Givaudan SA - Climate Change 2021

C0. Introduction

C0.1

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

Givaudan is a global company which develops, sells and manufactures flavours and fragrances

ENJOY THE ESSENCE OF LIFE WITH FLAVOURS AND FRAGRANCES THAT DELIGHT
Givaudan captures the essence of the moment, bringing you memorable flavours and fragrances to be enjoyed throughout the day. We maintain our leadership position – approximately 25% of our industry's global market share – by challenging ourselves daily, inspiring our partnerships across the globe and serving our customers with heart and soul.

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.

PASSION AND PERFORMANCE THROUGH TIME
With a heritage that stretches back over 250 years, Givaudan has a long history of innovating scents and tastes. Creativity is at the heart of our operations, and the power to surprise is brought about by having a renowned collection of expert, passionate flavourists and perfumers under one roof.

COMMITTED TO INNOVATION AND SUSTAINABLE GROWTH
At the forefront of innovation, with around 10% of annual turnover invested in research, we explore and uncover new and exciting ingredients and technologies to add to our vast palettes and portfolios.

We are committed to be the innovation partner of choice in offering customers superior and sustainable solutions. As a company that uses many natural ingredients, we operate a sustainable business model that creates value for the many stakeholders we work with, partnering in our efforts to help make a real difference.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	October 1 2019	September 30 2020	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Argentina
Australia
Brazil
China
Egypt
France
Germany
Hungary
India
Indonesia
Japan
Malaysia
Mexico
Netherlands
Singapore
South Africa
Spain
Switzerland
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

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

CHF

C0.5

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

Operational control

C-CH0.7

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

Row 1

Bulk organic chemicals

Bulk inorganic chemicals

Other chemicals

Specialty chemicals

Specialty organic chemicals

Other, please specify (Fragrance and Flavors compounds)

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Board-level committee	The Audit Committee of the Board is responsible for overseeing, amongst other areas, Givaudan's risk and compliance/ethics programmes. Givaudan's risk assessment includes questions of climate change. General review of all Company risks, including climate change related issues is done by the full Board of Directors. The Board of Directors is the highest governance body of Givaudan SA. The duties of the Board of Directors include the assessment of the Company's climate change risk management. As part of its overall control, the Board is responsible for approving the high-level vision for sustainability (which includes climate action) within Givaudan, the public communication of annual results (including climate action performance) in the Annual Report and, assisted by its Audit Committee, for ensuring the functioning of internal controls and reporting accuracy, including for climate change related issues. The Board of Directors was instrumental in defining the "Purpose" of the Company: "Creating for happier, healthier lives with love for nature. Let's imagine together.", in which the phrase "with love for nature" is translated into a series of measurable KPIs to have climate-positive operations by 2040 (scopes 1 and 2 GHG emissions) and become a climate-positive business before 2050 (scopes 1, 2 and 3). This has been expressed on page 4 of our 2020 integrated annual report by our chairman: "2020 was also an important year as we announced our next five-year plan. "Committed to growth, with purpose" is how we will deliver ambitious financial targets while also making progress in the areas of creations, nature, people and communities. Being a responsible business has always guided the way we act and behave, and the role we play in advancing on some of the key issues affecting society such as climate change and social inequalities. This is reflected in our recently announced objective to become B Corp certified and be a business that acts as a force for a better world." In 2020, for the second time, Givaudan was ranked in the list of top 25 sustainable companies in the SXI Switzerland Sustainability 25 Index®, recognizing our sustainability endeavours."

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	Reviewing and guiding strategy Reviewing and guiding risk management policies Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The board receives two updates annually on: - the Sustainability strategy, which includes climate action (agenda items: Programme, Performance and Report) The board receives annual reports on: - the Enterprise Risk Management (ERM), discussing climate change from a risk angle (agenda item: Risks and Opportunities). - Sustainability function (including climate action performance) (agenda item: Report on Sustainability) 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. The Audit Committee receives biannual reports on Enterprise Risk Management and quarterly reports on Ethics & Compliance. Major CAPEX, acquisitions and divestitures are part of board's discussion whenever relevant.

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
President	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Chief Sustainability Officer (CSO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Half-yearly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

To give a complete overview of the governance of Sustainability, here are the responsibilities on climate related issues of all positions/committees. They are listed in hierarchical order. In bold, are described the highest management-level positions (Presidents and CSO) with responsibility for climate-related issues, as explained in C1.2.

Board of Directors

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.

Audit Committee

The Audit Committee is a committee at Board of Directors level. Among other responsibilities, it ensures that Givaudan's risk management, internal control and compliance systems are efficient and effective.

Executive Committee

Responsibilities:
The Executive Committee, lead by the Chief Executive Officer (CEO) 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.

- Presidents (President Fragrance & Beauty Division and President Taste & Wellbeing Division)

The Presidents of our two Divisions 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.

- Chief Sustainability Officer (CSO)

One of the members of the Executive Committee is the Chief Sustainability Officer (CSO).

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.

Global Head of Sustainability

The Global Head of Sustainability supports the Executive Committee (EC) and leads the Global Sustainability team and the Sustainability Leadership Team (SLT) to meet Givaudan's sustainability goals, including climate goals by:

- Developing frameworks and guidelines for each sustainability pillar

- Ensuring corporate alignment

- Reporting back to senior management

The Global Head of Sustainability gives guidelines for GHG emission management and energy consumption, including e.g. proposing the adoption of science-based targets on GHG emissions to the Executive Committee.

Environmental Sustainability Team

The Environmental Sustainability Team is part of the Global Sustainability Team, with the responsibilities of:

- defining the overall environmental sustainability strategy of the Company, including the adoption of science-based targets on GHG emissions,

- defining the environmental sustainability programme and master plan, driving its implementation with the relevant stakeholders and tracking its success,

- owning the environmental data (operations and supply chain) and working with the reporting team to ensure data integrity, consistency and accuracy,

- ensuring overall performance disclosure and communication on environmental sustainability, including climate,

- ensuring liaison with external climate agenda, to ensure relevancy of programmes and targets.

The Global head of Environmental Sustainability is a member of the Sustainability Leadership Team (SLT) of Givaudan.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	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	Type of incentive	Activity inventivized	Comment
Corporate executive team	Monetary reward	Efficiency target	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.
All employees	Non-monetary reward	Emissions reduction project	Since 2010, all employees can volunteer for their local Green Teams to further develop and update site plans with additional initiatives and deliver improved eco-efficiency. Green Teams contribute to reducing our environmental footprint by coming up with creative ideas to either improve existing operational processes or finding new ways to reduce GHG emissions and energy usage. In this context annual Green Team Awards are granted by the Executive Committee for successful eco-efficiency projects. For example, in 2020, the Green Team in East Hanover, US, together with the team in the liquids production site and in the naturals building, developed a process to upcycle previously discarded solvents and oils, and reuse them in future production stages. The project had an impressive impact, upcycling 200,000 kg of solvent/oil in a 12 month period, saving costs on raw materials and waste disposal fees and saving 108 metric tonnes of carbon dioxide.
Environment/Sustainability manager	Monetary reward	Emissions reduction target Supply chain engagement	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.
Process operation manager	Monetary reward	Efficiency target	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 for each manager's scope of responsibility.
Chief Procurement Officer (CPO)	Monetary reward	Supply chain engagement	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.

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 quarterly monitoring of risk response measures 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 materialising 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.

Description of the quantifiable indicator(s) used to define 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 quarterly monitoring of risk response measures 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 · 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. Case study/example of how the process has been applied to at least one transition risk and one physical risk: Transitional risk: - As part of ERM, we identified the risk that we may not respond to customer or consumer expectations in terms of natural, sustainability, transparency, climate change as a major strategic risk. To mitigate the risk, we have identified actions to develop our product portfolio to offer solutions to our customers that meet consumer expectations in these areas. Example: One climate change topic which is very important to consumers and thus to our customers is deforestation related to

ingredients from palm oil. Givaudan has taken action by being a member of the RSPO (Round table for Sustainable Palm Oil), striving for RSPO certification scheme implementation across our business and purchasing increasing volumes of certified ingredients both for palm oil and palm oil derivatives. Physical risk: - As part of ERM, disruption of our supply chains/suppliers has been identified as a top Company risk. A disruption in the supply of raw materials we require for our production may negatively impact our ability to produce at competitive price and in a timely manner. Such disruption may be caused by external factor such as climate change. Givaudan's procurement function has a process to monitor and manage supply chain risks arising from raw materials. Moreover, supply is monitored through a cross-functional risk management process which is integrated with global supply chain management and enable us to mitigate raw materials sourcing risks. Our innovation teams are also working on "side-stream valuation", enabling Givaudan to use a larger part of the existing raw material's associated waste or re-use "food/organic waste" from our partner's facilities. This saves on energy to create raw materials and reduces the risk of sufficient supply, as Givaudan can "do more with less".

