

C0. Introduction

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C0.1

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

Givaudan is shaping the future of food, fragrances and beauty, by becoming the innovation and co-creation partner of choice to our customers.

We maintain our leadership position by challenging ourselves daily, inspiring our partnerships across the globe and serving our customers with heart and soul. With our two business activities, Taste & Wellbeing and Fragrance & Beauty, we provide customers with a broad range of solutions that match consumer demands for clean label, organic and natural ingredients in addition to being their creative partner of choice. Our value proposition reflects the Company’s purpose of creating for happier, healthier lives, with love for nature.

**Touching people’s lives ten times per day**

Together with our customers in the food, beverage, consumer goods and fragrance industries, we create products that delight consumers the world over. From your favourite drink to your daily meal, from prestige perfumes to laundry care, Givaudan is there, inviting you to engage your senses, every day, enjoying moments of delight.

**Committed to innovation and sustainable growth**

With our heritage stretching back over 250 years, we have a long history of creating and innovating scents and tastes. Our creations inspire every day emotions and delight millions of consumers the world over.

We are at the forefront of innovation, with 7,3% of annual turnover invested in research, exploring and uncovering new and exciting ingredients and technologies to add to our vast palettes and portfolios.

Co-creation and collaboration with customers and partners enable us to innovate and develop game-changing products and solutions. We have a global co-innovation network of accelerators and incubators enabling us to leverage the entrepreneurial and innovative ideas that start-ups have to offer. In addition, we partner with many of the prominent players in the industry to expand and augment innovative thinking, and accelerate the pace and quality of ideation with key suppliers.

We are committed to driving purpose-led, long-term growth with the intention of increasing our positive impact on the world by innovating sustainable solutions while showing our love for nature and leading the way to improve happiness and health for people.

C0.2

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**(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**

**Start date**

October 1 2021

**End date**

September 30 2022

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

No

**Select the number of past reporting years you will be providing Scope 1 emissions data for**

<Not Applicable>

**Select the number of past reporting years you will be providing Scope 2 emissions data for**

<Not Applicable>

**Select the number of past reporting years you will be providing Scope 3 emissions data for**

<Not Applicable>

C0.3

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

- Argentina
- Australia
- Belgium
- Brazil
- Chile
- China
- Egypt
- France
- Germany
- Hungary
- India
- Indonesia
- Italy
- Japan
- Malaysia
- Mexico
- Morocco
- Netherlands
- Singapore
- South Africa
- Spain
- Sweden
- Switzerland
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Viet Nam

**C0.4**

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

- CHF

**C0.5**

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**(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**

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

**Row 1**

**Bulk organic chemicals**

**Bulk inorganic chemicals**

**Other chemicals**

Specialty chemicals

Specialty organic chemicals

Other, please specify (Fragrance and Flavors compounds)

**C0.8**

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**(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	CH0010645932

**C1. Governance**

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**C1.1**

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**(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
Board-level committee	<p>The entire Board of Directors (= board-level committee) has responsibility for climate-related issues.</p> <p>The Board of Directors is the highest strategic management body of Givaudan. It sets Givaudan's strategy and the investment policy, ensures adequate operational and financial performance, manages succession planning and compensation and oversees Givaudan's internal audit, compliance and risk management and general governance matters. By steering Givaudan's purpose and strategy, the Board of Directors is involved in setting the direction for sustainability matters, including climate related issues, and covering the targets. In the new five-year strategy (2021-2025) the Board of directors decided to include non-financial objectives ("Purpose targets"). These include targets for the pillar "Nature", including absolute GHG emissions reduction for scope 1, 2 and 3.</p> <p>The Board of Directors is also responsible for overseeing Givaudan's Enterprise Risk Management (ERM). Linked to the new five-year strategy, a zero based risk assessment was carried out and approved by the board. The resulting ERM risk universe includes environmental risks and climate change risks (including also physical risks, e.g. climate-related supply chain or operations implications). The risks are discussed at the Board annually as part of the ERM discussion as well as when the situation requires.</p> <p>Example of a climate-related decision made by the Board of Directors within the last two years: Also in connection with the five-year strategy, for the first time, the Board linked long-term executive remuneration to non-financial targets, including GHG emission reduction, as disclosed in the 2021 Compensation Report. From 2021 onwards, environmental targets including net GHG emissions reduction (scope 1, 2 and 3) will account for 10% of the long term remuneration.</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	Scope of board-level oversight	Please explain
Scheduled – some meetings	<ul style="list-style-type: none"> <li>Overseeing major capital expenditures</li> <li>Overseeing acquisitions, mergers, and divestitures</li> <li>Reviewing innovation/R&amp;D priorities</li> <li>Overseeing and guiding employee incentives</li> <li>Reviewing and guiding strategy</li> <li>Overseeing and guiding the development of a transition plan</li> <li>Overseeing the setting of corporate targets</li> <li>Monitoring progress towards corporate targets</li> <li>Reviewing and guiding the risk management process</li> </ul>	<Not Applicable>	<p>The board receives two updates annually on:</p> <ul style="list-style-type: none"> <li>- the Sustainability strategy, which includes climate action (agenda items: Targets, Programme, Performance and Report)</li> </ul> <p>The board receives annual reports on:</p> <ul style="list-style-type: none"> <li>- the Enterprise Risk Management (ERM), discussing climate change from a risk angle (agenda item: Risks and Opportunities)</li> <li>- Sustainability function (including climate action performance) (agenda item: Report on Sustainability)</li> </ul> <p>In addition, the Board receives business updates at every Board meeting. These contain references to the consequences of climate change on the business, whenever relevant.</p> <p>The Audit Committee receives biannual reports on Enterprise Risk Management and quarterly reports on Ethics &amp; Compliance.</p> <p>Major CAPEX, acquisitions and divestitures are part of the board's discussion whenever relevant.</p>

**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	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1 Yes	<p>Membership of the board of Directors is composed in such a way as to ensure it possesses all competencies required to execute its strategic oversight and control over Givaudan. The Board's knowledge and diversity of experience are important assets in leading a company of Givaudan's size in a complex and fast changing environment. Each member has an in-depth knowledge of his or her relevant areas of expertise. As Environmental, Social and Governance (ESG) matters, including climate-related issues, are an integral part of Givaudan's strategy, familiarity with the subject is required of all members.</p> <p>The Board conducts an annual self assessment to ensure that it always remains able to exercise effective oversight and leadership of the Company. The assessment starts with a confidential survey of all members organised by the Board Secretary. The results of the survey are summarised by the Chairman and discussed by the full Board. Any findings are addressed to ensure continued effectiveness.</p> <p>The Board receives relevant training to keep their knowledge of ESG matters current.</p> <p>The Board considers sustainability and ESG matters, including climate-related issues, an integral part of the Company's strategy. Therefore, familiarity with ESG matters is required from all Board members, as are strong ethical values. The Board's collective knowledge and expertise as well as the diversity of experience of its members are crucial assets in leading a company of Givaudan's size in a complex and fast changing environment with a multitude of stakeholders.</p>	<Not Applicable>	<Not Applicable>



**(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**

Integrating climate-related issues into the strategy  
Setting climate-related corporate targets  
Monitoring progress against climate-related corporate targets

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

Reports to the board directly

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

Quarterly

**Please explain**

By steering Givaudan's purpose and strategy, the Board of Directors is involved in setting the direction for sustainability matters, including climate related issues, and covering the targets.

Our commitment to delivering on Sustainability (including Climate) targets and ambitions is central to our business. The Board sets Givaudan's strategy, including on ESG topics, and has the oversight of all ESG aspects, including the sustainability strategy and targets, including climate related issues. The Board is also responsible to ensure that Givaudan's risk management, internal control and compliance systems are efficient and effective.

In Swiss stock-traded companies, the Board of Directors delegate all day-to-day running of the activities to the "Executive Committee", the equivalent of the Anglo-Saxon "C-Suite". Consequently, the Board of Directors of Givaudan has delegated the day-to-day running of Givaudan's activities, including its activities in the matter of sustainability and climate change to the Executive Committee.

The seven-member Executive committee (EC), led by the Chief Executive Officer (CEO), are responsible for implementing Givaudan's strategy under the supervision of the Board. The CEO is appointed by the Board and has the task of achieving the strategic objectives of the Company and determining operational priorities. The EC approves programmes and initiatives with company-wide impact, such as e.g. the adoption of science-based targets / GHG or capital expenditures above a certain amount.

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**Position or committee**

President

**Climate-related responsibilities of this position**

Assessing climate-related risks and opportunities  
Managing climate-related risks and opportunities

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

CEO reporting line

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

As important matters arise

**Please explain**

The Presidents of our two Divisions (President Fragrance & Beauty Division and President Taste & Wellbeing Division) are members of the Executive Committee and report to the Chief Executive Officer (CEO). They are responsible for assessing and managing the consequences of climate related issues as they affect the divisions. This includes issues of operational continuity, supply chain, customer expectations among others.

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**Position or committee**

Chief Sustainability Officer (CSO)

**Climate-related responsibilities of this position**

Developing a climate transition plan  
Conducting climate-related scenario analysis  
Managing value chain engagement on climate-related issues

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

CEO reporting line

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

Half-yearly

**Please explain**

The Chief Sustainability Officer (CSO) is a members of the Executive Committee and report to the Chief Executive Officer (CEO).

Responsibilities:

- The CSO has responsibility at Executive Committee level for the entire Global Sustainability programme, including climate related issues. He approves strategy, direction and resources of the programme and serves as the overall executive committee sponsor.

- The CSO is supported by a dedicated Sustainability Leadership Team (SLT) led by the Global Head of Sustainability. This team is made up of internal specialists in corporate responsibility and sustainability as well as dedicated business partners to implement the approach.

- The current incumbent CSO is also responsible for Global Procurement, which ensures an advanced embedding of sustainability issues in the supply chain.

**(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	no comment

## 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**

Corporate executive team

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary

**Performance indicator(s)**

Progress towards a climate-related target

Reduction in absolute emissions

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

Both Short-Term and Long-Term Incentive Plan

**Further details of incentive(s)**

The short term incentives for all executives include a profitability element (EBITDA) which is heavily influenced by cost efficiency. Reduction of use of energy has a material cost impact.

According to the ERM risk assessment process, members of the EC are given specific responsibility over the management of material issues (which include climate change). This is reflected in the short term incentive. The success is measured in comparison with the company strategy targets.

In addition, executives and selected management members are eligible to participate in the Performance Share Plan (PSP), which is designed to reward executives and key talent who significantly influence the long-term success of the business and our purpose ambitions.

From 1 January 2021, a new PSP aligned with the Givaudan purpose was introduced. The financial metrics of sales and free cash flow traditionally used to calculate the PSP are retained, and are complemented by non financial criteria linked to three of the four focus areas of the Givaudan purpose:

- Creations (80%): Financial targets of sales and free cash flow
- Nature (10%): Environmental targets of net GHG emissions reduction (scope 1, 2 and 3)
- People (10%): Social targets of senior leader diversity (women and high growth market representation) and employee safety.

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

The performance indicators are in line with our near term science-based targets and are an integrated part of our climate transition plan.

**Entitled to incentive**

Chief Procurement Officer (CPO)

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary

**Performance indicator(s)**

Increased engagement with suppliers on climate-related issues

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

Short-Term Incentive Plan

**Further details of incentive(s)**

Supply Chain engagement is driven by the procurement organisation and its buyers, led by the procurement leadership team. Incentivized programme related to supplier engagement that encompass key sustainability aspects is called "Connect to Win" that falls under the procurement innovation pillar of our Global Procurement strategy, lead by our CPO. As such, there are personal objectives and incentive plans related to that.

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

The performance indicators are in line with our near term science-based targets and are an integrated part of our climate transition plan.

**Entitled to incentive**

Environment/Sustainability manager

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary

**Performance indicator(s)**

Achievement of climate transition plan KPI

Reduction in absolute emissions

Increased engagement with suppliers on climate-related issues

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

Short-Term Incentive Plan

**Further details of incentive(s)**

Environment and Sustainability managers objectives and performance are reviewed annually to ensure progress in environmental sustainability performance. This performance assessment comprises both performance against the Company targets on environment (global and local, including GHG emissions for scope 1,2 and 3) and engagement activities across all actors of the value chain. For supply chain engagement the personal objectives and associated incentives relate to the proactive reach out of our Environmental Sustainability Managers to the supplier's representatives, working in collaboration with our procurement organisation (buyers). Also specific contributions to our "connect to win" programme are expected and factored into the engagement objectives and performance of our environmental sustainability managers.

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

The performance indicators are in line with our near term science-based targets and are an integrated part of our climate transition plan.

**Entitled to incentive**

All employees

**Type of incentive**

Non-monetary reward

**Incentive(s)**

Internal company award

**Performance indicator(s)**

Implementation of an emissions reduction initiative

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

Not part of an existing incentive plan

**Further details of incentive(s)**

Our Green Teams contribute to reducing our environmental footprint by improving existing operational processes to increase energy efficiency and reduce GHG emissions. The annual Green Team Awards are granted by the Executive Committee for successful energy efficiency and GHG reduction projects. This aligns with our objective of reducing our scope 1&2 GHG emissions by 70%. A decrease of more than 2% of energy (GJ) per tonne of product is considered a success or 2% absolute scope 1&2 GHG emissions and the project is shortlisted.

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

The performance indicators are in line with our near term science-based targets and are an integrated part of our climate transition plan.

**Entitled to incentive**

Energy manager

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary

**Performance indicator(s)**

Energy efficiency improvement

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

Short-Term Incentive Plan

**Further details of incentive(s)**

The incentivised performance indicator for operation managers is focused on progress against our target to improve eco-efficiency including an annual target for GHG emission reduction and energy reduction for each manager's scope of responsibility.

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

The performance indicators are in line with our near term science-based targets and are an integrated part of our climate transition plan.

**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	3	The time horizons for assessing climate-related risks and opportunities are aligned with the time horizons as defined in the Enterprise Risk Management (ERM) framework.
Medium-term	3	5	The time horizons for assessing climate-related risks and opportunities are aligned with the time horizons as defined in the Enterprise Risk Management (ERM) framework.
Long-term	5	15	The time horizons for assessing climate-related risks and opportunities are aligned with the time horizons as defined in the Enterprise Risk Management (ERM) framework.

## C2.1b

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

#### Description of substantive financial or strategic impact when identifying or assessing climate-related risks

At company level, climate-related risks are identified as part of the company-wide Enterprise Risk Management (ERM) risk assessment process under the supervision of the Executive Committee (EC). The risks are assessed twice annually for their long term impact (5 to 15 years).

The assessment is conducted with representatives of the divisions and all the functions of the Company. The process is conducted twice a year with monitoring of risk response measures, twice a year as well, and annual reporting to the Board.

Events are assessed for their impact on the Company and they can be risks in themselves and/or drivers for other risks. The likelihood is established as a percentage of a risk materializing over the review period. The impact is established either quantitatively as a cumulative financial impact on the Company's EBITDA or qualitatively as Impact on the achievement of objectives, including reputational impact. We do not use the term "substantive impact", but our rating of impact ranges from Low: little threatened / limited reputational impact, via Medium: threatened / some reputational impact, and High: severely threatened / severe reputational impact, to Very high: critically threatened / critical reputational impact.

"Substantive financial or strategic impact" therefore comprises for us the two categories high and very high impact. Climate-related risks that have substantive financial or strategic impacts to Givaudan have high or very high impact ratings.

#### Description of the quantifiable indicator(s) used to define risks, including climate-related risks, with substantive financial or strategic impact:

CHF 250M - CHF 500M cumulative impact on EBITDA over 5 years are considered as "high: severely threatened / severe reputational impact"

> CHF 500M cumulative impact on EBITDA over 5 years are considered as "very high: critically threatened / critical reputational impact"

A given risk can be a driver for other commercial risks, which may have an impact on Givaudan. In this way, climate change is a driver for a number of effects which in turn may impact Givaudan's ability to operate. Climate Change and extreme weather conditions are already affecting millions of people, damaging crops and threatening water supplies. A continued build-up of GHG pollution is expected to lead to changed weather patterns and an even greater threat to supplies of natural raw materials. This impacts Givaudan's ability to operate and may translate in disruptions in the supply of natural raw materials, or in the operations due to water scarcity at manufacturing sites. The risks of operational or supply chain disruption have been assessed to have a "high" or above impact as defined above.

## 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

Description of the process used to determine which risks and/or opportunities could have a substantive financial or strategic impact:

Enterprise Risk Management (ERM): owned by the Corporate Ethics & Compliance Officer & Executive Committee (EC)

At company level climate change risks which could have substantive financial or strategic impact for all value chain stages (direct operations, upstream, downstream) are identified as part of the company-wide ERM risk assessment process under the supervision of the EC. The risks are assessed twice a year for their long term impact (5 to 15 years) and more than once a year for their short-term (0-3 years) and medium-term (3-5 years) impact.

The assessment is conducted with representatives of the divisions and all functions of the Company. The process is conducted twice a year with monitoring of risk response measures twice a year as well, and annual reporting to the Board of Directors.

How Givaudan makes decisions to mitigate, transfer, accept or control climate-related risks and to capitalize on opportunities:

Givaudan's Enterprise Risk Management (ERM) process is the process of assessing, treating and monitoring the effects of uncertainty that may affect the attainment of Givaudan's objectives, especially its publicly stated strategic objectives, or jeopardise Givaudan's long-term business success. ERM reviews all types of risks and opportunities in terms of their nature, their source and their consequences. For the top Company risks, the consequences are stated in terms of impact on the EBITDA of the Group. As part of this process, ERM reviews climate-change related risks and opportunities.

Givaudan's process for prioritizing climate-related risks and opportunities:

The ERM process includes the following steps:

A structure and comprehensive identification and compilation of essential risks and opportunities on the basis of an overall risk universe, which includes internal and external benchmarks. Our structure for identifying climate-related risks and opportunities are described below:



- We conduct climate-related risk studies and research to identify the physical (acute and chronic), regulatory (current and emerging), technological, legal, market, and reputational climate-related risks relevant to Givaudan's operations and its supply chain, considering geographies, personnel, and other sector-specific issues.
  - We identify the financial impact of each risk identified in our studies. Then, we calculate whether the climate-related risk is within the threshold of substantive financial risks of Givaudan or not.
  - We compile these risks in our risk matrix for further assessment and prioritization
- Analysis and assessment of the risks and opportunities so identified and determination of their likelihood of occurrence and corresponding impact to understand the underlying risk drivers. Risk prioritisation is based on both qualitative and quantitative analysis using following criteria:
    - The likelihood of the risk/opportunity occurring
    - The qualitative or quantitative impact on the Company or asset
    - The quantitative impact to performance, cost or schedule for risk response measures
    - The probability of meeting the opportunity targets on cost, schedule, and/or scope
    - The quality of the risk/opportunity data being utilised is also assessed.
  - Formulation of the appropriate measures to exploit an opportunity and/or respond to a risk and
  - Tracking and reporting of risks and risk response actions

Givaudan's management is accountable for ensuring risks are appropriately and adequately identified and analysed in a timely manner. Management reports annually on the status of the risks and risk response actions to the Board of Directors.

A member of the Executive Committee is designated as the owner of each risk cluster as well as some further risks.

At the strategic level, a member of the Executive Committee is designated as the risk owner for each top Company risk. He or she has the responsibility for managing the risk on a Group-wide basis. Risks below the level of top risks are clustered by risk area.

Each cluster also has an Executive Committee member as its owner, though the actual risks are owned at the appropriate level of management.

Climate related risk and opportunities have been identified as a major risk area.

For each of the climate-related risks identified and assessed, we have 2 response categories: 1) mitigation and control of risk impacts and 2) translating the identified climate-related risks to climate-related opportunities. If mitigation requires collaboration between departments, the CSO and the Executive Committee (EC) ensures that the affected managers participate in the risk and opportunity management, which can include strategic level changes, investment in low emission technologies, or collaborating with supply chain members or customers that are geared towards mitigating climate-related risks. We evaluate potential initiatives based on the building space, environmental impact, water use, utilities, staffing, and materials required.

#### **Value chain stage(s) covered**

Direct operations  
Upstream  
Downstream

#### **Risk management process**

Integrated into multi-disciplinary company-wide risk management process

#### **Frequency of assessment**

Every three years or more

#### **Time horizon(s) covered**

Short-term  
Medium-term  
Long-term

#### **Description of process**

Materiality Assessment: owned by the Chief Sustainability Officer (CSO)

The materiality assessment exercise allows identifying the most relevant ESG topics for Givaudan's stakeholders, upon which Givaudan can have an impact through its actions. It can help identify opportunities to readjust and improve the business strategy, also in partnership with our stakeholders. The time horizon of the aspects varies from short to medium to long term depending on the stakeholder's view. The materiality matrix is the outcome of this exercise and is validated by the Executive Committee and publicly disclosed in our integrated reporting suite.

The materiality matrix is revisited on average every three years based on the inputs of major internal and external stakeholders.

Climate change is one of the material topics prioritized in the matrix and being of most concern to Givaudan and to its stakeholders.

