Befreiung") could be abolished in an upcoming reform, prompting disadvantageous cost effects.</p> <p>The complete elimination of this discount in the worst case may increase our operational costs considerably. This could subsequently negatively influence the economics of the CHP-plant. It has required the significant investment of 30 million € and reduces our carbon emissions by more than 20.000 tons/year. The exemption from the levy has been one of our rationales for investing.</p>
Technology	Relevant, always included	<p>Technical optimization is crucial for keeping pace with current developments in a competitive market and our steady modernization of production facilities and technologies. We monitor technology risks (and opportunities) into our multi-disciplinary company-wide risk management process. One example where technology helps us decarbonize our products is the production and marketing of synthetic menthol that has a much lower carbon footprint than natural menthol.</p>
Legal	Relevant, always included	<p>Symrise continuously monitors and includes into the multi-disciplinary company-wide risk management process the risk of climate related lawsuits on a medium-term basis.</p>
Market	Relevant, always included	<p>Symrise faces climate-related market risks which originate from its supply and demand side. The following example describes a climate-related market risk in our supply chain: If water demanding agricultural goods such as tomatoes are sourced from a water-stressed country, rising temperature may result in shrinking harvests.</p>

		<p>The resulting shortage on the market may lead to increasing costs. Increasing costs for raw materials such as onions, citrus and vanilla products, etc. are also related to lower yields in agriculture farming due to warming or other climate change related pattern. Such fruits are currently sourced from countries like Germany, France, Italy, US and Madagascar. They are used to produce extracts, which can be used to boost taste and odour. Price increases on our supply side leading to increasing prices for our products, might potentially resulting in lower market demand for our products. This could cause lower demand from our customers, who may switch to other alternatives. Thus, our ability to pass on increased operating costs due to physical climate change might be limited. We assess the risk as follows: In order to assess our climate related supply chain risk, we assess respective price increases which occurred in the past. On this basis, we also estimate potential future price volatilities driven by climate change. Here vanilla shall serve as an example: Madagascar provides 80 percent of the vanilla used throughout the world. The tropical cyclone Enawo that hit Madagascar in March 2017 damaged thousands of vanilla plants, creating a worldwide surge in prices and a frenzy among ice cream makers to secure supplies of the flavoring extract. The price for vanilla bean pods reached a record high of more than \$600 per kilogram.</p>
Reputation	Relevant, always included	<p>Symrise faces climate-related reputation risks. The following example illustrates this:</p> <p>Our key customers focus in their supplier evaluation increasingly on our carbon reduction performance. Not meeting these expectations might result in supplier rating devaluation. As a consequence, core listings could be lost, which may eventually exclude us from new business and therefore reduce our future turnover and hence have a negative impact on our EBIT. The background to this is that consumers are expected to focus on climate friendly products. Thus, climate performance is of high and even growing importance for our key customers – e.g. the world leading cosmetics companies. Symrise produces high quality products (fragrances, flavours, cosmetic ingredients and aroma chemicals as well as sensorial and nutritional solutions for the perfume, cosmetic, pharmaceutical, food, beverage, pet and baby food industries) in a very sustainable way, e.g. with low carbon footprints. Our customers (B2B) concentrate on climate friendly ingredients as input to their products. This leads to a substitution of products, shifting from carbon intensive to climate friendly ones. If we do not perform at least as good as our competitors or do fail to inform potential clients in a convincing way about our climate related performance, we would expect our market share to decrease.</p>
Acute physical	Relevant, always included	<p>Hazardous weather events such as floods and storms could have negative effects on our direct operations and on our supply with agricultural raw materials.</p> <p>As an example, they can cause damages to our production facilities</p>

		<p>and lead to business interruptions.</p> <p>Thus, risks that are event-driven, including increased severity of extreme weather events such as cyclones, hurricanes, or floods are included into the Symrise Risk Assessment.</p> <p>In particular our facilities in the US in Charleston, Georgia and Florida are exposed to potential damages by acute physical effects. Our risk assessment is done by taking business interruption, capital damage and increasing transport costs into account. Due to our contingency plan, which determines the procedure in case of disruption to our supply chain or sites, we relocate our production to other facilities worldwide to ensure an ongoing business and the ability to deliver our customers. These additional costs are also included in our assessment.</p>
Chronic physical	Relevant, always included	<p>For many regions worldwide, water scarcity is one of the major chronic effects of physical climate change. In case of Symrise, this can have negative effects on our direct operations and on our supply with agricultural raw materials.</p> <p>As an example, water scarcity can lead to business interruptions. We have multiple facilities in water stressed regions, for example in Egypt and Chennai, India. As mean temperatures are going to increase due to climate change, tensions between the local populace and the industry about the distribution of the limited available fresh water are expected to intensify. These tensions also represent reputational risks, which Symrise strictly wishes to avoid. For the production the physical risk may eventually force Symrise to shut down facilities during times of extreme water scarcity. This can obviously reduce our revenues leading to a negative climate related impact on our EBIT.</p>

## C2.3

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.3a

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

### Identifier

Risk 1

### Where in the value chain does the risk driver occur?

Upstream

### Risk type & Primary climate-related risk driver

Chronic physical



Water scarcity

**Primary potential financial impact**

Increased indirect (operating) costs

**Company-specific description**

We purchase a lot of agricultural goods such as tomatoes and vanilla. In fact, in 2022 roughly 80% of the raw material we source are nature-based. These materials are used to produce extracts, which can be used to boost taste and odour. These agricultural goods are usually sourced from water-stressed countries, like USA and Madagascar, Philippines – clearly showing our exposition to the impacts on harvests from changing climate conditions (rising temperature, water stress). Rising temperature may result in shrinking harvests for our suppliers due to water scarcity. The resulting shortage on the market may lead to increasing prices and as a result to increasing operational costs for us. Lower yields in agriculture farming for raw materials such as citrus and vanilla are also related to other climate change related patterns, like floods or hurricanes. Increasing prices on our supply side will result in a lower EBIT margin for us. In 2018, we experienced a shortfall in our onion production in Germany that illustrates this risk. Due to extreme temperatures resulting in drought, we lost approximately 30% of our onion production accounting for 2,000 tons in Germany alone. This led to increased prices in the market, therefore resulting in increased operating costs for Symrise AG.

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

60,000,000

**Potential financial impact figure – minimum (currency)****Potential financial impact figure – maximum (currency)****Explanation of financial impact figure**

Climate related supply chain risk result in price volatilities/additional operational cost. For example, hot and especially dry summers in Europe and Africa might boost the price of key strategic agricultural raw materials. Vegetables like onions, garlics, carrots, beetroots, celeriacs, fruits like citrus, bergamot, oranges, cherries, strawberries, bananas, coconuts, cranberries, herbs like cloves, mint, parsley, camomile, and various types of cereals, just to name a few. Symrise has approx. 200 agri- and aquacultural

raw materials which are used in larger quantities. In order to estimate our total exposure, we have to add up the potential climate related cost effects for all the above mentioned agri- and aquacultural raw materials exposed to such effects calculated by purchased volumes multiplied by an estimated price increase. This leads to an estimation of our "raw material costs at climate risk" of some 60 million € per year.

Our calculation is based on the example of onions:  
 Hot summers in Germany (currently still moderately affected country regarding water scarcity) and the resulting risk for drought might lead to lower production volumes of onions, which leads to reduced volumes available and increasing prices. For onions, this risk can be estimated with approx. 300,000 €.

Background to these figures:

7,000 tons of onions farmed for Symrise p.a.

2,000 tons estimated loss of approx. 30% due to drought (happened in 2018)

On costs for 2,000 tons of onions from the market (not contracted but to be sourced at higher prices) approx. 130-150 €/to resulting risk = 2,000 x 150€ = 300,000 €

This figure is also representative for other agricultural commodities we source elsewhere in the world (garlic, strawberries, beetroot).

The prices for Symrise farmed / contracted onions are fixed by time of planting, not during harvest. Prices are relatively safe for us, risk born by farmers ("no risk" for Symrise). Long-term contracts help both farmers and Symrise to assure a resilient supply chain.

For agri- and aquacultural raw materials which we use in smaller quantities we do have appropriate insurance policies.

Calculation/cost breakdown: 200 agri- and aquacultural raw materials which are used in larger quantities x 300,000 € risk impact per commodity = 60 million €.

### **Cost of response to risk**

2,400,000

### **Description of response and explanation of cost calculation**

We can't avoid the risk completely, but we try to reduce the impact. Thus, our strategy is to identify significant climate drivers in our portfolio and use this information to take appropriate actions as shown in the following CASE STUDY for onions.

Situation: Increasing costs for onions are related to lower yields in agricultural farming due to climate change related effects.

Task: The impact of increasing costs needs to be mitigated.

Action: To manage this we conduct different activities. We work closely with our supplier and establish long-term agreements to make sure that even if the availability of agricultural products shrinks, we are still able to obtain our raw materials for a

predefined ceiling price: e.g., the price for onions is fixed by contract at the time of plantation. To reduce the effect of one local extreme weather event we have suppliers all over the world. This is part of our general diversification approach regarding our sourcing strategy which we rigorously implement in our supply chain since 2015 and is in accordance with our backwards integration strategy. This incurs no additional costs. Furthermore, we maintain dedicated stock levels for onions (120 tons) to be able to react to short-term fluctuations in availability: Thus, even if a year's harvest falls 25% short we still have enough volumes to compensate for these losses.

Result: All these measures reduce the financial impact on operating costs from higher market prices and allow us to have a secured financial and operational planning. The backward integration that helps us hedge against climate related impacts proved safe also in the pandemic (2020 and 2021) when other similar effects prompted the breakdown of supply chains in other industry sectors – giving proof to the general effectiveness of our approach.

The related costs for management is an estimation of costs, based on the costs for maintaining dedicated stock levels.

How can we compensate / which risk management is in place?

Normally onions are contracted in a volume enabling 15 month reach. Hence, even if a crop is 25% short, we have enough volumes to compensate these losses in volumes. Product is shelf-stable (no risk), storage costs are approx. 100 €/ton p.a. --> 120 ton \* 100€/ton = 12,000€ p.a. for 120 tons onion juice concentrate.

Calculation/cost breakdown: 200 agri- and aquacultural raw materials which are used in large quantities x 12,000 € = 2.4 million €.

## Comment

### C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

### C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

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#### Identifier

Opp1

#### Where in the value chain does the opportunity occur?

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Shift in consumer preferences

**Primary potential financial impact**

Increased revenues resulting from increased production capacity

**Company-specific description**

Consumers are expected to focus on climate friendly products. Thus, climate performance is of high and growing importance for our key customers – e.g. the world leading cosmetic companies. Symrise produces high quality products (fragrances, flavors, cosmetic ingredients, and aroma chemicals as well as sensorial and nutritional solutions for the perfume, cosmetic, pharmaceutical, food, beverage, pet and baby food industries) in a very sustainable way, e.g., with low carbon footprints. In principle all our B2B customers (we estimate this share to be >90% of our turnover) are seeing the effects in their markets. Thus, these customers like Pepsico, Unilever and L’Oreal concentrate on climate friendly ingredients as input to their products. This leads to a substitution of products, shifting from carbon intensive to climate friendly ones. If we perform better than our competitors and manage to inform potential clients in a convincing way of our climate related performance, we expect our market share to grow from higher demand for our lower emissions products and thereby also to increase our revenues. We realize this opportunity through expansion of our production capacity with relevant investments in the US, targeting roughly 8% of our 2022 turnover with additional growth potential.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

27,600,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Currently (2022), up to 8% of our turnover (equalling 368 million EUR) is related to customers who explicitly pay attention to climate issues and ask us to participate in the Supply Chain CDP. We already expect annual sales growth of 6% for climate sensitive products, but we anticipate that we can boost this value by one quarter to annually 7.5% ( $6\% * 125\% = 7.5\%$ ): We tackle this by meeting the high requirements for core listings, including sustainability criteria, and aim at supporting our customers in fulfilling their own sustainability agenda.

Breakdown of impact figure:

The financial impact figure is calculated as the annual growth in sales volumes with climate sensitive customers.

We multiply the current 368 million EUR in annual turnover (turnover where climate considerations play a significant role on the side of our customers) by the expected with 7.5%. This results in an annual impact figure of 27.6 million EUR ( $=368 \text{ m} * 7.5\%$ ).

### **Cost to realize opportunity**

1,003,333

### **Strategy to realize opportunity and explanation of cost calculation**

Further explanation of our 5-step approach:

1. Systematic reduction of energy consumption and emissions.
2. Increase transparency: Assessment of current portfolio to ascertain current impact & discover carbon friendly alternatives.
3. Identification of stakeholder needs: We evaluate the materiality of our identified sustainability aspects annually. Business Unit and Key Account management gets regular customer feedback regarding requirements. This input is used for the materiality matrix & our sustainability agenda.
4. Initiation of program strategies: Goals and policies are developed to ensure consistency with internal & external communication. Related actions are addressed through our sustainability board to all related areas & locations.
5. Implementation of long term projects: All our R&D efforts are managed globally and parallel to expected project returns, since 2012 we have a pipeline sustainability score.

CASE STUDY for an implemented emission reduction:

Situation: Since 2010 the production of menthol from natural materials (peppermint) has been very energy intensive.

Task: To Reduce the related emissions.

Action: Production of synthetic menthol (L-Menthol) causes 90% less CO<sub>2</sub> per produced volume than that of natural peppermint. Therefore, we regularly increase our production capacity for L-Menthol.

Result: We avoided since 2021 approx. 500 kt CO<sub>2</sub>/year.

Costs for realization/breakdown of cost:

In January and February 2019, Symrise has doubled its production capacity for menthols in Charleston, USA. The company is thereby further expanding its leading position for this product worldwide and ensuring reliable supply security at a consistent high quality. The outlook is good. Demand for high-quality menthol products, in

particular for dental and personal care, has been growing constantly for years. Symrise has been producing the nature-identical L-menthols since 1974. The total investment was 30 million EUR.

Additionally, the sum of costs for all additional research efforts amounts to approx. 100 k EUR per year. Costs sum up to a total of 30.1 million EUR.

We apply to this investment a depreciation period of 30 years which results in annual costs to realize this opportunity of 1,003,333 € (= 30.1 million EUR p.a. /30 years depreciation period).

#### Comment

## C3. Business Strategy

### C3.1

**(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?**

#### Row 1

##### Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

##### Publicly available climate transition plan

Yes

##### Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

##### Description of feedback mechanism

Twice a year stakeholder meetings are scheduled to discuss the Low Carbon Transition Plan. In 2022 we executed already the third materiality assessment with our stakeholders (investors, customers, employees, media, associations). Within the CSRD/ESRS and the upcoming ISSB and IFRS reporting requirements we currently execute a more detailed materiality assessment. The materiality analysis according to CSRD follows the new principle of double materiality. A distinction is made between impact materiality and financial materiality. A topic is material as soon as it has an impact and/or financial materiality for Symrise AG. Within impact and financial materiality we assess our own operations as well as our up- and downstream supply chain. Assessment results will be presented to the CEO, the Executive Committee as well as to the Supervisory Board. Low Carbon Transition Plan is twice a year on their agenda. Current status is published in Corporate Reports and Sustainability Records / GRI record.