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.

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. A special focus is on water scarcity basins where local plans are in place to reduce water risks. Quarterly reporting of individual sites performance regarding emissions is owned by the local EHS manager.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	(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. (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. 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%.
Emerging regulation	Relevant, always included	(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 or Germany. 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. (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.
Technology	Relevant, always included	(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." (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 Kemptthal, 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%.
Legal	Relevant, always included	(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." (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.
Market	Relevant, always included	(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." (ii) example: One climate related topic which has a reputational risk for our customers 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.
Reputation	Relevant, always included	(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 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. (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.
Acute physical	Relevant, always included	(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. (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.
Chronic physical	Relevant, always included	(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. (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.

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

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 place a price on GHG emissions generated by our production facility, by the 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 change in these regulations may have an impact on Givaudan, such as increased cost of operation (e.g. for additional taxes on fuel, energy or carbon emissions) or cost of raw materials when suppliers pass on their increased production costs through price increases. (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 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.

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)
5000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Givaudan spent approximately 50 Mio CHF/year on energy supply. Given the current trends in the energy markets in the countries in which Givaudan operates, we assume that energy prices would increase by approximately 10%, which would translate in a negative hit on our bottom line results of around CHF 5 million if we don't change our energy consumption.

Cost of response to risk
2000000

Description of response and explanation of cost calculation
Action being implemented: The primary method to manage this risk is to reduce our dependence on fossil fuel based energy. We do this both through energy efficiency projects and procurement practices in renewable electricity. Example: For example in 2020, four additional manufacturing sites moved to 100% renewable electricity, which makes a total of 28 manufacturing sites. We also reduced the GHG emission load per purchased KWh of electricity by 15% compared to 2019. This represents a decrease of 75% against the 2015 baseline. Of all electricity purchased in 2020, 81% is produced from renewable sources (compared to 75% in 2019). Givaudan committed to move to 100% use of electricity which is produced from renewable sources by 2025 (RE 100 commitment) and is on track to meet its target. Cost of management explanation: The costs associated with managing energy tax risks over time can be estimated as a percentage of total spent on renewable electricity (500 KCHF) as well as the money spent on energy efficiency projects (estimated at 2.5 Mio CHF during this reporting year) payable over the lifetime of the projects. These costs have been balanced by associated savings from energy efficiency (calculated at 1.0 Mio CHF/year). Which leads to costs of response to risk of 2.0 Mio CHF (2.5 Mio CHF + 500 KCHF – 1.0 Mio CHF).

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	Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact
Increased direct 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, rather specialties produced in small volumes. In recent time, 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 due to change in precipitation patterns and extreme variability in weather pattern and increase 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
Most of the natural ingredients sourced by Givaudan are not commodities, rather specialties produced in small volumes. In recent time, raw material supply chains are becoming more volatile, uncertain, complex and ambiguous (VUCA context). Disruption in the supply of the raw materials we require due to change in precipitation patterns and extreme variability in weather pattern is likely to happen putting Givaudan at risk. We have seen this significant increase of supply risk on iconic product such as Vanilla, Spices and Florals portfolio. As consequence, the potential financial impact figure was estimated based on raw material spend from the previous years. By comparing the cost per kg of our VUCA raw materials from 2019 to 2020, this lead 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 - Communities at Source 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). Example: Givaudan partnered with an organisation in Indonesia for a sustainable patchouli oil production project in Indonesia. The producers are supported to reduce the environmental impact of production, improve health and safety measures as well as increase their yields. 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

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

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 2020). 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	Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact
Decreased revenues due to reduced production capacity

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, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
75000

Potential financial impact figure – maximum (currency)
150000

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 to 10% , meaning 75 to 150 KCHF/year (on average this is about 115 KCHF/year).

Cost of response to risk
225000

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. Example: In Mako, our manufacturing site in Hungary which has a large water requirement, continued efforts have been made to reduce water consumption by optimizing water use in particular parts of the site's manufacturing processes. One of the main goals was to find and reuse previously drained potable water from the equipment, and a main action was to rationalize the unnecessary use of tap water. The results included recirculating of potable water in stirring motors, a reduction of 60% in the quantity of cooling water used in the spray dryer stirring motors, and the rationalizing of tap water on the site. Cost of management: The costs includes : 1) the money spent on water efficiency projects (estimated at 400 KCHF 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 2020). cost of management = 400 KCHF - 200 KCHF + 25 KCHF = 225 KCHF

Comment
no comment

C2.4

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

C2.4a

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

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
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 eco- design and ensuring our marketing and sales reflect the progress we make in eco-efficiency.

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 2020 were CHF 6.3 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), this means that the potential financial figure ranges from 150 Mio CHF (100 +50) and 300 Mio CHF (200 + 100)

Cost to realize opportunity
268000000

Strategy to realize opportunity and explanation of cost calculation
Action being implemented: We have strong R&D programmes 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 and waste. Example: Our latest sustainable ingredient is KoffeeUp™. It is a new sustainable beauty oil crafted from upcycled Arabica coffee. KoffeeUp™ has been called the "new argan oil" in the beauty industry because of its natural, eco-conscious and effective properties bringing facial skin care benefits to consumers such as hydration, protection and anti-aging. The product was developed in collaboration with Danish company Kaffe Bueno, a biotech start-up at

MassChallenge Switzerland that focuses on upcycling spent coffee grounds/waste into active and functional ingredients for cosmetics to bring health and skin benefits to consumers. This ground-breaking 'upcycling' approach helps us to reduce waste and minimise 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. Cost to realize opportunity: R&D investments (including green chemistry and eco-design technologies) were of 536 Mio CHF in 2020. Out of this, we estimate that 50% (268 Mio CHF) of R&D contributes to enhancing environmental properties of our products.

Comment
no comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Upstream

Opportunity type
Resilience

Primary climate-related opportunity driver
Participation in renewable energy programs and adoption of energy-efficiency measures

Primary potential financial impact
Other, please specify (Increased reliability of supply chain and ability to operate under various conditions)

Company-specific description
Most of the natural ingredients sourced by Givaudan are not commodities, rather specialties produced in small volumes. In recent time, raw material supply chains are becoming more volatile, uncertain, complex and ambiguous (VUCA context). Disruption in the supply of the raw materials we require due to change in precipitation patterns and extreme variability in weather pattern is likely to happen putting Givaudan at risk. We have seen this significant increase of supply risk on iconic product such as Vanilla, Spices and Florals portfolio. We have the unique opportunity to train farmers/smallholders on good and sustainable agriculture practices in order for them to adapt in the fast changing weather patterns and their impact on crop yield, drought, 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
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)
25000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The attractiveness through improved supply chain practices is not necessarily mainstream today. Indeed, besides the many big leading customers being very explicit and engaged commercially on more sustainable supply chains, the vast majority of customers are satisfied by more conventional supply chains. This is why the commercial opportunity is covering only a part of our turnover, thus the conservative value of 25 Mio CHF mentioned. We know that this part will only increase as consumers demands for more sustainable products will drive a higher engagement of Givaudan customers, this is why we expect this value to increase steadily over the coming years. Beyond this opportunity it is essential to understand that the investments we make in our supply chains (for example with our "sourcing at origin programme") are directly contributing to making our own business model and company more sustainable, even if it does not translate directly today to more sales opportunities. The 25 MioCHF is calculated by adding up the main new briefs received with sustainability credentials made explicit by our key customers as "must have".

Cost to realize opportunity
350000

Strategy to realize opportunity and explanation of cost calculation
Action being implemented: Givaudan, as part of its "sourcing at origin" programme is working on strategic partnerships for supply chain collaboration and backward integration capacity development through exploration of new territories and increase of attractiveness of local agricultural operations. In parallel, "Communities at source" programmes are in place with a solid social and environmental dimensions: reforestation programmes, training and opportunity development for workers in securing product collection networking. Example: Clove Leaf Oil in Madagascar: dedicated resources were injected to drive the switch from fuelwood to spent leaves for distillation. It consisted of the development and installation of a pilot distillation unit that drives the reduction of 70% of fuelwood, by replacing it with spent leaves, that were previously left on the ground. This project further enhanced the traceability of the full chain, its security as well as mitigating costs fluctuations. This work enabled all foundation elements to allow a sustainable certification scheme to be put in place in the short term (2020/2021). The certification is FFL (Fair for life). The cost of realizing the opportunity of 350 kCHF relates to additional investments made in human, capex and opex resources to develop our programme "sourcing at origin".