#### **Value chain stage(s) covered**

Direct operations

#### **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

#### **Description of process**

Business Continuity Planning (BCP): owned by the divisional management committees

Climate change figures as one of the causes for potential business interruption that are covered by BCP. BCP is managed at the level of the two divisions and includes potential transfer of production from one site to another. This need to transfer can be triggered by a production site being unable to produce because of a climate change related impact, like an extreme weather event or water shortage. The risk horizons for the BCPs are short to medium term. The divisions' BCPs are validated by the divisional management committees.

#### **Value chain stage(s) covered**

Upstream

#### **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

**Description of process**

Supply chain: owned by the Chief Procurement Officer and the procurement category leaders

Givaudan uses the "Windmill" process to identify high risk material-supplier combinations and define risk mitigation actions. The future horizon of the risks is short to medium term. The "Windmill" includes climatic risk and is incorporated in SAP as the central location of storage. Yearly maintenance is assured by each buyer responsible of materials segmentation. We also perform a business risk assessment which takes into account Climate Change risks with quarterly risk updates.

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**Value chain stage(s) covered**

Direct operations

**Risk management process**

A specific climate-related risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term  
Medium-term

**Description of process**

Site operational risks: owned by site managers

Risks at site level are reviewed based on data and site eco-efficiency plans that include GHG emissions. The risk horizon is short to medium term. Quarterly reporting of individual sites performance regarding emissions is owned by the local EHS manager.

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C2.2a

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**(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>(i) Justification of the decision on the relevance and inclusion of this risk type: As a global player and industry leader in the manufacture of flavours and fragrances, a water and energy dependent industry and with operations in more than 20 countries worldwide, Givaudan is exposed to climate-related regulations that place a price on GHG emissions generated by our production facility, by the use of electricity and fuels. This risk is always included in our risk assessment since it is an existing aspect of our license to operate. It is part of the regular operational risk assessment that are carried out for each site by the operational risk management team which reports to the head of operations.</p> <p>(ii) Example: Our production facility in Vernier, Switzerland, is regulated by the Switzerland Carbon Tax. The amount of the tax is substantial, as it represents around 20% of the energy cost of the site. At the moment, Givaudan pays the tax but is reimbursed because we fulfill the exemption criteria. Indeed, the Swiss Confederation exempts a company upon request. In return the Vernier site of Givaudan committed to reducing its greenhouse gas emissions between 2013 and 2020 without interruption, and continued on a linear basis for the year 2021 and beyond. If Givaudan were to fail in reducing its greenhouse gas emissions as committed, we risk losing the tax reimbursement. Our energy cost at our Vernier site would then potentially increase by 20%.</p>
Emerging regulation	Relevant, always included	<p>(i) Justification of the decision on the relevance and inclusion of this risk type: Climate-related regulations are increasing world-wide by quantity and location, and with our energy dependent manufacturing operations located in around 20 countries worldwide, the risk of exposure to emerging regulation is high, since the countries in which we operate include countries which have started seeing impacts of climate change, such as Brazil or the US, as well as countries which are or have been active in the area of new climate change legislation, such as the European Union. Any change in climate change regulations (in particular through imposing mandatory GHG reductions) may have an economic impact on Givaudan, such as increased cost of operation (e.g. for additional taxes on fuel, energy or carbon emissions) or increased cost of raw materials passed on by suppliers. Emerging regulation is therefore a risk which is addressed at the company Enterprise Risk Management (ERM) level as well as at the operational risk assessment level for each site.</p> <p>(ii) example: Activities regulated by the EU ETS system include combustion installations to generate steam with a rated thermal input of at least 20 MW. Givaudan's production facility located in Sant Celoni, in Spain, is not at the moment regulated by the EU ETS system because the rated thermal input of the combustion installation does not exceed 20 MW. There is a project to increase the capabilities of steam generation. With the implementation of this extension, the rated thermal input of the steam generation will exceed 20 MW, hence the Sant Celoni facility will be regulated by the EU ETS system. The increase cost of operation has been included in the business case.</p>
Technology	Relevant, always included	<p>(i) Justification of the decision on the relevance and inclusion of this risk type: Ambitious GHG emission reduction is not possible without evolving our technology. This covers our buildings, installations, and products. If Givaudan fails to keep up with the required technological developments, the consequences for Givaudan can range from non-compliance with climate change regulations or self-imposed targets, higher cost of operations, disappointment/loss of customers, dissatisfaction/loss of employees or reputational impact of being seen as not acting to combat climate change. Technology risks are therefore always included in our company-wide risk assessment such as described in C2.2."</p> <p>(ii) Example: In order to reduce the impact of our buildings on the planet as part of a transition to a lower-carbon economy, Givaudan invested CHF 120 million to build a new innovation centre in Kempthal, Switzerland that is designed for energy efficiency and is one of the first facilities in Switzerland to receive a gold certificate from Leadership in Energy and Environmental Design (LEED), the world's most widely recognised green building certification system. It fosters healthy, enjoyable and productive work through user-oriented workplace design that reduces water and energy consumption and improves environmental and economic efficiency by up to 45%.</p>
Legal	Relevant, always included	<p>(i) Justification of the decision on the relevance and inclusion of this risk type: As climate change is becoming a reputational item for our customers, Fast Moving Consumer Goods (FCMG) and food companies in direct contact with consumers, climate change requirements enter more and more frequently as specific quality requirements into contracts with our customers. Non-compliance with climate change risk response requirements can then lead to a breach of contract and litigation/loss of a customer. Legal risks are therefore always included in our company-wide risk assessment such as described in C2.2."</p> <p>(ii) ) Example: some of our large customers, including our biggest customer, require Givaudan to have crisis management/business continuity plans (BCP) in place that include business interruptions due to drought, flooding or other climate-related extreme weather events. If we were unable to provide an adequate BCP/crisis plan or execute it if necessary, we would face claims and potential litigation from our customers.</p>
Market	Relevant, always included	<p>(i) Justification of the decision on the relevance and inclusion of this risk type: Givaudan is exposed to the risk of change from consumers in their preferences for products with fragrances and/or flavours they want to consume and how they acquire them, including substitution of existing products and services with lower emissions options. As a consequence, climate change requirements enter more and more frequently as specific quality requirements into contracts with our customers. Non-compliance with climate change risk response requirements can then lead to a breach of contract and a loss of a customer. Market risks are therefore always included in our company-wide risk assessment such as described in C2.2."</p> <p>(ii) example: One climate related topic which has a market risk is deforestation and the related ingredients from palm oil. Givaudan recognise the importance of responsible sourcing of palm oil and palm derivatives and are members of the RSPO (Round table for Sustainable Palm Oil), strive for RSPO certification scheme implementation across its business and purchase increasing volumes of certified ingredients. If we did not take this approach it would lead to risks of not meeting customer expectations and possible loss of business.</p>
Reputation	Relevant, always included	<p>(i) Justification of the decision on the relevance and inclusion of this risk type: Even though Givaudan is a B2B player without direct visibility to consumers, performance against ESG targets, including climate change and environmental targets is important to our customers and to our investors, who are requesting increasingly more transparency on ESG issues, including performance on environmental targets and climate change response measures. Should we fail to address climate change and other non-financial targets in a way that is seen as appropriate by our stakeholders, this may lead to loss of investments, downgrade or non-inclusion in ethical investment indices or negative media attention. This risk is high and is always included in our ERM risk assessment and is also a factor in our materiality assessment.</p> <p>(ii) Example: To mitigate the risk of falling short of stakeholder expectations on non-financial targets, we take a three-step approach: (1) We engage with stakeholders through the process of our Materiality Assessment, (2) we establish targets concerning climate change consistent with reductions required to keep warming to 1.5°C and approved by the Science Based Target initiative and with reference to the UN's SDGs (currently SDGs 12 "Responsible Consumption and Production" and 13 "Climate Action"), and (3) we publish our targets and our performance against them on our website and in our annual mainstream reports (Integrated Annual Report, GRI Report) to the public. In addition, we also engage with investors on questions of climate change and other ESG topics and we participate in climate-change related initiatives like the CDP Climate Change.</p>
Acute physical	Relevant, always included	<p>(i) Justification of the decision on the relevance and inclusion of this risk type: This risk is always included in our Enterprise Risk Management (ERM) assessment as well as at local operational level, as acute physical climate-change related events such as flooding or drought may hit either our own manufacturing abilities or our supply chain, a large part of which is in natural raw materials that are sensitive to climate change. As a manufacturing enterprise using a lot of water and energy, we are at risk of any disturbance of our water and energy supply. Given that our sites are usually close to a river or other water source, extreme weather events such as flooding, may cause us to close a manufacturing site and affect our ability to deliver in time to our customers. This risk is high and is therefore always included in our company-wide risk assessment such as described in C2.2 it is also covered in our divisional business continuity planning.</p> <p>(ii) Example: We have experienced episodes of water supply disruption in our production site in Brasil due to unusual drought. This required transfer of product manufacturing without delay to other locations as per business continuity plan.</p>
Chronic physical	Relevant, always included	<p>(i) Justification of the decision on the relevance and inclusion of this risk type: Climate change has a direct impact on the availability of our key natural resources because it alters ecosystems and disrupts food production and water supplies. This is especially true as a large part of our raw materials are naturals that only grow in certain places in the world. This risk is very high and is therefore included both at corporate level in our Enterprise Risk Management (ERM) assessment as also in our supply chain assessment.</p> <p>(ii) Example: One example is vanilla, which we can only source in the required quality from Madagascar. As probably the biggest user of vanilla, a long-term change in climate that would impact the conditions for vanilla would be particularly detrimental to us, given that because of the particular quality of Madagassian vanilla, we cannot source the product elsewhere.</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?**

Direct operations

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

Emerging regulation	Carbon pricing mechanisms
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**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Givaudan is exposed to climate-related regulation that set a price on the GHG emissions generated by our production facilities through use of electricity and fuels. Climate-related regulations are increasing world-wide by quantity and location, and with our operations located in around 20 countries, the risk of exposure to emerging regulation is high.

Any changes in GHG price regulations may have an impact on Givaudan, such as increased cost of operation (e.g., additional taxes on fuel, energy, or carbon emissions) and increased cost of raw materials (i.e., suppliers can pass on their increased production costs through product price increases). Givaudan spent approximately 70 million CHF in the reporting year on energy costs. Given the current trends in the energy markets in the countries where Givaudan operates, we project that our energy costs for fossil-fuel-sourced electricity could potentially increase by 13% because of carbon taxes.

**Example:**

Starting in 2022, the legal basis for the new "Ecological Taxes" in Queretaro's state, Mexico, was published under article Article 83 BIS-9 as part of the State of Querétaro Finance Law. It states that individuals, legal entities, and economic units residing in or outside the state, who generate greenhouse gas emissions, are subject to and obligated to pay the environmental tax on atmospheric emissions at a rate of equivalent to 5.6 UMA (Unit of Measurement and Update) per emitted ton of equivalent carbon dioxide (CO<sub>2</sub>e) or its conversion, as established in Article 83 BIS-10 of this same law. Givaudan's sites that are implanted in the area are directly subject to this law.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

9100000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Givaudan spent approximately 70 millions in the reporting year on energy costs. Given the current trends in the energy markets in the countries in which Givaudan operates, we project that our energy costs for fossil-fuel-sourced electricity would increase by 13% because of carbon taxes. This would negatively impact our bottom line by around 9 millions if we don't reduce our dependence on carbon-based electricity supply.

Figure breakdown: 9,100,000 increase in operating cost = 70 million annual energy cost x 13% cost increase.

**Cost of response to risk**

2050000

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

Action being implemented:

The primary method to manage the risk of carbon pricing mechanisms is to reduce our dependence on fossil fuel based energy. We do this both through energy efficiency projects and procurement practices in renewable electricity.

In 2022, investment in energy efficiency projects amounted to 2,850,000 (payable over the lifetime of the projects)

**Example:**

To reduce our dependence on fossil fuels, we invested in energy efficiency projects and procure energy from renewable sources. In 2022, we attained 90% renewable electricity supply to all our facilities, a 6% increase from 2021. In 2022, 56 production sites were powered 100% by electricity from renewable sources by the end of the reporting year. We also reduced GHG emission load per purchased kWh of electricity by 42% for 2022 vs 2021. Givaudan is committed to move towards 100% use of electricity from renewable sources by 2025 (RE 100 commitment) and is on track to meet its target.

**Explanation of cost calculation:**

The costs associated with managing energy tax risks over time can be estimated as a percentage of total expenses on renewable electricity (700,000) and expenses on energy efficiency projects (estimated at 2,850,000 during this reporting year) payable over the lifetime of the projects. These costs will be reduced by annual savings from energy efficiency projects (1,500,000). The total estimated cost of response to risk is around 2 million CHF.

(2,050,000 = 2,850,000 + 700,000 – 1,500,000).

**Comment**

no comment

**Identifier**

Risk 2

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

Upstream

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

Chronic physical	Changing temperature (air, freshwater, marine water)
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**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Changes in weather patterns, more variability in seasonal weather, and increasing temperatures already affect ecosystems and drive changes in biodiversity. Givaudan depends on specific raw materials as a source of natural ingredients. Most of the natural ingredients sourced by Givaudan are not commodities, but rather specialties produced in small volumes. In recent times, raw material supply chains are becoming more volatile, uncertain, complex and ambiguous (VUCA context). Disruption in the supply of the raw materials we require for our production or volatility of raw material prices are directly linked to the likely changes in precipitation patterns and the extreme variability in weather pattern. Furthermore, an increase in demand for naturals is likely to happen and may negatively impact our ability to produce at competitive prices and in a timely manner, putting Givaudan at risk. We have seen this significant increase of supply risk on iconic product such as Vanilla (in Madagascar), Spices (ex: chili in India) and Florals (ex.: patchouli in Indonesia, ylang ylang (in Comoros) portfolio.

**Time horizon**

Long-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)**

50000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

The potential financial impact figure linked to changes in weather and precipitation patterns was estimated based on raw material spend from the previous years. By comparing the cost per kg of our VUCA raw materials from 2021 to 2022, this led to an increase of approximately 50 Mio CHF. We consider that the potential future financial impact is similar to what was observed in the past, this is why we estimate the financial impact figure to 50 Mio CHF.

**Cost of response to risk**

1250000

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

Action being implemented: Givaudan has a Business Continuity Plan (BCP) for sourcing covering a large scale of risk exposure pertaining to climate change. This includes regular assessments of potential risks, including environmental risks such as droughts, fires, rural exodus and back-up plans to maintain the whole supply chain process if any disruption occurs.

Key Risk Management strategies to secure sourcing of our materials are:

- Raw Materials Sourcing integrated in the category management process and as part of Global / Enterprise Risk Management operations
- structured risk mitigation strategy, ("Windmill" process) to anticipate raw materials supply issues and suppliers deficiencies
- Advanced level projects aiming at securing the most strategic and vulnerable naturals by supporting communities from which we source key natural raw materials through social and environmental projects (example with patchouli in Indonesia). Advanced level projects are an integral part of our Responsible Sourcing program Sourcing4Good.

Example: Givaudan partnered with an organisation in Indonesia for a sustainable patchouli oil production project in Indonesia. The operating model of this project involves integrating local agronomy experts with extensive knowledge of good and durable agricultural practices to support patchouli producers in improving their production practices. This increased the level of mastery of the local producers, making them more self-reliant, increasing their income and the robustness of their production. This reduced the risk of disruption in the patchouli supply chain, while creating added value for the local communities and protecting their natural resources.

Cost of management explanation: The operational cost to manage this risk has been 500 K CHF to 2 Mio CHF/year (average: 1.25 Mio CHF) over the past five years. We expect to maintain cost of that magnitude over the next five years.

**Comment**

no comment

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**Identifier**

Risk 3

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

Downstream

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

Reputation	Increased stakeholder concern or negative stakeholder feedback
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**Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Even though Givaudan is a B2B player without direct visibility to consumers, performance against climate change and environmental targets is important to our customers and to our investors, who are requesting increasingly more transparency on ESG issues, including performance on environmental targets and climate change response measures. Should we fail to address climate change and other non-financial targets in a way that is seen as appropriate by our stakeholders, this may lead to loss of investments, downgrade or non-inclusion in ethical investment indices or negative media attention. It could negatively impact our brand for our customers and reduce demand for our products and even lead to the loss of market share and/or commercial agreements with key customers. It can also negatively impact the Company' share price.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

High

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

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

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

50000000

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

200000000

**Explanation of financial impact figure**

The potential financial implications of damage to our reputation in case this risk is unmitigated could be significant and would include value of lost sales and the loss of market capitalization due to a fall in share price. We estimate the financial cost were this to happen to be approximately 50 Mio CHF to 200 Mio CHF/year. This estimated figure relates to the value of lost commercial agreements with key customers who put sustainability performance as an essential criteria for commercial agreements. Due to steady increase of our customer base that put sustainability as an essential criteria for commercial agreements, this figure is likely to increase in the future.

**Cost of response to risk**

2200000

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

Action being implemented: We manage this risk by implementing a strong sustainability programme to be an industry leader in environmental performance. As part of our strategy, Givaudan has committed to reduce absolute Scope 1 and 2 GHG emissions by 70% between 2015 and 2030. We have also set a goal to reduce Scope 3 GHG emissions by 20% over the same period. Our targets are approved by the Science Based Targets initiative. They are in line with the global effort to keep temperature increases below the 1.5°C threshold, a key goal of the 2015 Paris Agreement on climate action. In support of those goals, Givaudan has also committed to ensure that by 2025 all of the electricity it buys will come from renewable sources.

Example: Integrated annual report and GRI reporting is externally audited and assured to guarantee reliability of our reported performance.

Cost of management explanation: Mitigating this risk is fully embedded in Givaudan's Company strategy and environmental goals. The costs of management of this risk can be viewed as linked to the costs to implement our GHG reduction programmes ( about 2 Mio CHF during 2022). Other costs linked closely to our reputation include fees for auditing and external data assurance ( in the range of 200 K CHF/year). Cost of response to risk = 2,000,000 + 200,000 = 2'200'000 CHF

**Comment**

no comment

**Identifier**

Risk 4

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

Direct operations

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

Acute physical	Drought
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**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Changes in precipitation could adversely impact our production operations (manufacturing plants) using ground water. We have experienced episodes of water supply disruption at our sites in Jaguaré, Brazil and Jigani, India. Water scarcity (low groundwater levels) is subjected to an increase in frequency in the future.

**Time horizon**

Long-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

400000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Increased operational costs due to cost for water in a context of scarcity. Financial impact is estimated at an increase of 5-6% in 2022 vs 2021 , meaning 400 KCHF. We estimate this is the yearly potential impact figure.

**Cost of response to risk**

1095000

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

Action being implemented: This risk is managed by two means:

- 1) Reduce our water consumption. We do this through water efficiency projects.
- 2) Business Continuity Plan (BCP) for production sites exposed to water scarcity. This includes regular assessments of potential risks and back-up plans to maintain the whole supply chain process if any disruption occurs. In such regions, additional water supply systems are set up for a transitional period of time.

Cost of management:

The costs includes : 1) the money spent on water efficiency projects (estimated at 1,270,000 CHF during this reporting year ) payable over the lifetime of the projects. These costs have been balanced by associated savings from water efficiency ( calculated at 200 KCHF /year) 2) direct costs for water supply by tanks and trucks as a risk mitigation (buying water and cost for transport by trucks of 25 KCHF in 2021).  
cost of management = 1,270,000 CHF - 200 KCHF + 25 KCHF = 1,095,000 KCHF

**Comment**

no comment

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## C2.4

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

Yes

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### C2.4a

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

**Identifier**

Opp1

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

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of new products or services through R&D and innovation

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Powered by innovation and creativity, Givaudan Taste & Wellbeing aims to shape the future of food by becoming the co-creation partner of choice to our customers. We go beyond great taste to create food experiences that do good and feel good, for body, mind and planet.

One of our strategic growth areas is around Plant Attitude, part of our commitment to driving happier healthier lives with love for nature.

It has been established by many scientific studies in recent years that a shift to more plant-based diets can relieve pressure on natural ecosystems, reverse biodiversity loss and reduce greenhouse gas emissions related to food. The FAO estimates in their Sustainable Healthy Diets Guiding Principles (2019) that global adoption of a 'low-meat diet' can reduce diet-related GHGs by nearly 50 percent.

Many consumers are increasingly aware of the ethical and environmental impacts of their food and are turning towards plant-based meat and fish analogues. In the future, it is expected that more people will be 'flexitarians', eating both plant-based and meat-based foods in their diets, shifting some of their meat-based consumption to plant-based alternatives.

Our food industry customers are innovating to bring great tasting plant-based foods to the market. We aim to be their co-creation partner of choice, supporting customers in this journey by providing solutions to ensure their plant-based products taste and look great, as well as improving the nutritional profile of plant-based food.

**Time horizon**

Long-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

195000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Plant Attitude is one of our strategic growth focus areas representing a business of around CHF 130M in 2022 and we expect a solid growth level ahead. Considering our Purpose ambition to double our overall business (across our two divisions) 2020- 2030 through creations that contribute to happier, healthier lives, we could project Plant Attitude to grow at least by 50%, reaching CHF 195M CHF by 2030.