##### Frequency of feedback collection

More frequently than annually

**Attach any relevant documents which detail your climate transition plan (optional)**

## C3.2

**(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?**

Use of climate-related scenario analysis to inform strategy	
Row 1	Yes, qualitative and quantitative

## C3.2a

**(C3.2a) Provide details of your organization's use of climate-related scenario analysis.**

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA 2DS	Company-wide		<p>We have used qualitative scenario analysis for the further development of our emission reduction strategy.</p> <p>The AREAS CONSIDERED have been our own direct operations worldwide. The TIME HORIZON has been up to 2050, as we intend to become carbon-neutral by then the latest.</p> <p>We have IDENTIFIED several suitable SCENARIOS for our purpose:</p> <p>The IEA 2DS and the RCP 3.4 scenarios have been used to understand the global process of decarbonization and its implications for the chemical industry as a whole worldwide. To deal more specifically with the specialized chemicals industry, the "Roadmap treibhausgasneutrale Chemie in Deutschland" by VCI (German Chemical Industry Association) has been analysed. It contains several decarbonization pathways, as well as respective requirements regarding policy regulations and technology developments.</p> <p>We have adopted ASSUMPTIONS to company specific data and considered specific INPUTS, such as our revenue planning and our technology base. Thus, in the next step future policy regulations have been assessed by analysing, the EU's NDC, the EU Green Deal and emerging regulations in Germany, such as the upcoming national emission trading scheme ("BEHG")</p>

			<p>supplementing the EU-ETS. This way of approaching and discussing scenarios along real developments (ongoing or yet to emerge) is characteristic for our ANALYTICAL METHOD. Furthermore, we have discussed the development of the markets for green power certificates and carbon offsets.</p>
Physical climate scenarios RCP 3.4	Company-wide		<p>We have used qualitative scenario analysis for the further development of our emission reduction strategy. The AREAS CONSIDERED have been our own direct operations worldwide. The TIME HORIZON has been up to 2050, as we intend to become carbon-neutral by then the latest.</p> <p>We have IDENTIFIED several suitable SCENARIOS for our purpose:</p> <p>The IEA 2DS and the RCP 3.4 scenarios have been used to understand the global process of decarbonization and its implications for the chemical industry as a whole worldwide. To deal more specifically with the specialized chemicals industry, the “Roadmap treibhausgasneutrale Chemie in Deutschland” by VCI (German Chemical Industry Association) has been analysed. It contains several decarbonization pathways, as well as respective requirements regarding policy regulations and technology developments.</p> <p>We have adopted ASSUMPTIONS to company specific data and considered specific INPUTS, such as our revenue planning and our technology base. Thus, in the next step future policy regulations have been assessed by analysing, the EU’s NDC, the EU Green Deal and emerging regulations in Germany, such as the upcoming national emission trading scheme (“BEHG”) supplementing the EU-ETS. This way of approaching and discussing scenarios along real developments (ongoing or yet to emerge) is characteristic for our ANALYTICAL METHOD.</p> <p>Furthermore, we have discussed the development of the markets for green power certificates and carbon offsets.</p>
Transition scenarios IRENA	Company-wide		<p>Symrise selected IRENA scenarios as to explore/understand the availability and cost of renewable energies, to be used for the realization of our own decarbonization pathway. In general, renewable energy</p>



		<p>offers cost effective emissions reductions levers to our scope 1 and 2 emissions on a time horizon until 2030.</p> <p>The key PARAMETER in the analysis was the average share/availability of renewable electricity in markets where we operate our major sites.</p> <p>Our ASSUMPTIONS include a stringent decarbonization pathway in line with a strong, policy supported roll-out of renewable energies in countries where we operate. Especially for Germany, quantitative and qualitative RESULTS from the analysis confirm the attractiveness of the projected roll-out of our own solar production capacities at relevant sites by 2025 and 2030.</p>
Physical climate scenarios RCP 8.5	Company-wide	<p>Symrise has a global supply chain for sourcing of nature-based products worldwide. Around 80% of the input materials we source fall into that group. Our upstream supply chain is therefore strongly exposed to physical climate change effects. The analysis if these effects is an important basis in our risk management since long. The physical scenario we use is embedded in a scientifically based tool solution from a renowned provider. Hereby we also follow requirements as formulated in European regulation (ESRS E1 standard). Using high emission and warming scenarios helps us test the resilience of our complete values chain, including our extensive upstream supply chain. The IPCC scenario RCP 8.5 (3.2 - 5.4° C of warming) offers the best scientific data base available for that analysis. For this purpose, all assets of the Symrise Group (ownership) and the entire value chain are analysed with regard to acute and chronic climate risks in a short-, medium- and long-term time horizon.</p> <p>The physical PARAMETER we focus on in our analysis are those that are most relevant, e.g. for farming activities in our supply chain we put a special emphasis on (extreme) temperature as well as changes in hydrology, incl. chronic water stress and draughts.</p> <p>We made different ASSUMPTIONS for projected changes by event type (e.g. severity/duration/frequency) to calculate future effects of relevant drivers.</p> <p>One of the RESULTS from the quantitative/qualitative analysis is our continued ambition for an even stronger</p>

			diversification of our sourcing of materials in the future as well as a systematic backward integration. Such lessons learnt also feature in our risk management strategies as described in our management to risk 1 (see C2.3a).
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## C3.2b

**(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.**

### Row 1

#### Focal questions

1. Can Symrise be less dependent on energy usage? What follows from that?
2. What technologies do we need to meet our decarbonization/transition objectives while following a growth path?
3. Can our Science Based Target be fulfilled before 2030?
4. How can the actual consumption of fossil fuels be replaced?
5. How can the scope 2 emissions be reduced to zero before 2025?
6. Where are the pressure points of climate change effects in our supply chain? How to address these?

#### Results of the climate-related scenario analysis with respect to the focal questions

1. Can Symrise be less dependent on energy usage. What follows from that?  
For Symrise energy efficiency is crucial as we will remain heavily dependent on energy usage, especially heat (75%) and power (25%). The VCI roadmap expects efficiency gains to increase by 2% p.a. for the specialized chemicals industry in Germany.
2. What technologies do we need to meet our decarbonization/transition objectives while following a growth path?  
Our growth may easily over-compensate reductions from efficiency measures, underlining the necessity to go beyond that. This includes transition of our heat supply (currently based on natural gas) to heat pumps and electricity-based boilers. It also includes strong investment into the roll-out of renewable energies. This is documented in our low carbon transition plan and relevant information we share with our stakeholders.
3. Can our Science Based Target be fulfilled before 2030?  
The results of the scenario analysis confirm our existing strategy, which we will now pursue with even higher ambition. To this aim our board has taken the decision to shorten the time for our science- based target to be reached by five years – from 2030 to 2025.

4. How can the actual consumption of fossil fuels be replaced?

Eventually green hydrogen and direct heating from green power will replace fossil fuels. We invest in R&D to optimise our processes. In order to accelerate efficiency related investments, we accept lower IRRs. At our German production sites, we pilot activities.

5. How can the scope 2 emissions be reduced to zero before 2025?

Our strategy is to ramp up our sourcing of CO2 free power globally. This strategy has repeatedly been confirmed by the board since starting the execution in 2019.

6. Where are the pressure points of climate change effects in our supply chain? How to address these?

We analyse physical climate change effects by looking at relevant regions from where we source our natural materials. Modelling future scenarios with strong climate change impact (RCP 8.5) help us understand the pressure points. Already in 2015 we started a backward integration program that helped us intensify cooperation with suppliers and initiate and implement joint projects. All that will help us improve our resilience against the identified effects. Moreover, adaptation in our supply chain is an important pillar in our corporate transition plan.

ONE MAJOR RECENT DECISION, based in output from the various scenarios analyses we implemented: The use of data from our IRENA scenarios helped us gain understanding in the availability and cost-effectiveness of renewable energy by 2030 and beyond (see results to questions 2 and 5 above). A most recent decision in this regard was made by our CEO and executive board only in July 2023: We decided on future CAPEX invest for new solar capacities, including US and Germany, thereby addressing the sites first where we currently consume 75% of our total energy demand.

### C3.3

**(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.**

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	<p>One of our strategy pillars is related to our product portfolio. This portfolio is continuously benchmarked and evaluated by external consultants but also of course our business units and key account management which leads to adjustments of production capacity, investments, products with higher profitability and finally more profitability.</p> <p>Our strategy regarding products and services has twofold been influenced by climate-related risks and opportunities:</p>

		<p>(A) As clients reveal an increased demand for sustainable manufactured products we aim to meet this demand.</p> <p>(B) As we also experience an increased demand for products such as sunscreen due to rising temperatures, we aim to meet this demand as well.</p> <p>The TIME HORIZON of this strategy is current to long term, from now on until 10 years. We are already executing this strategy and do not expect it to change in the foreseeable future.</p>
Supply chain and/or value chain	Yes	<p>Our strategy regarding our supply chain (i.e. our upstream value chain) has been influenced by climate-related risks and opportunities as follows:</p> <p>(A) As we have experienced the risk of increased prices for agricultural raw materials through bad harvests, e.g. due to water scarcity, we have defined ways for closer cooperation with our suppliers.</p> <p>(B) As clients reveal an increased demand for sustainable manufactured products we aim to meet this by sourcing sustainable manufactured raw materials. Thus, we are member of the CDP supply chain program.</p> <p>The TIME HORIZON of this strategy is current to long term: We are already executing this strategy and do not expect it to change in the foreseeable future.</p>
Investment in R&D	Yes	<p>One of our main strategic targets is to heavily reduce our CO2 footprint. One the one hand, this is due to the fact that clients reveal an increased demand for sustainable manufactured products. One the other hand, we aim to reduce costs for CO2 certificates and energy.</p> <p>To achieve this, we inter alia continuously invest in R&amp;D to improve energy and resource efficiency. In the last year we invested approximately 60 million € into climate related R&amp;D projects.</p> <p>The TIME HORIZON of this strategy is current to long term: We are already executing this strategy and do not expect it to change in the foreseeable future.</p>
Operations	Yes	<p>One of our main strategic targets is to heavily reduce our CO2 footprint. One the one hand, this is due to the fact that clients reveal an increased demand for sustainable manufactured products, we aim to meet this demand. One the other hand, we aim to reduce costs for CO2 certificates</p>

		<p>and energy.</p> <p>To achieve this, our strategy is to reduce emissions by reduction of our energy consumption and carbon footprint in a systematic way. This changes our operations by making them less carbon intensive. The same effect applies to the ongoing improvement process in context of our running ISO 50001 Management System. Global emissions reduction targets, in particular our new Science Based Target (“SBT”), are subdivided through the entire organization and managed locally on each manufacturing site. Local reviews are aggregated to global level and signed off by our CEO. In 2018 we managed to reduce our scope 3 emissions by more than 250k tons of CO2 while we managed to keep scope 1 and 2 emissions at about the same level. This was managed through the investment in a significant capacity increase for L-Menthol that allowed us to substitute the more carbon intensive natural menthol.</p> <p>The TIME HORIZON of this strategy is current to long term: We are already executing this strategy and do not expect it to change in the foreseeable future.</p>
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### C3.4

**(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets Liabilities	<p>In accordance with the TCFD recommendations, the financial planning performed by Symrise takes climate related effects into account. The respective planning elements are of course interdependent and have been considerably influenced by climate related risks. Thus, the effects described below for revenues (which we describe here “pars pro toto”) are closely related to effects in other elements, especially in Capital expenditures and Capital allocation.</p> <p>Our financial planning has a TIME HORIZON of 6 years and applies to all elements influenced.</p> <p>Climate change related effects have been factored into our financial planning and HAVE INFLUENCED our planning in several ways as we consider e.g. effects on increasing demand for some of our products (due to longer and hotter summers), effects from eventual unavailability of production sites (due to physical events like tropical storms) or</p>

	<p>changing demand by our customers who consider climate aspects in the product properties they buy.</p> <p><b>CASE STUDY ON REVENUES:</b></p> <p>Situation: Tropical Storms in South Carolina occur regularly and affect in a negative manner our profits due to delayed production and damages.</p> <p>Task: We need to guarantee our production also in times where some facilities are not available for production. Moreover, we need to hedge against costs from repairs, helping us to hedge against effects on our revenues.</p> <p>Action: On the one hand side we create and maintain redundant production capacities worldwide in order to be able to compensate for locally/regionally decreased availability of capacities: E.g. our site in Charleston manufactures Menthol-I (synthetic menthol). If production is disrupted there we may increase production at Holzminden, Germany. This is possible as the Holzminden production capacity has been expanded just recently. Such scenario of shifts in production volumes also entails additional shipping costs as Menthol-I need to be transported overseas to serve our US market supply. On the other hand, we use insurance to cover costs for related repairs after natural disasters.</p> <p>Result: We are effectively able to limit related cost risks on the revenues.</p>
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### C3.5

**(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?**

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with both our climate transition plan and a sustainable finance taxonomy	At the company level only

### C3.5a

**(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.**

#### Financial Metric

CAPEX

#### Type of alignment being reported for this financial metric

Alignment with a sustainable finance taxonomy

**Taxonomy under which information is being reported**

EU Taxonomy for Sustainable Activities

**Objective under which alignment is being reported**

Climate change mitigation

**Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)**

15,000,000

**Percentage share of selected financial metric aligned in the reporting year (%)**

6

**Percentage share of selected financial metric planned to align in 2025 (%)**

8

**Percentage share of selected financial metric planned to align in 2030 (%)**

8

**Describe the methodology used to identify spending/revenue that is aligned**

Key corporate functions across all parts of the company were included in the analysis. Under the leadership of the sustainability team and in close cooperation with the finance team, results were determined in the course of a sequential approach:

1) Impact analysis: Identification of potential and actual economic activities listed in the taxonomy regulation which correspond to those of Symrise. As a result, the activities 3.6 "Manufacture of other low carbon technologies" (relevant to sales, operating costs and investments), 7.2. "Renovation of existing buildings," 7.3 "Installation, maintenance and repair of energy efficiency equipment,"

7.4 "Installation, maintenance and repair of charging stations for electric vehicles in buildings" (and parking spaces attached to buildings) and 7.5 "Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings" (relevant to investment) have been identified.

2) Quantification of taxonomy eligibility: Calculation of share in sales, operating expenses (OpEx) and capital expenditure (CapEx)

3) Review of taxonomy alignment: Detailed review of technical assessment criteria for each economic activity as well as DNSH criteria and minimum safeguards.

4) Quantification of taxonomy alignment: Calculation of share in sales, operating expenses (OpEx) and capital expenditure (CapEx)

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**Financial Metric**

OPEX

**Type of alignment being reported for this financial metric**

Alignment with a sustainable finance taxonomy

**Taxonomy under which information is being reported**

EU Taxonomy for Sustainable Activities

**Objective under which alignment is being reported**

Climate change mitigation

**Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)**

2,000,000

**Percentage share of selected financial metric aligned in the reporting year (%)**

3

**Percentage share of selected financial metric planned to align in 2025 (%)**

3

**Percentage share of selected financial metric planned to align in 2030 (%)**

3

**Describe the methodology used to identify spending/revenue that is aligned**

Key corporate functions across all parts of the company were included in the analysis. Under the leadership of the sustainability team and in close cooperation with the finance team, results were determined in the course of a sequential approach (see description on CAPEX above).

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**Financial Metric**

Revenue/Turnover

**Type of alignment being reported for this financial metric**

Alignment with a sustainable finance taxonomy

**Taxonomy under which information is being reported**

EU Taxonomy for Sustainable Activities

**Objective under which alignment is being reported**

Climate change mitigation

**Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)**

94,000,000

**Percentage share of selected financial metric aligned in the reporting year (%)**

2

**Percentage share of selected financial metric planned to align in 2025 (%)**

2

**Percentage share of selected financial metric planned to align in 2030 (%)**

2

**Describe the methodology used to identify spending/revenue that is aligned**



Key corporate functions across all parts of the company were included in the analysis. Under the leadership of the sustainability team and in close cooperation with the finance team, results were determined in the course of a sequential approach (see description on CAPEX above).

## C3.5c

**(C3.5c) Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.**

Our approach to how we applied the taxonomy including scope, underlying assumption, the implementation of the self-assessment and further relevant information for interested parties is systematically described in our Sustainability Record 2022. It also includes a reporting on the activity basis which does not feature in this report. See:  
<https://symrise.com/corporatereport/2022/en/sustainability-responsibility/sustainability-record.html>

## C4. Targets and performance

### C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Absolute target

### C4.1a

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

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**Target reference number**

Abs 1

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Year target was set**

2021

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

**Base year**

2020

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

299,119

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

1,360

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

**Base year total Scope 3 emissions covered by target (metric tons CO2e)**

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

300,479

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

100

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

100

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO<sub>2</sub>e)**

**Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2028

**Targeted reduction from base year (%)**

80

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

60,095.8

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

294,392

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

0

**Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

**Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)**

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**

294,392

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**

2.5322069096

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

The target coverage is company-wide and there are no exclusions. The entirety of the Scope 1 & 2 emissions is considered.

**Plan for achieving target, and progress made to the end of the reporting year**

1. Menthol expansion 30,000 tons CO<sub>2</sub>eq
2. Hydrolite 5 green: Recuperative Energy system 2000 tons CO<sub>2</sub>eq
3. Cogeneration heat and power supply in Holzminden/Germany 20,000 tons CO<sub>2</sub>eq

**List the emissions reduction initiatives which contributed most to achieving this target**

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**Target reference number**

Abs 2

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

Well-below 2°C aligned

**Year target was set**

2021

**Target coverage**

Company-wide

**Scope(s)**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

**Base year**

2020

**Base year Scope 1 emissions covered by target (metric tons CO<sub>2</sub>e)**

**Base year Scope 2 emissions covered by target (metric tons CO<sub>2</sub>e)**

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO<sub>2</sub>e)**

1,747,178



**Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

**Base year total Scope 3 emissions covered by target (metric tons CO2e)**

1,747,178

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

1,747,178

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)**

100

**Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)**

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)**

**Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)**

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)**

**Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)**

**Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)**

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)**

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)**

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)**

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

**Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

86.8

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

86.8

**Target year**

2030

**Targeted reduction from base year (%)**

30

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

1,223,024.6

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)**

1,383,469

**Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Total Scope 3 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

1,383,469

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO<sub>2</sub>e)**

1,383,469

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**

69.3898007721

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

The SBTi Validation Process started on October 2021 and in February 2022 SBTi approved the scope 1+2+3 target which has the ambition level of < 1,5°C and well-below 2 °C.