Comment
no comment

Identifier
Opp3

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 – it's part of our DNA. For climate action in particular, we look at energy intensive activities of our processes, for example our cooling and refrigeration needs, and seek for opportunities to use 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 about developing the technology that will be able to efficiently and reliably respond to variable needs across a range of processes and sites. It is particularly attractive to Givaudan for two main reasons: - First it is in line with our bold climate ambitions - Secondly, 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 annual potential financial impact corresponds to the reduction of electricity for cooling and refrigeration purposes in the 3 major sites for a 10 year period if the actual cooling and refrigeration system was replaced by an alternative technology, as explained below in strategy to realize opportunity. annual savings site 1: 55'000 CHF annual savings site 2: 25'000 CHF annual savings site 3: 20'000 CHF 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

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 maximising the use of renewable energy through made-in-Europe innovation, HyCool's objective is to minimise emissions of greenhouses gasses. Our site in Sant Celoni, Spain was selected as the HyCool project test site for the chemical industry. This project is a unique opportunity to work with leading innovation and technology experts. This project will help us reduce GHG emissions and decrease energy consumption from electricity and gas. 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
Opp4

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
We are committed to driving the global transition to more mindful diets by creating more diverse food choices. Our Plant Attitude platform offers access to an entire ecosystem of experts, 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 customised solutions to develop delightful plant-based recipes. Background: The way food is currently produced and consumed across the globe is driving many nutritional, environmental and socioeconomic challenges. Food Systems Transformation requires, among other elements, a shift to more sustainable dietary patterns, including an increased consumption of plant-based foods. A shift to plant-based diets can help boost health, while relieving pressure on natural ecosystems, reversing biodiversity loss and reducing greenhouse gas emissions related to food. The FAO estimates in their Sustainable Healthy Diets Guiding Principles that global adoption of a 'low-meat diet' can reduce diet-related GHGs by nearly 50 percent. For example, 1kg of beef incurs 20kg CO_2e, while crops commonly used in plant-based products such as soy or peas incur emissions of less than 1kg CO_2e per kg of product. Consumers are increasingly aware of the ethical and environmental impacts of their food and are turning towards plant-based meat and fish analogues. Research has shown that the Covid-19 pandemic has accelerated this

trend. In the future, we expect that many 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 the co-creation partners of choice, supporting our 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. By enabling this shift to more sustainable diets, we enable consumers to reduce the carbon footprint of their diets, and seek to contribute to a more sustainable food system overall.

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)
5500000000

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. In Taste & Wellbeing, we create food experiences that do good and feel good, for body, mind and planet; our work on plant-based products (through our 'Plant Attitude' platform) is one of the platforms contributing to the overall company growth ambition.

Cost to realize opportunity
536000000

Strategy to realize opportunity and explanation of cost calculation
Givaudan invested 536 MM CHF overall in R&D in 2020. Investment in our Plant Attitude platform forms part of this overall Givaudan investment. Our strategy to continue our leadership in Plant Attitude builds on an entire ecosystem of experts, technologies and an integrated portfolio specifically designed for meat, fish or dairy alternatives. Investment will be across a number of areas, from in-house innovation and thought leadership to collaboration with partners and academia. Some examples as follows; - We harness culinary creativity to find new solutions for delicious plant-based foods, working with world class chefs at our recent Chef's Council. The aim is to bring plant proteins closer to their meat-based counterparts with genuinely tasty, recognisable meaty flavours. Culinary notes are added based on common cooking techniques, such as smoking or grilling, to enhance the authenticity and appeal of our solutions. - The Protein Innovation Center recently opened by Givaudan together with Bühler in Singapore is one example of how we invest to bring together food processing companies, start-ups and university researchers from across the region to co-create plant-based food experiences that do good and feel good. Outfitted with a pilot scale wet and dry extruder and a state of the art product development kitchen, the Protein Innovation Centre is constructed with the end-to-end process of plant-based protein production in mind. - We partner with prominent players in the plant-based space to develop innovative solutions for technical challenges. For example, working closely with Redefine Meat, we are using our industry-leading capabilities to ensure their new Alt-Steak™ offers the satisfying flavours, aromas and eating experience of real meat. Other partnerships include the Plant Meat Matters consortium, a global initiative led by Wageningen University & Research (WUR), which is working to produce plant substitutes for beef and potentially other meat types. - We are also exploring the protein space with academia such as the University of California, Berkeley, through their Product Development Program in the Department of Chemical and Biomolecular Engineering. Our most recent project researched the plant-based fish and seafood alternatives market. Our Plant Attitude platform enables the transition to healthier and lower GHG emission diets as well as a more sustainable, regenerative food system.

Comment
no comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	no comment

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?
Yes, qualitative, but we plan to add quantitative in the next two years

C3.2a

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

Climate-related scenarios and models applied	Details
Other, please specify (internal methodology)	Scenarios analysis is a powerful tool to imagine how nature and business context can respond to the different paths of future human, environmental, economic and sometimes political / governmental approach development. The scenario developed for our global corporate assessment has explored supply chain / procurement activities disruption for specific raw materials from environmental and social causes (ex. loss of biodiversity, instability of local communities) The aim of the scenario 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&D, innovation, procurement strategy, operational stock management, ...). We used a participatory approach and involved selected stakeholders in the exercise. Borders and time horizons: The exercise has been defined geographically (for example with the inclusion of the countries most exposed to climate change and in particular the tropical area) and for selective crops most exposed to climate change implications and the horizon (2030, 2050) which also served as a reference. Input: 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. We leverage our internal team expertise to define key areas to look into, bring external support if required and collaborate with suppliers if needed. Assumptions: Assumptions concerned the change of local weather patterns characteristics and impact on communities behaviors (replacing crops by other crops less affected by weather patterns changes). Analytical methods: While our company strategy follows a five-year plan, in the case of scenarios, we have tried to project long term horizons (2030 and 2050) to help us understand what changes should be made to our supply chain. Finally, the analysis included a number of physical risks that may occur: cyclonic events, drought, loss of pollination, floods, precipitation. Results: 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. 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. 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. Monitoring and controls: Are now part of the ERM (Enterprise Risk Management) risk driver mitigation process. •The scenarios use our internal data and represent a unique set of strategic considerations. The results are for internal use only.

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	Description of influence: 1. The opportunity to provide low-carbon products to our customers (see C2.4a, opportunity 1) 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, opportunity 4) has influenced the pillar 'growing with our customers' of our current 2020 business strategy. 2. 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. 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. 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 2020 business strategy (short term) and will be integrated in our next strategy cycle 2021-2025 (medium term) and beyond (long term). Case study of the most substantial strategic decision made: As part of our Supplier Enabled Innovation Programme, 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 products.
Supply chain and/or value chain	Yes	description of the influence: 1. 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 & 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. 2. The opportunities to secure our raw material supply chain through our "sourcing at origin" programme (substantial strategic decision), as explained in opp. 2 of C2.4a, are an integral part of the "partnering for shared success" pillar of our 2020 business strategy. The programme is 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. time horizon: Short-medium term for "sourcing at origin" Medium-long term for windmill process Case study: For example, Black Pepper Oil supply from Madagascar is now covered under our "sourcing at origin" programme, 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 "sourcing at origin" programme that is inclusive from smallholder farmers to distillers and distributors.
Investment in R&D	Yes	Description of the influence: 1. The opportunity to provide low-carbon products to our customers (see C2.4a, opp. 1) and the opportunity to support our customers in their plant-based journey (see C2.4a, opp. 4) has influenced the pillar 'growing with our customers' of our current 2020 business strategy. Investment in R&D, innovation and technology and strong R&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. 2. Addressing the looming shortage of raw materials (see in C2.3a risk 2) has influenced the pillar "partnering for shared success" of our current 2020 business strategy. The R&D there is focused on generating alternative sources of materials from alternative ingredients or even from waste streams. 3. Our GHG emission reduction programme (see C2.4a opp. 3), is part of our Purpose and included in the pillar "delivering with excellence" of our current 2020 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. Time horizon: Short, medium and long term Case study of the most substantial strategic decision made: In designing innovative processes, we also look at how we can reuse and recover process & 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. Our 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.
Operations	Yes	Description of the influence: 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 "Delivering with excellence" 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. 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 "excellence of execution" pillar of our 2020 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 a put in place a water stewardship programme. We also address transfers due to operations continuity issues in our business continuity plans. Time horizon Short,medium and long term 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: - Aligning our Science-Based Targets to 1.5°C - 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 - Announcing our ambition to be Climate Positive before 2050 inclusive of scope 1, 2 and 3