$195,000,000 = 130,000,000 * 1,5$

**Cost to realize opportunity**

10000000

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

Strategy to realize opportunity:

We have been investing in innovation in this space for a number of years and have established a 'Plant Attitude' platform. This platform offers access to an entire ecosystem of experts, innovative technologies and an integrated portfolio for the co-creation of plant-based food experiences, meeting consumer needs. From fundamental scientific understanding to holistic product design, we deliver customized solutions to develop delightful plant-based recipes.

An example of one of our solutions is PrimeLock+™, a natural, vegan-friendly solution that mimics animal fat cells – encapsulates, protects and locks in both flavour and fat in plant-based meat substitutes- because plant-based meat substitutes depend on the right interaction between flavour, taste and texture. In 2022, Primelock+™ won the Gulfood innovation award and the International V-Label Award for the Best Ingredient Innovation in business to business.

With essential innovations like Primelock+™, we enable the shift to more sustainable diets, and thereby enable consumers to reduce the carbon footprint of their diets.

Explanation of cost calculation:

Givaudan invests over CHF 500M annually in R&D (522M in 2022). We spend at least 2% of this 500M on R&D investments into Plant Attitude annually, this results in an annual investment of CHF 10M /year to enable achieving an annual sales of 195M by 2030.

This is additional to the significant amount that has already been invested in this platform from 2015-2022.

$10,000,000 = 500,000,000 * 0,02$

**Comment**

no comment

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**Identifier**

Opp2

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

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of new technologies

**Primary potential financial impact**

Reduced indirect (operating) costs

**Company-specific description**

Ambitious GHG emission reduction is not possible without innovation and evolving our technologies. We seek for opportunities to partner with experts from diverse fields in finding new ways to improve our environmental performance. Givaudan invests substantially in R&D. We look at energy intensive activities of our processes, and seek for opportunities to use new technologies to achieve the same performance with reduced GHG emissions.

We have found that solar heat offers an energy-efficient way to power Givaudan's needs for cooling and refrigeration. This translates into about 40% reduction in energy consumption for industrial refrigeration and regulating of room temperature in our offices. This technology is particularly interesting for our sites that are located in tropical countries where the sun exposition is good all year-round as it could significantly reduce our Scope 1 emissions.

It is particularly attractive to Givaudan for two main reasons:

- First it is in line with our bold climate ambitions

- Second, every Givaudan production plant needs heating and cooling, and it would be relatively easy to replicate this technology and would provide Givaudan a competitive advantage.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

1000000

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

<Not Applicable>



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

<Not Applicable>

**Explanation of financial impact figure**

The potential financial impact is estimated based on a potential 40% reduction of the annual electricity consumption for cooling and refrigeration purposes in our 3 major sites. Over a 10 year period during which current cooling and refrigeration systems would be replaced by this technology, the total savings are calculated as follows:

Potential financial impact = (annual savings site 1 + annual savings site 2 + annual savings site 3) x 10 years (minimum lifetime of the initiative) = (55'000 + 25'000 + 20'000)\*10 = 1'000'000 CHF

annual savings site 1: 55'000 CHF

annual savings site 2: 25'000 CHF

annual savings site 3: 20'000 CHF

**Cost to realize opportunity**

450000

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

Action being implemented:

We seek for opportunities to partner with experts from diverse fields in finding new ways and technologies to improve our environmental performance.

We look at energy intensive activities of our processes, in particular cooling and refrigeration, and seek alternative technologies to achieve the same performance and jointly reduce our GHG emissions. We have found that solar heat offers an energy-efficient way to power industry's needs for cooling and refrigeration. The opportunity is developing the technology that will be able to efficiently and reliably respond to variable needs across a range of processes and sites.

Example:

Started in 2018, an innovative partnership was created aiming at finding new sources of energy. Givaudan joined the consortium participating in HyCool, an innovative energy technology project funded by the EU with the aim of developing cost-effective solutions using solar heat for industrial purposes. HyCool is an innovative project to promote the use of Solar Heat in Industrial Processes (SHIP). The unique technology couples patented solar thermal collectors with special hybrid heat pumps with the aim of providing flexible and cost-efficient cooling systems for industrial applications. By maximizing the use of renewable energy through made-in-Europe innovation, HyCool's objective is to minimize emissions of greenhouses gasses. Our site in Sant Celoni, Spain is the pilot test site for the HyCool project implementation in the chemical industry. This project is a unique opportunity to work with leading innovation and technology experts. It will help us reduce GHG emissions and decrease energy consumption from electricity and gas. In 2020, the project has received funding from the EU. The pilot project has been extended through 2022 and results will be revised for scale up during 2023. If successful, our plan is to progressively implement the Hycool technology in our sites located in sunny areas.

Cost to realize opportunity:

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 792073.

Resources to Givaudan: 300 kCHF (cost of internal employees, permits and taxes)

Equipment (CAPEX & contractor labor): 150 kCHF

Cost to realize opportunity = 300 kCHF + 150 kCHF = 450 kCHF

**Comment**

no comment

**Identifier**

Opp3

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

Upstream

**Opportunity type**

Resilience

**Primary climate-related opportunity driver**

Other, please specify (Increasing volatility in natural supply chain)

**Primary potential financial impact**

Other, please specify (Increased reliability of supply chain and ability to operate under various conditions through the Sourcing4Good program)

**Company-specific description**

Givaudan's activities are dependent upon the environment in which we operate. Our Company relies on a steady supply of more than 12,400 ingredients from across the globe, natural resources that are used in the creation of our Taste & Wellbeing and Fragrance & Beauty products. Our activities depend on biodiversity, as do the many communities we work with and look to support. In direct consequence of change /variability in precipitation and weather patterns, raw material supply chains are increasingly becoming more volatile, uncertain, complex and ambiguous (VUCA context) exposing Givaudan to disruption the supply of natural raw materials such as Vanilla, Spices or Florals. This risk also translates into an opportunity to deploy programs such as the Sourcing4Good program which not only has benefits for the ecosystems and communities we work with but also increases Givaudan's resilience. Demonstration of our resilience as a company is a financial opportunity as given the context of the past years (Covid, War in Ukraine) customers and investors are looking to partner with/invest in sturdy companies that can withstand shocks and pressures such as the ones the climate crisis presents.

In this type of program, we have the unique opportunity to train farmers/smallholders on good and sustainable agriculture practices and help them to adapt to the fast changing weather patterns, directly impacting their crop yield, drought risk management, and general water management. For Givaudan, it is a benefit to foster farmers/smallholders and secure supply chain for our iconic substances. These are long term agreements for mutual benefits.

**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)**

550000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Givaudan has a Purpose ambition to double our overall business (across our two divisions) by 2030 through creations that contribute to happier, healthier lives. This means doubling our revenue from 5,500 MM CHF to 11,000 MM CHF in 2030. We state this growth as financial impact since resilience is a key factor for achieving this growth.

**Cost to realize opportunity**

130000

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

Givaudan launched its flagship Sourcing4Good program in 2021 and made good progress in 2022; 100% of our rawmat suppliers and over 50% of our IM&S suppliers have now received our Responsible Sourcing Policy, and by the end of 2022, 26% of our total naturals portfolio and 6% of our total synthetics portfolio was flagged as sourced responsibly. In parallel, we completed over 100 audits and assessments of our suppliers and ran projects for 10 ingredients with world-wide supply chains (Guarana, Patchouli, Vanilla, Clove Leaf Oil) focused on local economic-socio-environmental issues and improvement opportunities.

The program traces industry criteria ranging from environmental and social benchmarks to improved supply chain security, greater transparency, and overall increased resilience. It offers suppliers more visibility and partnership opportunities and gives customers increased access to safe, high-quality products, sourced in a responsible way.

**Example:**

Our GUARABEST program in Brazil is a collaboration between Givaudan, local guarana farmers and cooperatives (Brazbio, JV, reNature). Through it, we have trained 240 guarana farmers in good agricultural practices supporting price and volume security while protecting the unique local biodiversity. The project has enabled local communities to benefit from the collaboration through better incomes and greater market visibility, helping to build resilience in line with our goals. Beyond setting up traceability for our guarana supply from 2 producers cooperatives, the GAP training sessions include integrated soil fertility management practices (such as the use of compost or green manure), integrated pests and diseases management practices (use of mulch and cover crops), or again pruning of trees. This change of practices contribute to reducing the greenhouse gases emissions linked to industrial agricultural practices.

In the latest phase, regenerative agricultural specialists reNature have helped us develop and implement a regenerative model farm to demonstrate economic and environmental benefits and inspire more farmers to transition towards regenerative techniques. We are also co-developing a monitoring & evaluation framework with agronomic indicators to evaluate progress of the farms in the S4G program.

The cost of realizing the opportunity of 130 kCHF relates to additional investments made in human, CAPEX and OPEX resources to develop our programs with local communities.

**Comment**

No comment

**Identifier**

Opp4

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

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Givaudan customers operate in markets where consumers have high environmental sensitivity, for example in Europe. There are commercial opportunities to effectively anticipate our customers' needs and help them to respond to consumer behaviour changes. Givaudan is well positioned to take advantage of preference for low carbon products because of our initiatives on responsible sourcing and sustainable innovation (e.g. reuse and recovery of process side stream and waste).

As our customers become more environmentally aware, Givaudan has the opportunity to differentiate from its competition by staying ahead in terms of sustainable and environmentally responsible design and ensuring our marketing and sales reflect the progress we make in these topics.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

High

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

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

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

150000000

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

300000000

**Explanation of financial impact figure**

1) Givaudan's global sales in 2022 were CHF 7.1 billion. We estimate the financial implications of growth of 'responsible products consumption' in a range of 100 to 200 Mio CHF, corresponding to the aggregated value of major commercial briefs we receive from key customers for selected brands with explicit and mandatory sustainable

positioning.

2) Financial implications of our competitive advantage could include :

- Increased product demand and sales revenue due to visibility of our progress on GHG emission reduction and product efficiency design.
- Avoided costs to deal with more stringent regulations or fines
- Associated indirect impact on reputation.

We estimate the financial implications were this to happen to be approximately 50 Mio CHF to 100 Mio CHF/year, corresponding to our increased presence in key customer core listing.

Combining 1) and 2), the ranges for the potential financial figure are calculated as follows:

Minimum: 100,000,000+ 50,000,000 = 150 Mio CHF

Maximum: 200,000,00 + 100,000,000 = 300 Mio CHF

#### Cost to realize opportunity

261000000

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

Action being implemented:

We have strong R&D programs to improve intrinsic, including environmental, properties of our products. Modern biotechnology techniques enable us to produce existing molecules or create new captives. In designing innovative processes, we also look at how we can reuse and recover process side streams (upcycling). By following green chemistry principles, we ensure ingredients are safe by design and that our processes make efficient use of energy and materials, while reducing water consumption, waste production and overall environmental impact through biodegradability.

Example:

New additions to our portfolio of upcycled materials in 2022 are for example :

- Koffee'Up, a sustainable beauty elixir crafted from upcycled Arabica coffee
- Patchoul'Up, a 100% upcycled active ingredient for hair and scalp. Crafted through green fractionation from distilled patchouli leaves after their use as a raw material in fragrance creations, it is an upcycled product helping us to innovate, reduce waste and help communities.
- PlanetCaps our new fragrance encapsulation technology, is certified as biodegradable according to OECD test criteria, and is officially bio-sourced, meaning it is sourced from more than 50% renewable carbon. These nature-friendly features mean fabric softener manufacturers will be able to meet new, more stringent microplastics regulations. We are expanding this biodegradable innovation to other product categories, opening the door to a wider range of compliant, sustainable and consumer-friendly products.

Cost to realize opportunity:

R&D investments (including green chemistry and eco-design technologies) were of 522 Mio CHF in 2022. Out of this, we estimate that 50% (261 Mio CHF) of R&D contributes to enhancing environmental properties of our products.

#### Comment

No comment

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## C3. Business Strategy

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### C3.1

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#### (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

Our Climate positive transition plan is shared with our shareholder and investor community via our annual integrated reporting suite, ESG investor roadshows that take place several times a year, and around corporate events like the AGM.

During these events (face to face or conference calls) feedback is gathered verbally, or in written format, and coordinated by our head of investor relations who reports to our CEO.

Additional feedback is also gathered via our corporate website and company email.

The head of investor relationship has bi-weekly touch points with the head of sustainability and with corporate communications to review feedback received thus enhancing disclosure and transparency on our climate positive transition plan.

##### Frequency of feedback collection

More frequently than annually

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

p.60-77

giv-2022-sustainability-report.pdf

##### Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

##### Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

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	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative, but we plan to add quantitative in the next two years	<Not Applicable>	<Not Applicable>

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 NZE 2050	Company-wide	<Not Applicable>	<p>Our Climate positive journey that is inclusive of Scope 1+2+3 is aligned and contributed to IEA's Net Zero by 2050 scenario presents a roadmap for the energy sector to transition to a net zero energy system by 2050. It assumes that advanced economies will reach net zero in advance of 2050 and sets out an emissions trajectory consistent with a 50% chance of limiting the global temperature rise to 1.5°C without a temperature overshoot.</p> <p>We are factoring into our overall investment plan that our Climate positive journey will tangibly benefit from reinforced climate regulations in advanced economies driving decarbonisation of our synthetics suppliers (petrochemical derived and energy intensive) thus supporting the drastic reduction of about a major part of our Scope 3 emissions related to synthetics raw materials. For our global operational sites we also count on the rise of country related subsidies to accelerate the complete shift from fossil fuels sources of energy (natural gas) to fully renewable sources for our Scope 1 before 2040 (to be noted our Scope 2 will be eliminated on or before 2025 due to the purchase of 100% of renewable electricity).</p>
Physical climate scenarios	Customized publicly available physical scenario	Company-wide	2.1°C - 3°C	<p>The aim of this scenario (the 2.7 degree scenario that is very likely from latest forecast and information from IPCC and other government alignments) was to explore alternative opportunities to guarantee supply by looking at the following angles: alternative raw material source, reformulation, safety stocks and ensure resources are spent in the right area (R&amp;D, innovation, procurement strategy, operational stock management, ...). We used a participatory approach and involved selected stakeholders in the exercise.</p> <p>This exercise has been done on the company level and highlights the countries most exposed to climate change and its implications on water scarcity and biodiversity loss, in particular the tropical area and crops most exposed to climate change implications and the horizon (2030, 2040, 2050) which also served as a reference.</p> <p>Among the main data acquired for the scenario are those relating to the crops we are buying and the characteristics of the environments of origin that could change as a result of climate change.</p> <p>Changes made: we now better leverage our growing internal team expertise like agronomy experts to define key areas to look into, bring external support if required and collaborate with suppliers if needed. (example: where drip-irrigation make sense, where it does not to boost the plant resilience in low water table environments)</p> <p>Assumptions concerned the change of local weather patterns characteristics and impact on communities behaviors (replacing crops by other crops less affected by weather patterns or water scarcity challenges).</p> <p>While our company strategy follows a five-year plan, in the case of scenarios, we have tried to project long term horizons (2030, 2040 and 2050) to help us understand what changes or specific interventions in resilience / agricultural practices should be made to our supply chain.</p> <p>Finally, the analysis included a number of physical risks that may occur: cyclonic events, drought, drastic loss of pollinators (insects / birds /...), floods, precipitation, water tables level drop....</p>
Physical climate scenarios	Customized publicly available physical scenario	Company-wide	4.1°C and above	<p>The aim of this scenario (the 4.1 degree scenario that is a catastrophic scenario) was to explore alternative opportunities to guarantee supply by looking at the following angles: catastrophic loss of iconic raw materials, alternative raw material source, drastic reformulations to remove missing iconic raw materials, safety stocks and ensure resources are spent in the right area (R&amp;D, innovation, procurement strategy, operational stock management, ...). We used a participatory approach and involved selected stakeholders in the exercise.</p> <p>This exercise has been done on the company level and highlights the countries most exposed to drastic climate change and its catastrophic implications on water scarcity and biodiversity loss, starting with the tropical area and surrounding countries and crops most exposed to climate change implications and the horizon (2030, 2040, 2050) which also served as a reference.</p> <p>Among the main data acquired for the scenario are those relating to the crops we are buying and the characteristics of the environments of origin that could change as a result of climate change, as well as other drastic environmental and societal adaptations.</p> <p>Changes made: we now better leverage our growing internal team expertise like agronomy experts to define key areas to look into first but also expanded scope of studies, bring external support if required and collaborate with suppliers where needed. (example: where drip-irrigation make sense, where it does not to boost the plant resilience in low water table environments, changes in R&amp;D portfolios and impacts on reformulation activities to ensure business continuity)</p> <p>Assumptions concerned the change of local and regional weather patterns characteristics and impact on communities behaviors as well as country climate &amp; social adaptations.</p> <p>While our company strategy follows a five-year plan, in the case of scenarios, we have tried to project long term horizons (2030, 2040 and 2050) to help us understand what changes or specific interventions in resilience / agricultural practices should be made to our supply chain. With drastic climate changes the R&amp;D and reformulation efforts were identifies as required mitigation measures.</p> <p>Finally, the analysis included a number of physical risks that may occur: cyclonic events, drought, drastic loss of pollinators (insects / birds /...), floods, precipitation, water tables level drop.... as well as more stringent political and societal adaptations</p>

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**

How can supply chain interruptions due to climate change impact the company and its value chain?

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

Evaluating different scenarios complementing our ERM (Enterprise Risk Management) approach allows the company to identify additional risk drivers for of raw material supply disruptions to assess additional mitigation measures and / or recovery plans. From a business point of view, supply difficulties have an impact on costs, lead times to supply to our customers and will affect our ability to provide our customers. Our revenue and reputation could be affected. For all time horizons considered in our climate scenario analysis (2030, 2040, and 2050), some key raw materials in tropical areas are at high risk of supply chain disruptions because these area have a high of physical risks such as cyclonic events, drought, drastic loss of pollinators (insects / birds /...) , floods,...

Changes made: our engagement in climate action has further increased driving more ambitious investments & strengthening targets to improves our ability to implement the most favorable scenarios. In parallel additional business continuity activities has been developed in the area of accelerating the development of alternative raw materials sources in some specific cases.

We are also focusing on supplier engagement to use our company as a force for good within our supply chain to raise awareness on climate change and necessary upcoming improvements in agricultural practices.

Example: Grapefruit and vanilla supply shortages are concrete examples of what scenario analysis has identified as potential risks. The way we are anticipating these potential problems is by diversifying our supply from different crops, sources, regions and developing bio-transformation processes that have the potential to generate desired end-products starting from other organic sources. In addition to that we continue to develop a range of natural-identical materials (synthetics) complementing our naturals portfolio, deciding the increase of safety stocks, as well as reformulation possibilities to reduce the resilience on potentially exposed raw materials.