The Target is covering only the "Purchase of Goods and Services" which represents currently 86.8% of the overall Scope 3 Emissions.

Through an intensive exchange with the SBTi, it was decided to exclude the other categories from the target coverage. However, 95% of the Scope 3 emissions were gathered in the GHG Inventory as it can be seen in the question C6.5.

**Plan for achieving target, and progress made to the end of the reporting year**

Through the CDP Supply Chain and the strategies described in the questions C12.1a and C12.1b

**List the emissions reduction initiatives which contributed most to achieving this target**

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**Target reference number**

Abs 3

**Is this a science-based target?**

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

**Target ambition**

1.5°C aligned

**Year target was set**

2021

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

Scope 3

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Base year**

2020

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

299,119

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

1,360

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)**

1,747,178

**Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)**

58,830

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)**

63,685

**Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)**

47,555

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)**

24,455

**Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)**

1,280

**Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)**

12,032

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

56,835

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**



**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

**Base year total Scope 3 emissions covered by target (metric tons CO2e)**  
2,011,850

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**  
2,312,329

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**  
100

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**  
100

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)**  
100

**Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)**  
100

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)**  
100

**Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)**  
100

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)**

100

**Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)**

100

**Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)**

100

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)**

100

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)**

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)**

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

**Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

100

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2045

**Targeted reduction from base year (%)**

95

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

115,616.45

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

294,392

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

0

**Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)**

1,383,469

**Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)**

70,432

**Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)**

58,693

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

54,993

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)**

18,560

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)**

4,700

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)**

13,986

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

90,531

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Other (upstream) emissions in reporting year covered by target  
(metric tons CO2e)**

**Scope 3, Other (downstream) emissions in reporting year covered by target  
(metric tons CO2e)**

**Total Scope 3 emissions in reporting year covered by target (metric tons  
CO2e)**

1,695,364

**Total emissions in reporting year covered by target in all selected scopes  
(metric tons CO2e)**

1,989,756

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**

14.6843518511

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

The target coverage is company-wide and there are no exclusions. The entirety of the Scope 1, 2 & 3 emissions is considered.

**Plan for achieving target, and progress made to the end of the reporting year**

1. Incinerate 100% of own liquid combustible waste from 2025 onwards and thus substitute oil
2. Steam in the pressure levels 24 and 30 bar only partially necessary. Further investigation of actual steam demand needed
3. 100% electrification of steam generation by using heating pumps and electro boilers
4. Use of hydrogen instead of oil and gas for combustion plants, waste incinerators and partially for direct heating
5. Convert own electricity generation (CHP) and electricity purchase to PPA as well as solar

**List the emissions reduction initiatives which contributed most to achieving this target**

## **C4.2**

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Target(s) to increase low-carbon energy consumption or production

Net-zero target(s)

## C4.2a

**(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.**

---

**Target reference number**

Low 1

**Year target was set**

2018

**Target coverage**

Company-wide

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2018

**Consumption or production of selected energy carrier in base year (MWh)**

218,322

**% share of low-carbon or renewable energy in base year**

18.3

**Target year**

2025

**% share of low-carbon or renewable energy in target year**

100

**% share of low-carbon or renewable energy in reporting year**

100

**% of target achieved relative to base year [auto-calculated]**

100

**Target status in reporting year**

Underway

**Is this target part of an emissions target?**

Yes: Abs 1, Abs 3

**Is this target part of an overarching initiative?**

RE100

Science Based Targets initiative

**Please explain target coverage and identify any exclusions**

We continually invest in improved energy efficiency and in renewable electricity.

**Plan for achieving target, and progress made to the end of the reporting year**

We are continuously increasing the share of PV installations on the roofs of our factories, e.g. in Spain, India, Egypt, etc.

**List the actions which contributed most to achieving this target**

## C4.2c

**(C4.2c) Provide details of your net-zero target(s).**

**Target reference number**

NZ1

**Target coverage**

Company-wide

**Absolute/intensity emission target(s) linked to this net-zero target**

Abs1

**Target year for achieving net zero**

2045

**Is this a science-based target?**

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

**Please explain target coverage and identify any exclusions**

The target coverage is company wide and there are not any exclusions.

The entirety of the Scopes 1+2+3 emissions was considered.

As a public company we anyway have to be Net Zero by 2045 which is requested by law (Paris Agreement). Already in 2022 we started a Low Carbon Transition Plan project in order to define further milestones. We continuously exchange fossil based energy like gas and oil by electricity coming from solar / wind and hydrogen.

A SBTi validation for scope 1+2+3 was confirmed by SBTi in February 2022 for the years 2020-2030:

The SBTi Validation Process started on October 2021 and in February 2022 SBTi approved the scope 1+2+3 target which has the ambition level of < 1,5°C and well-

below 2 °C.

**Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?**

No

**Planned milestones and/or near-term investments for neutralization at target year**

**Planned actions to mitigate emissions beyond your value chain (optional)**

Symrise is committed to reducing absolute greenhouse gas (GHG) emissions from scope 1 and 2 until 2030 by 100 % and to reduce absolute scope 3 by 30 % by 2030 (base year each 2020).

Scope 1+2:

Solid basis – our achievements so far:

- Sourcing all electricity from renewable sources was already achieved in 2020
- Leadership status in climate protection / CDP “A” since 2015
- SBT 1.5 °C: The Science Based Target Initiative approved Symrise’s target with the highest level of ambition currently possible (1st SBTi approval in 2017).

Action plan

- Continuously increasing energy and process efficiency.
- Low Carbon Transition Plan towards renewable energy coming from solar, wind, hydro, biomass and hydrogen.
- Product Carbon Footprint: increase number and quality of data in patented “Symrise Product Sustainability Scorecard”

Scope 3:

Solid basis – our achievements so far:

SBT scope 3: “Well below 2°C”. The Science Based Target Initiative approved Symrise’s target with the highest level of ambition currently possible in Feb 2022.

Awarded by CDP as “Supplier Engagement Leader”.

> 87 % of our main suppliers have climate protection goals.

Accompanied more than 6 suppliers to SBT approval in 2021.

Action plan

- Main suppliers must work towards aligning with Symrise’s ambitious SBT target and RE100 aspirations
- Low Carbon Transition Plan covers 8/15 emission categories: Purchased goods and services, Capital goods, Fuel and energy related activities, Upstream & downstream transportation & distribution, Waste generated in operations, Business travel, Employee commuting. All other 7 categories are not relevant to Symrise’s business.



## C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

### C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO<sub>2</sub>e savings.**

	Number of initiatives	Total estimated annual CO <sub>2</sub> e savings in metric tonnes CO <sub>2</sub> e (only for rows marked *)
Under investigation	12	76,420
To be implemented*	2	28
Implementation commenced*	3	2,317
Implemented*	7	59,512
Not to be implemented	0	0

### C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

#### Initiative category & Initiative type

Energy efficiency in production processes  
 Combined heat and power (cogeneration)

#### Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)

20,000

#### Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1  
 Scope 2 (market-based)

#### Voluntary/Mandatory

Voluntary

#### Annual monetary savings (unit currency – as specified in C0.4)

2,400,000

#### Investment required (unit currency – as specified in C0.4)

20,000,000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

New cogeneration of heat and power plant in Germany / Holzminden. It has started operation in 2017 at 70% capacity and reached full capacity in 2018. At full capacity it saves some 20.000t CO<sub>2</sub> per year. Due to the fact full capacity was achieved in 2018, the 2.4 m € annual monetary savings have been achieved since. In total 20 m € have been invested by end of 2018 for the entire project

**Initiative category & Initiative type**

Energy efficiency in production processes  
 Process optimization

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

35,000

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

3,000,000

**Investment required (unit currency – as specified in C0.4)**

30,000,000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Symrise is one of the biggest manufacturers of synthetic Menthol for more than 30 years. We have developed together with our main supplier a much more efficient manufacturing method and therefore we have already decreased our carbon footprint per produced kg Menthol by one third. The synthetic Menthol is a substitute to the natural one, which is extracted from peppermint plants by water steam distillation and a further crystallization process. We have calculated the carbon footprint of our synthetic product is up to 10 times lower than that of the natural material. Between 2019 and 2022 we doubled our production capacity in USA and Germany which helped avoid approx. 35,000 tons CO<sub>2</sub>.

---

**Initiative category & Initiative type**

Energy efficiency in production processes  
Process optimization

**Estimated annual CO2e savings (metric tonnes CO2e)**

2,000

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

160,000

**Investment required (unit currency – as specified in C0.4)**

1,500,000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Symrise Total Productive Maintenance Teams continuously improve process and energy efficiency

---

**Initiative category & Initiative type**

Energy efficiency in production processes  
Process optimization

**Estimated annual CO2e savings (metric tonnes CO2e)**

2,512

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1  
Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

200,000

**Investment required (unit currency – as specified in C0.4)**

1,000,000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Summary of various measures to increase process and energy efficiency in USA, Asia-Pacific, France and Germany. Examples are energy recovery, economized boilers, LED lighting, building insulation and state-of-the-art heat boxes.

**C4.3c****(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Internal finance mechanisms	When it comes to long term investments such as a new CHP, extension of menthol capacity, etc., energy efficiency and CO2 reduction measures are considered for the whole lifetime of the equipment. Every Capex approval contains a substantial evaluation of Carbon Emission reduction measures in tons and € and is finally signed and approved by the CEO and CFO.
Financial optimization calculations	Within the Capital Expenditure Process a "Green Factory" Toolbox is meanwhile implemented. Proposals as well as assessments of building engineers and experts from NGO's are incorporated to be available for the final approval of the board members.
Dedicated budget for low-carbon product R&D	In order to meet Net Zero goal by 2045 a global project was initiated in order to extend the number of products with known product-carbon-footprint information.
Dedicated budget for other emissions reduction activities	In order to meet climate positive corporate goal by 2030 for scope 1+2, a global Low Carbon Transition project was initiated in 2022. A clear emission reduction plan by 2030 and 2045 will be available including financial budget.

**C4.5****(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?**

Yes

**C4.5a****(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.****Level of aggregation**

Group of products or services

**Taxonomy used to classify product(s) or service(s) as low-carbon**

The EU Taxonomy for environmentally sustainable economic activities

**Type of product(s) or service(s)**

Chemicals and plastics  
Chemical absorption of CO<sub>2</sub>

**Description of product(s) or service(s)**

Symrise is one of the biggest manufacturers of synthetic Menthol for more than 30 years. We have developed together with our main supplier a much more efficient manufacturing method and therefore we have already decreased our carbon footprint per produced kg Menthol by one third. We have estimated that the carbon footprint of our product is up to 10 times lower than the natural material, which avoids approx. 250.000 tons up to 500.000 tons. CO<sub>2</sub> per anno.

SymTrap®: Extension of energy-saving technology to biofunctional substances.

SymTrap® can now not only be used to extract and concentrate volatile flavoring substances – this technology, based on a sophisticated adsorption-desorption process, has been expanded to also provide a gentle method for extracting secondary plant materials with biofunctional properties. With our technology SymTrap we are able to convert several hundred kilograms of raw material into a kilogram of highly concentrated flavor.

In the 2022 fiscal year, approximately 2 % of annual sales and 3 % of operating expenses at Symrise were taxonomy eligible and aligned. Of the capital expenditures made (CapEx), 8 % were taxonomy eligible and 6 % were taxonomy aligned (for detailed information, see Sustainability Record 2022, p. 88 ff.). They all supported environmental target 1, “Climate change mitigation.” “Based on our deep integration of taxonomy standards in all areas, we try to make our activities as sustainably measurable and transparent as possible.

**Have you estimated the avoided emissions of this low-carbon product(s) or service(s)**

No

**Methodology used to calculate avoided emissions****Life cycle stage(s) covered for the low-carbon product(s) or services(s)****Functional unit used****Reference product/service or baseline scenario used****Life cycle stage(s) covered for the reference product/service or baseline scenario**

**Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario**

**Explain your calculation of avoided emissions, including any assumptions**

**Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year**

30

## C5. Emissions methodology

### C5.1

**(C5.1) Is this your first year of reporting emissions data to CDP?**

No

#### C5.1a

**(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?**

Row 1

**Has there been a structural change?**

No

#### C5.1b

**(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?**

	Change(s) in methodology, boundary, and/or reporting year definition?
Row 1	No, but we have discovered significant errors in our previous response(s)

#### C5.1c

**(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?**

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 2, location-based	According to our policy for the base year any relevant mistakes have to be corrected. In the past mistakenly the market-based figures where also provided as location-based figures.	No

			<p>This mistake has been corrected with the revised data. This mistake had no critical effect on the transparency and correctness of our allover reporting of emission trends. Please note that all our targets are based on market-based emissions data only.</p>	
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## C5.2

### (C5.2) Provide your base year and base year emissions.

#### Scope 1

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**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

299,119

**Comment**

Approved by SBTi in Feb 2022

#### Scope 2 (location-based)

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

93,393

**Comment**

This data point has been corrected. The figure above is calculated based on IEA emission factors for various countries where we consume energy.

#### Scope 2 (market-based)

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

1,360

**Comment**

Approved by SBTi in Feb 2022.

### Scope 3 category 1: Purchased goods and services

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

1,747,178

**Comment**

### Scope 3 category 2: Capital goods

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

58,830

**Comment**

### Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

63,685

**Comment**

### Scope 3 category 4: Upstream transportation and distribution

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020



**Base year emissions (metric tons CO<sub>2</sub>e)**

47,555

**Comment**

**Scope 3 category 5: Waste generated in operations**

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

24,455

**Comment**

**Scope 3 category 6: Business travel**

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

1,280

**Comment**

**Scope 3 category 7: Employee commuting**

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

12,032

**Comment**

**Scope 3 category 8: Upstream leased assets**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

**Scope 3 category 9: Downstream transportation and distribution**

---

**Base year start**

January 1, 2020

**Base year end**

December 31, 2020

**Base year emissions (metric tons CO<sub>2</sub>e)**

56,835

**Comment**

**Scope 3 category 10: Processing of sold products**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

**Scope 3 category 11: Use of sold products**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

**Scope 3 category 12: End of life treatment of sold products**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

**Scope 3 category 13: Downstream leased assets**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

**Scope 3 category 14: Franchises**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

**Scope 3 category 15: Investments**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

### Scope 3: Other (upstream)

---

Base year start

Base year end

Base year emissions (metric tons CO<sub>2</sub>e)

Comment

### Scope 3: Other (downstream)

---

Base year start

Base year end

Base year emissions (metric tons CO<sub>2</sub>e)

Comment

## C5.3

**(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

## C6. Emissions data

### C6.1

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO<sub>2</sub>e?**

Reporting year

---

Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)

294,392

Comment

## C6.2

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

---

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

## C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO<sub>2</sub>e?**

**Reporting year**

---

**Scope 2, location-based**

117,283

**Scope 2, market-based (if applicable)**

0

**Comment**

## C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?**

Yes

### C6.4a

**(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.**

---

**Source of excluded emissions**

Symrise has Offices in some countries without manufacturing sites. These Offices are not included.

**Scope(s) or Scope 3 category(ies)**

- Scope 1
- Scope 2 (market-based)
- Scope 3: Purchased goods and services
- Scope 3: Capital goods
- Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
- Scope 3: Upstream transportation and distribution
- Scope 3: Waste generated in operations
- Scope 3: Business travel
- Scope 3: Employee commuting
- Scope 3: Downstream transportation and distribution

**Relevance of Scope 1 emissions from this source**

Emissions are not relevant

**Relevance of location-based Scope 2 emissions from this source**

**Relevance of market-based Scope 2 emissions from this source**

Emissions are not relevant

**Relevance of Scope 3 emissions from this source**

Emissions are not relevant

**Date of completion of acquisition or merger**

**Estimated percentage of total Scope 1+2 emissions this excluded source represents**

0.1

**Estimated percentage of total Scope 3 emissions this excluded source represents**

0.1

**Explain why this source is excluded**

Energy consumption of these offices is compared to whole consumption very low (< 0,1 %)

**Explain how you estimated the percentage of emissions this excluded source represents**

Almost most of our offices are equipped with state-of-the-art technology, such as LED lighting, notebooks, lifts (if applicable), heating or air conditioning and are used 5 days a week. Our production facilities and warehouses are generally operated 24 hours a day, 7 days a week in shift systems. According to the latest estimates, the consumption in the offices is less than 0.1% of the total emissions.

---

**Source of excluded emissions**

Symrise has acquired facilities world-wide in 2022. These are not fully integrated yet into our Symrise-wide emissions accounting system.