C3.4

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Capital allocation Acquisitions and divestments Assets	1. Revenues 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 1) 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 4) 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. 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. 2. Direct costs 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. 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. 3. Capital expenditures/Capital allocation Description of the impact: a) Spend on R&D/Innovation to pursue opportunities to develop new products and reduce GHG emissions (as explained in C2.4a opportunities 1, 3 & 4) have an impact on current and future allocation of capital expenditures. In 2020 our total investment in R&D was CHF 536 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. Magnitude of impact: The magnitude of the impact is high, as borne out by e.g. our investment in R&D, which amounts to 8-9% of sales. case study of how climate-related risks and opportunities have influenced the financial planning and time horizon: Our global CAPEX & 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 MCHF has been factored in our 2020 - 2025 budget cycles as well as 2.8 MCHF for the period 2025 - 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 25.0 MCHF investment has been factored in our 2020 - 2025 budget cycles to accelerate the decarbonization plans for scope 1. It is foreseen that an additional 15.0 MCHF will be integrated in the 2025 - 2030 period to achieve our 2030 SBT milestone. 4. Acquisitions and divestments: 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. Magnitude of the impact/time horizon: Currently, the impact is low and we expect an increase in the future. 5. Assets 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. 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.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

no additional information

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Year target was set

2017

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2015

Covered emissions in base year (metric tons CO2e)

189810

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2030

Targeted reduction from base year (%)
70

Covered emissions in target year (metric tons CO2e) [auto-calculated]
56943

Covered emissions in reporting year (metric tons CO2e)
132671

% of target achieved [auto-calculated]
43.0046587941325

Target status in reporting year
Underway

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

Please explain (including target coverage)
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 2020, scope 1 and 2 emissions have reduced by 30% compared to 2015, which means that 43% of the target has been achieved. Target coverage: all scope 1 and 2 GHG emissions.

Target reference number
Abs 2

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 3 (upstream & downstream)

Base year
2015

Covered emissions in base year (metric tons CO2e)
1692335

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2030

Targeted reduction from base year (%)
20

Covered emissions in target year (metric tons CO2e) [auto-calculated]
1353868

Covered emissions in reporting year (metric tons CO2e)
1877341

% of target achieved [auto-calculated]
-54.6599816230238

Target status in reporting year
Underway

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

Please explain (including target coverage)
Target coverage: 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. During 2020, scope 3 GHG emissions increased by 11% against the 2015 baseline figure. This is mainly due to the development of Givaudan activities which is reflected into the increase of raw material and services used. With a scope 3 modelling using mainly generic emission factors we cannot show reduction except by reducing the activity. This is a key aspect for several project of scope 3 modelling improvement that are on going since 2020.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)

C4.2a

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

Target reference number
Low 1

Year target was set
2015

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)
<Not Applicable>

Base year
2015

Figure or percentage in base year
0

Target year
2025

Figure or percentage in target year
100

Figure or percentage in reporting year
81

% of target achieved [auto-calculated]
81

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

Please explain (including target coverage)
Target coverage: all manufacturing sites So far 81% of all the electricity we purchase comes from renewable sources. In total 28 of our manufacturing sites are powered solely by electricity from renewable sources by the end of the reporting cycle. 76% of the purchased electricity complies with the new RE100 accounting rules.

C4.2c

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

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1
Abs2

Target year for achieving net zero
2050

Is this a science-based target?
No, but we are reporting another target that is science-based

Please explain (including target coverage)
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. 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: - 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) Put simply, climate positive goes beyond net-zero and means removing more greenhouse gases from the atmosphere than we put in. It's an incredibly bold ambition but one which is needed given the urgency of tackling climate change. This ambition aligns closely to our goal to show our love for nature in everything we do. 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 follow the net-zero standard that is being developed by the SBTi.

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 CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	9	
To be implemented*	6	18000
Implementation commenced*	6	12000
Implemented*	10	20786
Not to be implemented	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 (Mix of wind, hydro, solar and biomass)

Estimated annual CO2e savings (metric tonnes CO2e)
18463

Scope(s)
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

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	Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)
543

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
33052

Investment required (unit currency – as specified in C0.4)
44840

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
Hot water / Air Compressor Heat Recovery: captured waste heat from air compressor exhaust to generate hot water.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
143

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
14000

Investment required (unit currency – as specified in C0.4)
15000

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
CIP Upgrade: improved CIP cleaning system efficiency to reduce steam consumption, improved quality and reduced water consumption.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
30

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
23916

Investment required (unit currency – as specified in C0.4)
34750

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
LED lighting: installed LED lighting in warehouse and common corridors, which reduced electricity consumption and reduced maintenance costs.

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
18

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1108

Investment required (unit currency – as specified in C0.4)
280688

Payback period
>25 years

Estimated lifetime of the initiative
21-30 years

Comment
Solar PV: installed onsite solar PV system with commissioning date in late 2020.

Initiative category & Initiative type

Energy efficiency in production processes	Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
39

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
5862

Investment required (unit currency – as specified in C0.4)
7400

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
Water Chiller Condenser Coil Replacement: replacement of existing condenser coil in water chiller and installation of fresh air dampener. Old coil was very inefficient and required heavy maintenance.

Initiative category & Initiative type

Energy efficiency in production processes	Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
1149

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
342018

Investment required (unit currency – as specified in C0.4)
1574041

Payback period
4-10 years

Estimated lifetime of the initiative
16-20 years

Comment
Chiller: replaced old chiller with new, more efficient one.

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (Lighting and cooling)

Estimated annual CO2e savings (metric tonnes CO2e)
63

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
14850

Investment required (unit currency – as specified in C0.4)
464190

Payback period
>25 years

Estimated lifetime of the initiative
16-20 years

Comment
Electricity Reduction Projects: installed warehouse LED lighting and improved glycol cooling system.

Initiative category & Initiative type

Energy efficiency in buildings	Other, please specify (Lighting and HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)
255

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
114549

Investment required (unit currency – as specified in C0.4)
50000

Payback period
<1 year

Estimated lifetime of the initiative
16-20 years

Comment
Electricity Reduction Projects: LED lighting replacement and comfort cooling set point controls.

Initiative category & Initiative type

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

Estimated annual CO2e savings (metric tonnes CO2e)
83

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
12541

Investment required (unit currency – as specified in C0.4)
5200

Payback period
<1 year

Estimated lifetime of the initiative
16-20 years

Comment
Air Handling Unit (AHU) Variable Frequency Drive (VFD) replacement: replace existing AHU motor with VFD motor. Reduction in electricity consumption at the AHU together with a reduction on the refrigeration load on the chiller.

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.
Internal incentives/recognition programs	A selected group of managers has eco efficiency related personal objectives which are related to monetary incentives. Every year the Executive Committee selects a Green Team as the winner of the Green Team Award for the best implemented eco- efficiency improvement idea; internally the names of the winning Green Team are widely communicated and recognized
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 a internal price of carbon mechanism to employ for our scopes 1 and 2 emissions reduction projects. We are currently running proof of concepts with some representative real projects before rolling out the process globally.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation
Group of products

Description of product/Group of products
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%. Estimate of the amount of the emissions that are avoided over the next 5 years is 35,000 - 40,000 tons of GHG emissions.

Are these low-carbon product(s) or do they enable avoided emissions?
Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Addressing the Avoided Emissions Challenge- Chemicals sector

% revenue from low carbon product(s) in the reporting year
1

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
Our R&D teams have increasingly more sustainable products (a.o. low carbon) as part of their brief

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Level of aggregation
Company-wide

Description of product/Group of products
The continued reduction of Scope 1 and 2 GHG emissions in the manufacturing of our products decreased during 2020 from 0.32 to a competitive and "leading" 0.27 tonne CO2e/tonne produced has resulted in the avoidance of about 24,000 tons of CO2e for all the products sold to our customers in 2020, which for them implies avoidance of part of their Scope 3 emissions; with our commitment to continue our emission reduction initiatives this is expected to continue for some years.

Are these low-carbon product(s) or do they enable avoided emissions?
Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Addressing the Avoided Emissions Challenge- Chemicals sector

% revenue from low carbon product(s) in the reporting year
100

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
Reducing our GHG emission footprint per ton of product contributes positively to our science-based target and in particular to reduce our scope 1 GHG emissions.

Level of aggregation
Group of products

Description of product/Group of products
Several synthetic flavours are replacing the use of pure natural materials, for instance strawberries or citrus, which by consequence leads to a diminishing need to grow more of these fruits, which would be accompanied with higher GHG footprints. Also, this approach balances the constant increase in demand whilst preserving land. In deed there is not enough fertile land space available on our planet to cover needs for certain flavours if they were all naturals (ex. Strawberry)

Are these low-carbon product(s) or do they enable avoided emissions?
Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (product footprint)

% revenue from low carbon product(s) in the reporting year
3

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
Our R & D teams have increasingly more sustainable products (a.o. low carbon) as part of their brief

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C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
100023

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)
103796

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)
89787

Comment
no comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
98180

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
114903

Scope 2, market-based (if applicable)
34492

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 and Scope 2 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 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source
New acquisitions

Relevance of Scope 1 emissions from this source
Emissions excluded due to recent acquisition

Relevance of location-based Scope 2 emissions from this source
Emissions excluded due to recent acquisition

Relevance of market-based Scope 2 emissions from this source (if applicable)
Emissions excluded due to recent acquisition

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.