**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>Description of influence:</p> <ol style="list-style-type: none"> <li>The opportunity to provide low-carbon products to our customers (see C2.4a, opp 4) and to be a co-creation partner of choice, supporting our customers in their plant-based journey by providing solutions to ensure their plant-based products taste and look great, as well as improving the nutritional profile of plant based food (see C2.4a, opp 1) has influenced the growth enabler 'Creations' of our current 2025 company strategy "Committed to Growth, with Purpose", expanding strategic relationships with suppliers, start-ups and partners; enhancing co-creation with customers.</li> <li>With consumer demand for responsible products, including low-carbon products and plant-based products, increasing, we work with our customers and other key stakeholders to develop solutions to satisfy this consumer demand for these products. Our leading scientific research means that customers are benefiting from products that use fewer resources and have a lower environmental impact. This constitutes the opportunity for added revenues in new product areas.</li> </ol> <p>We maximize value, we also partner with our suppliers to create a differentiating and profitable business. Through supplier enabled innovation, suppliers tap into their innovative resources and together we achieve a level of innovation that is beyond what we can do on our own.</p> <p>Time horizon: Given that the customer demand for low-carbon products and plant-based solutions is gradually developing and expected to increase in the future, the time horizon considered is short, medium and long term. It is already integrated in our current 2025 strategy (short term) and is integrated in our Purpose (medium and long term).</p> <p>Case study of the most substantial strategic decision made: As part of our Supplier Enabled Innovation Program, we have a strategic initiative with a selected number of partners called "Connect to Win". Its aim is to unlock value from our existing supplier relationships and create a pipeline of technological innovation that differentiate us in the market. It is a structured, open door approach that acknowledges the possibilities of adding significant value to our existing procurement approaches while creating value in Givaudan's innovation agenda. Through this collaboration with strategic suppliers we are able to enhance the rapid development of, among others, low-carbon and plant-based products.</p>
Supply chain and/or value chain	Yes	<p>description of the influence:</p> <ol style="list-style-type: none"> <li>The risk of a disruption in the supply of the raw materials required for our production and/or volatility of raw material prices may negatively impact our ability to produce at competitive prices and in a timely manner (see risk 2 of C2.3a). It has been identified as a major risk to the business and is reflected in the annual financial planning, since raw material prices impact our profitability margins. This risk has influenced Givaudan's long-term business strategy in many ways, characterised by an increased use of risks and opportunities assessments from protecting future supply chains while continuing to respond to consumers and market needs. The way we source, for example: with an annual spend of over CHF 2 billion in raw materials and indirect materials &amp; services, procurement is a strategic pillar with a high impact on the profitability of the Company. Sustainable sourcing is one of the five pillars of the Company's growth strategies. This is why our "Windmill" process includes risks related to Climate Change and weather conditions and is used to develop risk-based sourcing strategies and strategic partnerships with suppliers. There are currently 100 category initiatives touching 50% of the spend.</li> <li>The opportunities to secure our raw material supply chain through our Sourcing4Good (S4G) program (substantial strategic decision), as explained in opp. 3 of C2.4a, are an integral part of the "creations and nature" pillar of our 2025 business strategy. The advanced level projects part of the S4G program are about being present at the origin of the raw materials, building strong and long term relationships with smallholder producers and fostering local value creation and good agricultural practices to secure the supply and quality of key natural ingredients.</li> </ol> <p>time horizon: Short-medium term for advanced level projects Medium-long term for windmill process and S4G</p> <p>Case study: For example, Black Pepper Oil supply from Madagascar is now covered under our S4G program, enabling well controlled agricultural practices at farm level that enables official Organic certification and thus better environmental footprint, whilst ensuring security of supply risk whilst stabilising the cost base fluctuations overtime. This is all enabled by our S4G program that is inclusive from smallholder farmers to distillers and distributors.</p>

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Investment in R&D	Yes	<p>Description of the influence:</p> <ol style="list-style-type: none"> <li>1. The opportunity to provide low-carbon products to our customers (see C2.4a, opp. 4) and the opportunity to support our customers in their plant-based journey (see C2.4a, opp. 1) has influenced the pillar 'Creations' of our current 2025 business strategy. Investment in R&amp;D, innovation and technology and strong R&amp;D programmes enable us to satisfy the increasing demand for low-carbon products and plant-based solutions and to improve intrinsic environmental properties of our products in general.</li> <li>2. Addressing the looming shortage of raw materials (see in C2.3a risk 2) has also influenced the pillar "Creations" of our current 2025 business strategy. The R&amp;D there is focused on generating alternative sources of materials from alternative ingredients or even from waste streams.</li> <li>3. Our GHG emission reduction programme (see C2.4a opp. 2), is part of our Purpose and included in the pillar "Nature" of our current 2025 business strategy. In light of these targets, a number of short term strategy changes have been influenced, for example, our focus on green chemistry and compacted design via a wide-ranging assessment of Givaudan's chemistry to establish baseline performance and improvement measures for our innovation and manufacturing processes.</li> </ol> <p>Time horizon: Short, medium and long term</p> <p>Case study of the most substantial strategic decision made: In designing innovative processes, we also look at how we can reuse and recover process &amp; waste side streams (upcycling). By following green chemistry principles, we ensure ingredients are safe by design and that our processes make efficient use of energy and materials, while reducing water consumption and waste. One of the latest sustainable ingredient is KoffeeUp™. It is a sustainable beauty oil crafted from upcycled Arabica coffee. KoffeeUp™ has natural, eco-conscious and effective properties bringing facial skin care benefits to consumers. It was developed in collaboration with a biotech start-up that focuses on upcycling spent coffee grounds/waste into active and functional ingredients for cosmetics. This ground-breaking 'upcycling' approach reduces waste and minimises our environmental impact, in line with our commitment to sustainability and consumers' demand for products that are both highly effective and produced in a responsible way.</p>
Operations	Yes	<p>Description of the influence:</p> <ol style="list-style-type: none"> <li>1. Givaudan is exposed to climate-related regulation that place a price on GHG emissions generated by our production facility, by the use of electricity and non-renewable fuel sources. Climate-related regulations are increasing world-wide by quantity and location, and with our operations located in around 20 countries, the risk of exposure to emerging regulation, as explained in C2.3a risk 1, has influenced our business strategy. Within the "How we act: Excellence, Innovation &amp; Simplicity - in everything we do" pillar we have the ambition to decouple growth and environmental impact by developing yearly GHG reduction initiatives that compensate for the output growth. In signing up for the SBT and RE100 commitments (substantial strategic decision) prior to the Paris Agreement, Givaudan demonstrates its ambition to mitigate climate change and its desire to work in a broad global partnership of proactive companies dedicated to making a positive difference.</li> <li>2. The risk of extreme weather events in locations where we operate leading to water supply shortage and potential business interruption, as explained in C2.3a risk 4, has a potential negative impact on the "Nature" pillar of our 2025 business strategy. To ensure the delivery of high quality products and services that are cost-effective, safe, sustainable and in a timely manner we have put in place a water stewardship programme. We also address transfers due to operations continuity issues in our business continuity plans.</li> </ol> <p>Time horizon Short,medium and long term</p> <p>Case study of the most substantial strategic decision: We recognize strong action is needed to mitigate the most damaging effects of climate change. Our commitments were taken to the highest level by:  <ul style="list-style-type: none"> <li>- Aligning our Science-Based Targets to 1.5°C</li> <li>- Joining the global movement of leading companies committed to set 1.5°C science-based emissions reduction targets aligned with a net-zero future by signing the UN Pledge</li> <li>- Announcing our ambition to be Climate Positive before 2050 inclusive of scope 1, 2 and 3</li> </ul> </p>

### 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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Capital allocation Acquisitions and divestments Assets	<p>1. Revenues</p> <p>Description of the impact: Revenues are impacted both positively and negatively depending on the risk and opportunity. (+): The opportunity to provide low-carbon products (as explained in C2.4a, opportunity 4) and the opportunity to be a co-creation partner of choice, supporting our customers in their plant-based journey by providing solutions to ensure their plant-based products taste and look great, as well as improving the nutritional profile of plant based food (see C2.4a, opportunity 1) contribute to an increase in our revenues. (-) The risk of a disruption in the supply or volatility of raw material prices (as explained in C2.3a, risk 2) increases raw material spend and thereby decrease our revenues.</p> <p>magnitude of the impact/time horizon: The impact (increase) in the revenues through customer demand for low-carbon products and plant-based solutions is low at the moment as the demand for low-carbon products and plant-based solutions is slowly moving. We expect an increase over the medium term as a result of the growing demand for low-carbon products and plant-based solutions. The impact (decrease) in the revenues through raw material price increases or in the event of severe raw material shortage and consequently inability to supply, is currently medium. So far the impact has been mitigated thanks to our ability to diversify our geographical or physical sources of raw materials. In some cases though, these alternative sourcing came at higher cost for the company.</p> <p>2. Direct costs</p> <p>Description of the impact: a. Climate-related regulations are increasing world-wide by quantity and location, and with our operations located in around 20 countries, the risk of exposure to emerging regulation is high, as explained in C2.3a risk 1. Any tightening of these regulations may have a negative impact on Givaudan's operating costs (e.g. for additional taxes on fuel, energy or carbon emissions). b. The risk of extreme weather events in locations where we operate leading to water supply shortage and potential business interruption, as explained in C2.3a risk 4, is impacting operating costs through cost of the business continuity plan to anticipate transfers due to operations continuity issues.</p> <p>magnitude of impact/time horizon: The order of magnitude of the impact is currently less than 5% of total operating costs, which is considered as a low impact and is expected to increase over the medium term.</p> <p>3. Capital expenditures/Capital allocation</p> <p>Description of the impact: a) Spend on R&amp;D/Innovation to pursue opportunities to develop new products and reduce GHG emissions (as explained in C2.4a opportunities 1, 2 &amp; 4) have an impact on current and future allocation of capital expenditures. In 2022 our total investment in R&amp;D was CHF 522 million. b) The cost to mitigate the risk of loss of reputation through adaptation and mitigation activities, as explained in C2.3a risk 3 is directly linked to the costs to implement our GHG reduction programmes which is done mostly through capital expenditures. Our investment in capital expenditure is around 4% of sales annually.</p> <p>Magnitude of impact: The magnitude of the impact is high, as borne out by e.g. our investment in R&amp;D, which amounts to 7-9% of sales.</p> <p>case study of how climate-related risks and opportunities have influenced the financial planning and time horizon: Our global CAPEX &amp; OPEX governance ensures appropriate financial planning supports our sustainable development in an integrated way. In deed additional OPEX costs associated to converting our renewable electricity sources from conventional to fully renewable (as part of RE100) are embedded and absorbed into our normal energy procurement schemes. The additional 2.1 million CHF has been factored in our 2020 - 2025 budget cycles as well as 2.8 million CHF for the period 2026 - 2030. Same has been done for our CAPEX allocation process, where more efficient technologies than usual are and will continue to be selected for key site developments. These additional investments are embedded and absorbed into our normal CAPEX projects selection schemes and site masterplanning decisions. A 25 million CHF investment has been factored in our 2020 - 2025 budget cycles to accelerate the decarbonization plans for scope 1. It is foreseen that an additional 50 million CHF will be integrated in the 2026 - 2030 period to achieve our 2030 SBT milestone.</p> <p>4. Acquisitions and divestments:</p> <p>Description of the impact: Acquisitions in the area of naturals result in a higher exposure to climate change related risks, but at the same time allows us to diversify geographically. We are also looking to create investments, partnerships and alliances within an overall eco-system which would support our sustainability ambitions. Examples are partnerships with academia, start-ups and with suppliers through our "connect to win" program.</p> <p>Magnitude of the impact/time horizon: Currently, the impact is low and we expect an increase in the future.</p> <p>5. Assets</p> <p>Description of the impact: We have a plan to systematically maintain and/or upgrade our facilities allowing a reduction of GHG emissions and switch to renewable energy. These plans are part of our sites maintenance strategies and 5 years strategic CAPEX.</p> <p>Magnitude of the impact/time horizon: Givaudan is typically investing around 4% of sales, more than CHF 200 million each year on capital investment projects which include investments in technology, maintenance of our manufacturing locations and new investments in new markets / new facilities. The order of magnitude of the impact is medium and is expected to increase over the medium term.</p>

### 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 our climate transition plan	<Not Applicable>

### 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 our climate transition plan

**Taxonomy under which information is being reported**

<Not Applicable>

**Objective under which alignment is being reported**

<Not Applicable>

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

3000000

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

2

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

5

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

10

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

Our global CAPEX & OPEX governance ensures appropriate financial planning supports our sustainable development in an integrated way. For our CAPEX allocation process, where more efficient technologies than usual are and will continue to be selected for key site developments. These additional investments are embedded and absorbed into our normal CAPEX projects selection schemes and site masterplanning decisions. A 25 million CHF investment has been factored in our 2020 - 2025 budget cycles to accelerate the decarbonization plans for scope 1. It is foreseen that an additional 50 million CHF will be integrated in the 2026 - 2030 period to achieve our 2030 SBT milestone.

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**Financial Metric**

OPEX

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

Alignment with our climate transition plan

**Taxonomy under which information is being reported**

<Not Applicable>

**Objective under which alignment is being reported**

<Not Applicable>

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

700000

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

5

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

10

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

10

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

Our global CAPEX & OPEX governance ensures appropriate financial planning supports our sustainable development in an integrated way. In deed additional OPEX costs associated with converting our renewable electricity sources from conventional to fully renewable (as part of RE100) are embedded and absorbed into our normal energy procurement schemes. The additional 2.1 million CHF has been factored in our 2020 - 2025 budget cycles as well as 2.8 million CHF for the period 2026 - 2030.

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**C4. Targets and performance**

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**C4.1**

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

Absolute target

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**C4.1a**

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

**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**

2017

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2015

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

149707

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

113244

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

<Not Applicable>

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

<Not Applicable>

**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)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

262951

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

100

**Target year**

2030

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

70

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

78885.3

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

145567

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

24295

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

<Not Applicable>

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

<Not Applicable>

**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)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

169862

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

Yes, it covers land-related and non-land related emissions (e.g. SBT approved before the release of FLAG target-setting guidance)

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

50.5737896848788

**Target status in reporting year**

Underway

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

In 2019, Givaudan strengthened its targets, now aiming to reduce absolute scope 1 and 2 GHG emissions by 70% between 2015 and 2030, up from a previous target of a 30% reduction. Our revised target is 1.5°C aligned. In 2022, scope 1 and 2 emissions have reduced by 35% compared to 2015, which means that 50% of the target has been achieved.

Target coverage: all scope 1 and 2 GHG emissions.

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

We made good progress towards our targets in 2022 with absolute total direct (scope 1) and indirect (scope 2) GHG emissions decreasing by 93,089 tonnes. The evolution of absolute total scope 1 and 2 GHG emissions in 2022 vs. the 2015 baseline was -35%.

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

<Not Applicable>

---

**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**

2°C aligned

**Year target was set**

2017

**Target coverage**

Company-wide

**Scope(s)**

Scope 3

**Scope 2 accounting method**

&lt;Not Applicable&gt;

**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**

2015

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

1917037

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

51722

**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)**

105744

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

29674

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

19321

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

24461

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

21516

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

&lt;Not Applicable&gt;

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

54615

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

2224090

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

2224090

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

**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)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**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**

2030

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

20

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

1779272

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

<Not Applicable>

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

<Not Applicable>

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

1921823

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

72959

**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)**

37067

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**  
47657

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)**  
24206

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)**  
5946

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)**  
13295

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**  
87785

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)**  
2210738

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**  
2210738

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

Yes, it covers land-related and non-land related emissions (e.g. SBT approved before the release of FLAG target-setting guidance)

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

3.00167709040551

**Target status in reporting year**

Underway

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

Target coverage:

Our scope 3 target covers all GHG Protocol scope 3 categories that are relevant to our business: Purchased goods and services, Capital goods, Fuel and energy related activities, Upstream transportation and distribution, Waste generated in operations, Business travel, Employee commuting, Downstream transportation and distribution.

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

In 2022, we saw a decrease in our scope 3 GHG emissions with a reduction of 1% against the 2015 baseline figure. We are continuously improving our model to better assess our Scope 3 emissions and identify impactful points of action in our procurement practices.

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

<Not Applicable>

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## 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)

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## 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**

2015

**Target coverage**

Company-wide

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2015

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

324921

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

0

**Target year**

2025

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

100

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

90

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

90

**Target status in reporting year**

Underway

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

This target is part of our science-based target explained in question C4.1a

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

RE100

Science Based Targets initiative

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

Target coverage: all manufacturing sites

So far 90% of all the electricity we purchase comes from renewable sources. In total 56 of our manufacturing sites are powered solely by electricity from renewable sources by the end of the reporting cycle.

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

Innovative sourcing strategies are an important part of reaching our targets. In 2020, we set a new renewable electricity strategy prioritizing first on-site generation, then off-site generation and finally the purchase of Electricity Attribute Certificates (EACs). Our stringent procurement strategy helps add more renewable electricity to the grid. In 2022, we purchased electricity that accounted for 32% of the total energy used across the Company, but which equated to 11% of our total CO2 emissions.

We have made considerable progress in terms of renewable electricity supply (scope 2 GHG emissions) and are on track to meet our commitment to RE100.

We attained 90% renewable electricity supply in 2022 and 56 production sites were powered 100% by electricity from renewable sources by the end of the reporting year.

One project, at our site in Johannesburg, South Africa, we installed 778 solar panels on the roofs of our buildings, generating the potential for 490,000 kWh units of cleaner energy annually. Using this cleaner energy to power our production line electrical equipment and our offices means we can mitigate an estimated 9,800 tonnes of CO2 emissions over the next 25 years, the equivalent of planting 43,210 trees. The system currently provides annual savings of around 20% on electricity consumption, reduces our reliance on the grid and helps us hedge electricity price increases.

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

<Not Applicable>

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**C4.2c**

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**(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

Abs2

**Target year for achieving net zero**

2050

**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**

Target coverage: all scope 1 and 2 GHG emissions + all relevant scope 3 categories: Purchased goods and services, Capital goods, Fuel and energy related activities, Upstream transportation and distribution, Waste generated in operations, Business travel, Employee commuting, Downstream transportation and distribution.

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

Yes

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

Our net-zero target is part of our Purpose and is the following:

Before 2050, we will be a climate-positive business based on scope 1, 2 and 3 emissions, with the following milestones:

- RE100 by 2025 (100% renewable electricity by 2025)
- Before 2030, our operations GHG emissions (scope 1 and 2) will be cut by 70% and our supply chain GHG emissions (scope 3) by 20%
- Before 2040, our operations (scope 1 and 2) will be climate-positive and our supply chain emissions will be cut by 50%
- Before 2050, we will become a climate-positive business (scope 1, 2 and 3 will be climate-positive)

In addition, we have committed to the pledge "Business Ambition for 1.5°C" proposed by the United Nations to aim for net-zero value chain emissions by 2050 and intend to seek validation of our net-zero targets by SBTi, according to the SBTi net-zero standard.

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

Though our Climate Strategy prioritises the reduction of emissions, we also look to neutralise or compensate residual emissions that cannot be reduced. Carbon removal solutions are an essential element to going beyond net zero and achieving our climate positive target. The journey in front of us is long and the results will take time. This is why we are starting now.

Our approach is now focused on Natural Climate Solutions (NCS), which aim at the better management, protection and restoration of ecosystems. They target a reduction of GHG emissions related to land use and changes in land use, the capture and storage of additional CO<sub>2</sub> from the atmosphere and, finally, the improvement of ecosystem resilience, thereby helping communities adapt to the increases in flooding and dry spells associated with climate change. Insetting, that is, the neutralisation of our emissions through a carbon capture and storage project within our value chain, is highly relevant for Givaudan because we have a direct footprint in natural supply chains located in countries where the environment is under pressure. For us, insetting means natural solutions in the supply chains, with the producing communities. It is not the easiest approach because it involves land availability and long term commitment, traceability and auditing. It is the most credible, relevant approach to Givaudan and in line with our SBTi engagements. It will also benefit our communities socially.

The three most relevant insetting solutions for Givaudan are reforestation, improved plantations (for example, firewood plantation for distillation) and improved agricultural practices.

**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	88	7618
To be implemented*	24	11000
Implementation commenced*	44	6107
Implemented*	51	21324
Not to be implemented	4	0

**C4.3b**

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

**Initiative category & Initiative type**

Low-carbon energy consumption	Other, please specify (EAC coverage)
-------------------------------	--------------------------------------



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

13582

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

0

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

0

**Payback period**

No payback

**Estimated lifetime of the initiative**

1-2 years

**Comment**

There is no CAPEX cost, but an OPEX additional cost to purchased these EACs. In 2022, we have purchased Energy Attribute Certificates (EACs) for all our 4 Chinese manufacturing sites in scope for this reporting cycle. In addition we also purchased EACs for 2 sites in Europe (1 in France and 1 in UK). This is the first year we buy EACs for these sites.

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

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

570

**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)**

320000

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

650000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Investment in a new boiler to increase efficiency in our utilities production

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

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

406

**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)**

35000

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

26000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Optimization of a steam production system

**Initiative category & Initiative type**

Energy efficiency in production processes	Cooling technology
---	--------------------

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

364

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

30000

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

144450

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

The replacement of the air cooled chiller with a water cooled chiller allows for higher efficiency in the heat exchange and thus energetic savings.

**Initiative category & Initiative type**

Energy efficiency in production processes	Smart control system
---	----------------------

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

260

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

12747

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

143100

**Payback period**

11-15 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Implementation of APF (Active Power Filters) for harmonic improvement and stabilization of the power supply

**Initiative category & Initiative type**

Energy efficiency in production processes	Machine/equipment replacement
---	-------------------------------

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

250

**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)**

71000

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

230000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Replacement of an old hot boiler

**Initiative category & Initiative type**

Energy efficiency in production processes	Machine/equipment replacement
---	-------------------------------

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

250

**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)**

71000

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

239000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Replacement of an old hot boiler

**Initiative category & Initiative type**

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)
--------------------------------	--

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

232

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

28000

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

117000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Replacement of a HVAC system for better efficiency

**Initiative category & Initiative type**

Energy efficiency in buildings	Building Energy Management Systems (BEMS)
--------------------------------	---

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

1638

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

2124

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

0

**Payback period**

No payback

**Estimated lifetime of the initiative**

&gt;30 years

**Comment**

Automated thermostats in the buildings have been set to lower temperatures in the evenings/nights and in unoccupied areas.

**Initiative category & Initiative type**

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

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

1638

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

2124

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

2124

**Payback period**

No payback

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Implementation of a plan for thermostats calibration as well as a recurrent intervention for seasonal adjustments

**Initiative category & Initiative type**

Fugitive emissions reductions	Other, please specify (Steam Trap Replacement / Leak Repair)
-------------------------------	--

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

216

**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)**

19672

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

87360

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Replacement of an old steam trap that presented leakage

**Initiative category & Initiative type**

Energy efficiency in production processes	Smart control system
---	----------------------

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

187

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

19431

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

59396

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Implementation of APF (Active Power Filters) for harmonic improvement and stabilization of the power supply

**Initiative category & Initiative type**

Company policy or behavioral change	Other, please specify (Production Planning Optimization)
-------------------------------------	--

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

154

**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)**

3013

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

0

**Payback period**

No payback

**Estimated lifetime of the initiative**

&gt;30 years

**Comment**

Increasing efficiency between production batches to optimize utilities use.