**Scope(s) or Scope 3 category(ies)**

- Scope 1
- Scope 2 (market-based)
- Scope 3: Purchased goods and services
- Scope 3: Capital goods
- Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
- Scope 3: Upstream transportation and distribution
- Scope 3: Waste generated in operations
- Scope 3: Business travel
- Scope 3: Employee commuting
- Scope 3: Downstream transportation and distribution

**Relevance of Scope 1 emissions from this source**

Emissions excluded due to a recent acquisition or merger

**Relevance of location-based Scope 2 emissions from this source**

**Relevance of market-based Scope 2 emissions from this source**

Emissions excluded due to a recent acquisition or merger

**Relevance of Scope 3 emissions from this source**

Emissions excluded due to a recent acquisition or merger

**Date of completion of acquisition or merger**

December 31, 2022

**Estimated percentage of total Scope 1+2 emissions this excluded source represents**

**Estimated percentage of total Scope 3 emissions this excluded source represents**

**Explain why this source is excluded**

The estimated emissions of these recently acquired sites are not material compared to the existing portfolio (<0.1%).

**Explain how you estimated the percentage of emissions this excluded source represents**

## C6.5

### (C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

#### Purchased goods and services

---

##### Evaluation status

Relevant, calculated

##### Emissions in reporting year (metric tons CO<sub>2</sub>e)

1,383,469

##### Emissions calculation methodology

Other, please specify

We used the Symrise Product Sustainability Scorecard (LCA Tool): For our calculation we used data of public available databases (e.g. Ethanol, glycerine) and literature (e.g. gelatine, essential oils) data.

##### Percentage of emissions calculated using data obtained from suppliers or value chain partners

60

##### Please explain

We started the CDP Supply Chain Program in 2017 to work with our suppliers on a more sustainable value chain. Our suppliers with the highest risk status on climate, water and forests were again requested to follow the CDP Supply Chain Program in 2022. Strategic suppliers, in particular, are eligible for the program. As we defined significantly more suppliers as strategic in the reporting year, approx. one third more suppliers were invited to participate in the CDP supply chain program compared with the previous year. Given the increase in the number of suppliers considered, the response rate in the climate sector fell from 58 % in the previous year to 53 %. Of the suppliers who participated in the CDP Supply Chain Program, 71 % have set active emissions reduction targets and 20 % have validated near-term SBTi targets. 85 % of participating suppliers reported on their operational GHG emissions. In addition, many suppliers are in turn engaging their own suppliers on climate-related issues: Around 69 % of participating suppliers motivated their own suppliers to set targets. However, there is clear potential for improvement in the use of renewable energy: Only 64 % of the energy consumed by participating suppliers came from renewable sources.

#### Capital goods

---

##### Evaluation status

Relevant, calculated

##### Emissions in reporting year (metric tons CO<sub>2</sub>e)

70,432

##### Emissions calculation methodology



Asset-specific method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

Investment in plant, property and equipment in 2022 was 190 million €. We use a conversion factor of the Federal Statistical Office Germany (370 ton CO<sub>2</sub> / million €). Our buildings and equipment is usually designed for long term use. Sometimes more than 50 years. Therefore from an LCA perspective their CO<sub>2</sub> impact is much lower than the one of operational carbon footprint.

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

58,693

**Emissions calculation methodology**

Other, please specify

Forschungsstelle für Energiewirtschaft e.V." (<https://www.ffe.de/>)

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

For calculation of scope 3 emissions related to losses of electricity grid and upstream chains we used information of "Forschungsstelle für Energiewirtschaft e.V." (<https://www.ffe.de/>). The value of 61138 tons CO<sub>2</sub> represents: Approx. 16% of Scope 1 emissions related to electricity (losses and upstream chains) Approx. 31% of Scope 3 emissions related to natural gas (upstream chains) Approx. 24% of Scope 3 emissions related to natural gas (upstream chains)

**Upstream transportation and distribution**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

54,993

**Emissions calculation methodology**

Supplier-specific method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

We have calculated distances of transportation of our main raw material volume from our main suppliers to our regional hubs and extrapolated to our whole supply volume. These distances are multiplied with the transported volumes in tons. We have used the tool Ecotransit available at <http://www.ecotransit.org/calculation.en.html>

**Waste generated in operations****Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

18,560

**Emissions calculation methodology**

Supplier-specific method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

We have estimated the emissions related to our Waste generated in operations as follows: A significant part of our waste is burnt internally, in plants which are under the scope of the EU ETS. Of course, these belong to scope 1. Based in this experience we know these emissions with high accuracy and brings us in the position to extrapolate emissions for waste which is externally burnt and thus belong to Scope 3.

**Business travel****Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

4,700

**Emissions calculation methodology**

Supplier-specific method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

Travelled distances via air, train and car are reported to our sustainability cockpit. For air travelling which is the most important source of emissions we have used the following figures: Distance < 800km = 0.29 kg CO<sub>2</sub>/km Distance >2000km = 0.15 kg CO<sub>2</sub>/km Distance >= 800km & <= 2000km = 0.22 kg CO<sub>2</sub>/km

## Employee commuting

---

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

13,986

### Emissions calculation methodology

Distance-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Extrapolation according to locations (e.g. distance to or size of communities and commuting modes) and numbers of employees working on sites

## Upstream leased assets

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### Evaluation status

Not relevant, explanation provided

### Please explain

Symrise has no upstream leased assets

## Downstream transportation and distribution

---

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

90,530

### Emissions calculation methodology

Distance-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

We have calculated distances of transportation of our main product volume from our regional hubs to main customers and extrapolated to our whole sales. These distances are multiplied with the transported volumes in tons. Also included: Intercompany transport (e.g. finished goods from Symrise Germany to Symrise USA. We have used the tool Ecotransit available at <http://www.ecotransit.org/calculation.en.html>

## Processing of sold products

---

### **Evaluation status**

Not relevant, explanation provided

### **Please explain**

The carbon footprint of the processing phase of products is less than 0.1%. The emissions of a typical blended product (liquid or solid) is less than 0.1 ton CO<sub>2</sub> / ton of product.

The intermediates included in category 10 are only traded through at Symrise and are not processed. In some cases, these products are transported immediately from the supplier to the customer. In this respect, no emissions occur.

For example Vanilla: We harvest vanilla beans and then we ship it to customers so that they start processing. The harvesting process is not an energy intensive process.

We consider that the exclusion of the category 10 is reasonable. This would mean an exclusion of only 0,025% of our total Scope 3 Inventory.

---

## **Use of sold products**

### **Evaluation status**

Not relevant, explanation provided

### **Please explain**

Sold products are usually processed by us or traded. Related to the intended use (Flavors, Fragrances, Cosmetics and functional Ingredients) the carbon footprint related to the use phase of the products is less than 0,1%

---

## **End of life treatment of sold products**

### **Evaluation status**

Not relevant, explanation provided

### **Please explain**

Most of our products are ingredients for flavors and perfume oils with a very high impact or efficiency. These substances are very highly concentrated. For this reason, only about 0.1% or less of these substances are dosed into customers products, which does not necessarily have to be the final end product.

Food or perfume oils produced with Symrise products are not recovered or recycled, because there no need for this.

We consider that the exclusion of the category 12 is reasonable. This would mean an exclusion of only 0,005% of our total Scope 3 Inventory

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## **Downstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Please explain**

Symrise has no downstream leased assets

## Franchises

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### Evaluation status

Not relevant, explanation provided

### Please explain

Symrise has no franchising activities

## Investments

---

### Evaluation status

Not relevant, explanation provided

### Please explain

Symrise has only some minor joint ventures with low carbon footprint (< 0,1%) compared to own operations covered in scope 1 and scope 2.

## Other (upstream)

---

### Evaluation status

Not relevant, explanation provided

### Please explain

No further impact known

## Other (downstream)

---

### Evaluation status

Not relevant, explanation provided

### Please explain

No further impact known

## C6.7

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

Yes

## C6.7a

**(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO<sub>2</sub>.**

	CO <sub>2</sub> emissions from biogenic carbon (metric tons CO <sub>2</sub> )	Comment
Row 1	17,280	In a plant in the USA, we have burned a substance ("glydfuel") in small quantities in recent years that was produced during the manufacture of

		<p>paper from wood. It is therefore a renewable material. However, the amount of glydfuel is expected to go down to zero in the next future, as we want to extract new substances from the glydfuel for further use in our fragrance and cosmetics industry. This is a typical circular economy approach.</p> <p>In the past, we used the emission factor of light fuel oil as a reference for glydfuel to estimate the CO2 calculations.</p>
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## C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

### Intensity figure

0.000064

### Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

294,392

### Metric denominator

unit total revenue

### Metric denominator: Unit total

4,618,000,000

### Scope 2 figure used

Market-based

### % change from previous year

15.2

### Direction of change

Decreased

### Reason(s) for change

Change in renewable energy consumption  
 Other emissions reduction activities  
 Change in physical operating conditions

### Please explain

Corresponding emission reduction activities are mainly driven by process optimizations and the continuous operation of the new cogeneration of heat and power plant in Germany/Holzminden. The CHP power plant replaced an old power plant which was run with oil. The switch to the gasfuelled CHP power plant saved about 20.000 tons CO2eq per year.

Major corresponding emission reduction initiatives are explained in more detail in C4.3b.

## C7. Emissions breakdowns

### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

No

### C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.**

Country/area/region	Scope 1 emissions (metric tons CO <sub>2</sub> e)
Argentina	565
Australia	0
Brazil	7,003
Canada	488
Chile	4,651
China	1,155
Colombia	504
Costa Rica	1,794
Ecuador	10,500
Egypt	608
France	20,279
Germany	53,659
Hungary	475
India	33
Japan	0
Madagascar	0
Mexico	7,588
Russian Federation	842
Singapore	4,452
South Africa	224
Spain	9,404
Thailand	587
United Kingdom of Great Britain and Northern Ireland	175

United States of America	167,638
Netherlands	1,756

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By activity

### C7.3c

**(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

Activity	Scope 1 emissions (metric tons CO <sub>2</sub> e)
Chemicals production	128,968
Non-Chemicals production	165,424

## C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO<sub>2</sub>e.**

	Gross Scope 1 emissions, metric tons CO <sub>2</sub> e	Comment
Chemicals production activities	128,968	Chemical production activities are located in Germany, USA, Mexico and Spain. Please note, Symrise has additional Flavor, Fragrance, Cosmetic Ingredients and Nutrition business in these countries. Significant acquisitions of non-chemicals production sites have been done during the past years for the Taste, Nutrition & Health segment.

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.**

Country/area/region	Scope 2, location-based (metric tons CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)
Argentina	358	0
Australia	894	0
Brazil	1,589	0
Canada	273	0



Chile	1,441	0
China	9,118	0
Colombia	318	0
Costa Rica	0.3	0
Ecuador	1,274	0
Egypt	449	0
France	1,528	0
Germany	11,233	0
Hungary	75	0
India	1,270	0
Japan	151	0
Madagascar	0	0
Mexico	3,239	0
Russian Federation	425	0
Singapore	5,764	0
South Africa	656	0
Spain	1,603	0
Thailand	0.5	0
United Kingdom of Great Britain and Northern Ireland	145	0
United States of America	74,803	0
Netherlands	679	0

## C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By activity

### C7.6c

**(C7.6c) Break down your total gross global Scope 2 emissions by business activity.**

Activity	Scope 2, location-based (metric tons CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)
Chemicals production	62,426	0
Non-Chemicals production	54,857	0

## C7.7

**(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?**

No

## C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

**(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO<sub>2</sub>e.**

	Scope 2, location-based, metric tons CO <sub>2</sub> e	Scope 2, market-based (if applicable), metric tons CO <sub>2</sub> e	Comment
Chemicals production activities	62,426	0	Chemical production activities are located in Germany, USA, Mexico and Spain. Please note, Symrise has additional Flavor, Fragrance, Cosmetic Ingredients and Nutrition business in these countries. Significant acquisitions of non-chemicals production sites have been done during the past years for the Taste, Nutrition & Health segment.

## C-CH7.8

**(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.**

Purchased feedstock	Percentage of Scope 3, Category 1 tCO <sub>2</sub> e from purchased feedstock	Explain calculation methodology
Specialty chemicals	30	For our SBT approval in February 2022 we calculated accurate scope 3 data. Scope 3 emissions contribute to 87% to our overall carbon footprint. 51% of our scope 3 emission comes from meat side streams, mainly chicken. 30% comes from chemicals, 8% from essential oils and 11% from natural materials.

## C-CH7.8a

**(C-CH7.8a) Disclose sales of products that are greenhouse gases.**

	Sales, metric tons	Comment
Carbon dioxide (CO <sub>2</sub> )	0	we do not sell this product
Methane (CH <sub>4</sub> )	0	we do not sell this product
Nitrous oxide (N <sub>2</sub> O)	0	we do not sell this product
Hydrofluorocarbons (HFC)	0	we do not sell this product
Perfluorocarbons (PFC)	0	we do not sell this product
Sulphur hexafluoride (SF <sub>6</sub> )	0	we do not sell this product
Nitrogen trifluoride (NF <sub>3</sub> )	0	we do not sell this product

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

### C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO <sub>2</sub> e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	2,327	Decreased	0.8	<p>In total, our change in renewable energy consumption has led to a decrease of 2327 tons CO<sub>2</sub> emissions. Dividing this by last year's total CO<sub>2</sub> emissions, a decrease of 0.8% was achieved. <math>(2327/287659)*100 = 0.8\%</math>. This decrease in renewable energy is due to significant consumption of renewable electricity in Singapore. The production volume remained almost the same compared to the previous year.</p> <p>The threats of climate change are becoming ever more obvious. And based on this, we take responsibility for future generations.</p> <p>We have set ourselves the ambitious goal of being climate-positive by 2030. This means that the business activities of Symrise will contribute to</p>

				<p>preventing or sequestering more greenhouse gas emissions from the atmosphere than we produce through our operating activities. We have been sourcing all of our external electricity from renewable sources since 2020. In view of the aggravating situation concerning climate change, we again intensified our efforts in 2022 and thus were able to reach our ambitious goal ahead of schedule.</p> <p>Because of this, we were able to demonstrably cover our external electricity needs worldwide using renewable sources in 2020.</p>
Other emissions reduction activities	59,512		20.7	<p>In total there are 59512 tons CO2 from other emission reduction activities. The percentage change in emissions due to emission reduction activities divided by last year's total emissions: <math>(59512 / 287659) * 100 = 20.7\%</math>. This represents a 20.7% decrease in emissions due to emissions reduction activities explained under C 4.3b. Detailed explanation/background: As explained under C4.3b, Symrise is one of the biggest manufacturers of synthetic Menthol for more than 30 years. We have developed together with our main supplier a much more efficient manufacturing method and therefore we have already decreased our carbon footprint per produced kg Menthol by one third. The synthetic Menthol is a substitute to the natural one, which is extracted from peppermint plants by water steam distillation and a further crystallization process. We have calculated the carbon footprint of our synthetic product is up to 10 times lower than that of the natural material. Between 2019 and 2022 we doubled our production capacity in USA and Germany which helped avoid approx. 35,000 tons</p>

				CO2. Furthermore, the cogeneration of heat and power plant in Germany / Holzminden. It has started operation in 2017 at 70% capacity and reached full capacity in 2018. At full capacity it saves some 20.000t CO2 per year. Due to the fact full capacity was achieved in 2018, the 2.4 m € annual monetary savings have been achieved since. In total 20 m € have been invested by end of 2018 for the entire project. Another 4512 tons CO2 have been reduced by various measures to increase process and energy efficiency in USA, Asia-Pacific, France and Germany. Examples are refurbished and economized boilers, LED lighting and state-of-the-art heat boxes.
Divestment				
Acquisitions	6,733		2.3	<p>In total there is an increase of 6733 tons CO2 resulted from acquisitions in USA in 2020, which are now fully operational with optimized process efficiency while production volume increased. The percentage change in emissions due to the increase of emission divided by last year's total emissions: <math>(6733 / 287659) * 100 = 2.3\%</math>.</p> <p>In Detail: Based on the Acquisition in USA which are now increasing process efficiency, total scope 1 increased from 285332 tons in 2021 to 294392 tons in 2022, which is an increase of 9060 tons CO2. At the same time, all electricity worldwide has demonstrably been purchased from renewable sources. Total scope 2 decreased slightly from 2327 tons CO2 in 2021 to 0 tons CO2 in 2022, which is a decrease of 2327 tons CO2. In total <math>9060 - 2327 = 6733</math> tons CO2.</p>
Mergers				
Change in output	56,000	Increased	19.5	Our total output (tons) of products has decreased by 3.2%, but the ratio of energy efficient products have significantly increased based on a higher

				profitability. Almost most of the capacity increase was achieved in manufacturing sites which consumes high energy for cooling and heating. Based on this, we calculated a CO2 emission increase of 56.000 tons, which is an increase of 19.5%. We calculated the effect of changes in output using an analogous formula as described above. $(56000 / 287659) * 100 = 19.5\%$ . This is an increase of 19.5%
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

### C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Market-based

## C8. Energy

### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

### C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

Indicate whether your organization undertook this energy-related activity in the reporting year
---

Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	126,589	1,626,974	1,753,563
Consumption of purchased or acquired electricity		317,781	0	317,781
Consumption of purchased or acquired steam		0	88,878	88,878
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		444,370	1,715,852	2,160,222

## C-CH8.2a

**(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.**

### Consumption of fuel (excluding feedstocks)

#### Heating value

HHV (higher heating value)

**MWh consumed from renewable sources inside chemical sector boundary**

107,723

**MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)**

703,683

**MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary**

0

**Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary**

811,406

**Consumption of purchased or acquired electricity**

---

**MWh consumed from renewable sources inside chemical sector boundary**

116,784

**MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)**

0

**MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary**

0

**Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary**

116,784

**Consumption of purchased or acquired steam**

---

**MWh consumed from renewable sources inside chemical sector boundary**

0

**MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)**

79,967

**MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary**

0

**Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary**

79,967

**Consumption of self-generated non-fuel renewable energy**

---



**MWh consumed from renewable sources inside chemical sector boundary**

0

**MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)**

0

**MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary**

0

**Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary**

0

### Total energy consumption

**MWh consumed from renewable sources inside chemical sector boundary**

224,507

**MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)**

783,651

**MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary**

0

**Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary**

1,008,158

## C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

### Sustainable biomass

---

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

126,589

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

126,589

**Comment**

In a plant in the USA, we have burned a substance ("glydfuel") in small quantities in recent years that was produced during the manufacture of paper from wood. It is therefore a renewable material. However, the amount of glydfuel is expected to go down to zero in the next future, as we want to extract new substances from the glydfuel for further use in our fragrance and cosmetics industry. So it's a typical circular economy approach.