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

Metric tonnes CO2e
1622390

Emissions calculation methodology
For Natural and Synthetic raw materials, figures are estimated according to a process-based modelling using individual modelling per substance and considering all physical inputs (Energy, fertilizers, etc). The model allows to identify the carbon footprint of each substances using their weight 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 highest volume purchased. For indirect materials and services (excluding packaging material), figures are calculated through the ESCHER model on the basis of financial values of materials purchased during 2015 and the country of origin. The 2020 GHG emission figure was then calculated by using the 2015 ratio between spend and GHG emissions and extrapolating to the 2020 spend figure. For packaging materials, the figure was calculated by extracting the number of units used for each type of packaging (for finished goods) from the Company's ERP database. This number was multiplied by the carbon footprint figure for the type of packaging (as received from suppliers).

Percentage of emissions calculated using data obtained from suppliers or value chain partners
4.1

Please explain
For calculating the figure of packaging material it was necessary to have the carbon footprint figure by type of packaging from the suppliers. Scope 3 emission figure coming from packaging material is the 4.1% of scope 3 figure of Purchased goods and services.

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
72797

Emissions calculation methodology
The figures are calculated through the ESCHER model on the basis of financial values of hardware purchased during 2015. The 2020 GHG emission figure was calculated by using the 2015 ratio between spend and GHG emissions and extrapolating to the 2020 spend figure.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
no further explanation

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
52375

Emissions calculation methodology
The calculation takes the primary energy carriers for the production of heat, electricity and steam as well as the technology standard in the countries of the respective sites into consideration. We use the ecoinvent database 2.2 (method: IPCC 2007) as the data basis for the life-cycle inventory. Scope 3 emissions have been estimated directly through the analysis of the respective ecoinvent datasets and 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 in the calculation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Covers the energy purchased as primary energy sources, purchased steam and electricity

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
37784

Emissions calculation methodology
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.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Covers inbound transport of purchased raw materials

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
19510

Emissions calculation methodology
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. The scope of the calculation covers waste to landfill and to incineration.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
no further explanation

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
10915

Emissions calculation methodology
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 2020 Department for Environment, Food and Rural Affairs (DEFRA, UK) definition.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
95

Please explain
Concerns only travel by plane for all Givaudan employees for business related activities. Other means of business transportation such as car or train are not included.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
13820

Emissions calculation methodology
In 2018, we conducted for the third time a global commuting survey/questionnaire asking employees about their modes of travel and distances covered. Of the employees surveyed, 43% responded: this data and transport emission factors (kg/km) from Guidelines to Defra's GHG Conversion factors for transport were used to calculate the related CO2e emission per employee. The 2018 figure was then obtained by extrapolating to 100%. The ratio of GHG emissions per employee fell to 1.2 tCO_2e in 2020 (same as 2018 and 2019) from 1.5 tCO_2e in 2015. Givaudan actively encourages its employees to reduce the GHG emissions of their daily commute, supporting a range of schemes including a bike-to-work initiative at our Swiss sites, the facilitation of carpooling through our intranet platform and the provision of recharge stations to support the transition to electric cars at some sites. In 2020, we estimate that COVID-19 led to a small reduction, as factories remained open, based on an assumption of 8,000 employees reducing their commuting by one day per week over the year.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
43

Please explain
no further explanation

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes 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

Metric tonnes CO2e
47750

Emissions calculation methodology
We calculate GHG emissions 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.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Outbound (internal) shipments to other Givaudan locations are included as well as outbound shipments to customers; intercompany deliveries concerns 15,617 metric tonnes of CO2e and customer deliveries 32,133 metric tonnes.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes 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 we judge this scope 3 category as not relevant.

Use of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes 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 we judge this scope 3 category as not relevant.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes 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

Metric tonnes 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

Metric tonnes 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

Metric tonnes 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
Investments are mostly happening around specific product innovation activities which have a limited impact. By consequence we judge this scope 3 category as not relevant.

Other (upstream)

Evaluation status

Metric tonnes 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

Other (downstream)

Evaluation status

Metric tonnes 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

C6.7

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

C6.7a

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

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	22.4	Calculated from biogas, biofuel and biomass consumption.

C6.10

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

Intensity figure
0.0000208274

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
132671

Metric denominator
unit total revenue

Metric denominator: Unit total
6370000000

Scope 2 figure used
Market-based

% change from previous year
15.3

Direction of change
Decreased

Reason for change
The 2020 intensity figure decreased with the implementation of emission reduction activities such as low carbon energy purchase, energy efficiency in processes and in building services.

Intensity figure
0.2746

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
132671

Metric denominator
metric ton of product

Metric denominator: Unit total
483094

Scope 2 figure used
Market-based

% change from previous year
14.2

Direction of change
Decreased

Reason for change
The 2020 intensity figure decreased with the implementation of emission reduction activities such as low carbon energy purchase, energy efficiency in processes and in building services.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
No

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Argentina	1719
Australia	207
Brazil	775
China	1297
Egypt	246
France	3154
Germany	1497
Hungary	3523
India	686
Indonesia	1381
Japan	248
Mexico	24218
Netherlands	5206
Singapore	18
South Africa	224
Spain	3763
Switzerland	18619
United Kingdom of Great Britain and Northern Ireland	350
United States of America	31049
Malaysia	0

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	53411
Fragrance and Beauty	44769

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	67029	<Not Applicable>	This figure was calculated by taking the total scope 1 figure (98,180 metric tons CO2e) and 1) substracting the scope 1 figure of 2 non-manufacturing sites included in our scope (2,425 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 (29,860 metric tons CO2e). scope 1 emissions for chemical production activities. (98,180-2,425)*0.7=67,029
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/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Argentina	1788.5	1788.5	4822	1948.1
Australia	1361.8	1381.6	1705.7	208.5
Brazil	717.5	309.4	5295.2	4606.8
China	18272.3	5813.2	33594.4	19897.8
Egypt	1245.8	1245.8	2824.4	226
France	992.3	12.6	15522.2	15342.3
Germany	1756.4	0	3613.5	3613.5
Hungary	4409	0	15067.8	15067.8
India	7071.1	0	8934.4	8934.4
Indonesia	6555.1	7552.2	8611.4	933.5
Japan	931.1	721.4	1629.1	387.1
Mexico	6754.6	6407.8	13711.8	2736.4
Netherlands	5409	0	11966.4	11966.4
Singapore	8169.4	5851.1	18014	1867.8
South Africa	1870.4	1998.8	2019	141.3
Spain	2162.3	0	8743.5	8743.5
Switzerland	953.5	0	39923.8	39923.8
United Kingdom of Great Britain and Northern Ireland	2219.4	558.8	10605.4	3295.3
United States of America	41413.1	0	79880.1	79880.1
Malaysia	850.5	850.5	1225.5	46

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	88694	25120
Fragrance and Beauty	26209	9372

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	70507.5	22419.8	Scope 2, location-based: This figure was calculated by taking the total scope 2 location-based figure (114,903 metric tons CO2e) and 1) subtracting the scope 2 figure of 2 non-manufacturing sites included in our scope (6,430 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 include, among others, buildings heating and wastewater treatment plants (WWTP). Scope 2, location-based, emissions for chemical production activities: (114,903–6,430)*0.65 = 70,507.5. Scope 2, market-based: This figures was calculated by taking the total scope 2 market-based figure (34,492 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 missions that are not relate to chemical production activities. This 35% was estimated based on average non-chemical production activities per site and include, among others, buildings heating and WWTP. Scope 2, market-based, emissions for chemical production activities: (34,492-0)*0.65=22,419.8
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
Ethanol	0.93	For Natural and Synthetic raw materials, figures are estimated according to a process-based modelling using individual modelling per substance and considering all physical inputs (Energy, fertilizers, etc). The model allows to identify the GHG emission footprint of each substances using their weight 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. The percentage of Scope 3, category 1 from Ethanol, was calculated taking the ration between 2020 Ethanol GHG emission footprint and total 2020 Scope 3 category 1 GHG emission footprint.
Methanol	0.18	For Natural and Synthetic raw materials, figures are estimated according to a process-based modelling using individual modelling per substance and considering all physical inputs (Energy, fertilizers, etc). The model allows to identify the GHG emission footprint of each substances using their weight 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. The percentage of Scope 3, category 1 from Methanol, was calculated taking the ration between 2020 Methanol GHG emission footprint and total 2020 Scope 3 category 1 GHG emission footprint.
Specialty chemicals	42.73	For Natural and Synthetic raw materials, figures are estimated according to a process-based modelling using individual modelling per substance and considering all physical inputs (Energy, fertilizers, etc). The model allows to identify the GHG emission footprint of each substances using their weight 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. The percentage of Scope 3, category 1 from Specialty chemicals, was calculated taking the ration between 2020 Specialty chemicals GHG emission footprint and total 2020 Scope 3 category 1 GHG emission footprint.
Other base chemicals	2.04	For Natural and Synthetic raw materials, figures are estimated according to a process-based modelling using individual modelling per substance and considering all physical inputs (Energy, fertilizers, etc). The model allows to identify the GHG emission footprint of each substances using their weight 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. The percentage of Scope 3, category 1 from other base chemicals, was calculated taking the ration between 2020 other base chemicals GHG emission footprint and total 2020 Scope 3 category 1 GHG emission footprint.