**Initiative category & Initiative type**

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)
--------------------------------	--

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

113

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

124000

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

27018

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Implementation of an automatized system to allow PCP &amp; 3C HVAC Stoppage Over Weekend

**Initiative category & Initiative type**

Energy efficiency in production processes	Waste heat recovery
---	---------------------

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

110

**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)**

84000

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

62000

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Implemented system to recover heat heat from an air compressor

**Initiative category & Initiative type**

Energy efficiency in production processes	Smart control system
---	----------------------

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

107

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

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

8000

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

30000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Implementation of APF (Active Power Filters) for harmonic improvement and stabilization of the power supply

**Initiative category & Initiative type**

Energy efficiency in production processes	Cooling technology
---	--------------------

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

91

**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)**

14097

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

17329

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Implementation of a project on condensate optimization

**Initiative category & Initiative type**

Energy efficiency in production processes	Process optimization
---	----------------------

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

78

**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)**

20000

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

250000

**Payback period**

11-15 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Investment in a new boiler to replace an older inefficient one.

**Initiative category & Initiative type**

Energy efficiency in production processes	Cooling technology
---	--------------------

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

61

**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)**

49500

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

35000

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Insulation of a steam condensate system to improve efficiency and reduce heat losses

**Initiative category & Initiative type**

Energy efficiency in buildings	Other, please specify (Reduction of heat loss in production sheds)
--------------------------------	--

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

59

**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)**

9750

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

95000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Implementation of high speed doors in production sheds to reduce the loss of heat. This directly reduced the steam demand of the processes in the sheds, especially during cold months

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

Method	Comment
Dedicated budget for energy efficiency	Compared to a "standard" design extra capital is allocated to the design and construction of new green field facilities with higher energy saving design standards.
Employee engagement	At every manufacturing location a Green Team (with employee volunteers) is active, which drives behavioural change in terms of efficient use of energy among the workforce and which is developing and implementing energy saving initiatives
Dedicated budget for low-carbon product R&D	Process engineering department is optimizing existing manufacturing processes through the application of, amongst other things, Green Chemistry principles.
Compliance with regulatory requirements/standards	This is the basic driver for meeting energy related design standards, which are increasingly put forward in many countries in which we operate
Internal price on carbon	We have identified and agreed on an internal price of carbon mechanism to employ for our scopes 1 and 2 emissions reduction projects. Internal pilot test with real projects have been successful and the ICP is now integrated in the payback with ICP metric. The ICP is also embedded in the Green Chapter analysis which is employed during the CAPEX projects to identify the best sustainable option among the different technical variants available.

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

Yes

**(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**

No taxonomy used to classify product(s) or service(s) as low carbon

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

Other	Other, please specify (Concentrated fragrances)
-------	---

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

Givaudan's Fragrance Compaction programme looks at innovative ways to design much more concentrated fragrances for all product categories. Using higher impact, higher value added ingredients to deliver fragrance performance we are able to offer an increased value proposition to customers while reducing emissions. Fragrance contribution is divided 34 times from standard design with a positive impact in every step where fragrance is involved (RM processing, Manufacturing, Distribution). Using GHG protocol methodology emissions for identical functional unit are reduced by 70%.

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

No

**Methodology used to calculate avoided emissions**

&lt;Not Applicable&gt;

**Life cycle stage(s) covered for the low-carbon product(s) or services(s)**

&lt;Not Applicable&gt;

**Functional unit used**

&lt;Not Applicable&gt;

**Reference product/service or baseline scenario used**

&lt;Not Applicable&gt;

**Life cycle stage(s) covered for the reference product/service or baseline scenario**

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

1

**Level of aggregation**

Product or service

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

No taxonomy used to classify product(s) or service(s) as low carbon

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

Other	Other, please specify (Example of a low carbon flavour)
-------	---

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

BioNootkatone, developed in collaboration with Manus Bio, is a breakthrough Ingredient that answers market demand for sustainable, natural, clean-label citrus flavour without the cost and supply volatility of the traditional citrus extracts. It has a considerable smaller climate impact than nootkatone (citrus derived) which makes it a cost effective sustainable natural alternative.

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

Yes

**Methodology used to calculate avoided emissions**

Other, please specify (LCA methodology (PEF))

**Life cycle stage(s) covered for the low-carbon product(s) or services(s)**

Cradle-to-gate

**Functional unit used**

1 kg of Nootkatone

**Reference product/service or baseline scenario used**

Two reference routes evaluated: Production of Nootkatone from Natural Orange fruit vs Production of Nootkatone Sugar from Corn

**Life cycle stage(s) covered for the reference product/service or baseline scenario**

Cradle-to-gate

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

0.061

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

These results are obtained through a thorough LCA performed by a third party. The two reference routes differ from starting material but also from production process altogether. These processes remain confidential, but we can disclose that the avoided emissions in the sugar route mainly come from the process being less energy



intensive.

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

1

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?

Yes, an acquisition

Name of organization(s) acquired, divested from, or merged with

Albert Vieille, Golden Frog and Ungerer

Details of structural change(s), including completion dates

The structural change is a growth due to the acquisitions of Albert Vieille, Golden Frog and Ungerer which occurred prior to 2022 and are being accounted for the first time in this disclosure. All operations from these acquisitions are now under the ownership of Givaudan and are accounted for in the emissions data of Givaudan. In order to enable a meaningful comparison of environmental performance over time, Givaudan has established a standard process, based on the GHG Protocol, to recalculate its baseline indicators in case of structural changes such as acquisitions, changes in calculation methodology or inventory boundaries. This allows us to compare performance on a like-for-like basis over time. The process includes definitions of recalculation triggers and the process of reporting the information. Thanks to this guidance, Givaudan is able to track its environmental performance in a transparent manner and with confidence that the data are accurate despite changes related to business growth.

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?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

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 1 Scope 2, location-based Scope 2, market-based Scope 3	Baseline recalculation In order to enable a meaningful comparison of environmental performance over time, Givaudan has established a standard process, based on the GHG Protocol, to recalculate its baseline indicators in case of structural changes such as acquisitions, changes in calculation methodology or inventory boundaries. This allows us to compare performance on a like-for-like basis over time. The process includes definitions of recalculation triggers and the process of reporting the information. Thanks to this guidance, Givaudan is able to track its environmental performance in a transparent manner and with confidence that the data are accurate despite changes related to business growth. Reasons for change: In 2022, the majority of the changes are due to the impact of integrating information from recently acquired companies Albert Vieille, Golden Frog and Ungerer into our baseline and past-year data. We also restate data when we identify corrections that must be reflected in the past performance or when we use a new calculation or measurement methodology for certain indicators. This is done with the aim of keeping the data consistent and comparable over time.	Yes

C5.2

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

**Scope 1****Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

149707

**Comment**

no comment

**Scope 2 (location-based)****Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

120781

**Comment**

no comment

**Scope 2 (market-based)****Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

113244

**Comment**

no comment

**Scope 3 category 1: Purchased goods and services****Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

1917037

**Comment**

no comment

**Scope 3 category 2: Capital goods****Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

51722

**Comment**

no comment

**Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)****Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

105744

**Comment**

no comment

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

**Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

29674

**Comment**

no comment

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

**Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

19321

**Comment**

no comment

**Scope 3 category 6: Business travel**

**Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

24461

**Comment**

no comment

**Scope 3 category 7: Employee commuting**

**Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

21516

**Comment**

no comment

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

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

Givaudan has no upstream leased assets.

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

**Base year start**

January 1 2015

**Base year end**

December 31 2015

**Base year emissions (metric tons CO2e)**

54615

**Comment**

no comment

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

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

Givaudan is a business-to-business company and our products are used by our customers to produce end/consumer products, but the concentration of our products as ingredients in these end products is small (usually less than 1%). Moreover, the incorporating techniques of our product do not require any energy related step. By consequence this scope 3 category is not relevant.

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

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

Givaudan is a business-to-business company and our products are used by our customers to produce end/consumer products, but the concentration of our products as ingredients in these end products is small (usually less than 1%). By consequence this scope 3 category is not relevant.

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

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

The majority of our products are applied in food/beverage or personal care products which are consumed as such and do not require any specific waste treatment. By consequence this scope 3 category is not relevant.

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

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

Givaudan has no downstream leased assets.

**Scope 3 category 14: Franchises**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

Givaudan is not a franchise company.

**Scope 3 category 15: Investments**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

Investments are mostly happening around specific product innovation activities which have a limited impact. By consequence this scope 3 category is not relevant.

**Scope 3: Other (upstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

N/A

**Scope 3: Other (downstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

N/A

C5.3

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**(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

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## C6.1

---

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**

145567

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

no 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**

no comment

## C6.3

---

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

**Reporting year**

**Scope 2, location-based**

138360

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

24295

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

No 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**

New acquisitions

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

- Scope 1
- Scope 2 (location-based)
- 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: 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**

Emissions excluded due to a recent acquisition or merger

**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 2021

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

<Not Applicable>

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

<Not Applicable>

**Explain why this source is excluded**

We have the following procedure when there are acquisitions: - if the acquisition of the company is done in the first half of the year, then their environmental data (including GHG emission data) is integrated the following year. - if the acquisition of the company is done in the second half of the year, then their environmental data (including GHG emission data) is integrated the year after the following year. This procedure has been externally verified and assured.

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

<Not Applicable>

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**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 CO2e)**

1921823

**Emissions calculation methodology**

- Supplier-specific method
- Average data method
- Spend-based method

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

5.3

**Please explain**

For Natural and Synthetic raw materials, figures are estimated according to process-based modelling using individual modelling per substance and considering all physical inputs (energy, fertilisers, etc.). The model allows us to identify the carbon footprint of each substance using its weight (kg) and the most accurate emission factors. Emission factors are based on data from global generic Life Cycle Inventory databases (ecoinvent, World Food LCA Database) and internal primary data. Specific emission factors are used for substances representing the highest volume purchased. Proxies have been extrapolated for others.

For other Indirect materials & services categories (excluding existing categories), figures are calculated through the ESCHER model – an extended multi-regional input output model based on Global Trade and Analysis Project (GTAP) data – on the basis of financial values of materials purchased during 2015 and the country of origin. The 2022 GHG emission figure was then calculated by using the 2015 ratio between spend and GHG emissions and extrapolating to the 2022 spend figure.

For packaging materials, the figure was calculated by extracting the number of units used for each type of packaging used at Givaudan from the Company's ERP database. This number was multiplied by the carbon footprint figure for the type of packaging (as received from suppliers or in publicly available databases). The totals for each type of packaging were consolidated to give a total Givaudan figure. For calculating the figure of packaging material it was necessary to have the carbon footprint figure by type of packaging from the suppliers.

## Capital goods

### Evaluation status

Relevant, calculated

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

72959

### Emissions calculation methodology

Spend-based method

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

0

### Please explain

The figures are calculated through the ESCHER model on the basis of financial values of capital goods purchased during 2015. The 2022 GHG emission figure was calculated by using the 2015 ratio between spend and GHG emissions and extrapolating to the 2022 spend figure.

## 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)

37067

### Emissions calculation methodology

Average data method

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

0

### Please explain

The calculation considered the primary energy carriers for the production of heat, electricity and steam, and the technology standard in the countries of the respective sites. The data basis for the life-cycle inventory is the ecoinvent database 3.6 (method: IPCC 2013, 100 years). The scope 3 emissions were estimated directly through the analysis of the respective ecoinvent datasets by subtracting scope 1 and 2 emissions from overall emissions. Scope 3 emissions for the delivery of electricity (infrastructure, grid losses and direct emissions) have also been accounted for. Covers the energy purchased as primary energy sources, purchased steam and electricity.

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

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

47657

### Emissions calculation methodology

Distance-based method

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

0

### Please explain

We monitor the environmental impact of transportation (air, ship and road) by calculating the associated GHG emissions. We do this through a model that tracks all transport movements through our SAP system (by mode of transport), from delivery to receipt locations of raw materials. To calculate the GHG footprint, we use emission factors per mode of transport according to the Cefic (European Chemical Industry Council) guideline.

## Waste generated in operations

### Evaluation status

Relevant, calculated

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

24206

### Emissions calculation methodology

Waste-type-specific method

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

0

### Please explain

Emission factors on a per tonne waste basis (as extracted from scope 3 guidance documents from WBCSD + WRI) have been multiplied with the total weight of waste generated at our manufacturing locations.

## Business travel

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

5946

### Emissions calculation methodology

Distance-based method

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

100

### Please explain

Data on distance travelled are collected through our global and local travel agencies. To calculate the GHG footprint, emission factors per haul and class are used according to the 2022 Department for Environment, Food and Rural Affairs (Defra, UK) definition. We use the Emission factor including the RF effect.

## Employee commuting

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

13295

### Emissions calculation methodology

Average data method

Site-specific method

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

40

### Please explain

The reported 2022 figure is based on the 2021 employee commuting survey/questionnaire. We collected information from about 7000 employees on commuting habits by including mode of transport and distance covered. The GHG emissions related to the category are calculated by multiplying the distance per dedicated mode of transport emission factors (according to Defra's GHG conversion factor). The total emissions are then extrapolated for all employees including the recent acquisitions to generate the 2022 figure. The next survey is planned for 2024.

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Givaudan has no upstream leased assets.

## Downstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

87785

### Emissions calculation methodology

Distance-based method

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

0

### Please explain

We monitor the environmental impact of transportation (by air, ship and road) by calculating the associated GHG emissions. We do this through a model that tracks all transport movements through our SAP system (by mode of transport), from delivery to receipt locations of intercompany deliveries and deliveries to customers. To calculate the GHG footprint, we use emission factors per mode of transport according to the Cefic guideline



## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Givaudan is a business-to-business company and our products are used by our customers to produce end/consumer products, but the concentration of our products as ingredients in these end products is small (usually less than 1%). Moreover, the incorporating techniques of our product do not require any energy related step. By consequence this scope 3 category is not relevant.

## Use of sold products

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Givaudan is a business-to-business company and our products are used by our customers to produce end/consumer products, but the concentration of our products as ingredients in these end products is small (usually less than 1%). By consequence this scope 3 category is not relevant.

## End of life treatment of sold products

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

The majority of our products are applied in food/beverage or personal care products which are consumed as such and do not require any specific waste treatment.

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Givaudan has no downstream leased assets.

## Franchises

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Givaudan is not a franchise company.

**Investments**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

As a manufacturer of fragrances and flavours, investments mostly involve specific product innovation activities with minimal carbon footprint (less than 5% of Scope 3 GHG emissions) . Due to this, Scope 3 GHG emissions related to Givaudan's investments are not relevant.

**Other (upstream)**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

Givaudan has no other (upstream) category.

**Other (downstream)**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

Givaudan has no other (downstream) category.

C6.7

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

Yes

C6.7a

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**(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.**

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	10476	N/A

C6.10

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(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**

0.000023674

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

169862

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

7175000000

**Scope 2 figure used**

Market-based

**% change from previous year**

6.7

**Direction of change**

Decreased

**Reason(s) for change**

Change in renewable energy consumption

**Please explain**

The 2022 intensity figure decreased with the implementation of emission reduction activities such as low carbon energy purchase, energy efficiency in processes and in building services.

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**Intensity figure**

0.2774

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

169862

**Metric denominator**

metric ton of product

**Metric denominator: Unit total**

612349.24

**Scope 2 figure used**

Market-based

**% change from previous year**

5.1

**Direction of change**

Decreased

**Reason(s) for change**

Change in renewable energy consumption

**Please explain**

The 2022 intensity figure decreased with the implementation of emission reduction activities such as low carbon energy purchase, energy efficiency in processes and in building services.

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## C7. Emissions breakdowns

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### C7.1

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

No

### C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
Argentina	1456.2
Australia	208.5
Brazil	1631.5
China	2075
Egypt	246
France	6126.8
Germany	2095.3
Hungary	4108.2
India	1610.9
Indonesia	1882.4
Japan	235.8
Mexico	33556.9
Netherlands	7721.9
Singapore	86.9
South Africa	291.8
Spain	6368.8
Switzerland	25741
United Kingdom of Great Britain and Northern Ireland	1233.5
United States of America	37471.3
Malaysia	0
Belgium	1094.6
Chile	658.2
Italy	2319.2
Morocco	6373.1
Sweden	114.8
Viet Nam	858.5

**C7.3**

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

By business division

**C7.3a**

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

Business division	Scope 1 emissions (metric ton CO2e)
Taste and Wellbeing	90543.5
Fragrance and Beauty	55023.4

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

**(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 CO2e.**

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	100124.5	<Not Applicable>	This figure was calculated by taking the total scope 1 figure (145,567 metric tons CO2e) and 1) subtracting the scope 1 figure of 2 non-manufacturing sites included in our scope (2,532 metric tons of CO2e) and 2) excluding 30% of GHG emissions that are not related to chemical production activities. This 30% was estimated based on average non-chemical production activities per site and includes, among others building heating and transportation (42,911 metric tons CO2e). scope 1 emissions for chemical production activities. (145,567-2,532)*0.7=100,124.5
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

**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 CO2e)	Scope 2, market-based (metric tons CO2e)
Argentina	2183.7	0
Australia	1428.3	1304.7
Brazil	2846.9	0
China	26379.6	4614.4
Egypt	1439.1	1439
France	1371	0
Germany	2511.3	0
Hungary	5268.5	0
India	7708.4	180.5
Indonesia	6910	1050.4
Japan	834.9	0
Mexico	8647.9	5235.3
Netherlands	6718.7	0
Singapore	6821.7	3936.2
South Africa	1448.9	1449.5
Spain	4085.2	170.4
Switzerland	712.2	0
United Kingdom of Great Britain and Northern Ireland	3306.9	1766
United States of America	39013.6	309.7
Malaysia	690.8	144.3
Belgium	181.7	0
Chile	604.6	0
Italy	1130.3	1130.3
Morocco	3941.2	943.8
Sweden	155.9	122.9
Viet Nam	2018.9	498.1

C7.6

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

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Taste and Wellbeing	102658.7	12826.2
Fragrance and Beauty	35701.4	11469.3

C7.7

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

Not relevant as we do not have any subsidiaries

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 CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	87321	15792	Scope 2, location-based: This figure was calculated by taking the total scope 2 location-based figure (138,360 metric tons CO2e) and 1) subtracting the scope 2 figure of 2 non-manufacturing sites included in our scope (4,020 metric tons of CO2e) and 2) excluding 35% of GHG emissions that are not related to chemical production activities. This 35% was estimated based on average non-chemical production activities per site and includes, among others, buildings heating and wastewater treatment plants (WWTP). Scope 2, location-based, emissions for chemical production activities: $(138,360 - 4,020) * 0.65 = 87,321$ . Scope 2, market-based: This figure was calculated by taking the total scope 2 market-based figure (24,295 metric tons CO2e) and 1) subtracting the scope 2 figure of 2 non-manufacturing sites included in our scope (0 metric tons of CO2e) and 2) excluding 35% of GHG emissions that are not related to chemical production activities. This 35% was estimated based on average non-chemical production activities per site and includes, among others, buildings heating and WWTP. Scope 2, market-based, emissions for chemical production activities: $(24,295 - 0) * 0.65 = 15,792$ .
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

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 tCO2e from purchased feedstock	Explain calculation methodology
Methanol	0.3	The scope 3 contribution of our chemical raw materials, is calculated using an emission factor (EF) and the total quantity purchased for each raw material in the reporting year. Emission factors can come from global Life Cycle Inventory databases (ecoinvent, World Food LCA Database) , from our internal model or from supplier data. Our internal model allows us to address specific raw materials which are not found in generic databases, by simulating the production processes of the raw materials and accounting for all physical inputs (Energy, precursor raw mats, etc) that result in GHG emissions. The final disclosed percentage was calculated taking the ratio between emissions linked to methanol purchases in 2022 and total Scope 3 category 1 emissions in 2022.
Ethanol	1.5	The scope 3 contribution of our chemical raw materials, is calculated using an emission factor (EF) and the total quantity purchased for each raw material in the reporting year. Emission factors can come from global Life Cycle Inventory databases (ecoinvent, World Food LCA Database) , from our internal model or from supplier data. Our internal model allows us to address specific raw materials which are not found in generic databases, by simulating the production processes of the raw materials and accounting for all physical inputs (Energy, precursor raw mats, etc) that result in GHG emissions. The final disclosed percentage was calculated taking the ratio between emissions linked to ethanol purchases in 2022 and total Scope 3 category 1 emissions in 2022.
Specialty chemicals	35.1	The scope 3 contribution of our chemical raw materials, is calculated using an emission factor (EF) and the total quantity purchased for each raw material in the reporting year. Emission factors can come from global Life Cycle Inventory databases (ecoinvent, World Food LCA Database) , from our internal model or from supplier data. Our internal model allows us to address specific raw materials which are not found in generic databases, by simulating the production processes of the raw materials and accounting for all physical inputs (Energy, precursor raw mats, etc) that result in GHG emissions. The final disclosed percentage was calculated taking the ratio between emissions linked to specialty chemicals purchases in 2022 and total Scope 3 category 1 emissions in 2022.
Other base chemicals	2	The scope 3 contribution of our chemical raw materials, is calculated using an emission factor (EF) and the total quantity purchased for each raw material in the reporting year. Emission factors can come from global Life Cycle Inventory databases (ecoinvent, World Food LCA Database) , from our internal model or from supplier data. Our internal model allows us to address specific raw materials which are not found in generic databases, by simulating the production processes of the raw materials and accounting for all physical inputs (Energy, precursor raw mats, etc) that result in GHG emissions. The final disclosed percentage was calculated taking the ratio between emissions linked to other chemicals purchases in 2022 and total Scope 3 category 1 emissions in 2022.