In the past, we used the emission factor of light fuel oil as a reference for glydfuel to estimate the CO2 calculations.

### Other biomass

---

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**Comment**

no other biomass than biofuel

### Other renewable fuels (e.g. renewable hydrogen)

---

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**Comment**

currently no renewable hydrogen in use

### Coal

---

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**Comment**

No coal in use

### Oil

---

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

256,866

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

256,866

**Comment**

Oil is just in use for the self-generation of steam

**Gas****Heating value**

HHV

**Total fuel MWh consumed by the organization**

1,370,108

**MWh fuel consumed for self-generation of electricity**

68,933

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

1,065,910

**Comment**

Our total consumption of gas consumed by the organization is 1.370.108 MWh. Gas is used in almost most of our production facilities to generate steam. But in Germany, we produce electricity and steam with a cogeneration of heat and power plant. The new cogeneration of heat and power plant in Germany / Holzminden started operation in 2017 at 70% capacity and reached full capacity in 2018. At full capacity it saves some 20.000t CO2 per year. The CHP power plant replaced an old power plant which was run with oil.

Total gas consumption in Holzminden was 235.266 MWh in 2022. 45.2% of the total is used for the generation of steam (106.340 MWh), 29.3% is used for the generation of electricity (68.933 MWh) and 25.5% are heat losses (59.993 MWh).

**Other non-renewable fuels (e.g. non-renewable hydrogen)****Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**Comment**

Hydrogen is not yet used for energy production, but is key for Symrise's Low Carbon Transition Plan

**Total fuel****Heating value**

HHV

**Total fuel MWh consumed by the organization**

1,753,564

**MWh fuel consumed for self-generation of electricity**

68,933

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

1,449,365

**Comment**

Substantial heat losses as it is explained with the example of the cogeneration of heat and power in Germany is part of substantial process and energy efficiency measures by our Total Productive Maintenance Teams.

**C8.2d**

**(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	<b>Total Gross generation (MWh)</b>	<b>Generation that is consumed by the organization (MWh)</b>	<b>Gross generation from renewable sources (MWh)</b>	<b>Generation from renewable sources that is consumed by the organization (MWh)</b>
Electricity	317,781	317,781	317,781	317,781
Heat	0	0	0	0
Steam	88,878	88,878	0	0
Cooling	0	0	0	0

**C-CH8.2d**

**(C-CH8.2d) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.**

**Electricity**

**Total gross generation inside chemicals sector boundary (MWh)**

116,784

**Generation that is consumed inside chemicals sector boundary (MWh)**

116,784

**Generation from renewable sources inside chemical sector boundary (MWh)**

116,784

**Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)**

0

**Heat**

---

**Total gross generation inside chemicals sector boundary (MWh)**

0

**Generation that is consumed inside chemicals sector boundary (MWh)**

0

**Generation from renewable sources inside chemical sector boundary (MWh)**

0

**Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)**

0

**Steam**

---

**Total gross generation inside chemicals sector boundary (MWh)**

79,967

**Generation that is consumed inside chemicals sector boundary (MWh)**

79,967

**Generation from renewable sources inside chemical sector boundary (MWh)**

0

**Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)**

0

**Cooling**

---

**Total gross generation inside chemicals sector boundary (MWh)**

0

**Generation that is consumed inside chemicals sector boundary (MWh)**

0

**Generation from renewable sources inside chemical sector boundary (MWh)**

0

**Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)**

0

## C8.2g

**(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.**

---

### Country/area

Argentina

### Consumption of purchased electricity (MWh)

1,231

### Consumption of self-generated electricity (MWh)

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

### Consumption of purchased heat, steam, and cooling (MWh)

0

### Consumption of self-generated heat, steam, and cooling (MWh)

0

### Total non-fuel energy consumption (MWh) [Auto-calculated]

1,231

---

### Country/area

Australia

### Consumption of purchased electricity (MWh)

1,378

### Consumption of self-generated electricity (MWh)

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

### Consumption of purchased heat, steam, and cooling (MWh)

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

989

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2,367

---

**Country/area**

Brazil

**Consumption of purchased electricity (MWh)**

11,964

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

64

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

12,028

---

**Country/area**

Canada

**Consumption of purchased electricity (MWh)**

2,247

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0



**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2,247

---

**Country/area**

Chile

**Consumption of purchased electricity (MWh)**

3,228

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

3,228

---

**Country/area**

China

**Consumption of purchased electricity (MWh)**

14,713

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

6,026

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

20,739

---

**Country/area**

Colombia

**Consumption of purchased electricity (MWh)**

2,208

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

1,833

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

4,041

---

**Country/area**

Costa Rica

**Consumption of purchased electricity (MWh)**

1,253

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1,253

---

**Country/area**

Ecuador

**Consumption of purchased electricity (MWh)**

9,250

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

9,250

---

**Country/area**

Egypt

**Consumption of purchased electricity (MWh)**

1,173

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1,173

---

**Country/area**

France

**Consumption of purchased electricity (MWh)**

28,239

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

28,239

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**Country/area**

Germany

**Consumption of purchased electricity (MWh)**

31,544

**Consumption of self-generated electricity (MWh)**

68,933

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

106,340

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

206,817

---

**Country/area**

Hungary

**Consumption of purchased electricity (MWh)**

386

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

386

---

**Country/area**

India

**Consumption of purchased electricity (MWh)**

1,836

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1,836

---

**Country/area**

Japan

**Consumption of purchased electricity (MWh)**

328

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

328

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**Country/area**

Madagascar

**Consumption of purchased electricity (MWh)**

0

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

0

---

**Country/area**

Mexico

**Consumption of purchased electricity (MWh)**

8,731

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

8,731

---

**Country/area**

Netherlands

**Consumption of purchased electricity (MWh)**

2,167

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

2,167

---

**Country/area**

Russian Federation

**Consumption of purchased electricity (MWh)**

1,184

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1,184

**Country/area**

Singapore

**Consumption of purchased electricity (MWh)**

14,814

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

14,814

---

**Country/area**

South Africa

**Consumption of purchased electricity (MWh)**

736

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

736

---

**Country/area**

Spain

**Consumption of purchased electricity (MWh)**



10,664

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

10,664

---

**Country/area**

Thailand

**Consumption of purchased electricity (MWh)**

1,006

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1,006

---

**Country/area**

United Kingdom of Great Britain and Northern Ireland

**Consumption of purchased electricity (MWh)**

658

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

658

---

**Country/area**

United States of America

**Consumption of purchased electricity (MWh)**

166,848

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

79,967

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

246,815

## C8.2h

**(C8.2h) Provide details of your organization's renewable electricity purchases in the reporting year by country/area.**

---

**Country/area of consumption of purchased renewable electricity**

Argentina

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1,231

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Argentina

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

1972

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

El Chocón

**Comment**

Issuer Instituto Argentino de Normalizacion y Certificacion  
via FirstClimate GmbH, Germany

---

**Country/area of consumption of purchased renewable electricity**

Australia

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1,378

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Australia

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

1952

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2022

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Clover Hydro Power Station

**Comment**

The Green Certificate Company (Central Issuer)

---

**Country/area of consumption of purchased renewable electricity**

Brazil

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

11,964

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Brazil

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2018

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

FV Guimaranía II

**Comment**

Issuer Instituto Totum  
via FirstClimate GmbH, Germany

---

**Country/area of consumption of purchased renewable electricity**

Canada

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

2,248

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Canada

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

North American Renewables Registry Certificate of Retirement

**Comment**

North American Renewables Registry Certificate of Retirement  
via FristClimate GmbH, Germany

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**Country/area of consumption of purchased renewable electricity**

Chile

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

3,228

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Chile

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2019

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

S4 SOLAR Huatacondo

**Comment**

SCX Santiago Climate Exchange, Av. Presidente Errázuriz 3949, Las Condes, Santiago, Chile.

**Country/area of consumption of purchased renewable electricity**

China

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

14,714

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

China

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2006

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Xincheng Hydro Power Station

**Comment**

The Green Certificate Company (Central Issuer)  
via First Climate GmbH

---

**Country/area of consumption of purchased renewable electricity**

Colombia

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

2,209

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Brazil

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2021

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify  
EOL Potiguar B 33

**Comment**

Instituto Totum  
via First Climate GmbH

---

**Country/area of consumption of purchased renewable electricity**

Costa Rica

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1,253

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**



Mexico

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2013

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Aura Solar I

**Comment**

The Green Certificate Company (Central Issuer)

via First Climate

---

**Country/area of consumption of purchased renewable electricity**

Ecuador

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

9,251

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Brazil

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2021

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

EOL Potiguar B 33

**Comment**

Instituto Totum  
via First Climate

---

**Country/area of consumption of purchased renewable electricity**

Egypt

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1,173

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Turkey

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2013

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify  
Çobanlı HES

**Comment**

Foton  
via First Climate

---

**Country/area of consumption of purchased renewable electricity**

France

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

28,239

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Turkey

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2013

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify  
Ortacag Reg ve HES

**Comment**

Foton  
via First Climate

**Country/area of consumption of purchased renewable electricity**

Germany

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

64,914

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Turkey

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2015

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify  
Manahoz Reg ve HES

**Comment**

Foton  
via First Climate

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**Country/area of consumption of purchased renewable electricity**

Hungary

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

387

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Turkey

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2011

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Bayramhacılı Hepp

**Comment**

Foton

via First Climate

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**Country/area of consumption of purchased renewable electricity**

India

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1,837

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

India

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2012

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Allain Duhangan Hydro

**Comment**

The Green Certificate Company (Central Issuer)  
via First Climate

---

**Country/area of consumption of purchased renewable electricity**

Japan

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

328

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

China

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2006

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Wanhe Hydro Power Station

**Comment**

The Green Certificate Company (Central Issuer)

via First Climate

---

**Country/area of consumption of purchased renewable electricity**

Mexico

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

8,731

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Mexico

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2013

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify  
Aura Solar I

**Comment**

The Green Certificate Company (Central Issuer)  
via First Climate

---

**Country/area of consumption of purchased renewable electricity**

Netherlands

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

2,167

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Turkey

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2011

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify  
Bayramhacılı Hepp

**Comment**

Foton  
via First Climate



**Country/area of consumption of purchased renewable electricity**

Russian Federation

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1,184

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

China

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2003

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Xiuguan Hydro Power Station

**Comment**

The Green Certificate Company (Central Issuer)  
via First Climate

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**Country/area of consumption of purchased renewable electricity**

Singapore

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

14,814

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

China

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2006

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Xincheng Hydro Power Station

**Comment**

The Green Certificate Company (Central Issuer)  
via First Climate

---

**Country/area of consumption of purchased renewable electricity**

South Africa

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

737

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

South Africa

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2014

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Jeffreys Bay, Monsoon Carbon

**Comment**

The Green Certificate Company (Central Issuer)  
via First Climate

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**Country/area of consumption of purchased renewable electricity**

Spain

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

10,664

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Turkey

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2011

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

Bayramhacılı Hepp

**Comment**

Foton

via First Climate

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**Country/area of consumption of purchased renewable electricity**

Thailand

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1,006

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Thailand

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

1980

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify  
Srinagarind Hydropower Plant (Innopower)

**Comment**

The Green Certificate Company (Central Issuer)  
via First Climate

---

**Country/area of consumption of purchased renewable electricity**

United Kingdom of Great Britain and Northern Ireland

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

659

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Turkey

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2011

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify  
Bayramhacılı Hepp

**Comment**

Foton  
via First Climate

**Country/area of consumption of purchased renewable electricity**

United States of America

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

166,848

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of purchased renewable electricity**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2020

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

North American Renewables Registry Certificate of Retirement

**Comment**

North American Renewables Registry Certificate of Retirement  
via FirstClimate GmbH, Germany

## C8.2i

**(C8.2i) Provide details of your organization's low-carbon heat, steam, and cooling purchases in the reporting year by country/area..**

---

**Sourcing method**

Heat/steam/cooling supply agreement

**Country/area of consumption of low-carbon heat, steam or cooling**

Australia

**Energy carrier**

Steam

**Low-carbon technology type**

Low-carbon energy mix

**Low-carbon heat, steam, or cooling consumed (MWh)**

989

**Comment**

We have supply chain agreements to purchase steam with a low-carbon energy mix in Australia, Brazil, Colombia, China and USA. This is part of our Low Carbon Transition strategy.

---

**Sourcing method**

Heat/steam/cooling supply agreement

**Country/area of consumption of low-carbon heat, steam or cooling**

Brazil

**Energy carrier**

Steam

**Low-carbon technology type**

Low-carbon energy mix

**Low-carbon heat, steam, or cooling consumed (MWh)**

64

**Comment**

We have supply chain agreements to purchase steam with a low-carbon energy mix in Australia, Brazil, Colombia, China and USA. This is part of our Low Carbon Transition strategy.

---

**Sourcing method**

Heat/steam/cooling supply agreement

**Country/area of consumption of low-carbon heat, steam or cooling**

China

**Energy carrier**

Steam

**Low-carbon technology type**

Renewable energy mix

**Low-carbon heat, steam, or cooling consumed (MWh)**

6,026

**Comment**

We have supply chain agreements to purchase steam with a low-carbon energy mix in Australia, Brazil, Colombia, China and USA. This is part of our Low Carbon Transition strategy.

---

**Sourcing method**

Heat/steam/cooling supply agreement

**Country/area of consumption of low-carbon heat, steam or cooling**

United States of America

**Energy carrier**

Steam

**Low-carbon technology type**

Low-carbon energy mix

**Low-carbon heat, steam, or cooling consumed (MWh)**

79,967

**Comment**

We have supply chain agreements to purchase steam with a low-carbon energy mix in Australia, Brazil, Colombia, China and USA. This is part of our Low Carbon Transition strategy.

---

**Sourcing method**

Heat/steam/cooling supply agreement

**Country/area of consumption of low-carbon heat, steam or cooling**

Colombia

**Energy carrier**

Steam

**Low-carbon technology type**

Low-carbon energy mix

**Low-carbon heat, steam, or cooling consumed (MWh)**

1,833

**Comment**

We have supply chain agreements to purchase steam with a low-carbon energy mix in Australia, Brazil, Colombia, China and USA. This is part of our Low Carbon Transition strategy.



