

W0. Introduction

W0.1

(W0.1) Give a general description of 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 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.

W-CH0.1a

(W-CH0.1a) Which activities in the chemical sector does your organization engage in?

Specialty organic chemicals
 Other, please specify (Fragrances and Flavors)

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1 2019	December 31 2019

W0.3

(W0.3) 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

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

CHF

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Acquisitions in 2018 and 2019	The recent acquisition will be integrated in scope within the next two years after the acquisition. This is the necessary time to align reporting framework and to proceed to the basic integration steps required to be able to include them in the CDP reporting framework. This is why they are excluded in this reporting.

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	- Direct use: the primary use of water in our direct operations is dedicated to cleaning of processing equipment and a very small part is used as ingredient in the manufacturing of our products. For both applications the quality and the availability of the water is important. Indeed, without access to sufficient amount of water, the equipment might be required to stop operating due to non conformance to cleaning regulation or to risk of contamination between products. - Indirect use: the primary use of water in our indirect operations is related to raw materials coming from agriculture which rely on water availability for irrigation. We also use synthetic raw materials, requiring water for their production. Water availability and quality is therefore important to sustain our sourcing. The quality and the availability of certain raw materials is directly related to sufficient amounts of good quality freshwater for use. Without access to sufficient water some key supply chains are at risk of disruption. In addition, most of the final products (which contain fragrances and/or flavours) need water to be used, such as soap, laundry detergent or food. Poor quality water or limited water availability can restrict demand from consumers and impact our business. With the high customer demand for natural ingredients, which are very water dependant, we expect future water dependency to stay at a high level both for our direct and indirect use.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	-Direct use: currently the primary use of recycled water in our direct operations is for small volumes running scrubbers at some locations. All our facilities have currently access to fresh water in sufficient quantity and quality. However, maintaining access to fresh water is requiring more attention year by year as the water stress level is rising and impacting our operations. This is why it is important to have sufficient amounts of recycled, brackish and/or produced water available for use. Recycling water is viewed as an opportunity to mitigate risks in our operations. - Indirect use: along our supply chain, the primary use of the recycled, brackish and produced water is for industries that produce some of our raw materials and in agriculture. This is important for us as these supply chains are at risk of disruption if they do not have access to sufficient amount of recycled, brackish and/or produced water when there is no opportunity to use fresh water. It is also the case for those of our customers who operate in water stress areas and are forced to develop innovative solutions to recycle water or reuse it efficiently. With the global increase of water stress level over the world, we expect the direct and indirect water dependency on recycled and/or produced water to stay at a high level (important). The growing population demand adds pressure on the existing /(renewable) water sources which will need to be supported by recycled and produced water to comply with the increasing global demand.