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 output product.
Methane (CH4)	0	We do not sell this output product.
Nitrous oxide (N2O)	0	We do not sell this output product.
Hydrofluorocarbons (HFC)	0	We do not sell this output product.
Perfluorocarbons (PFC)	0	We do not sell this output product.
Sulphur hexafluoride (SF6)	0	We do not sell this output product.
Nitrogen trifluoride (NF3)	0	We do not sell this output 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	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	18463	Decreased	11.9	This figure (% emission value) represents the decrease in emissions from 2019 to 2020 which comes from emissions reductions from additional renewable energy consumption as explained in questions C4.3a and b. In 2020, emissions reduction from renewable energy consumption reduced by 18,463 tCO2e our total scope 1 and 2 emissions. In 2019, scope 1 and 2 emissions were of 154,569 tCO2e. The emission value in percentage due to emission reduction from renewable energy consumption in 2020 is of: (18,463/154,569)*100% = 11.9%.
Other emissions reduction activities	2322	Decreased	1.5	This figure (% emission value) represents the decrease in emissions from 2019 to 2020 which comes from other emissions reductions activities as explained in questions C4.3a and b. In 2020, emissions reduction from renewable energy consumption reduced by 2,322 tCO2e our total scope 1 and 2 emissions. In 2019, scope 1 and 2 emissions were of 154,569 tCO2e. The emission value in percentage due to emission reduction from renewable energy consumption in 2020 is of: (2,322/154,569)*100% = 1.5%.
Divestment		<Not Applicable>		not applicable
Acquisitions		<Not Applicable>		not applicable
Mergers		<Not Applicable>		not applicable
Change in output		<Not Applicable>		not applicable
Change in methodology		<Not Applicable>		not applicable
Change in boundary		<Not Applicable>		not applicable
Change in physical operating conditions		<Not Applicable>		not applicable
Unidentified		<Not Applicable>		not applicable
Other		<Not Applicable>		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)	60	478611	478671
Consumption of purchased or acquired electricity	<Not Applicable>	219413	50811	270225
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	16882	16882
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	3108	<Not Applicable>	3108
Total energy consumption	<Not Applicable>	222582	546304	768886

C-CH8.2a

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

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	305909
Consumption of purchased or acquired electricity	<Not Applicable>	163422
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	10973
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	779
Total energy consumption	<Not Applicable>	481083

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.

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
460506

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
436202

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
24304

Emission factor
1.95

Unit
kg CO2e per m3

Emissions factor source
Roche / DoCount

Comment
no comment

Fuels (excluding feedstocks)
Town Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
48

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
48

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.906

Unit
kg CO2e per m3

Emissions factor source
Singapore sites

Comment
no comment

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
1623

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
1623

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
1620

Unit
kg CO2e per m3

Emissions factor source
Energy government US

Comment
no comment

Fuels (excluding feedstocks)
Diesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
6295

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
6295

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
2226

Unit
kg CO2e per m3

Emissions factor source
Australian Governmental Authorities

Comment
no comment

Fuels (excluding feedstocks)
Waste Oils

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
10139

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
10139

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
1628

Unit
kg CO2e per m3

Emissions factor source
Own measurement (used at 1 location only)

Comment
no comment

Fuels (excluding feedstocks)
Biodiesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
60

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
60

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0

Unit
kg CO2e per m3

Emissions factor source
Own measurement (used at 1 location only)

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	1360.47	1360.47	1360.47	1360.47
Heat	1748.24	1748.24	1748.24	1748.24
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.

	Total gross generation (MWh) inside chemicals sector boundary	Generation that is consumed (MWh) inside chemicals sector boundary
Electricity	884.3	884.3
Heat	0	0
Steam	0	0
Cooling	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method
Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type
Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling
China

MWh consumed accounted for at a zero emission factor
19896

Comment
This concerns four sites.

Sourcing method
Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type
Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling
France

MWh consumed accounted for at a zero emission factor
562

Comment
This concerns one site.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling
France

MWh consumed accounted for at a zero emission factor
14779

Comment
This concerns three sites.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling
Germany

MWh consumed accounted for at a zero emission factor
3613

Comment
This concerns one site.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling
Hungary

MWh consumed accounted for at a zero emission factor
15067

Comment
This concerns one site.

Sourcing method
Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type
Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling
India

MWh consumed accounted for at a zero emission factor
8934

Comment
This concerns three sites.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling
Netherlands

MWh consumed accounted for at a zero emission factor
11965

Comment
This concerns two sites.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling
Spain

MWh consumed accounted for at a zero emission factor
8743

Comment
This concerns one site.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling
Switzerland

MWh consumed accounted for at a zero emission factor
39677

Comment
This concerns three sites and a part of a fourth one.

Sourcing method
Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type
Solar

Country/area of consumption of low-carbon electricity, heat, steam or cooling
Switzerland

MWh consumed accounted for at a zero emission factor
243.49

Comment
This concerns a part of one site.

Sourcing method
Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type
Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling
United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor
3295

Comment
This concerns one site.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling
United States of America

MWh consumed accounted for at a zero emission factor
58377

Comment
This concerns five sites.

Sourcing method
Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type
Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling
United States of America

MWh consumed accounted for at a zero emission factor
20165

Comment
This concerns two sites.

Sourcing method
Other, please specify (Grid mix of renewable electricity)

Low-carbon technology type
Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling
Switzerland

MWh consumed accounted for at a zero emission factor
14312

Comment
Switzerland is chosen as HO for several sites which are overall contributing to the global RE performance.

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
5.73

Metric numerator
GJ

Metric denominator (intensity metric only)
tonnes of production

% change from previous year
4.2

Direction of change
Decreased

Please explain
no further explanation

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product
Specialty chemicals

Production (metric tons)
483094

Capacity (metric tons)
500000

Direct emissions intensity (metric tons CO2e per metric ton of product)
0.2

Electricity intensity (MWh per metric ton of product)
0.57

Steam intensity (MWh per metric ton of product)
0.04

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	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Bio technology	Full/commercial-scale demonstration	≤20%		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 chemisty 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.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Givaudan 2020_CDP-verification-Statement_June2021_Signed.pdf
GIV_2020_GRI_SustainabilityReport.pdf

Page/ section reference
GRI 305-1: Direct (Scope 1) GHG emissions : figure on p.53 of the 2020 GRI Sustainability Report GRI Content Index with details on external assurance for GRI 305-1: p. 96 section of the 2020 GRI Sustainability Report Independent Assurance Statement: p.100-101 of the 2020 GRI Sustainability Report

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Givaudan 2020_CDP-verification-Statement_June2021_Signed.pdf
GIV_2020_GRI_SustainabilityReport.pdf

Page/ section reference
GRI 305-2: Indirect (Scope 2) GHG emissions : figure on p.53 of the 2020 GRI Sustainability Report GRI Content Index with details on external assurance for GRI 305-2: p. 96 section of the 2020 GRI Sustainability Report Independent Assurance Statement: p.100-101 of the 2020 GRI Sustainability Report

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3 (upstream & downstream)

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 2020_CDP-verification-Statement_June2021_Signed.pdf
GIV_2020_GRI_SustainabilityReport.pdf