## C8.2j

**(C8.2j) Provide details of your organization's renewable electricity generation by country/area in the reporting year.**

---

**Country/area of generation**

Brazil

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

10,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

5,950

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

5,950

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

Canada

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

2,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

1,264

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

1,264

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

Chile

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

2,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

1,308

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

1,308

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

Colombia

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

2,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

1,472

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

1,472

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

Ecuador

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

5,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

4,253

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

4,253

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

France

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

2,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

1,080

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

1,080

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

Germany

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

11,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

8,727

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

8,727

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

India

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

500

**Total renewable electricity generated by this facility in the reporting year (MWh)**

86

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

86

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

Netherlands

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

500

**Total renewable electricity generated by this facility in the reporting year (MWh)**

281

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

281

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

Singapore

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

20,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

14,814

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

14,814

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

Spain

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

5,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

3,611

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

3,611

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

United Kingdom of Great Britain and Northern Ireland

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

1,500

**Total renewable electricity generated by this facility in the reporting year (MWh)**

658

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

658

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

**Comment**

---

**Country/area of generation**

United States of America

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

10,000

**Total renewable electricity generated by this facility in the reporting year (MWh)**

7,370

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

7,370

**Energy attribute certificates issued for this generation**

No

## Type of energy attribute certificate

### Comment

## C8.2k

### **(C8.2k) Describe how your organization's renewable electricity sourcing strategy directly or indirectly contributes to bringing new capacity into the grid in the countries/areas in which you operate.**

Like other manufacturing companies, Symrise causes direct and indirect greenhouse gas (GHG) emissions that cause the earth's average temperature to rise. This has far-reaching consequences for humans and nature: areas that are being desertified, an increase in floods and resulting famines and refugee movements. For Symrise, climate change is leading to rising energy and raw material prices as well as climate-related costs, for example, through emissions trading. Reputational damage could also result in the loss of business and a drop in our share price. Climate change simultaneously offers opportunities, for example, through the increased use of efficient technologies that also result in cost savings. Given the urgency of the climate dilemma, SDG 13 requires prompt measures for climate protection. Among all of the stakeholders, the significance of the topic is also underlined by the result of our materiality analysis conducted in 2022 – with the high rating of the topic "climate protection and climate adaption" for Symrise as well as its relevance and impact on external stakeholders.

Corporate Sustainability, supported by the Sustainability Board, is responsible for the topic of emissions reduction. The Sustainability Board meets several times per year to discuss, assess and report on climate-related data and developments. The goals and programs are determined by the Sustainability Board and finally approved by the CEO. The Risk Management department assesses company-specific risks and rewards related to climate change at least once a year and reports the findings to the Executive Board.

Symrise compiles the greenhouse gas emissions of its operating activities according to the internationally recognized Greenhouse Gas (GHG) Protocol Corporate Standard. We report on them according to direct emissions (Scope 1), energy-indirect emissions (Scope 2) and other indirect emissions (Scope 3).

As of 2030, Symrise is committed to being climate-positive at all its global production sites based on the Scope 1+2 emissions of the GHG Protocol. Furthermore, we want to increase the eco-efficiency of GHG emissions by more than 60 % by 2025 compared with 2010 – this would mean that we would achieve our Science Based Target set in 2017 five years ahead of schedule. In the reporting year, we were able to increase the eco-efficiency of GHG emissions (Scope 1+2), based on added value, by 10.4 % (2021: 11.3 %) and thus achieved our interim target for 2022. Between 2016 and 2022, we were able to reduce Scope 3 emissions by 40 %. By 2025, we want to increase the eco-efficiency of Scope 3 emissions by 15 % compared to 2020. In 2021, Symrise developed a new Science Based Target aimed at a maximum global warming of 1.5°C, which meets the highest level of ambition currently possible. The target was approved by the Science Based Targets Initiative in February 2022. Symrise aims to reduce GHG emissions (Scope 1+2) by 80 % by 2028 compared to 2020. Scope 3 emissions from purchased goods and services are to be reduced by 30 % by 2030 compared to 2020.



We achieve our climate goals through various measures: Since 2020, for example, we have demonstrably sourced our global external electricity requirements from renewable sources. Furthermore, we continue to review power purchase agreements (PPAs) and thus promote the energy transition. We continuously increase energy and process efficiency at all production sites.

Through various energy and process efficiency measures, we saved almost 60,000 metric tons of carbon dioxide equivalents in the reporting year: These include our cogeneration plant at the Holzminden site, which reduces our emissions from energy generation by around 20,000 metric tons of carbon dioxide equivalents annually. Ongoing measures by our local Total Productive Maintenance teams are continuously also replacing energy-intensive consumer equipment such as motors, ventilation or heating systems, compressed air systems and boilers for the production of steam and cooling with more efficient alternatives.

In the context of decarbonisation within our Low Carbon Transition Plan, we want to replace all our fossil fuels with electricity and hydrogen from renewable sources. Since 2022, work has been underway on an ambitious plan to transition country by country.

To drive environmental and climate protection forward together with other stakeholders, Symrise is active in numerous initiatives and continuously joins new associations. Symrise is for instance member of the RE100 Initiative.

With its emission reduction targets and its commitment to numerous initiatives, Symrise takes a pioneer role in climate protection in the flavor and fragrance industry and acts in accordance with the resolutions of the UN climate conferences and the recommendations of the current IPCC.

## C8.2I

**(C8.2I) In the reporting year, has your organization faced any challenges to sourcing renewable electricity?**

	Challenges to sourcing renewable electricity
Row 1	Yes, in specific countries/areas in which we operate

## C8.2m

**(C8.2m) Provide details of the country/area-specific challenges to sourcing renewable electricity faced by your organization in the reporting year.**

Country/area	Reason(s) why it was challenging to source renewable electricity within selected country/area	Provide additional details of the barriers faced within this country/area
Australia	Arbitrary grid usage charges Inability to buy Energy Attribute Certificates (EACs) in small quantities Lack of credible renewable electricity procurement options (e.g. EACs, Green Tariffs)	Costs of IRECs are very high

Singapore	Arbitrary grid usage charges Inability to buy Energy Attribute Certificates (EACs) in small quantities	That was the reason that we purchased them once again from China
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### C-CH8.3

**(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?**

Yes

### C-CH8.3a

**(C-CH8.3a) Disclose details on your organization's consumption of fuels as feedstocks for chemical production activities.**

---

#### Fuels used as feedstocks

Liquid biofuel

#### Total consumption

11,390

#### Total consumption unit

metric tons

#### Inherent carbon dioxide emission factor of feedstock, metric tons CO<sub>2</sub> per consumption unit

1.47

#### Heating value of feedstock, MWh per consumption unit

9.58

#### Heating value

HHV

#### Comment

11.390 tons of liquid biofuel (Glidfuel) is equal to 16.707 tons of CO<sub>2</sub>. 11.390 tons liquid biofuel replaces primary energy of about 109.063 MWh.

---

#### Fuels used as feedstocks

Gasoline

#### Total consumption

5,581

#### Total consumption unit

metric tons

**Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit**

2.6

**Heating value of feedstock, MWh per consumption unit**

621,977

**Heating value**

HHV

**Comment**

5.581 tons of gasoline is equal to 14.511 tons of CO2.

## C-CH8.3b

**(C-CH8.3b) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.**

	Percentage of total chemical feedstock (%)
Oil	33
Natural Gas	66
Coal	0
Biomass	0
Waste (non-biomass)	0
Fossil fuel (where coal, gas, oil cannot be distinguished)	0
Unknown source or unable to disaggregate	0

## C9. Additional metrics

### C9.1

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**Description**

Waste

**Metric value**

14,238

**Metric numerator**

ton

**Metric denominator (intensity metric only)**

**% change from previous year**

5.7

**Direction of change**

Decreased

**Please explain**

Total Productive Maintenance teams have significantly improved process and energy efficiency of our facilities

---

**Description**

Energy usage

**Metric value**

7,342

**Metric numerator**

TJ

**Metric denominator (intensity metric only)**

**% change from previous year**

2

**Direction of change**

Decreased

**Please explain**

Total Productive Maintenance teams have significantly improved process and energy efficiency of our facilities

## C-CH9.3a

**(C-CH9.3a) Provide details on your organization's chemical products.**

---

**Output product**

Specialty chemicals

**Production (metric tons)**

180,767

**Capacity (metric tons)**

200,000

**Direct emissions intensity (metric tons CO<sub>2</sub>e per metric ton of product)**

0.7

**Electricity intensity (MWh per metric ton of product)**

0.7

**Steam intensity (MWh per metric ton of product)**

0.4

**Steam/ heat recovered (MWh per metric ton of product)**

0

**Comment**

Synthetic Chemical Ingredients

## C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	In 2022 Symrise invested 254 million € into research and development.

## C-CH9.6a

(C-CH9.6a) Provide details of your organization's investments in low-carbon R&D for chemical production activities over the last three years.

**Technology area**

Radical process redesign

**Stage of development in the reporting year**

Large scale commercial deployment

**Average % of total R&D investment over the last 3 years**

30

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

76,000,000

**Average % of total R&D investment planned over the next 5 years**

40

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

Over the last 3 years in total 687 m€ have been invested in low-carbon Research and Development. Approx. 30% of this sum is related to the chemical production.

This means approx. 200 m€ have been invested in low-carbon R&D for chemical production activities over the last three years.

---

**Technology area**

Chemical production using variable renewables

**Stage of development in the reporting year**

Full/commercial-scale demonstration

**Average % of total R&D investment over the last 3 years**

2

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

3,000,000

**Average % of total R&D investment planned over the next 5 years**

5

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

Consumers and customers require ingredients with a higher ratio on renewable carbon. Consequently R&D department is working on this strategic goal since 2020 with the aim to increase revenue of ingredients with a higher ratio of renewable carbon or ideally develop ingredients with 100% renewable carbon.

---

**Technology area**

Carbon capture, utilization, and storage (CCUS)

**Stage of development in the reporting year**

Basic academic/theoretical research

**Average % of total R&D investment over the last 3 years**

1

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

500,000

**Average % of total R&D investment planned over the next 5 years**

2

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

Based on the results of the Low Carbon Transition plan Symrise will be Net Zero by 2045 when residual emissions will be used by Carbon Capture and Utilisation (CCU) and/or Carbon Capture and Storage (CCS).

## C10. Verification

### C10.1

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

### C10.1a

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.**

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Moderate assurance

**Attach the statement**

 CDP-Verification Letter 2023.pdf

**Page/ section reference**

Verification Report, pages 1-4.

**Relevant standard**

AA1000AS

**Proportion of reported emissions verified (%)**

100

## C10.1b

**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

---

### Scope 2 approach

Scope 2 market-based

### Verification or assurance cycle in place

Annual process

### Status in the current reporting year

Complete

### Type of verification or assurance

Moderate assurance

### Attach the statement

 CDP-Verification Letter 2023.pdf

### Page/ section reference

Verification Report, pages 1-4.

### Relevant standard

AA1000AS

### Proportion of reported emissions verified (%)

100

## C10.1c

**(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

---

### Scope 3 category

Scope 3: Purchased goods and services

Scope 3: Capital goods

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Scope 3: Upstream transportation and distribution

Scope 3: Waste generated in operations

Scope 3: Business travel

Scope 3: Employee commuting

Scope 3: Upstream leased assets

### Verification or assurance cycle in place



Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Moderate assurance

**Attach the statement**

 CDP-Verification Letter 2023.pdf

**Page/section reference**

Verification Report, pages 1-4.

**Relevant standard**

AA1000AS

**Proportion of reported emissions verified (%)**

100

**C10.2**

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

**C10.2a**

**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C5. Emissions performance	Year on year change in emissions (Scope 1 and 2)	AA1000AS	Here is the full list: a) Year on year change in emissions (Scope 3) b) Year on year change in emissions (Scope 1 and 2) c) Progress against emission reduction target d)Year on year emissions intensity figure Emissions reduction activities e) For further Details see GRI indicator 305-3 and Symrise Sustainability Record 2022. Company Goals are defined by our CEO. Also EU taxonomy which defines environmentally sustainable business activities are laid down in our Corporate Report as well as in the Sustainability / GRI record. See page 32-35 in our Corporate

			Report 2022 which is attached.
			📎 1, 2

📎 <sup>1</sup>SYM\_gri\_2022\_EN\_safe.pdf

📎 <sup>2</sup>230308-Symrise-Corporate-Report-2022.pdf

## C11. Carbon pricing

### C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

#### C11.1a

**(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

EU ETS

#### C11.1b

**(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.**

##### EU ETS

**% of Scope 1 emissions covered by the ETS**

8.1

**% of Scope 2 emissions covered by the ETS**

0

**Period start date**

January 1, 2022

**Period end date**

December 31, 2022

**Allowances allocated**

5,419

**Allowances purchased**

9,000

**Verified Scope 1 emissions in metric tons CO<sub>2</sub>e**

23,718

**Verified Scope 2 emissions in metric tons CO<sub>2</sub>e**

0

### **Details of ownership**

Facilities we own and operate

### **Comment**

As a precautionary measure, we purchased additional 9000 allowances because usually we consume 25000 allowances per year. The account with the allocated allowances cannot be exceeded, otherwise there is a risk of high fees and penalties.

## **C11.1d**

### **(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?**

DESCRIPTION OF THE STRATEGY: Our strategy is to have sufficient allowances ready to cover our verified emissions on our Union registry in time. In case we do not have enough allowances we would buy the difference on the market

#### **CASE STUDY**

Situation: Symrise has one power plant which is under the regime of the EU ETS

Task: Meeting compliance with regards to our emissions under the EU ETS,

Action: In order to make up for the difference between verified emissions and allocated ones in 2022 we either used surplus allowances from previous years or - if required - buy further allowances on the market. To comply with all the requirements of the EU ETS we report and verify our emissions every year well before the deadline of 31st March and surrender the allowances till the 30th of April.

Result: For our power plant under the EU ETS, Symrise makes sure that we are compliant with regards to the volume of emission permits as well as the deadline.

## **C11.2**

### **(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?**

No

## **C11.3**

### **(C11.3) Does your organization use an internal price on carbon?**

No, but we anticipate doing so in the next two years

## **C12. Engagement**

### **C12.1**

#### **(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

Yes, our customers/clients

## C12.1a

### (C12.1a) Provide details of your climate-related supplier engagement strategy.

#### Type of engagement

Engagement & incentivization (changing supplier behavior)

#### Details of engagement

Run an engagement campaign to educate suppliers about climate change

Provide training, support, and best practices on how to set science-based targets

#### % of suppliers by number

5

#### % total procurement spend (direct and indirect)

60

#### % of supplier-related Scope 3 emissions as reported in C6.5

80

#### Rationale for the coverage of your engagement

Scope 3 emissions of the category “purchased goods and services” contribute to approximately 90% to our overall carbon footprint. 51% of these our scope 3 emission comes from meat side streams, mainly chicken. 30% comes from chemicals, 8% from essential oils and 11% from natural materials.

In total, key suppliers are responsible for 60% of our annual purchasing volume. The rationale to focus our engagement on these suppliers is, that their emission reductions have a considerable quantitative impact. Furthermore, focussing on them reveals a good cost-benefit relationship.

For this reason, Symrise has engaged with the key suppliers to encourage them to set emission reduction targets. To this aim we have organized several seminars for our suppliers in cooperation with the CDP. As of 2030, Symrise is committed to being climate-positive at all its global production sites based on the Scope 1+2 emissions of the GHG Protocol. Furthermore, we want to increase the eco-efficiency of GHG emissions by more than 60 % by 2025 compared with 2010 – this would mean that we would achieve our Science Based Target set in 2017 five years ahead of schedule. In the reporting year, we were able to increase the eco-efficiency of GHG emissions (Scope 1+2), based on added value, by 10.4 % (2021: 11.3 %) and thus achieved our interim target for 2022. Between 2016 and 2022, we were able to reduce Scope 3 emissions by approx. 40 %. By 2025, we want to increase the eco-efficiency of Scope 3 emissions by 15 % compared to 2020. In 2021, Symrise developed a new Science Based Target aimed at a maximum global warming of 1.5°C, which meets the highest level of ambition currently possible. The target was approved by the Science Based Targets Initiative in February 2022. Symrise aims to reduce GHG emissions (Scope 1+2) by 80 % by 2028 compared to 2020. Scope 3 emissions from purchased goods and services are to be reduced by 30 % by 2030 compared to 2020.

As an alternative suppliers can also report their targets via EcoVadis. Currently we run

an encouragement-campaign. If required, we are willing to increase the pressure on our key suppliers and would also consider abandoning business relationships in case of insufficient climate performance. For the purpose of this target, key suppliers are those suppliers providing Symrise with carbon intensive raw materials.

### **Impact of engagement, including measures of success**

MEASURE OF SUCCESS: - Primarily, we measure the success of our engagement by comparing the numbers of key suppliers setting GHG reduction targets with the previous year.

WE CONSIDER OUR ENGAGEMENT SUCCESSFUL, if we increase the percentage of suppliers under the CDP Supply Chain Program with active emissions reduction targets compared to the previous year.

Any increase in these numbers is considered as success. In addition to this the CDP supply chain program provides us the total emission reduction volume of our participating key suppliers. To some extent we can attribute these savings to our engagement.