**C-CH7.8a**

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

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	We do not sell this product
Methane (CH4)	0	We do not sell this product
Nitrous oxide (N2O)	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 (SF6)	0	We do not sell this product
Nitrogen trifluoride (NF3)	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?**

Decreased

**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 CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	13582	Decreased	8	This figure (% emission value) represents the decrease in emissions from 2021 to 2022 which comes from emissions reductions from additional renewable energy consumption as explained in questions C4.3a and b. In 2022, emissions reduction from renewable energy consumption reduced by 13 582 tCO2eq our total scope 1 and 2 emissions. In 2022, scope 1 and 2 emissions were of 169,862 tCO2eq. The emission value in percentage due to emission reduction from renewable energy consumption in 2022 is of: $(13,582/169,862)*100\% = 8\%$ .
Other emissions reduction activities	7742	Decreased	4.5	This figure (% emission value) represents the decrease in emissions from 2021 to 2022 which comes from other emissions reductions activities as explained in questions C4.3a and b. In 2022, emissions reduction from other reduction activities reduced by 2,031 tCO2eq our total scope 1 and 2 emissions. In 2022, scope 1 and 2 emissions were of 169.862 tCO2eq. The emission value in percentage due to emission reduction from other emissions reduction activities in 2022 is of: $(7,742/169,862)*100\% = 4.5\%$ .
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output		<Not Applicable >		
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

**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)	LHV (lower heating value)	12942	715446	728388
Consumption of purchased or acquired electricity	<Not Applicable>	315200	36741	351941
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	4586	27131	31717
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	2754	<Not Applicable>	2754
Total energy consumption	<Not Applicable>	335482	779318	1114800

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**

LHV (lower heating value)

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

9059

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

468949

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

23571

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

501579

**Consumption of purchased or acquired electricity**

**Heating value**

<Not Applicable>

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

220640

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

25719

**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**

246359

**Consumption of purchased or acquired steam**

**Heating value**

<Not Applicable>

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

3210

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

18992

**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**

22202

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

**Heating value**

<Not Applicable>

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

1928

**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**

1928

**Total energy consumption**

**Heating value**

<Not Applicable>

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

234837

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

513660

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

23571

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

772068

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	No
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	Yes

**C8.2c**

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

**Sustainable biomass**

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

0

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

<Not Applicable>

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

0

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

0

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

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

Givaudan has no sustainable certified biomass.

**Other biomass**

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

18113

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

<Not Applicable>

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

0

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

18113

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

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

no comment

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

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

54

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

<Not Applicable>

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

0

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

54

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

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

no comment

**Coal**

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

11

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

<Not Applicable>

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

0

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

11

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

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

no comment

**Oil**

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

39053

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

<Not Applicable>

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

0

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

39053

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

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

no comment

**Gas****Heating value**

LHV

**Total fuel MWh consumed by the organization**

625394

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

&lt;Not Applicable&gt;

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

0

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

524471

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

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

100923

**Comment**

no comment

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

LHV

**Total fuel MWh consumed by the organization**

32136

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

&lt;Not Applicable&gt;

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

0

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

32136

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

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

**Comment**

no comment

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

LHV

**Total fuel MWh consumed by the organization**

714761

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

&lt;Not Applicable&gt;

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

0

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

613838

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

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

100923

**Comment**

no comment

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	2754.4	2754.4	2754.4	2754.4
Heat	1781.8	1781.8	1781.8	1781.8
Steam	0	0	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)**

1683

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

1683

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

1683

**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)**

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

**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

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(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)**

4915

**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)**

6963

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

11878

---

**Country/area**

Australia

**Consumption of purchased electricity (MWh)**

1763

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

252

**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)**

961

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

2976

**Country/area**

Belgium

**Consumption of purchased electricity (MWh)**

1088

**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)**

3812

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

4900

**Country/area**

Brazil

**Consumption of purchased electricity (MWh)**

8410

**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)**

10360

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

18770

**Country/area**

Chile

**Consumption of purchased electricity (MWh)**

987

**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)**

9799

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

10786

**Country/area**

China

**Consumption of purchased electricity (MWh)**

33861

**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)**

19927

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

10240

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

64028

---

**Country/area**

Egypt

**Consumption of purchased electricity (MWh)**

2700

**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)**

31161

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

33861

---

**Country/area**

France

**Consumption of purchased electricity (MWh)**

29170

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

165

**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)**

31161

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

60496

---

**Country/area**

Germany

**Consumption of purchased electricity (MWh)**

5355

**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)**

10221

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

15576

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**Country/area**

Hungary

**Consumption of purchased electricity (MWh)**

16779

**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)

20282

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

37061

---

Country/area

India

Consumption of purchased electricity (MWh)

9400

Consumption of self-generated electricity (MWh)

984

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)

6422

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

16806

---

Country/area

Indonesia

Consumption of purchased electricity (MWh)

9151

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)

9295

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

18446

---

Country/area

Italy

Consumption of purchased electricity (MWh)

3456

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)

11453

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

14909

---

Country/area

Japan

Consumption of purchased electricity (MWh)

1698

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)**

1026

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

2724

---

**Country/area**

Malaysia

**Consumption of purchased electricity (MWh)**

1181

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

333

**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)**

185

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

1699

---

**Country/area**

Mexico

**Consumption of purchased electricity (MWh)**

16386

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

17236

**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)**

164601

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

198223

---

**Country/area**

Morocco

**Consumption of purchased electricity (MWh)**

5977

**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)**

22375

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

28352

---

**Country/area**

Netherlands

**Consumption of purchased electricity (MWh)**

14702

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

32

**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)**

38590

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

53324

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**Country/area**

Singapore

**Consumption of purchased electricity (MWh)**

16574

**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)**

68

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

6400

**Total non-fuel energy consumption (MWh) [Auto-calculated]**23042

---

**Country/area**

South Africa

**Consumption of purchased electricity (MWh)**

1508

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

458

**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)**

1360

**Total non-fuel energy consumption (MWh) [Auto-calculated]**3326

---

**Country/area**

Spain

**Consumption of purchased electricity (MWh)**

14185

**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)**

30320

**Total non-fuel energy consumption (MWh) [Auto-calculated]**44505

---

**Country/area**

Sweden

**Consumption of purchased electricity (MWh)**

2752

**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)**

4586

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

472

**Total non-fuel energy consumption (MWh) [Auto-calculated]**7810

---

**Country/area**

Switzerland

**Consumption of purchased electricity (MWh)**

50872

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

521

**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)**

127850

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

179243

---

**Country/area**

United Kingdom of Great Britain and Northern Ireland

**Consumption of purchased electricity (MWh)**

6597

**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)**

127850

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

50872

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

185319

---

**Country/area**

United States of America

**Consumption of purchased electricity (MWh)**

90264

**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)**

184350

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

274614

---

**Country/area**

Viet Nam

**Consumption of purchased electricity (MWh)**

2211

**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)**

7797

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

10008

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## C8.2h

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**(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**

Switzerland

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**Sourcing method**

Purchase from an on-site installation owned by a third party (on-site PPA)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

232

**Tracking instrument used**

Contract

**Country/area of origin (generation) of purchased renewable electricity**

Switzerland

**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 re-powering)**

2010

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2010

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

Switzerland

**Sourcing method**

Purchase from an on-site installation owned by a third party (on-site PPA)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

289

**Tracking instrument used**

Contract

**Country/area of origin (generation) of purchased renewable electricity**

Switzerland

**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 re-powering)**

2018

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2018

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

India

**Sourcing method**

Purchase from an on-site installation owned by a third party (on-site PPA)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

984

**Tracking instrument used**

Contract

**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 re-powering)**

---

2020

**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**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

South Africa

**Sourcing method**

Purchase from an on-site installation owned by a third party (on-site PPA)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

458

**Tracking instrument used**

Contract

**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)**

2020

**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**

No additional, voluntary label

**Comment**

N/A

---

**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)**

33724

**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)**

2012

**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**

No additional, voluntary label

**Comment**

In the question "Vintage of the renewable energy/attribute" it is only possible to select 1 year for the vintage of the energy/attribute but our reporting cycle covers Q4 2020 to Q3 2021 which sometimes means we have two contracts for one reporting cycle --> the year 2022 has been selected since the majority of the quarters at stake in the reporting period are in 2022.

---

**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)**

29170

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

Norway

**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)**

1968

**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**

No additional, voluntary label

**Comment**

In the question "Vintage of the renewable energy/attribute" it is only possible to select 1 year for the vintage of the energy/attribute but our reporting cycle covers Q4 2020 to Q3 2021 which sometimes means we have two contracts for one reporting cycle --> the year 2022 has been selected since the majority of the quarters at stake in the reporting period are in 2022.

---

**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)**

3854

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

France

**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)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---

**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)**

16788

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

Norway

---

**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)**

1968

**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**

No additional, voluntary label

**Comment**

N/A

---

**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)**

8188

**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)**

2013

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

Indonesia

**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)**

7822

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Indonesia

**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)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---



**Country/area of consumption of purchased renewable electricity**

Japan

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Renewable electricity mix, please specify (Mix of sources)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1698

**Tracking instrument used**

NFC - Renewable

**Country/area of origin (generation) of purchased renewable electricity**

Japan

**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)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

Malaysia

**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)**

973

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Malaysia

**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)**

<Not Applicable>

**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**

No additional, voluntary label

**Comment**

In the question "Vintage of the renewable energy/attribute" it is only possible to select 1 year for the vintage of the energy/attribute but our reporting cycle covers Q4 2020 to Q3 2021 which sometimes means we have two contracts for one reporting cycle --> the year 2022 has been selected since the majority of the quarters at stake in the reporting period are in 2022.

---

**Country/area of consumption of purchased renewable electricity**

Mexico

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Renewable electricity mix, please specify (Hydro and Wind)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

4397

**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)**

2003

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2023

**Supply arrangement start year**

2022

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

For the commissioning year column, we stated the eldest year as supplier has several assets with commissioning years in 2003 (hydro), 2005 (hydro), 2006 (hydro), 2012(wind)

---

**Country/area of consumption of purchased renewable electricity**

Morocco

**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)**

4545

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Morocco

**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)**

2017

**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**

No additional, voluntary label

**Comment**

N/A

---

**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)**

14702

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

Norway

**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)**

1968

**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**

No additional, voluntary label

**Comment**

---

N/A

---

**Country/area of consumption of purchased renewable electricity**

Singapore

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

6400

**Tracking instrument used**

TIGR

**Country/area of origin (generation) of purchased renewable electricity**

Singapore

**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 re-powering)**

2016

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

For the commissioning year column, we stated the eldest year as supplier has several assets with commissioning years in 2016, 2018, 2019, 2020, 20121

---

**Country/area of consumption of purchased renewable electricity**

Spain

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Renewable electricity technology type**

Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

13593

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

Spain

**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 re-powering)**

<Not Applicable>

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

Sweden

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Renewable electricity technology type**

Renewable electricity mix, please specify (Mix of sources )

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

2752

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

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Sweden

**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)**

<Not Applicable>

**Vintage of the renewable energy/attribute (i.e. year of generation)**

Before 2020

**Supply arrangement start year**

2022

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

Switzerland

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

49739

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

Switzerland

**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)**

<Not Applicable>

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

Area of origin is EU

---

**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**

Renewable electricity mix, please specify (Mix of sources)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

5909

**Tracking instrument used**

REGO

**Country/area of origin (generation) of purchased renewable electricity**

United Kingdom of Great Britain and Northern Ireland

**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)**

<Not Applicable>

**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**

No additional, voluntary label

**Comment**

N/A

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**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)**

80368

**Tracking instrument used**

US-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?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

1950

**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**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

Viet Nam

**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)**

1666

**Tracking instrument used**

I-REC

**Country/area of origin (generation) of purchased renewable electricity**

Viet Nam

**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)**

<Not Applicable>

**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**

No additional, voluntary label

**Comment**

N/A

---

**Country/area of consumption of purchased renewable electricity**

Germany

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1501

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

Norway

---

**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)**

1948

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

For the commissioning year column, we stated the eldest year as supplier has several assets with commissioning years between 1948 and 2020

---

**Country/area of consumption of purchased renewable electricity**

Switzerland

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Renewable electricity technology type**

Hydropower (capacity unknown)

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

612

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

Switzerland

**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)**

<Not Applicable>

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment**

N/A

---

**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)**

9895

**Tracking instrument used**

US-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?**

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)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Green-e

**Comment**

Commissioning date is 15 years in the past or newer per Green-E Reqs

---

**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)**

4915

**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)**

1977

**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**

No additional, voluntary label

**Comment**

In the question "Vintage of the renewable energy/attribute" it is possible to select only 1 year for the vintage of the energy/attribute but our reporting cycle covers Q4 2020 to Q3 2021 --> the year 2022 has been selected since the majority of the quarters at stake in the reporting period are in 2022.

---

**Country/area of consumption of purchased renewable electricity**

Belgium

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Renewable electricity technology type**

Sustainable Biomass

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1088

**Tracking instrument used**

GO

**Country/area of origin (generation) of purchased renewable electricity**

Belgium

**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)**

<Not Applicable>

**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**

No additional, voluntary label

**Comment**

In the question "Vintage of the renewable energy/attribute" it is only possible to select 1 year for the vintage of the energy/attribute but our reporting cycle covers Q4 2020 to Q3 2021 which sometimes means we have two contracts for one reporting cycle --> the year 2022 has been selected since the majority of the quarters at stake in the reporting period are in 2022.

---

**Country/area of consumption of purchased renewable electricity**

Brazil

**Sourcing method**

Retail supply contract with an electricity supplier (retail green electricity)

**Renewable electricity technology type**

Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

8410

**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)**

2017

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2020

**Additional, voluntary label associated with purchased renewable electricity**

No additional, voluntary label

**Comment****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)**

987

**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)**

2020

**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**

No additional, voluntary label

**Comment**

In the question "Vintage of the renewable energy/attribute" it is only possible to select 1 year for the vintage of the energy/attribute but our reporting cycle covers Q4 2020 to Q3 2021 which sometimes means we have two contracts for one reporting cycle --> the year 2022 has been selected since the majority of the quarters at stake in the reporting period are in 2022.

**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**

Other, please specify (Self production from low carbon primary energy)

**Country/area of consumption of low-carbon heat, steam or cooling**

Brazil

**Energy carrier**

Steam

**Low-carbon technology type**

Other biomass

**Low-carbon heat, steam, or cooling consumed (MWh)**

3979

**Comment**

N/A

**Sourcing method**

Other, please specify (Self production from low carbon primary energy)

**Country/area of consumption of low-carbon heat, steam or cooling**

Chile



**Energy carrier**

Heat, steam, and cooling combined

**Low-carbon technology type**

Other biomass

**Low-carbon heat, steam, or cooling consumed (MWh)**

1448

**Comment**

N/A

---

**Sourcing method**

Other, please specify (Self production from low carbon primary energy)

**Country/area of consumption of low-carbon heat, steam or cooling**

Malaysia

**Energy carrier**

Steam

**Low-carbon technology type**

Other, please specify (Biofuel)

**Low-carbon heat, steam, or cooling consumed (MWh)**

11

**Comment**

N/A

---

**Sourcing method**

Other, please specify (Self production from low carbon primary energy)

**Country/area of consumption of low-carbon heat, steam or cooling**

Switzerland

**Energy carrier**

Heat, steam, and cooling combined

**Low-carbon technology type**

Other, please specify (Geothermal)

**Low-carbon heat, steam, or cooling consumed (MWh)**

1782

**Comment**

N/A

---

**Sourcing method**

Other, please specify (Self production from low carbon primary energy)

**Country/area of consumption of low-carbon heat, steam or cooling**

Switzerland

**Energy carrier**

Heat, steam, and cooling combined

**Low-carbon technology type**

Other, please specify (Biogas)

**Low-carbon heat, steam, or cooling consumed (MWh)**

43

**Comment**

N/A

---

**Sourcing method**

Other, please specify (Self production from low carbon primary energy)

**Country/area of consumption of low-carbon heat, steam or cooling**

Viet Nam

**Energy carrier**

Steam

**Low-carbon technology type**

Other biomass

**Low-carbon heat, steam, or cooling consumed (MWh)**

5679

**Comment**

N/A

---

(C8.2) Provide details of your organization's renewable electricity generation by country/area in the reporting year.

**Country/area of generation**

Australia

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.23

**Total renewable electricity generated by this facility in the reporting year (MWh)**

252

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

252

**Energy attribute certificates issued for this generation**

Yes

**Type of energy attribute certificate**

Australian LGC

**Comment**

N/A

---

**Country/area of generation**

France

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.01

**Total renewable electricity generated by this facility in the reporting year (MWh)**

165

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

165

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

N/A

---

**Country/area of generation**

India

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.75

**Total renewable electricity generated by this facility in the reporting year (MWh)**

916

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

916

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

Pune

---

**Country/area of generation**

India

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.03

**Total renewable electricity generated by this facility in the reporting year (MWh)**

26

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

26

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

Daman

---

**Country/area of generation**

India

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.04

**Total renewable electricity generated by this facility in the reporting year (MWh)**

43

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

43

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

Roha

---

**Country/area of generation**

Malaysia

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.4

**Total renewable electricity generated by this facility in the reporting year (MWh)**

333

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

333

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

N/A

---

**Country/area of generation**

Mexico

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.05

**Total renewable electricity generated by this facility in the reporting year (MWh)**

9

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

9

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

N/A

---

**Country/area of generation**

Netherlands

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.03

---

**Total renewable electricity generated by this facility in the reporting year (MWh)**

32

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

32

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

N/A

---

**Country/area of generation**

South Africa

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.32

**Total renewable electricity generated by this facility in the reporting year (MWh)**

458

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

458

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

N/A

---

**Country/area of generation**

Switzerland

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.3

**Total renewable electricity generated by this facility in the reporting year (MWh)**

289

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

289

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

Kempthal

---

**Country/area of generation**

Switzerland

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

0.21

**Total renewable electricity generated by this facility in the reporting year (MWh)**

232

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

232

**Energy attribute certificates issued for this generation**

Yes

**Type of energy attribute certificate**

GO

**Comment**

Vernier

---

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.**

Givaudan has committed to power by 2025 its sites with 100% renewable electricity. The actions implemented allowing to cover 90% so far, as well as the next ones needed to be reaching 100%, are directly and indirectly contributing to bringing new capacity in the grid in the areas where we operate.

Our RE100 roadmap is taking into account different variables such as additionality, price stability, long term vs short term commitments/exposure, complexity of implementation and effort of resources vs benefits. These global factors are considered on an ad-hoc basis when regional and local decisions are needed to be done to advance on our RE100 journey. If new capacity related projects are showing the best ratio among the abovementioned variables, they will be prioritized. For future outlook we will also consider in the decision making process the new RE100 technical criteria entering into force in Jan 2024 focusing on the age of the asset producing the RE we purchase.

C8.2l

**(C8.2l) In the reporting year, has your organization faced any challenges to sourcing renewable electricity?**

	Challenges to sourcing renewable electricity	Challenges faced by your organization which were not country/area-specific
Row 1	Yes, in specific countries/areas in which we operate	<Not Applicable>

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
Singapore	Limited supply of renewable electricity in the market Prohibitively priced renewable electricity	Procurement of RE100 compliant renewable electricity in Singapore remains challenging (lack of space, lack of new assets, remaining EACs are not cost sustainable). Among the options that we have explored with our local providers, are PPAs but this region remains with limited in capacity PPAs, and therefore we have not managed to find any robust and viable alternatives. We have not been purchasing for the time being any RE proposed from our suppliers coming from assets from Malaysia, Cambodia, etc. since these not compliant with the current and future (coming into force in 2024) RE100 technical criteria. Even though the Singaporean government is working to better connect the local grid to external markets, its is not granted that all the sound accounting trans-border rules for EACs requested by the RE100 technical criteria will be met. As our target is to reach 100% RE by 2025 we are at an impasse and facing for the first time the possibility that we might not meet this global commitment due to the energy market context in Singapore.

C-CH8.3

**(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?**

No

C9. Additional metrics

C9.1

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**Description**

Energy usage

**Metric value**

6.53

**Metric numerator**

GJ

**Metric denominator (intensity metric only)**

tonnes of production

**% change from previous year**

1

**Direction of change**

Decreased

**Please explain**

One of the areas we have identified for curbing scope 1+2 emissions is energy efficiency. Our operations have set a bold internal target on absolute reduction of their energy consumption. They are laying out long term energy-efficiency plans to focus efforts on identifying opportunities to improve our most energy intensive processes and implementing projects to achieve direct reduction in energy consumption.