Page/section reference
All the content of our 2020 GRI Sustainability Report, including GRI 305-3: Other indirect (Scope 3) GHG emissions, has been verified through third party/external audit. - GRI 305-3: Other indirect (Scope 3) GHG emissions: figures on p.54 of the 2020 GRI Sustainability Report - GRI Content Index with details on external assurance for GRI 305-3: p. 96 section of the 2020 GRI Sustainability Report - Independent Assurance Statement: p.100-101 of the 2020 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 2020 GRI Sustainability Report, including targets and progress, has been verified through third party/external audit. - GRI 305-5: Reduction of GHG emissions: figures on p.54 and 55 of the 2020 GRI Sustainability Report - GRI Content Index with details on external assurance for GRI 305-5: p. 96 section of the 2020 GRI Sustainability Report - Independent Assurance Statement: p.100-101 of the 2020 GRI Sustainability Report GIV_2020_GRI_SustainabilityReport.pdf
C4. Targets and performance	Energy consumption	ISAE3000	All the content of our 2020 GRI Sustainability Report, including Energy consumption, has been verified through third party/external audit. - GRI 302-1: Energy consumption and reduction within the organisation: figure on p.43 of the 2020 GRI Sustainability Report - GRI Content Index with details on external assurance for GRI 302-1: p. 95 section of the 2020 GRI Sustainability Report - Independent Assurance Statement: p.100-101 of the 2020 GRI Sustainability Report GIV_2020_GRI_SustainabilityReport.pdf
C6. Emissions data	Year on year emissions intensity figure	ISAE3000	All the content of our 2020 GRI Sustainability Report, including GHG emission intensity figures (GHG emissions per ton of product), has been verified through third party/external audit. - GRI 305-4: GHG emissions intensity: - Figure on p.54 of the 2019 Sustainability GRI Index - GRI Content Index with details on external assurance for GRI 305-4: p. 95 section of the 2020 GRI Sustainability Report - Independent Assurance Statement: p.100-101 of the 2020 GRI Sustainability Report GIV_2020_GRI_SustainabilityReport.pdf
C7. Emissions breakdown	Renewable energy products	ISAE3000	All the content of our 2020 GRI Sustainability Report, including percentage of renewable electricity, has been verified through third party/external audit. - Percentage of renewable electricity in GRI 305-5: Reduction of GHG emissions: figures on p.54 and 55 of the 2020 GRI Sustainability Report - GRI Content Index with details on external assurance for GRI 305-5: p. 96 section of the 2020 GRI Sustainability Report - Independent Assurance Statement: p.100-101 of the 2020 GRI Sustainability Report GIV_2020_GRI_SustainabilityReport.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Switzerland carbon tax

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

Switzerland carbon tax

Period start date

January 1 2020

Period end date

December 31 2020

% of total Scope 1 emissions covered by tax

12.6

Total cost of tax paid

1197918.75

Comment

The Swiss Confederation exempts a company upon request. In return the company commits to reducing its greenhouse gas emissions without interruption by 2021. Only at the end of the commitment period, in 2022, 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 postponed to 2021. As of 2022 the new cycle with new ways of working (currently not known) will take place.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

This system concerns one of our Swiss sites. The Swiss Confederation exempts a company upon request. In return the company commits to reducing its GHG emissions without interruption by 2021.

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:

• An action plan has been developed with energy saving actions to reduce our GHG footprint.

• A review of our performance and progress against our plan is taking place annually with 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 the last year, our GHG emissions were lower than what was required, this allowed us to accumulate some GHG allowances). In view of the plan, we will most probably not need to use these allowances.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Information collection (understanding supplier behavior)

Details of engagement
Collect climate change and carbon 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
In 2020, we participated for the fourth 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. The criteria Givaudan has followed to select the suppliers were the following: - for raw materials suppliers: top suppliers by volume and strategic suppliers to our business - for indirect materials and services suppliers: 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. With about 15'000 suppliers we cannot engage which each of them for information collection so we have prioritised and

this is the reason for the small supplier % by number.

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 gain understanding of our supply chain. The level of the impact of engagement varies depending on the level of maturity of 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. Measure of success: We measure the success of our engagement with suppliers through the CDP Supply Chain Programme through different KPIs: 1. Supplier response rate: In 2020, our supplier response rate is 66% compared to 68% in 2019 but with an increase of number of supplier by +30. This first KPI (supplier response rate) is a way to measure the new suppliers starting and reporting on their climate action journey. The +30 suppliers responding to the questionnaire compared to last year is a measure of success because it means that more suppliers are embarking on their climate action journey. 2. Percentage of suppliers with a leadership (A or A-) or management (B or B-) score: 58% of our supplier responders (43% last year). 3. Percentage of suppliers reporting active targets: 80% (79% last year) 4. Percentage of suppliers engaging their own suppliers: 66% (63% last year) These three KPIs (2, 3 and 4) are a way to measure how many suppliers have a high level of maturity on their climate action journey. With these suppliers we are working to find collaborative measures or programmes to reduce our common emissions. An example of a collaborative measure proposal is combining several orders into full container loads to reduce transport emissions. Supplier cascading commitments in their own supply chain is also a key element to drive action. In 2020, for all these three KPIs (2, 3 and 4), there is improvement, which is a measure of success.

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
As explained in the first supplier engagement activity of C12.1a, in 2020, we participated for the fourth 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. The ultimate goal was to 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. A supplier feedback webinar was also organized with the same hosts to thank the suppliers for their participation in the programme and more importantly to explain what we will do with the data provided. 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 suppliers: top suppliers by volume and strategic suppliers to our business - for indirect materials and services suppliers: 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.

Impact of engagement, including measures of success
Impact of engagement: 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: Collaboration across the industry and across sectors is important to be successful. 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: In 2020, our supplier response rate was 66 compared to 68% in 2019 but with an increase of number of supplier by +30. This KPI (supplier response rate) is a way to measure the new suppliers starting and reporting on their climate action journey. The +30 suppliers responding to the questionnaire compared to last year is a measure of success because it means that more suppliers are embarking on their climate action journey.

Comment
no comment

Type of engagement
Compliance & onboarding

Details of engagement
Code of conduct featuring climate change KPIs
Climate change is integrated into supplier evaluation processes

% of suppliers by number
100

% total procurement spend (direct and indirect)
100

% of supplier-related Scope 3 emissions as reported in C6.5
86

Rationale for the coverage of your engagement
Givaudan has a Responsible Sourcing Policy. The Responsible Sourcing Policy includes our clear environmental requirements. Manufacturing sites must apply environmental management princi-ples, including climate-related issues; the policy calls for conservation of environmental values at raw material source, and the use of best agricultural and processing techniques. To implement compliance to the policy, up to and including 2020, we have a 3 step approach: 1) Coverage: all our suppliers (corresponding to the code of conduct featuring climate change KPIs) We start our supplier engagement by introducing them to the Responsible Sourcing Policy by sending it to them. 2) Coverage: Main direct suppliers (climate change is integrated into the supplier evaluation pro-cesses) Main direct suppliers are chosen using the following criteria: • Supplier's size • Country risk • Dependence risk • Reliability of the supplier • Business plan evolution • % sales for supplier • Distribution network risk Our target is to ensure that all our main direct suppliers are fully compliant with our Responsible Sourcing Policy by 2020. We work with them to ensure their sites are audited against a protocol that covers the policy requirements. This is done via the Sedex platform, SMETA, or an equivalent protocol. Our Procurement team works closely with suppliers to

guide them through their audit process and make sure that non-conformities are closed as soon as possible. Only at this point do we consider an audit to be compliant. 3) Coverage: Our entire supply chain of raw materials with natural origin. We map the supply chains of key raw materials of natural origin to understand how they are organised and to collect information on the role, importance and location of intermediate suppliers, right up to the farm level. Following this, the next step is to check the practices in each supply chain against our Responsible Sourcing Policy. Where we find risks or gaps we ensure the relevant suppliers have improvement plans in place. Our target to the end of 2020 is to ensure that 90% of our raw materials volume of natural origin have achieved compliance or have these gaps addressed.

Impact of engagement, including measures of success

Impact of engagement: Our Responsible Sourcing programme drives compliance and continuous improvements in the way that products are produced. It encourages suppliers to achieve high standards in health and safety, and in social, environmental and business integrity as included in our Responsible Sourcing policy. Our Procurement team and implementation partners work closely with suppliers to guide them through our policy, identify gaps, agree on remediation plans and prepare for the audit. Most direct supplier sites are audited according to Sedex Members Ethical Trade Audit (SMETA), one of the most widely used ethical audit formats in the world. Measure of success: 1) By the end of 2020, over 14,000 of our raw material and indirect materials and services (IM&S) suppliers have received the policy. We are continuously increasing this number as we include in this exercise the suppliers of our new acquisition entities as well, covering an additional scope of approximately 1,000 more raw materials and associated supplier base (direct and indirect). We have seen an estimated coverage increase of 25% more suppliers and about 8% more spend compared to 2019 corresponding to 86% of out total spend for 2020. 2) Due to the lack of direct access to our suppliers through the COVID-19 situation, at the end of 2020, our supplier compliance rate was 85% the same as in 2019. As a counter measure, we have asked suppliers to complete the self-assessment questionnaire (SAQ) on SEDEX platform. These suppliers represent 8.5% of audited suppliers in scope, meaning that in total we worked with 94% of our direct suppliers. A further 329 of our key raw material suppliers representing around 82% of our raw materials spend are now registered with Sedex. 3) We also originally targeted to ensure that 90% of the raw materials volume of natural origin was 3rd party audited, with an action plan in place, by 2020. We have come to realise that this approach to the 90% of our natural raw material volume was neither practical, relevant, nor a good measure of our progress to source responsibly. During 2020, we reviewed our overall responsible sourcing program, which has included putting increased effort into finding a risk-based approach to verifying raw materials and suppliers. The resulting new programme will be launched in 2021.