IMPACT OF ENGAGEMENT: The fact that we track the emission reduction targets of our key suppliers encourages them to set such targets. This in turn leads to considerable emission reductions. Their participation in the CDP supply chain program further enhances their awareness for climate change issues. As we defined significantly more suppliers as strategic in the reporting year, approx. one third more suppliers were invited to participate in the CDP supply chain program compared with the previous year.

Of the suppliers who participated in the CDP Supply Chain Program, 71 % (2021: 68%) have set active emissions reduction targets. 20 % have even a validated near-term SBTi target. For this reason, we considered THE IMPACT OF OUR ENGAGEMENT in 2022 to be successful.

EXAMPLES OF IMPACT OF ENGAGEMENT: Symrise nominated five of their Chinese suppliers to join the 'Cascading commitments down the supply chain in China' project in 2021/2022. The success from having four of five suppliers commit to setting a SBT was determined (among else) by Symrise's rigorous supplier contract that stresses that their suppliers must work towards aligning with Symrise's ambitious SBT target, RE100 aspirations and a push to ensure SBT alignment standards are integrated into their internal framework. One of these suppliers, Yingyang (China) Aroma Chemical Group committed in 2022 to reduce absolute scope 1 and 2 GHG emissions 25% by 2030 from a 2020 base year and also commits to reduce scope 3 GHG emissions 29% per CNY revenue within the same timeframe. This will help us implement our own Scope 3 decarbonization strategy with a focus on category 1 Scope 3 "Purchased goods and services".

### **Comment**

Further information from our CDP Supply Chain Program: 85 % of participating suppliers reported on their operational GHG emissions. In addition, many suppliers are in turn

engaging their own suppliers on climate-related issues: Around 69 % of participating suppliers motivated their own suppliers to set targets. However, there is clear potential for improvement in the use of renewable energy: Only 64 % of the energy consumed by participating suppliers came from renewable sources.

## C12.1b

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

---

### **Type of engagement & Details of engagement**

Collaboration & innovation

Run a campaign to encourage innovation to reduce climate change impacts

### **% of customers by number**

95

### **% of customer - related Scope 3 emissions as reported in C6.5**

3.3

### **Please explain the rationale for selecting this group of customers and scope of engagement**

**RATIONALE:** OUR ENGAGEMENT FOCUS is on customers with relevant transport emissions: With regard to our downstream Scope 3 emissions “downstream transportation” is the only relevant category.

Therefore, THE SCOPE OF OUR ENGAGEMENT lies on the reduction of transport emissions, accounting for 95% of our customers by number or 3.3% customer-related Scope 3 emissions.

Background explanation: For fragrances, flavours, cosmetic ingredients and petfood there are no significant emissions related to the processing and to the use phase. Our products are usually blended with other components and represent only a very low dosage in final products of our clients. Emissions of a typical blending process are usually low compared to the whole process of producing of our products.

In order to leverage the largest possible emission reduction potentials our engagement reaches out to as many of our clients as possible. (2022: 95%) To this aim, we have established an integrated supply chain management initiative together with our customers. It comprises the entire value creation chain from raw materials procurement to end products for all our customers and was developed for the efficient harmonization of ordering processes between Symrise and its customers. This so-called Symchronize™ system is a trademarked electronic data processing (EDP) system based on SAP software. It addresses order frequencies, optimized batch sizes, full pallets, and trucks as key criteria to reduce transport and distribution efforts and expenditures. We offer the usage of the Symchronize™ system to all our customers and suppliers. Thus, we aim to reduce- and upstream transport emissions as much as

possible.

### **Impact of engagement, including measures of success**

We MEASURE THE SUCCESS based on a KPI that compares our Scope 3 downstream transportation emissions with our sales volumes (tons CO<sub>2</sub> from transportation against tons of sales in €).

Since we committed to become net-zero by 2045, our Scope 3 emissions must also go down. Assuming of around 5% residual Scope 3 emissions for downstream transportation, our respective KPI in 2045 would be 2 tCO<sub>2</sub>/m€ in turnover. We chose 2019 as base year for this KPI, because it allows us to assess our performance without bias from the pandemic. In 2019, the respective KPI was 40 tCO<sub>2</sub>/m€. We consider our engagement as successful, if our reductions in any reporting year are larger than the linear reductions pathway that is required to meet our 2045 target. In order to be able to achieve a KPI of 2 tCO<sub>2</sub>/m€, we must reduce our Scope 3 downstream transportation emissions by 1.46 tCO<sub>2</sub>/m€ annually. Following this approach, our targeted KPI in 2022 is 35.62 tCO<sub>2</sub>/m€. With a figure of 19.6 tCO<sub>2</sub>/m€ in 2022, we consider our engagement successful.

One example for ACTION/IMPACT driving down our Scope 3 downstream transportation emissions is our cooperation with L'Oreal. With this major client, we agreed on a shipping by fully-loaded trucks, achieving specific emission reductions.

Many of our actions are based on the use of Symchronize™:

We have established this integrated supply chain management initiative together with our customers. It addresses order frequencies, optimized batch sizes, full pallets and trucks as key criteria to reduce transport and distribution efforts and expenditures. By use of Symchronize™ we optimize order frequencies and batch sizes to our specific customer needs. This allows us to achieve full pallets and thereby reduce unnecessary transports. Furthermore, with the help of Symchronize™ we manage the number of air transports and consequently try to significantly decrease carbon emissions. Looking at the results of this engagement, we can conclude having successfully addressed our downstream transportation related scope 3 emissions.

## **C12.2**

### **(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?**

Yes, climate-related requirements are included in our supplier contracts

## **C12.2a**

### **(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.**

### Climate-related requirement

Setting a science-based emissions reduction target

### Description of this climate related requirement

Symrise's ambition to integrate sustainable corporate development into integral parts of their corporate strategy drove them to become the first organisation within the flavours and fragrances sector to set and have approved their own SBT back in 2017. In 2022, the SBTi approved the 1.5°C target and the Scope 3 target, which is currently the highest ambition level. The CDP SBTs in China project supported Symrise to take sustainability more deeply into their value chain. To this purpose, Symrise nominated five of their Chinese suppliers to join the 'Cascading commitments down the supply chain in China' project. The success from having four of five suppliers commit to setting a SBT was determined (among else) by Symrise's rigorous supplier contract that stresses that their suppliers must work towards aligning with Symrise's ambitious SBT target, RE100 aspirations and a push to ensure SBT alignment standards are integrated into their internal framework. Suppliers are subject to internal evaluation where internal systems are assessed against climate change, SBTs and RE100 targets. Their supplier selection process considers the effectiveness of adjusting the company boundary to include the group level rather than just a single subsidiary.

Yingyang (China) Aroma Chemical Group commits to reduce absolute scope 1 and 2 GHG emissions 25% by 2030 from a 2020 base year and also commits to reduce scope 3 GHG emissions 29% per CNY revenue within the same timeframe.

### % suppliers by procurement spend that have to comply with this climate-related requirement

1

### % suppliers by procurement spend in compliance with this climate-related requirement

1

### Mechanisms for monitoring compliance with this climate-related requirement

Certification

Other, please specify

CDP Supply Chain Program 'Cascading commitments down the supply chain in China'

### Response to supplier non-compliance with this climate-related requirement

Retain and engage

 220426\_Responsible\_Sourcing\_Policy.pdf

### Climate-related requirement

Implementation of emissions reduction initiatives

### Description of this climate related requirement

Within our Responsible Sourcing Policy we call on our suppliers to meet our climate-related requirements. We expect suppliers to manage the sources of their environmental



impact responsibly. To reduce the stresses of climate change on our resources, efforts should be made to assess energy utilization and implement energy saving strategies, and measure and reduce greenhouse gas and other air emissions. We further encourage suppliers to set Science-based Targets. Details are mentioned in our Responsible Sourcing Policy (<https://www.symrise.com/sustainability/reports-policies-standards-audits/#our-sustainability-policies>)

**% suppliers by procurement spend that have to comply with this climate-related requirement**

100

**% suppliers by procurement spend in compliance with this climate-related requirement**

50

**Mechanisms for monitoring compliance with this climate-related requirement**

Other, please specify  
 CDP Supply Chain Program

**Response to supplier non-compliance with this climate-related requirement**

Retain and engage

## C12.3

**(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?**

**Row 1**

**External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate


Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate

**Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?**

Yes

**Attach commitment or position statement(s)**

See Approval Certificate SBTi, and  
 Sustainability Record 2022, GRI 2-28, page 46: "The French Business Climate Pledge"

 SYMR-GER-002-OFF Report.pdf

 SYM\_gri\_2022\_EN\_safe.pdf

**Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan**

Already in 2020, the Symrise CEO signed the "IFRA-IOFI Sustainability Charter".

A new imperative

It is increasingly clear that a commitment to sustainable business practices also makes good long-term economic sense.

Whether it is by reducing use of finite resources, careful management of renewable resources, responsible employment practices, promoting leading-edge safety standards, or nurturing of relationships with stakeholders, customers and consumers, all aspects of a business value chain can benefit from a sustainable approach.

It is in this context, and with a strong reference to the United Nations Sustainable Development Goals (SDGs), that the flavor and fragrance industries launch this sustainability initiative.

A framework for progress

Through this voluntary initiative, the flavor and fragrance industries seek to encourage enhancements in the field of sustainability by offering advice, sharing best practice, and measuring improvement by:

- Raising awareness of sustainability within the sector
  - Providing businesses with a toolbox to help them continuously improve their performance
  - Reporting on progress at an industry level
  - Continuing to build trust between the flavor and fragrance industries and stakeholders
  - Identifying opportunities for collaboration to address shared challenges
- IOFI and IFRA, as the global organizations representing the flavor and fragrance industries, provide the platform for companies to identify, assess and report on advances in the field of sustainability, setting a framework for progress that encompasses the life-cycle – from sustainable sourcing, to environmental footprint, to well-being of employees, to product safety.

The flavour and fragrance industries aspire to:

- Reduce our industries' environmental footprint and address climate change
- We continuously seek to reduce the environmental footprint of our product portfolio (natural and synthetic)
- We apply measures to efficiently manage resources such as water and energy, reduce GHG emissions, and support the integration of circular economy principles
- We are inspired by green chemistry principles

## **C12.3b**

**(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.**

---

**Trade association**

Other, please specify

International Organization of the Flavour Industry (IOFI)

**Is your organization's position on climate change policy consistent with theirs?**

Consistent

**Has your organization attempted to influence their position in the reporting year?**

Yes, we publicly promoted their current position

**Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position**

Already in 2020, the Symrise CEO signed the "IFRA-IOFI Sustainability Charter". Consequently, Symrise is strongly supporting the position of the association.

It is increasingly clear that a commitment to sustainable business practices also makes good long-term economic sense.

Whether it is by reducing use of finite resources, careful management of renewable resources, responsible employment practices, promoting leading-edge safety standards, or nurturing of relationships with stakeholders, customers and consumers, all aspects of a business value chain can benefit from a sustainable approach.

It is in this context, and with a strong reference to the United Nations Sustainable Development Goals (SDGs), that the flavor and fragrance industries launch this sustainability initiative.

A framework for progress

Through this voluntary initiative, the flavor and fragrance industries seek to encourage enhancements in the field of sustainability by offering advice, sharing best practice, and measuring improvement by:

- Raising awareness of sustainability within the sector
- Providing businesses with a toolbox to help them continuously improve their performance
- Reporting on progress at an industry level
- Continuing to build trust between the flavor and fragrance industries and stakeholders
- Identifying opportunities for collaboration to address shared challenges

IOFI and IFRA, as the global organizations representing the flavor and fragrance industries, provide the platform for companies to identify, assess and report on advances in the field of sustainability, setting a framework for progress that encompasses the life-cycle – from sustainable sourcing, to environmental footprint, to well-being of employees, to product safety.

The flavour and fragrance industries aspire to:

- Reduce our industries' environmental footprint and address climate change
- We continuously seek to reduce the environmental footprint of our product portfolio (natural and synthetic)
- We apply measures to efficiently manage resources such as water and energy, reduce

GHG emissions, and support the integration of circular economy principles  
- We are inspired by green chemistry principles

**Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)**

100,000

**Describe the aim of your organization's funding**

As a long-standing member of this association, we have a stronger impact on our suppliers than as a single company. In this respect, we can better enforce our demands to reduce GHG emissions and achieve our Symrise target.

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

## C12.3c

**(C12.3c) Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.**

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**Type of organization or individual**

Other, please specify

World Business Council For Sustainable Development (WBCSD)

**State the organization or individual to which you provided funding**

WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. WBCSD's Climate & Energy Program facilitates interaction on cutting-edge climate and energy topics between WBCSD members, their peers and stakeholders as they address critical industry issues and share best practices and solutions.

**Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)**

90,000

**Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate**

WBCSD's Climate & Energy Program facilitates interaction on cutting-edge climate and energy topics between WBCSD members, their peers and stakeholders as they address critical industry issues and share best practices and solutions.

**Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

## C12.4

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**


### Publication

In mainstream reports, incorporating the TCFD recommendations

### Status

Complete

### Attach the document

 SYM\_gri\_2022\_EN\_safe.pdf

 230308-Symrise-Corporate-Report-2022.pdf

### Page/Section reference

see Corporate Report 2022 page 35 and see Sustainability Record 2022, GRI 302 and 305

### Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

### Comment

## C12.5

**(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.**

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Business Ambition for 1.5C Global Reporting Initiative (GRI) Community Member RE100 Science Based Targets Network (SBTN)	In a nutshell, all of these initiatives are committed to avoid global warming and reduce negative environmental impacts accompanied with to the respect of Human Rights.

Sustainable Agriculture Initiative (SAI) Task Force on Climate-related Financial Disclosures (TCFD) Task Force on Nature-related Financial Disclosures (TNFD) The Climate Pledge UN Global Compact World Business Council for Sustainable Development (WBCSD) Other, please specify Klimaschutz-Unternehmen e.V. in Germany	
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## C15. Biodiversity

### C15.1

**(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?**

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	<p>For Symrise, global biodiversity is not only a source of raw materials, but also an invaluable source of inspiration and innovation for the development of unique flavors, fragrances and cosmetic or functional ingredients. Among all the stakeholders, the significance of the topic “biodiversity protection” is also underlined in our materiality analysis. However, the global and local impact of human activities has led to a sustained worldwide reduction in biological diversity. The potential effects of this are systematically analyzed and evaluated as part of our sustainability management. The material impact of our business activities on biodiversity is usually indirect and occurs in the supply chain – particularly during raw materials production. This potentially includes overexploitation of wildlife populations or unsustainable extraction practices in agriculture, forestry, fisheries and aquaculture. Impacts from our own production sites, for example, occur through sealing the soil or emitting pollutants into the air or</p>

		<p>soil, which we monitor as part of our operational environmental and site management.</p> <p>Depending on the specific topic, biodiversity is managed and addressed at Symrise partly at the corporate level and partly at the division level in conjunction with Corporate Sustainability. The Chief Executive Officer is directly briefed on biodiversity several times per year. As core goals of the UN Convention on Biodiversity, the preservation and sustainable use of biodiversity and fair distribution of advantages from the use of genetic resources are essential components of our sustainability agenda and our environmental and sustainability management. Our forest cultivation strategy and our land use policy provides us with a framework of action. By signing the “Business and Biodiversity Pledge” of the UN Convention on Biodiversity, we have committed ourselves to acting sustainably in accordance with the core goals of the Convention.</p> <p>In the implementation of our biodiversity goals, we work closely with skilled external stakeholders, such as the Biodiversity in Good Company Initiative or the Union for Ethical Biotrade. Furthermore, we are involved with other member companies of the World Business Council for Sustainable Development (WBCSD) in multi-stakeholder forums, such as the One Planet Business for Biodiversity Initiative. Symrise is also a member of the Initiative Nature Action of WBCSD: The project supports the development of the SBT for Nature.</p>
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## C15.2

**(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?**

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Commitment to not explore or develop in legally designated protected areas Commitment to respect legally designated protected areas Commitment to avoidance of negative impacts on threatened and protected species Commitment to no conversion of High Conservation Value areas	CBD – Global Biodiversity Framework SDG CITES

		Commitment to secure Free, Prior and Informed Consent (FPIC) of Indigenous Peoples Commitment to no trade of CITES listed species	
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## C15.3

**(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?**

### Impacts on biodiversity

**Indicate whether your organization undertakes this type of assessment**

Yes

**Value chain stage(s) covered**

Direct operations

Upstream

Downstream

**Tools and methods to assess impacts and/or dependencies on biodiversity**

ENCORE tool

Natural Capital Protocol

SBTN materiality tool

TNFD – Taskforce on Nature-related Financial Disclosures

WBCSD Corporate Ecosystem Services Review

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

### Dependencies on biodiversity

**Indicate whether your organization undertakes this type of assessment**

Yes

**Value chain stage(s) covered**

Direct operations

Upstream

Downstream

**Tools and methods to assess impacts and/or dependencies on biodiversity**

## C15.4

**(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?**



Yes

## C15.4a

**(C15.4a) Provide details of your organization’s activities in the reporting year located in or near to biodiversity -sensitive areas.**

### **Classification of biodiversity -sensitive area**

Other biodiversity sensitive area, please specify

Very limited number of our operations is located close to protected areas however without any negative material impact.