C-CH9.3a

**(C-CH9.3a) Provide details on your organization's chemical products.**

**Output product**

Specialty chemicals

**Production (metric tons)**

612349

**Capacity (metric tons)**

650000

**Direct emissions intensity (metric tons CO2e per metric ton of product)**

0.238

**Electricity intensity (MWh per metric ton of product)**

0.605

**Steam intensity (MWh per metric ton of product)**

0.186

**Steam/ heat recovered (MWh per metric ton of product)**

0

**Comment**

no comment

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	No comment

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**

Bio technology

**Stage of development in the reporting year**

Full/commercial-scale demonstration

**Average % of total R&D investment over the last 3 years**

20

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

522000000

**Average % of total R&D investment planned over the next 5 years**

25

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

Biotechnology holds enormous potential for carving out a more sustainable future for perfumery and for our planet. At Givaudan, it has already led to some extraordinary innovations. For example, we can now use green chemistry including a biotransformation step to produce the biodegradable ingredient Ambrofix®, an iconic molecule in perfumery, from sustainably sourced sugar. This results in 100% renewable carbon, in line with our FiveCarbon Path™, and uses 100 times less land compared to the traditional production method starting from clary sage.

Akigalawood® is another example of a raw material we achieved to produce through biotechnology and a ground-breaking and environmentally friendly process.

The FiveCarbon Path™, is the new Givaudan sustainability ambition for molecules. We employ green chemistry methods for efficient carbon use, meaning that all carbon atoms in the bio-based starting material end up in the final product, resulting in zero carbon waste and thus limiting carbon emissions.

Thanks to its green chemistry and biotech approach, the FiveCarbon Path™ is a crucial part of Givaudan's strategy and purpose.

**Technology area**

Product redesign

**Stage of development in the reporting year**

Full/commercial-scale demonstration

**Average % of total R&D investment over the last 3 years**

20

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

522000000

**Average % of total R&D investment planned over the next 5 years**

25

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

Circularity help us to rethink how we source, access, develop and invent ingredients for our portfolio and creative palette. The upcycling approach in our creation processes, is to identify unwanted materials and transform them in a replacement for fossil feedstock. In this way, we minimize the volume of waste being set to the landfill each year while reducing CO2 emissions. For example, we have developed an innovative process to upcycle the by-product of a production process of peach juice and transform it into a variety of unique flavour and fragrance ingredients such as Peach NTC and Peach Alcoholate Orpur.

**Technology area**

Chemical production using variable renewables

**Stage of development in the reporting year**

Applied research and development

**Average % of total R&D investment over the last 3 years**

20

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

522000000

**Average % of total R&D investment planned over the next 5 years**

25

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

In 2022 we have partnered with LanzaTech NZ, Inc. to develop sustainable fragrance ingredients from renewable carbon. LanzaTech's expertise lies in converting various waste carbon sources, such as industrial emissions in China for example, to ethanol by means of their innovative industrial biology process and bio catalysts. Through this collaboration, we expect to leverage this synthetic biology capability and go beyond the production of ethanol to establish together novel pathways to obtain key fragrance ingredients for our portfolio.

**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

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**(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**

Limited assurance

**Attach the statement**

Givaudan\_2022\_CDP\_verification\_Statement\_May2023.pdf  
giv-2022-sustainability-report.pdf

**Page/ section reference**

GRI 305-1: Direct (Scope 1) GHG emissions: figure on p.65 of the 2022 GRI Sustainability Report  
GRI Content Index with details on external assurance for GRI 305-1: p. 107 of the 2022 GRI Sustainability Report  
Independent Assurance Statement: p.178-179 of the 2022 GRI Sustainability Report

**Relevant standard**

ISAE3000

**Proportion of reported emissions verified (%)**

100

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## C10.1b

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**(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**

Limited assurance

**Attach the statement**

Givaudan\_2022\_CDP\_verification\_Statement\_May2023.pdf  
giv-2022-sustainability-report.pdf

**Page/ section reference**

GRI 305-2: Direct (Scope 2) GHG emissions: figure on p.65 of the 2022 GRI Sustainability Report  
GRI Content Index with details on external assurance for GRI 305-2: p. 107 of the 2022 GRI Sustainability Report  
Independent Assurance Statement: p.178-179 of the 2022 GRI Sustainability Report

**Relevant standard**

ISAE3000

**Proportion of reported emissions verified (%)**

100

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## C10.1c

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**(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: Downstream transportation and distribution

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Givaudan\_2022\_CDP\_verification\_Statement\_May2023.pdf  
 giv-2022-sustainability-report.pdf

**Page/section reference**

All the content of our 2022 GRI Sustainability Report, including GRI 305-3: Other indirect (Scope 3) GHG emissions, has been verified through third-party/external audit.  
 305-3: Other indirect (Scope 3) GHG emissions: figure on p.71 of the 2022 GRI Sustainability Report  
 GRI Content Index with details on external assurance for GRI 305-3: p. 107 of the 2022 GRI Sustainability Report  
 Independent Assurance Statement: p.178-179 of the 2022 GRI Sustainability Report

**Relevant standard**

ISAE3000

**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	Progress against emissions reduction target	ISAE3000	All the content of our 2022 GRI Sustainability Report, including targets and progress, has been verified through thirdparty/ external audit. - GRI 305-5: Reduction of GHG emissions: figures on p.65 of the 2022 GRI Sustainability Report - GRI Content Index with details on external assurance for GRI 305-5: p. 107 of the 2022 GRI Sustainability Report - Independent Assurance Statement: p.178-179 of the 2022 GRI Sustainability Report giv-2022-sustainability-report.pdf
C8. Energy	Energy consumption	ISAE3000	All the content of our 2022 GRI Sustainability Report, including targets and progress, has been verified through thirdparty/ external audit. - GRI 302-1: Energy consumption and reduction with the organisation: figures on p.66 of the 2022 GRI Sustainability Report - GRI Content Index with details on external assurance for GRI 302-1: p. 107 of the 2022 GRI Sustainability Report - Independent Assurance Statement: p.178-179 of the 2022 GRI Sustainability Report giv-2022-sustainability-report.pdf
C6. Emissions data	Year on year emissions intensity figure	ISAE3000	All the content of our 2022 GRI Sustainability Report, including targets and progress, has been verified through thirdparty/ external audit. - GRI 305-4: GHG emissions intensity: figures on p.65 of the 2022 GRI Sustainability Report - GRI Content Index with details on external assurance for GRI 305-4: p. 107 of the 2022 GRI Sustainability Report - Independent Assurance Statement: p.178-179 of the 2022 GRI Sustainability Report giv-2022-sustainability-report.pdf
C7. Emissions breakdown	Renewable energy products	ISAE3000	All the content of our 2022 GRI Sustainability Report, including targets and progress, has been verified through thirdparty/ external audit. - percentage of renewable electricity in GRI 305-5: Reduction of GHG emissions: figures on p.65-66 of the 2022 GRI Sustainability Report - GRI Content Index with details on external assurance for GRI 305-5: p. 107 of the 2022 GRI Sustainability Report giv-2022-sustainability-report.pdf

**C11. Carbon pricing**

## C11.1

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### (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

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### (C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Switzerland carbon tax

## C11.1c

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### (C11.1c) Complete the following table for each of the tax systems you are regulated by.

#### Switzerland carbon tax

**Period start date**

January 1 2022

**Period end date**

December 31 2023

**% of total Scope 1 emissions covered by tax**

15.2

**Total cost of tax paid**

1599981.58

**Comment**

The Swiss Confederation exempts a company upon request. In return the company commits to reducing its greenhouse gas emissions without interruption. Only at the end of the commitment period, during 2023, will it be conclusively determined whether the target is met. This gives the company some flexibility to smooth out annual production fluctuations. If large, permanent changes are made during the commitment period, the Confederation may re-assess the targets. Givaudan pays the tax but is reimbursed because we follow the exemption criteria. Due to the pandemic, the cycle supposed to end in 2020 has been firstly postponed to 2021, then to 2022 and then to 2023. In Q2 2023 there will be a referendum on the new Law on Climate and Innovation which should bring more clarity for the future where a new cycle with new ways of working (currently still unknown) should take place.

## C11.1d

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### (C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

This system concerns our Swiss sites. The Swiss Confederation exempts a company upon request as long as in return the company commits to reducing its GHG emissions for a given validated amount and over an agreed period with the Confederation.

To comply with this system, we have committed to:

- fulfill our obligations resulting from public law : achieve our GHG emissions and energy efficiency objectives.
- provide the Swiss Confederation with truthful, complete and precise information regarding our GHG emission objectives and figures.

In order to fulfill our commitments, we conducted the following:

- In 2022, an action plan was developed with energy saving actions to reduce our GHG footprint.
- In 2022, a quarterly review of our performance and progress in relation to our GHG reductions plan was put in place with the management
- If required at the end of the commitment period, allowances that have been accumulated in the last years could be used to compensate for a surplus of GHG emissions. In view of the plan, we will most probably not need to use these allowances.

As a result of our plans and review of our GHG reduction performance, we achieved a reduction of 6,3% of our Scope 1 and 2 annual GHG emissions in 2022 compared to 2021. In addition to Givaudan's reduction of YOY GHG emissions, we have Science-Based targets where we commit to reduce our absolute scope 1 and 2 GHG emissions and our absolute scope 3 GHG emissions by 70% and 20% respectively by 2030 from a 2015 base year.

## C11.2

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### (C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

## C11.3

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### (C11.3) Does your organization use an internal price on carbon?

Yes

## C11.3a

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### (C11.3a) Provide details of how your organization uses an internal price on carbon.

#### Type of internal carbon price

Shadow price

#### How the price is determined

Other, please specify (Our internal ICP is based on the UN Global Compact call on companies to set an internal price at a minimum of \$100 per metric ton)

#### Objective(s) for implementing this internal carbon price

Change internal behavior

Drive energy efficiency

Drive low-carbon investment

Identify and seize low-carbon opportunities

Navigate GHG regulations

Stakeholder expectations

Stress test investments

#### Scope(s) covered

Scope 1

Scope 2

#### Pricing approach used – spatial variance

Uniform

#### Pricing approach used – temporal variance

Other, please specify (For the time being we are employing a fix ICP since some years. As we move forward we wil anyhow need to review the Internal Carbon Price (increasing its value).)

#### Indicate how you expect the price to change over time

<Not Applicable>

#### Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

90

#### Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

90

#### Business decision-making processes this internal carbon price is applied to

Capital expenditure

Operations

Procurement

Value chain engagement

#### Mandatory enforcement of this internal carbon price within these business decision-making processes

Yes, for all decision-making processes

#### Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

The ICP has been integrated in the Operations CAPEX, Continuous Improvement and procurement approval processes to ensure that the most efficient financial and decarbonizing Scope 1 and 2 projects are selected for implementation. Paybacks are now calculated with and without ICP to stress the importance of anticipating and reducing upfront the CO2 emissions for Scope 1 and 2. Top management is supportive of the ICP and is requesting ICP inclusion for all proposals of implementation in operations sites worldwide.

Referring to question 4.3 a, projects in the categories "Implemented" and "Implementation commenced", bringing savings of 13849 t CO2 eq. (excluding EAC procurement), have been selected and prioritized due to the ICP integration. In a similar way, also the projects in the categories "Under investigation" and "To be implemented", bringing potential savings of 10720 t CO2 eq., have been identified and brought forward thanks to the ICP integration.

Adding an ICP has helped guide our decision-making toward our goal to meet our SBT targets and net-zero targets (become a climate-positive business by 2050) by ensuring that all of our investments and operations are moving towards gradually removing our greenhouse gas emissions as these are seen as additional costs. In addition, we also see that reducing GHGs and initiating projects going into this direction are initiatives that provide value for our company.

## C12. Engagement

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### C12.1

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#### (C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

Yes, other partners in the value chain

**(C12.1a) Provide details of your climate-related supplier engagement strategy.****Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect GHG emissions data at least annually from suppliers

Collect targets information at least annually from suppliers

Collect climate-related risk and opportunity information at least annually from suppliers

Collect climate transition plan information at least annually from suppliers

Collect other climate related information at least annually from suppliers

**% of suppliers by number**

2

**% total procurement spend (direct and indirect)**

50

**% of supplier-related Scope 3 emissions as reported in C6.5**

40

**Rationale for the coverage of your engagement**

Our supplier engagement strategy is based around our CDP Supply Chain Programme, where we selected our suppliers based on the following criteria:

- For raw materials: we included top suppliers by volume and strategic suppliers to our business ;

- For Indirect Materials & Services: we included top suppliers by spend in the relevant categories and in which we have the most influence: logistics, packaging, IT/Telecom, industrial supply/equipment/maintenance and energy/utilities.

Overall, they represent about 2% of our suppliers by number, 50% of the total procurement spend, and 40% of supplier-related Scope 3 emissions.

In 2022, we participated for the sixth year in the CDP Supply Chain Programme, asking our key suppliers to provide data on climate change through the supply chain module of the CDP's Climate Change Questionnaire. The survey asks suppliers to identify risks and opportunities associated with climate change, report what their emissions are and give details on their emissions management strategy including targets and action they are taking to reduce emissions.

**Impact of engagement, including measures of success**

Impact of engagement:

Our ambition is to drive action through supply chain engagement. All the data collected through the CDP Supply Chain programme is contributing to gaining understanding of our supply chain. The level of the impact of engagement varies depending on the level of maturity of our suppliers on climate action:

- For suppliers with leading and managing climate related issues, we seek to create partnerships with them to put in place collaborative measures or programmes to reduce our common emissions and cascade action further down the supply chain.

- For suppliers starting their climate action journey, we work towards a shift in their behaviour and provide support and guidance to improve their journey.

This is aligned with and contributes to deliver on our science-based target for scope 3 emissions.

We measure the success of our engagement with suppliers through the CDP Supply Chain Programme via different key performance indicators (KPIs):

Supplier response rate: Success will be measured by the supplier response rate wherein we set the target of 70%. In 2022, our supplier response rate was 78% compared to 83% in 2021. The number of responding suppliers increased to 141. As we keep expanding our supplier engagement, we now reach suppliers that might be less mature and require more support to answer the questionnaire.

**Comment**

no comment

**Type of engagement**

Engagement & incentivization (changing supplier behavior)

**Details of engagement**

Run an engagement campaign to educate suppliers about climate change

**% of suppliers by number**

2

**% total procurement spend (direct and indirect)**

50

**% of supplier-related Scope 3 emissions as reported in C6.5**

40

**Rationale for the coverage of your engagement**

In 2022, we participated for the sixth year in the CDP Supply Chain Programme, asking our key suppliers to provide data on climate change through the supply chain module of the CDP's Climate Change Questionnaire. In that context, Givaudan has worked in collaboration with the other Fragrances & Flavors (F&F) houses to educate suppliers about climate change and their importance in our climate action journey and increase the number of suppliers responding to CDP Climate Change questionnaire and to increase the quality of the responses. This was done through a series of webinars hosted jointly by the the four biggest F&F houses, and moderated by the CDP Supply Chain team. The suppliers invited to the webinar were all the suppliers included in our CDP Supply Chain Programme. The criteria Givaudan has followed to select the suppliers were the following:

- For raw materials: we included top suppliers by volume and strategic suppliers to our business ;

- For Indirect Materials & Services: we included top suppliers by spend in the relevant categories and in which we have the most influence: logistics, packaging, IT/Telecom, industrial supply/equipment/maintenance and energy/utilities.

Overall, they represent about 2% of our suppliers by number, 50% of the total procurement spend, and 40% of supplier-related Scope 3 emissions.

For each supplier that has responded to CDP Supply Chain we receive a scorecard summarizing their disclosure. They are used by the supplier relationship managers (SRM) and category managers (CM) to engage with their suppliers and see what can be improved and how to collaborate.

A supplier engagement toolkit has also been prepared by the Sustainability team to help the Procurement organisation to engage with their suppliers on Sustainability

topics in Procurement.

This toolkit includes a clear Call to Action for Climate Action for our suppliers. The main request are:

- Engage with Givaudan on our overall climate goals via our key memberships including RE100
- Collaborate with us to reduce emissions and lower climate-related risk across our supply chain
- Engage with our Scope 3 journey by setting up Science-Based targets
- Report on your emissions and integrate renewable electricity into your climate journey
- Share your current initiatives, your long term views, technologies... and suggest where Givaudan can support or collaborate

**Impact of engagement, including measures of success**

Our ambition is to drive action through supply chain engagement and to work in collaboration across the industry . The CDP Supply Chain programme is one of the tools that Givaudan has chosen to gain understanding of its supply chain and engage with its suppliers on climate action. By joining efforts with the other F&F houses and participating together in the supplier engagement webinars, not only did the numbers of suppliers engagement increased, but the importance of climate action in the F&F industry was decoupled.

Measure of success:

We measure the success of our engagement with suppliers through the webinars by the increase of supplier response rate in our CDP Supply Chain programme and the number of suppliers responding to CDP Supply Chain. Success will be measured by the supplier response rate wherein we set the target of 70%. In 2022, our supplier response rate was 78% and the number of suppliers responding increased to 141.

We measure the success of our engagement with suppliers through the CDP Supply Chain Programme via different key performance indicators (KPIs):

1. Supplier response rate: Success will be measured by the supplier response rate wherein we set the target of 70%. In 2022, our supplier response rate was 78% compared to 83% in 2021. The number of responding suppliers increased to 141, from 135 last year. As we keep expanding our supplier engagement, we now reach suppliers that might be less mature and require more support to answer the questionnaire. Below, points 2, 3 and 4 are a means of measuring how many suppliers are more advanced in their climate action journeys. These are the suppliers with whom we are working to find collaborative measures or programmes, for example, combining several orders into full container loads to reduce transport emissions and thus reduce our common emissions. Encouraging suppliers to cascade commitments in their own supply chain is another key element of driving action.
2. Percentage of suppliers with a leadership (A or A-) or management (B or B-) score: 55% of our responding suppliers
3. Percentage of suppliers reporting active targets: 84% vs. 78% last year. This increase reflects the importance for companies to have concrete targets.
4. Percentage of suppliers engaging their own suppliers: 79% vs. 82% last year.

**Comment**

No comment

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C12.1b

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**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement & Details of engagement**

Education/information sharing	Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services
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**% of customers by number**

40

**% of customer - related Scope 3 emissions as reported in C6.5**

45

**Please explain the rationale for selecting this group of customers and scope of engagement**

Rationale for selecting this group of customers:

We seek to be a partner of choice and see acting on climate topics as a way for us to showcase what Givaudan can offer as a supplier. As such, in 2022 we have stepped up engagement on climate topics with our customers, who, based on our tracking of requests, have a rising interest on the carbon footprint of the ingredients we sell to them as they want to address their Scope 3 target.

For many of our customers, we have done detailed analysis and have been able to highlight emission hotspots and key drivers specific to them. This in turn enables great collaborative discussions, together with our technical experts and customer R&D teams on what innovations we might be able to drive together to reduce the footprint of our customers recipes. Today, we are able to provide customers with a reference value for the Product carbon footprint of their portfolio and this capacity is currently being extended to better respond to PCF requests. Many customers are also sending us detailed 'requests for information', for example on energy reduction requirements of our sites which supply to them and we have also exchanged on good practices regarding energy management. We strive to be as transparent as possible, providing customers with relevant and useful information on our activities, which they can in turn use to incorporate in their reduction action plans.

Scope of engagement:

The scope of engagement was calculated in terms of the percentage of sales. Based on the fact that around 20% of our customers request CDP Supply Chain responses and that another 20% frequently ask about our approach to climate change and the carbon footprint of our products, we estimate that around 40% of our customers, have high levels of interest in Givaudan's climate initiatives. We engage with these customers (40% of our customers by number) as they express interest on our annual GHG and carbon footprint information and on knowing how to address Scope 3 emissions issues. Using the same methodology as in the Supply Chain Module (allocation based on mass products purchased) we calculate that the percentage of Scope 3 emissions that corresponds to this 40% of our customers is approximately 45% of our Scope 3 emissions.

**Impact of engagement, including measures of success**

Impact of engagement:

Our engagement on environmental sustainability contributes to our 2025 strategy as well as our Purpose commitments. It helps us build valuable partnerships and trust with our customers by understanding their expectations of us, sharing information and being transparent; this in turn adds to Givaudan's reputation as a responsible partner of choice. By sharing information and being transparent on our carbon footprint journey, supplier information, and sustainability progress to our customers, Givaudan's reputation increased as shown by the 5.3% (like for like) increase in annual sales in 2022 compared to 2021.

Measure of success:

We track all customer requests on sustainability (including climate action questions). We strive for 100% response rate, which we achieved in 2022. This contributes to our aim of being a responsible partner of choice. Customers are increasingly looking at us to help support and contribute to their own scope 3 targets. We have received excellent feedback because of our transparency, prompt and adequate response to customer demands for Climate Action information. This helps us build valuable trust from our customers and it increases our brand reputation.

**Type of engagement & Details of engagement**

Education/information sharing	Share information about your products and relevant certification schemes (i.e. Energy STAR)
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**% of customers by number**

40

**% of customer - related Scope 3 emissions as reported in C6.5**

45

**Please explain the rationale for selecting this group of customers and scope of engagement**

As a supplier, we share information accordingly to what our customers need and we strive to support them in the progress of their own Climate roadmaps. This can be in the format of participation in panels , providing thought leadership and guidance, and sharing best practices/key learnings from our programs, including showcasing examples across our sites.