Comment

no comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

30

% of customer - related Scope 3 emissions as reported in C6.5

30

Portfolio coverage (total or outstanding)

<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

Rationale for selecting this group of customers: Our customers increasingly ask about our approach to Climate Action- it is the second most frequently asked about topic. Customers ask about our activities to reduce carbon emissions and energy consumption in particular, and how we adapt to a changing climate. Examples of questions include: Have we set targets on climate action? What are they? How do we track them? What progress have we made? What greenhouse gas emissions are associated with producing and distribution? How are these impacts managed by us or our suppliers? Please share examples on projects that have been implemented that reduced your emissions? We share climate change and carbon information with our customers through customer questionnaires (including CDP Supply Chain as a supplier). We also share details about our overall Environmental Sustainability programme of work through ongoing customer dialogue, raising awareness of our work and detailing our CDP collaboration. We have been working with external partners to further our knowledge on the emissions from individual ingredients within our supply chain. This will enable more comprehensive responses to customers. Scope of engagement: The scope of engagement was calculated in % of sales. Only for CDP Supply Chain, our customers asking us to respond represent more than 20%. We estimate that the percentage of other customers asking us to share information on climate change is around 10%. Without an easy system to attribute emissions as reported in C6.5 for each supplier the best estimation is that it addresses 30% emissions. In addition we launch the Naturality Index™in 2020, a dedicated campaign and tool to educate our customer on the topic of naturality and environmental impacts. Consumers often relate naturals as safe to use and having a lower impact on the environment. Fully natural fragrances are not necessarily the answer to sustainability. There are a variety of elements that can bring Naturality to the fragrance formula and products. Our Naturality Index™ examines our entire fragrance ingredient palette, not only naturals. With our approach to Naturality and introducing the Index, we are creating a journey with an evolving tool which offers a long-term horizon beyond “natural” to offer more sustainable and nature conscious solutions for our customers brands and their consumers.

Impact of engagement, including measures of success

Impact of engagement: Our engagement on environmental sustainability contributes to our 2020 strategy of Partnering for Shared Success. It helps us build valuable partnerships and trust with our customers by understanding their expectations, sharing information and being transparent; this in turn adds to Givaudan’s reputation as a responsible partner of choice. Measure of success: We track all customer requests on sustainability (including climate action questions) and actively promote our Climate Actions and provide examples of projects that reduce our carbon emissions in customer meetings when discussing our sustainability strategy. We have responded to 100% of the customer queries on Climate Actions which 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. Some customers have started to score their suppliers on the GHG emission strategy and progress, and we have always received a positive score and the last received score of 92/100 from one customer, and excellent feedback on our engagement.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Description of our climate-related engagement strategy with other partners in the value chain

Our **Communities at Source** approach shows how we support local communities in our raw material supply chains. We work together with local communities on projects and causes that benefit the communities where we work. We build partnerships with non-profit organisations and support local communities.

Many of our most precious natural ingredients come from places that are vulnerable to political, economic and natural upheavals, and so we recognise 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.

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.

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 neighbours, or working on specific environmental and social issues.

A case study/example of your climate-related engagement strategy with other partners in the value chain

By the end of 2020, Givaudan and the Givaudan Foundation had planted more than 680,000 trees together with communities producing clove leaf oil in Madagascar. The project is being implemented by the NGO Action Intercooperation Madagascar (AIM). The local AIM team engages farmers distilling essential oil from clove leafs as well as other community members as active project stakeholders.

The objective of the project is to avoid the overuse of local forests by giving producers access to a sustainable source of firewood. The smallholders distilling clove leaf oil in remote areas of the Analanjirofo region of Madagascar have no other option than using wood as a source of energy. The project helps them plant trees for their own use. As a result, they do not rely on buying wood that might not have been sustainably produced. This allows them to reduce their production costs and increase their household income.

Sample-based evaluation indicates that most of the trees planted as part of the project have been used by the farmers as a source of energy for distillation and that many farmers are replanting trees on their own. To systematically document the impact of the project on the climate, a new monitoring approach is currently being rolled out.

Complementing the sustainable production of firewood, Givaudan is partnering with the German Agency for International Cooperation (GIZ) to develop more efficient distillation equipment with the local stakeholders. This will reduce the volume of firewood needed as fuel for distillation.

This partnership with GIZ follows the principle of linking environmental benefits with social advantages for producers. Not only can farmers and distillers benefit from higher productivity, but they will also receive training on financial management and entrepreneurship.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Trade associations
Other

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association
IFRA - International Fragrance Association IOFI - International Organization of the Flavor Industry

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
IFRA-IOFI is working on a Sustainability Initiative called "A Sense of Responsibility, a Commitment to Sustainability", which is an Initiative of the Flavor and Fragrance Industries. In this sustainability initiative, there is a section on commitments to sustainability including how to reduce our industries' environmental footprint and address climate change.

How have you influenced, or are you attempting to influence their position?
Givaudan is represented on the board of the association which strengthens our implication and influence in advancing climate action. We actively participate in the discussions bringing a progressive view on what our industry can and should do to mitigate emissions both at level of operations and notably, in the supply chain. Reducing Scope 3 emissions is identified as a common challenge best addressed by the definition of industry-wide good practices.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Business Ambition for 1.5 °C

Business Ambition for 1.5 °C: Our Only Future is a communications and advocacy campaign calling for businesses to step up and do their part in limiting global temperature rise to 1.5°C in response to the climate crisis. The call-to-action was announced by more than 25 business, civil society and UN leaders in June 2019, and it calls on companies to commit to setting verifiable science-based targets at 1.5°C and achieve net-zero emissions economy by 2050. 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.

United Nations Global Compact
a. method of engagement: signatory of 10 principles and annual COP reporting
b. topic of engagement: climate change
c. nature of engagement: membership of Swiss national UNGC network
d. actions advocated: supporting the programme to maximise global temperature rise to 1.5°C

RE100 member - Playing our part in the global search for renewable energy solutions

Environmental challenges cannot be solved by companies or other organisations operating in isolation. Collaborations are central to finding solutions and while we can be effective in addressing a range of internal issues, we know we must go beyond our own boundaries in helping make an impact in mitigating climate change.

Renewable energy is one area where collaboration can be fruitful. We are proud to be a member of RE100, a collaborative, global initiative that unites more than 150 influential businesses committed to 100% renewable electricity. RE100 is organised by the Climate Group in partnership with CDP.

The RE100 network contributes to how actions can go further and faster on renewables collectively. Our engagement through RE100 contributes to showing leadership on the corporate sourcing of renewables through peer collaboration, policy influencing and growing the RE100 movement.

We also engage in climate change activities through our membership to World Business Council for Sustainable Development (WBCSD) and American Cleaning Institue (ACI).

Givaudan's involvement in these engagement activities demonstrates its ambition to help mitigate climate change and its desire to work in a broad global partnership of proactive companies dedicated to making a positive difference.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

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 IFRA (International Fragrance Association) and IOFI (International Organization of the Flavor Industry), by sitting on the board of Directors of these industry associations and being a very active working group member we ensure consistent and proactive alignment between our company strategy and necessary industry alignment that always takes place in a pre-competitive base. 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 with regards to Policy makers.

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

Status
Complete

Attach the document
GIV_2020_IntegratedAnnualReport.pdf

Page/Section reference
Givaudan 2020 Integrated Annual Report - Key figures and Highlights 2020: p. ii, iii & iv - Chairman's introduction: p.4-5 and CEO interview: p. 6-9 - Progress against our 2020 ambitions: p. 11-15 - Presentation of our 2025 Purpose-led Strategy: "Committed to Growth, with Purpose": p. 16-19 - Trends, risks and opportunities – Shaping our value creation: p.20-29 - Nature piece of the 2025 Strategy: p. 16-19; 61-73

Content elements
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
No comment

Publication
In voluntary sustainability report

Status
Complete

Attach the document
GIV_2020_GRI_SustainabilityReport.pdf

Page/Section reference
Givaudan 2020 GRI Sustainability Report - GRI 102: General disclosure - Strategy p. 14-16 - GRI 102: General disclosure - Governance p. 18-19 - GRI 300: Environmental - GRI 305: Emissions p. 51-55 - GRI 300: Environmental Environmental performance indicators p. 61-63

Content elements
Governance
Strategy
Emissions figures
Emission targets
Other metrics

Comment
No comment

C15. Signoff

C-FI