### **Country/area**

Brazil

### **Name of the biodiversity-sensitive area**

Amazon rainforest

### **Proximity**

Up to 5 km

**Briefly describe your organization’s activities in the reporting year located in or near to the selected area**

Flavor and fragrance compounding and sourcing of non-timber forest products

**Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity**

Yes, but mitigation measures have been implemented

### **Mitigation measures implemented within the selected area**

Physical controls

Operational controls

Abatement controls

**Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented**

air and water emissions but perfectly controlled by our Integrated Management System beyond compliance

## C15.5

**(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?**

Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments

Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness Law & policy Livelihood, economic & other incentives
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## C15.6


**(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?**

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Pressure indicators

## C15.7

**(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Influence on public policy and lobbying Risks and opportunities Biodiversity strategy	see GRI 304 Biodiversity   1

 1SYM\_gri\_2022\_EN\_safe.pdf

## C16. Signoff

### C-FI

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

Additional information in the context of Climate Change is given in our Corporate Report 2"Creating resources with a circular economy"022 "Creating resources with a circular economy"

 230308-Symrise-Corporate-Report-2022.pdf

### C16.1

**(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	CEO Symrise AG	Chief Executive Officer (CEO)

## SC. Supply chain module

### SC0.0

**(SC0.0) If you would like to do so, please provide a separate introduction to this module.**

Climate protection: Who, if not us? When, if not now?

Please see our Corporate Report 2021 or Sustainability Record 2021

<https://www.symrise.com/sustainability/reports-policies-standards-audits/#our-corporate-reports>

### SC0.1

**(SC0.1) What is your company's annual revenue for the stated reporting period?**

	Annual Revenue
Row 1	4,618,000,000

### SC1.1

**(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.**

---

**Requesting member**

Ajinomoto Co.Inc.

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

805

**Uncertainty (±%)**

10

**Major sources of emissions**

High complex Aroma molecules

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

397

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 85% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

**Requesting member**

Altria Group, Inc.

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

121

**Uncertainty (±%)**

10

**Major sources of emissions**

High complex Aroma molecules like Menthol

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

60

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 85% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Anheuser Busch InBev

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

4,564

**Uncertainty (±%)**

10

**Major sources of emissions**

Steam distilled extracts, like Eucalyptol and Peppermint. High complex aroma molecules like Menthols

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

2,253

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 85% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

---

**Requesting member**

Bayer AG

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

213

**Uncertainty (±%)**

10

**Major sources of emissions**

High complex aroma molecules

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

105

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 85% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

---

**Requesting member**

Beiersdorf AG

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

3,383

**Uncertainty (±%)**

10

**Major sources of emissions**

High complex aroma molecules

**Verified**

Yes



**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

1,670

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 85% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

---

**Requesting member**

British American Tobacco

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

370

**Uncertainty (±%)**

10

**Major sources of emissions**

High complex aroma molecules like Menthol

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

183

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 85% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

---

**Requesting member**

Church & Dwight Co., Inc

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

4,846

**Uncertainty (±%)**

10

**Major sources of emissions**

Steam distilled extracts, High complex aroma molecules like Menthols. Ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

2,392

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 85% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Clorox Company

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

971

**Uncertainty ( $\pm\%$ )**

10

**Major sources of emissions**

Steam distilled extracts, like Eucalyptol and Peppermint. High complex aroma molecules like Menthols. Ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

479

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Colgate Palmolive Company

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

106,316

**Uncertainty (±%)**

10

**Major sources of emissions**

Steam distilled extracts, like Eucalyptol and Peppermint. High complex aroma molecules like Menthol

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

52,487

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Estee Lauder Companies Inc.

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

373

**Uncertainty (±%)**

10

**Major sources of emissions**

Steam distilled extracts, like Eucalyptol and Peppermint. High complex aroma molecules like Menthol. Ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

184

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

FIRMENICH SA

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

3,394

**Uncertainty (±%)**

10

**Major sources of emissions**

Ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

1,675

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data on CO<sub>2</sub> factors of raw material included in final product, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Givaudan SA

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

6,272

**Uncertainty (±%)**

10

**Major sources of emissions**

Ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

3,097

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data on CO<sub>2</sub> factors of raw material included in final product, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Grupo Boticário

**Scope of emissions**

Scope 3



## Scope 2 accounting method

### Scope 3 category(ies)

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

### Allocation level

Company wide

### Allocation level detail

### Emissions in metric tonnes of CO<sub>2</sub>e

1,513

### Uncertainty (±%)

10

### Major sources of emissions

High complex aroma molecules like Menthol

### Verified

Yes

### Allocation method

Allocation based on mass of products purchased

### Market value or quantity of goods/services supplied to the requesting member

747

### Unit for market value or quantity of goods/services supplied

Metric tons

### Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data on CO<sub>2</sub> factors of raw materials included in final product, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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### Requesting member

International Flavors & Fragrances Inc.

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

6,860

**Uncertainty (±%)**

10

**Major sources of emissions**

Ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

3,387

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data Gaps have been extrapolated to 100%.  
We used literature data on CO<sub>2</sub> factors of raw materials included in final product,

evaluated common synthesis of main raw materials and own manufacturing data.  
Currently, there is only less primary data from suppliers available.

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**Requesting member**

Johnson & Johnson Consumer

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

5,600

**Uncertainty (±%)**

10

**Major sources of emissions**

Sun screens, Steam distilled extracts, like Peppermint

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

2,765

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data on CO<sub>2</sub> factors of raw materials included in final product, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

KAO Corporation

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

1,252

**Uncertainty (±%)**

10

**Major sources of emissions**

Ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

618

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Kobayashi Pharmaceutical Co., Ltd.

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

159

**Uncertainty (±%)**

10

**Major sources of emissions**

Ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

79

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available

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**Requesting member**

L'Oréal

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

3,445

**Uncertainty (±%)**

10

**Major sources of emissions**

Sun screens, Hydrolites, Menthol

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

1,701

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

PepsiCo, Inc.

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

68,802

**Uncertainty (±%)**

10

**Major sources of emissions**

Whey products, glutamate, sugar and ingredients

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

33,967

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 80% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Philip Morris International

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

14



**Uncertainty ( $\pm\%$ )**

10

**Major sources of emissions**

High complex aroma molecules like Menthol

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

7

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Puig, S.L.

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

305

**Uncertainty (±%)**

10

**Major sources of emissions**

High complex aroma molecules

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

151

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Royal Friesland Campina

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail**

**Emissions in metric tonnes of CO<sub>2</sub>e**

573

**Uncertainty (±%)**

10

**Major sources of emissions**

High complex aroma molecules

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

283

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

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**Requesting member**

Unilever plc

**Scope of emissions**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

Category 1: Purchased goods and services

Category 2: Capital goods

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

**Allocation level**

Company wide

**Allocation level detail****Emissions in metric tonnes of CO<sub>2</sub>e**

54,365

**Uncertainty (±%)**

10

**Major sources of emissions**

Steam distilled extracts, like Eucalyptol and Peppermint. High complex aroma molecules like Menthols, Sun Screens

**Verified**

Yes

**Allocation method**

Allocation based on mass of products purchased

**Market value or quantity of goods/services supplied to the requesting member**

26,839

**Unit for market value or quantity of goods/services supplied**

Metric tons

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

We have evaluated approx. 90% of Sales; data GAPs have been extrapolated to 100%. We used literature data, evaluated common synthesis of main raw materials and own manufacturing data. Currently, there is only less primary data from suppliers available.

## SC1.2

**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

We have used some public available data sources, e.g. the Probas database. We also used scientific studies, data we got from our suppliers and additionally own data of our manufacturing lines. We estimated also the carbon footprint of some products where data for similar processes are available. Some of the data, especially the data from public sources is may not representing the actual manufacturing process of our suppliers. There are also still some data gaps but for most of our natural ingredient we have good insights in carbon footprint related to the manufacturing of such ingredients. However, very often we use our own data for our big volume products. The CO<sub>2</sub> emissions caused by high complex chemicals are sometimes not known to us. Our suppliers are very often also not able to provide reliable data, because they have also sometimes a very complex supply chains. However, we reviewed our high volume chemicals and calculated the carbon footprint considering public available data of

basic chemicals and possible/comment synthetic roots. Additionally we added an average factor for each cleaning step of the entire supply chain. There is also very often a lack of information related to CO<sub>2</sub> caused by transport done by our supplier. Our average transport emission is approx. 0.1 kg CO<sub>2</sub>/kg product). This includes transport from supplier to us, inter-company transport and transport from our sites to customer. The data is based on transport from/to our major sites/ key customer and main markets. We do not own trucks and use only external logistic companies, therefore we used a public available tool to calculate the approx. carbon footprint. We know the average carbon footprint of each production line and/or manufacturing technology, the data were generated at our HQ's in Germany.

## SC1.3

**(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?**

Allocation challenges	Please explain what would help you overcome these challenges
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	Most of the products are tailor made with high complexity (Flavor, Nutrition, Fragrances, Cosmetic Ingredients, etc.). Thousands of raw materials are used from several countries and thousands of suppliers. Allocating of energy consumption to an individual manufacturing process is also not always possible, due to complexity of the process.

## SC1.4

**(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?**

Yes

### SC1.4a

**(SC1.4a) Describe how you plan to develop your capabilities.**

We have a global reporting tool to monitor all sales to all customers globally. We use this tool to get a list of sold products to each requesting customer. With another tool we can break down the product list to identify used raw materials and the manufacturing method we used to manufacture the product. After we calculate the CO<sub>2</sub> footprint based on the big volume raw materials and products using data of primary and secondary data as described in point SC 1.2. In 2009 we have conducted a study in cooperation with our main competitors to get more CO<sub>2</sub> information of manufacturing of our main supplier. Thirty-eight key ingredients were chosen, 28 synthetic and 10 natural materials, all of which were identified as high tonnage materials as part of the REACH pre-registration process. Unfortunately, when the businesses approached their raw material suppliers it became readily apparent that few of them were able to provide any data at all on their carbon emissions associated with the materials they supply. A questionnaire and covering letter were sent out and followed up personally on numerous occasions. Of the thirty eight suppliers approached only six were able to furnish the companies with any carbon information and in many cases the information was not material specific or so

general as to be of little or no use. This was one of the key findings of the project and for some of the companies was very surprising. Furthermore, we have also participated in another study, conducted by the RIFM to calculate the carbon footprint of a "generic fragrances".

To better understand where greenhouse gas emissions occur in the upstream chain and in the production of individual products, Symrise calculated product carbon footprints for onion powder and chicken powder in the reporting year. The analysis was performed in accordance with ISO standard 14067:2018 and the standards of the GHG Protocol. All activities from the production of raw materials to the finished product were considered. The analysis shows: To produce one kilogram of onion powder, around 1.70 kg of carbon dioxide equivalents are emitted – for chicken powder, the figure is around 7.75 kg of carbon dioxide equivalents. In both cases, the production of the raw materials and refrigeration caused the majority of the emissions.

As a result of this, we are currently in the process to get more carbon data of our supply chain. Related to manufacturing flow diagrams which we received from suppliers, or where public data are available, we calculate a carbon footprint and add additional average data of our own manufacturing process to generate data which are as close as possible to the reality. As a basis for such evaluations we apply the CDP Supply Chain program.

## SC2.1

**(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.**

---

### Requesting member

Ajinomoto Co.Inc.

### Group type of project

New product or service

### Type of project

New product or service that reduces customers products / services operational emissions

### Emissions targeted

Actions that would reduce both our own and our customers' emissions

### Estimated timeframe for carbon reductions to be realized

0-1 year

### Estimated lifetime CO2e savings

### Estimated payback

0-1 year

### Details of proposal

It is our ultimate goal, to reduce our energy consumption in a systematic way. Case Study: For example, an ISO 50001 Management System was implemented at all German sites in order to reduce energy consumption. (All other manufacturing sites in the EU have executed successful Energy Efficiency Audits in 2016). Global emissions reduction targets are subdivided through the entire organization and managed locally on each manufacturing site. We review our program and objectives regularly in dedicated environmental committees. Responsibilities are defined; budget is allocated to defined measures. Best practices are shared by an electronic system, regular meeting and internal and external audits throughout the entire organization. Our operational excellence teams are trained and well experienced and harmonize our processes globally in order to improve e.g. energy and process efficiency. Annually we conduct Management Reviews with environmental experts and local management teams, which are then aggregated to regional and global level and signed off finally by our CEO. Consequently the CEO knows about risks and opportunities and consequently can approve CapEx for projects which add value to our customers but also to Symrise. One example is the significant investment of 30 m€ in 2017 for our power-heat co-generation plant in Germany, which reduces our carbon emission by more than 20000 tons/year.

---

**Requesting member**

Altria Group, Inc.

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

**Details of proposal**

It is our ultimate goal, to reduce our energy consumption in a systematic way. Case Study: For example, an ISO 50001 Management System was implemented at all German sites in order to reduce energy consumption. (All other manufacturing sites in the EU have executed successful Energy Efficiency Audits in 2016). Global emissions reduction targets are subdivided through the entire organization and managed locally on

each manufacturing site. We review our program and objectives regularly in dedicated environmental committees. Responsibilities are defined; budget is allocated to defined measures. Best practices are shared by an electronic system, regular meeting and internal and external audits throughout the entire organization. Our operational excellence teams are trained and well experienced and harmonize our processes globally in order to improve e.g. energy and process efficiency. Annually we conduct Management Reviews with environmental experts and local management teams, which are then aggregated to regional and global level and signed off finally by our CEO. Consequently the CEO knows about risks and opportunities and consequently can approve CapEx for projects which add value to our customers but also to Symrise. One example is the significant investment of 30 m€ in 2017 for our power-heat co-generation plant in Germany, which reduces our carbon emission by more than 20000 tons/year.

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**Requesting member**

Anheuser Busch InBev

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

**Details of proposal**

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**Requesting member**

Bayer AG

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

**Details of proposal**

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**Requesting member**

Beiersdorf AG

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

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**Requesting member**

British American Tobacco

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

**Estimated payback**

0-1 year

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**Requesting member**

Church & Dwight Co., Inc

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

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**Requesting member**

Clorox Company

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

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**Requesting member**

Colgate Palmolive Company

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

**Estimated payback**

0-1 year

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**Requesting member**

Estee Lauder Companies Inc.

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

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**Requesting member**

FIRMENICH SA

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO<sub>2</sub>e savings****Estimated payback**

0-1 year

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**Requesting member**

Givaudan SA

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO<sub>2</sub>e savings****Estimated payback**

0-1 year

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**Requesting member**

Grupo Boticário

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO<sub>2</sub>e savings****Estimated payback**

0-1 year

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**Requesting member**

International Flavors & Fragrances Inc.

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

**Estimated payback**

0-1 year

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**Requesting member**

Johnson & Johnson Consumer

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

**Estimated payback**

0-1 year

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**Requesting member**

KAO Corporation

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings**

**Estimated payback**

0-1 year

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**Requesting member**

Kobayashi Pharmaceutical Co., Ltd.

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

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**Requesting member**

L'Oréal

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

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### Requesting member

PepsiCo, Inc.

### Group type of project

New product or service

### Type of project

New product or service that reduces customers products / services operational emissions

### Emissions targeted

Actions that would reduce both our own and our customers' emissions

### Estimated timeframe for carbon reductions to be realized

0-1 year

### Estimated lifetime CO<sub>2</sub>e savings

### Estimated payback

0-1 year

## Details of proposal

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**Requesting member**

Philip Morris International

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO<sub>2</sub>e savings****Estimated payback**

0-1 year

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**Requesting member**

Puig, S.L.

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

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**Requesting member**

Royal Friesland Campina

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

**Estimated lifetime CO2e savings****Estimated payback**

0-1 year

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**Requesting member**

Unilever plc

**Group type of project**

New product or service

**Type of project**

New product or service that reduces customers products / services operational emissions

**Emissions targeted**

Actions that would reduce both our own and our customers' emissions

**Estimated timeframe for carbon reductions to be realized**

0-1 year

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**Estimated payback**

0-1 year

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## SC2.2

**(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?**

No

## SC4.1

**(SC4.1) Are you providing product level data for your organization's goods or services?**

No, I am not providing data

## Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options		Public

**Please confirm below**