For instance, Givaudan as a member of the American Cleaning Institute, participates in its annual convention and has active representation in the ACI Sustainability committee. The American Cleaning Institute is the Home of the U.S. Cleaning Products Industry®, the non-profit trade association representing manufacturers of household, industrial, and institutional cleaning products, their ingredients and finished packaging; oleochemical producers; and chemical distributors to the cleaning products industry. As a supplier of fragrance and beauty products, Givaudan participates in one to one sessions with our key consumer packaged goods customers during the yearly ACI convention. The participation in this kind of conventions allows us to update key customers in the specific topics that interest them such as consumer packaged goods, how we are reducing our own carbon emissions, how we engage with external partnerships to drive our progress, etc..

**Impact of engagement, including measures of success**

Impact of engagement:

Our engagement on environmental sustainability contributes to our 2025 strategy as well as our Purpose commitments. It helps us build valuable partnerships and trust with our customers by understanding their expectations of us, sharing information and being transparent; this in turn adds to Givaudan's reputation as a responsible partner of choice. By sharing information and being transparent on our carbon footprint journey, supplier information, and sustainability progress to our customers, Givaudan's reputation increased as shown by the 5.3% (like for like) increase in annual sales in 2022 compared to 2021.

Measure of success:

We track all customer requests on sustainability (including climate action questions). We strive for 100% response rate, which we achieved in 2022. This contributes to our aim of being a responsible partner of choice. Customers are increasingly looking at us to help support and contribute to their own scope 3 targets. We have received excellent feedback because of our transparency, prompt and adequate response to customer demands for Climate Action information. This helps us build valuable trust from our customers and it increases our brand reputation.

## C12.1d

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### **(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

#### Explanation of who "Other partners in the value chain" constitutes:

The other partner in the value chain with whom we engage on climate-related initiatives are the local communities upstream of our activities.

We define local communities as persons or groups of people involved in producing/collecting raw materials in Givaudan's value chains as well as those living and/or working in any areas that are economically, socially or environmentally impacted (positively or negatively) by Givaudan's operations. The local community can range from people living adjacent to operations through to isolated settlements at a distance from operations which may experience the impacts of these operations. On most sites, formal relationships have been established with local authorities and with significant organisations representing neighbors, or working on specific environmental and social issues.

#### Description of our climate-related engagement strategy with other partners in the value chain

The communities and neighborhoods in which we operate and source our materials are critical to our long-term success. Our business can affect these communities, and local stakeholders can in turn have an impact on our activities. Recognizing and supporting the broader development goals of these local communities and acknowledging their important contributions is essential in our commitment to supporting them in their path to build stable lives. The close working relationships we establish with the people who grow, collect and distill our raw materials are key to our continued success in securing the long-term supply of the ingredients on which we rely for our flavors and fragrances production. Maintaining a good reputation in communities where we have a manufacturing or commercial presence is also essential as it helps attract the right talent and personnel to the Company. Overall, good relations allow us to work together on projects and causes that benefit the community, help to protect local ecosystems and support livelihoods. This translates into economic or social benefits such as improving access to education or mental or physical health for the local communities as well as sustainable success for Givaudan.

Many of our most precious natural ingredients come from places that are vulnerable to political, economic and natural upheavals, and so we recognize that we have a role to play in helping producer communities build stable and secure lives. We partner and support local communities through a variety of social and environmental projects (including climate-related projects), from working with farmers on improved agricultural practices in Indonesia to supporting women in their entrepreneurial projects in the Comoros islands, among many other initiatives.

Many of these initiatives receive funding from the Givaudan Foundation, a not-for-profit organisation working in collaboration with local and international implementing partners and the communities themselves.

#### Case study/example of your climate-related engagement strategy with other partners in the value chain

An example of engagement with local communities in 2022 is a project in collaboration with the international non-governmental organisation Swisscontact, funding from the Givaudan Foundation and strong partnerships with producers, their families and local government actors – focused on improving the livelihoods of individual producer families while protecting natural resources. We did this by training the households of approximately 1,500 patchouli producers and more than 350 operators on environmentally friendly agricultural and distillation practices, respectively. The project also involved the renovation of smallholder patchouli distillation units to improve energy efficiency and reduce firewood consumption.

## C12.2

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### **(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

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**(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**

Complying with regulatory requirements

**Description of this climate related requirement**

Givaudan approaches this in a number of ways. Our Responsible Sourcing (RS) program, S4G, has 4 different levels:

- Active: we share our RS Policy with all our suppliers which details the principles and standards that Givaudan require all its suppliers to work towards including climate related requirements, it is included in terms and conditions of the contractual agreements. Suppliers must provide data and information about their carbon footprint and impact, and work to reduce their overall impact
- Engaged: for our suppliers of natural raw materials, we request completion of our "Due Diligence Questionnaire" in which we request the suppliers to share a number of different data points, including detailing any potential risks to environmental issues in their particular supply chain. This helps us to understand the correct follow-up actions we need to take with our prioritised materials suppliers
- Committed.: we undertake 3rd party audits at factory and farm level in key supply chains using audit protocols which ask specific questions on environmental regulatory requirements. We use the Sedex SMETA 4 pillar protocol at factory level, and the SAI Platform Farm Sustainability Assessment (FSA) or the Union for Ethical Bioproducts (UEBT) farm standard for our farm level verification.
- Advanced: we work on transformational projects in specially selected supply chains where we are able to go into a deeper level of diligence on social or environmental topics

**% 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**

28

**Mechanisms for monitoring compliance with this climate-related requirement**

Supplier self-assessment  
First-party verification  
On-site third-party verification

**Response to supplier non-compliance with this climate-related requirement**

Other, please specify (Our first response is always to work with a supplier on the continuous improvement of their sustainability performance)

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**Climate-related requirement**

Climate-related disclosure through a public platform

**Description of this climate related requirement**

As explained in C12.1a, in 2022, we participated for the sixth year in the CDP Supply Chain Programme, asking our key suppliers to provide data on climate change through the supply chain module of the CDP's Climate Change Questionnaire. The survey asks suppliers to identify risks and opportunities associated with climate change, report what their emissions are and give details on their emissions management strategy including targets and action they are taking to reduce emissions.

**% suppliers by procurement spend that have to comply with this climate-related requirement**

50

**% suppliers by procurement spend in compliance with this climate-related requirement**

39

**Mechanisms for monitoring compliance with this climate-related requirement**

Supplier scorecard or rating

**Response to supplier non-compliance with this climate-related requirement**

Retain and engage

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**Climate-related requirement**

Setting a science-based emissions reduction target

**Description of this climate related requirement**

As explained in C12.a, a supplier engagement toolkit has been prepared by the Sustainability team in collaboration with the Procurement function for the Supplier Relationship Managers (SRM) and Category Managers (CM) to help them engage with their suppliers on Sustainability topics in Procurement (Climate Action, Water, Responsible Sourcing, Plastics,...).

This toolkit includes a clear Call to Action for Climate Action for our suppliers, including a request to commit and set a science-based target.

**% suppliers by procurement spend that have to comply with this climate-related requirement**

50

**% suppliers by procurement spend in compliance with this climate-related requirement**

33

**Mechanisms for monitoring compliance with this climate-related requirement**

Supplier scorecard or rating

**Response to supplier non-compliance with this climate-related requirement**

Retain and engage

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**C12.3**

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**(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

**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)**

In 2019, Givaudan has signed the pledge "Business Ambition for 1.5°C" proposed by the United Nations to aim for net-zero value chain emissions by 2050. The signing of the pledge is a key milestone on Givaudan's path to reaching its ambition of becoming climate-positive before 2050 for all three scopes, with the Company purpose. (See media release attached)

This commitment is restated in our 2022 GRI report (page 62, Disclosure 3-3) We are committed to becoming climate positive – removing more greenhouse gases from the atmosphere than we put in – before 2050 as part of our purpose. One element in this journey is our cutting GHG emissions from operations (scope 1+2) by 70% between 2015 and 2030, and working towards operations becoming climate positive by 2040. The Science Based Targets initiative (SBTi) has approved Givaudan's scope 1+2 GHG reduction target as being in line with 1.5°C. We also aim to achieve our RE100 commitment to convert our entire electricity supply to fully renewable sources by 2025. The Company's value chain emission target (scope 3), aiming for a reduction of 20% over the same period, also meets the SBTi's criteria and is in line with current best practice. BusinessAmbition1.5mediarelease.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**

We engage in numerous external initiatives and strategic collaborations with relevant organisations and partners to support and inform our work on the most material sustainability issues. Collaboration across our supply chain as well as with other businesses and non profit organisations is essential. These engagements are overseen by our Global Head of Sustainability and his direct reports to ensure coherence with the climate strategy and transition plan. Climate actions are well represented in our strategy and action plan. We continuously align the activities of the two divisions and of the corporate functions around the agreed commitments and targets and we widely share within the organisation through KPIs and scorecards (e.g. eco-efficiency CAPEX investments are frequently discussed by several leadership teams, including the executive committee). This allows the company to be fully aligned internally and to speak with unitary voice on the topic inside external bodies and multi stakeholders platforms.

Specifically for the trade association IFRA (International Fragrance Association ) and IOFI (International Organization of the Flavor Industry), we ensure consistent and proactive alignment between our company strategy and the industry's sustainable strategy by sitting on the board of Directors and being a very active working group member. The industry association and its regional representatives are the liaison for policy makers across geographies. Until now Givaudan has always set and delivered higher standards and requirements on all sustainability aspects compared to the industry association positioning with regards to policy makers. In the future, in case there is an inconsistency we would escalate the matter to the board of directors of the association before anything is officially translated into policies, provide detailed insights on our claims to enable high quality discussions at board level and defend our position. We will use all established means described in the association governance (from proposing alternatives up to vetoing) so the board of directors can land on consensus for a revised industry positioning on climate topics with regards to Policy makers.

**Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

**Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

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 (IFRA - IOFI Sustainability Task Force)

**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**

A Sustainability Committee has been instituted by IFRA and IOFI as an effort to show flavor and fragrance industries' sense of responsibility and commitment to making a difference. They launched a Sustainability Charter covering five focus areas around the flavor and fragrance value chain and 17 specific commitments. The charter aims to complement individual company sustainability programs, such as Givaudan's own climat roadmap, helping the industry as a whole to make advances in sustainability by sharing best practices and benchmarking progress. In addition to sitting in the board we maintain high engagement and activity in the temporary and permanent projects.

**Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)**

0

**Describe the aim of your organization's funding**

<Not Applicable>

**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

C12.4

**(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**

giv-2022-integrated-annual-report.pdf

**Page/Section reference**

- Givaudan 2022 Integrated Annual Report
- Our sustainable performance in 2022: p. 8; 38-39
- Our key financial and ESG objectives: p. 10-11
- CEO interview: p. 15-16
- Managing climate change risks: p.22-23; 25
- Acting on climate change: p. 54-60
- Governance: p. 106
- Consolidated ESG data : p. 124- 126
- TCFD recommendations: p.146

**Content elements**

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

**Comment**

No comment

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

giv-2022-sustainability-report.pdf

**Page/Section reference**

- Givaudan 2022 GRI Sustainability Report
- GRI 102: General disclosure - Strategy p. 10-11
- GRI 102: General disclosure - Governance p. 37-38
- GRI 300: Environmental - GRI 305: Emissions p. 65; 107
- GRI 300: Environmental performance indicators p. 107-113

**Content elements**

- Governance
- Strategy
- Emissions figures
- Emission targets
- Other metrics

**Comment**

No comment

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**C12.5**

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**(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 Sustainable Agriculture Initiative (SAI) UN Global Compact We Mean Business World Business Council for Sustainable Development (WBCSD) Other, please specify (RCI, TIS)	<p>UN Global Compact:                      We have been a signatory since February 2010, and we measure our progress towards sustainability against its principles. Our Sustainability reporting also serves as our Communication on Progress (CoP) towards the implementation of these principles and to achieving our sustainability targets. We are also members of the UNGC Swiss Network, allowing us to access knowledge, tools and mutual learning as well as to participate in multi-stakeholder dialogue on key topics and share best practices with other members.</p> <p>RE100:                      Givaudan is committed to the RE100 initiative since 2015 and we keep building our efforts towards our commitment of 100% renewable electricity by 2025. We report yearly and participate in webinars to stay up to date on the evolution of the Technical Criteria.</p> <p>Business Ambition for 1.5C:                      In 2019, we signed the UN Business Ambition for 1.5°C Pledge, which was proposed by the United Nations to aim for net zero value chain emissions by 2050. Our engagement means we commit to having net zero targets in line with the new SBTi net zero standard, introduced in October 2021 and road tested by companies including Givaudan."</p> <p>SAI Platform:                      Farm Sustainability Assessment (FSA) by SAI Platform is our standard protocol for assessing and verifying our suppliers at farm level. We are also an active member of the SAI Dairy Working Group as it is considering to be an important platform for contributing to a more sustainable dairy sector: by partnering with other companies in this industry, we can contribute to finding solutions for common issues that are not only specific to Givaudan.</p> <p>WBCSD:                      We actively participate across WBCSD initiatives, helping to drive and shape the agenda. We collaborated closely on the development of the refreshed Vision 2050 and the 2050 vision report. We co-lead a WBCSD plastic and packaging workgroup that will define a transition for B2B chemical products. In 2020, we endorsed WBCSD's CEO call-to-action on Human Rights and signed WBCSD's CEO Guide to Human Rights, a document that sets out the actions businesses must take to meet their corporate responsibility to respect human rights and acts as call-to-action to encourage others to join these efforts. We are active members of FReSH, supporting the shift towards dietary patterns that are nutritionally healthy and environmentally sustainable. The FReSH programme was launched in November 2016 by the WBCSD together with the EAT Foundation with the purpose of accelerating transformational change in global food systems. We actively participate in WBCSD climate action initiatives including the SOS 1.5 degrees' project; a project that aims to support companies from all sectors to stay within the 1.5°C safe operating space; as well as its work on Natural Climate Solutions.</p> <p>RCI:                      Givaudan has been engaged as an advisory Board member with two seats since July 2021. We are also participating in key working groups.</p> <p>TIS:                      Coordinator" whose responsibility is to ensure that the different stakeholders within our organisation are made aware of the tools and activities within TIS and of how to maximise our membership. Our Head of Global Procurement and Sustainability is also heavily involved in the organisation from a steering committee perspective. In addition to the Coordinator role, representatives from Procurement and Sustainability are also involved in the different TIS workstreams such as audit, assessment and scope 3. As we move forward and integrate the sustainability performance management of our suppliers using the tools of TIS (e.g., EcoVadis and third-party audits), direct involvement of Procurement will increase.</p>

**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	Scope of board-level oversight
Row 1 Yes, executive management-level responsibility	<p>Givaudan's Biodiversity strategy is embedded into our Global Sustainability programme with oversight from the Chief Sustainability Officer who is a member of the Executive Committee. He approves strategy, direction and resources of the programme and serves as the overall executive committee sponsor.</p> <p>The CSO heads the Sustainability organisation and the Sustainability Leadership Team reports to the Global Head of Sustainability. The current CSO is responsible for Global Procurement, which also embeds Givaudan's Agronomy department, which ensures an advanced embedding of Sustainability, including Biodiversity issues, in the supply chain.</p> <p>At management level, the Global Biodiversity Manager steers the Biodiversity roadmap in line with the Global Sustainability objectives and manages the alignment and integration of this roadmap within the company's relevant functions, such as Regulatory, Operations, Procurement and Agronomy.</p>	<Not Applicable>

**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	Adoption of the mitigation hierarchy approach 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 Commitment to secure Free, Prior and Informed Consent (FPIC) of Indigenous Peoples Commitment to no trade of CITES listed species	CBD – Global Biodiversity Framework SDG CITES Other, please specify (In 2020, Givaudan signed up to Business 4 Nature's "Nature is everyone's business" call to action, bringing up more than 560 companies with combined revenue of USD 4 trillion. )

**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**

Upstream

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

No biodiversity assessment tools/methods used

Other, please specify (internal methodology)

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

Biodiversity's materiality for Givaudan has been ramping up over the past years. It is an inspiration for our creations; we rely on thousands of raw materials for the making of our flavours, fragrance, beauty and well-being products; and our activity depends on ecosystem services throughout our value chain.

We have been conducting a qualitative impacts and dependencies assessment to locate our activities' pressures on biodiversity across our value chain and prioritize our action.

Based on the nature of our activities, we estimate that our main potential negatives impacts lie in our Naturals raw material supply chain, especially driven by land use change, farm-level pollutions associated with conventional agriculture practices, or overexploitation in our wild-harvested botanicals' supply chains.

To better identify and locate our risks linked to specialty botanicals for example, and any threat on the resource, we are integrating data points related to the nature of the Naturals we buy source such as the type of harvest or collection, the geographic origin of the raw material and the CITES and IUCN status of the species. This allows us to gauge the potential risk associated with the sourcing of such botanicals and take the appropriate measures to ensure the sustainable sourcing of such.

**Dependencies on biodiversity**

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

**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**

Natura 2000 network of protected areas

**Country/area**

Spain

**Name of the biodiversity-sensitive area**

Sierra Norte Natural Park

**Proximity**

Overlap

**Briefly describe your organization's activities in the reporting year located in or near to the selected area**

This manufacturing site, which is approximately 26,000 sqm opened in 1974 and was acquired by Albert Vieille (acquired by Givaudan in 2019) in 1991. The site is manufacturing botanicals ingredients under our Fragrance and Beauty division. All Givaudan's sites are covered with an Environmental Management system.

**Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity**

Not assessed

**Mitigation measures implemented within the selected area**

<Not Applicable>

**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**

<Not Applicable>

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**Classification of biodiversity -sensitive area**

Key Biodiversity Area (KBAs)

**Country/area**

Switzerland

**Name of the biodiversity-sensitive area**

Le Rhône genevois-Vallons de l'Allondon et de la Laire  
Ramsar site, wetland of international importance

**Proximity**

Adjacent

**Briefly describe your organization's activities in the reporting year located in or near to the selected area**

Givaudan's headquarters are located in our manufacturing site in Vernier, Switzerland. The site is manufacturing ingredients as well as compounds under our Fragrance and Beauty division. All Givaudan's sites are covered with an Environmental Management System. Vernier's site is certified ISO14001.

**Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity**

Not assessed

**Mitigation measures implemented within the selected area**

<Not Applicable>

**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**

<Not Applicable>

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**Classification of biodiversity -sensitive area**

Natura 2000 network of protected areas

**Country/area**

France

**Name of the biodiversity-sensitive area**

Côte de Granit rose - Sept îles

**Proximity**

Up to 5 km

**Briefly describe your organization's activities in the reporting year located in or near to the selected area**

Givaudan's Active Beauty site Ile Grande is located in the Morlaix Bay of Northern Brittany, France. This site provides high-value ingredients derived from vegetable sources, microorganisms and microalgae. All Givaudan's sites are covered with an Environmental Management system.

**Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity**

Not assessed

**Mitigation measures implemented within the selected area**

<Not Applicable>

**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**

<Not Applicable>

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**Classification of biodiversity -sensitive area**

Natura 2000 network of protected areas

**Country/area**

Netherlands

**Name of the biodiversity-sensitive area**

NNN-NH Natuureservaten in eigendom van terreinbeheerders

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Natura 2000 site (Birds Directive Sites)

**Proximity**

Adjacent

**Briefly describe your organization's activities in the reporting year located in or near to the selected area**

Givaudan's Naarden site in the Netherlands is manufacturing flavour compounds.  
All Givaudan's sites are covered with an Environmental Management system.

**Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity**

Not assessed

**Mitigation measures implemented within the selected area**

<Not Applicable>

**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**

<Not Applicable>

**Classification of biodiversity -sensitive area**

Key Biodiversity Area (KBAs)

**Country/area**

Netherlands

**Name of the biodiversity-sensitive area**

NNN-GE - Nature Reserve owned by professional nature management organizations  
KBA Veluwe

**Proximity**

Up to 5 km

**Briefly describe your organization's activities in the reporting year located in or near to the selected area**

Givaudan's Ede site in the Netherlands produces cheese powders via a spray drying process.  
All Givaudan's sites are covered with an Environmental Management system.

Mitigation measures implemented are adjustment of light on the site to limit spread and impact on the ecosystem.

**Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity**

Not assessed

**Mitigation measures implemented within the selected area**

<Not Applicable>

**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**

<Not Applicable>

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

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	State and benefit indicators Pressure indicators Response 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 Impacts on biodiversity Risks and opportunities Biodiversity strategy	Biodiversity Chapter from page 100 to page 106. Also refer to Environmental Sustainability and Responsible Sourcing Chapters. giv-2022-sustainability-report.pdf
Other, please specify (Position statement)	Content of biodiversity-related policies or commitments	Givaudan position statement on sustainable palm oil (published in 2020) related to our commitment to sourcing sustainable palm oil and NDPE in our palm supply chain. giv-ps-palm-oil.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.**

no additional information

**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	Chief Executive Officer	Chief Executive Officer (CEO)

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