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Water withdrawal data is used to monitor performances and evaluate water risks in operations. Givaudan's standard on Environmental Data Reporting and Analysis based on Global Reporting Initiative (GRI) Standards framework, covers proper reporting practices and requirements regarding water withdrawal for all Givaudan manufacturing facilities worldwide. Training sessions are conducted regularly on site during environmental visits and e-learning material is accessible to all stakeholders regarding data reporting and monitoring - which include water withdrawal. We report water intensity (m3 per metric ton of production) at 100% of our manufacturing sites. We measure the total volumes of water withdrawals through meter-readings and/or data from water bills on a monthly basis. The data are reported on a quarterly basis by the local data reporter in our online platform before being assured by external audits conducted every year with onsite verification based on a 3 years rolling cycle.
Water withdrawals – volumes by source	100%	The volume of water withdrawal per source is monitored to evaluate the water risks encounter per water source for each manufacturing facility of Givaudan. Givaudan's standard defines reporting practices and requirements regarding water withdrawal by source for all Givaudan locations worldwide. The reporting framework includes four water sources: municipal, ground water, surface water and wastewater from another organisation (only our manufacturing site in Vernier where wastewater from the municipality is collected and treated throughout our wastewater treatment plant). 100% of our manufacturing facilities report water withdrawal by source and the numbers are consolidated by category for reporting. We measure the volumes of water withdrawals through meter-readings and/or data from water bills on a monthly basis. The data are reported on a quarterly basis by the local data reporter in our online platform before being assured and verified by external audits on a 3 year rolling cycle.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	Givaudan's operations rely on water withdrawal quality criteria for compliance and quality reasons. Therefore regular measures and assessments are conducted on the withdrawal waters to ensure no deviance from the regulations and internal quality standards. For the rare cases where the quality is not ensured or not at the desired level, Givaudan deploys internal treatment and monitoring equipment to allow operating in good and compliant conditions. For quality monitoring we measured different indicators included in 2 categories. First, the microbiological indicators: - Escherichia coli (E. coli) - Enterococcus - Coliform Second, the Chemical elements: - pH - Turbidity - Nitrate - Sulphate These measures are based on: - automatic measurements every 20 seconds - manual sampling done on a daily basis - sampling done by external accredited authorities on a weekly basis.
Water discharges – total volumes	100%	The total volume of water discharges is monitored to evaluate the water impact of each manufacturing facility of Givaudan. Givaudan's standard on Environmental Data Reporting and Analysis covers proper reporting practices and requirements regarding water discharges for all Givaudan locations worldwide. Training sessions are conducted regularly on site during environmental visits and e-learning material is accessible to all stakeholders regarding data reporting and management - which include water discharges. Rain water is separated from the water stream when it is not used in operations in several of our facilities. We measure and/or calculate the total volumes of water discharged through meter-readings and/or data from service supplier bills on a monthly basis. The data are reported on a quarterly basis by the local data reporter in our online platform before being assured by external audits conducted every year with onsite verification based on a 3 years rolling cycle.
Water discharges – volumes by destination	100%	The volume of water discharges by destination is monitored to evaluate the impact of each manufacturing facility of Givaudan on each water bodies. As part of Givaudan's standard on Environmental Data Reporting and Analysis based on Global Reporting Initiative (GRI) Standards framework, several classifications have been established to segregate water discharged either to an open water course (environment) or into a sewer system (treatment facility) or a combination of both (depending on the quality of waste water). The volumes discharged are measured at 100% of our manufacturing locations on a monthly basis. We have different measurement methods: water meter readings, service supplier bills and/or calculation using estimation based on water withdrawal amount. The data are reported on a quarterly basis by the local data reporter in our online platform before being assured by external audits conducted every year with onsite verification based on a 3 years rolling cycle.
Water discharges – volumes by treatment method	100%	As part of Givaudan's standard on Environmental Data Reporting and Analysis based on GRI Standards framework, further classifications have been established to segregate water discharged either after on-site pre-treatment or followed by a treatment in a biological waste water treatment plant on site or at a municipal waste water treatment plant. As for the volume by destination, the volumes discharged by treatment method are measured at 100% of our manufacturing locations on a monthly basis. We have different measurement methods: water meter readings, service supplier bills and/or calculation using estimation based on water withdrawal amount and the type of treatment. The data are reported on a quarterly basis by the local data reporter in our online platform before being assured by external audits conducted every year with onsite verification based on a 3 years rolling cycle. In 2019, nine sites discharged directly water in the environment after biological treatment.
Water discharge quality – by standard effluent parameters	100%	Water discharge quality is measured and monitored to ensure no negative impact on the downstream water has occurred and to evaluate the effectiveness of our waste water treatment facilities. According to Givaudan's standard on Environmental Data Reporting and Analysis based on GRI Standards, the quality of water is monitored through COD (Carbon Oxygen Demand) measures to ensure compliance with local discharge regulation for each site. All the 15 Givaudan facilities that discharge water into open water courses report COD measurements quarterly before being assured by external audits conducted every year with onsite verification based on a 3 years rolling cycle. The measurement methodology are country specific but for example in Vernier, Switzerland we measure COD with 0.45 micron filtered sample, combined catalytic oven measurement for TOC (total organic carbon) measurement and acid reaction for IC (inorganic carbon) measurement COD = TOC-IC (standard methods 5310 B) on a daily basis.
Water discharge quality – temperature	100%	Water discharge temperature is measured and monitored to ensure no negative impact on the downstream water has occurred. According to Givaudan's standard on Environmental Data Reporting and Analysis based on GRI Standards framework, the temperature of the water discharged is measured using thermometer on the discharge water flow. This measure is done at least once a day. The temperature data are monitored and reported to the local authorities according to local regulation requirement frequency (usually monthly).
Water consumption – total volume	100%	The water consumption is monitored as an indicator of water efficiency for all our manufacturing facility. The water consumption is calculated based on other data collected according to the standard on Environmental Data Reporting and Analysis based on Global Reporting Initiative (GRI) Standards framework. The total water consumption = Water total withdrawal - total water discharge at 100% of our manufacturing locations. It is based on water balance calculation for each facility. The total volume is calculated based on the data reported on a quarterly basis before being assured and verified by external audits conducted on a 3 year rolling cycle as per our Sustainability assurance process.
Water recycled/reused	100%	The amount of water recycled/reused is monitored as part of the indicators of water efficiency for our manufacturing facility. According to Givaudan's standard on Environmental Data Reporting and Analysis based on Global Reporting Initiative (GRI) Standards framework, all water recycled/reused is monitored and reported. We currently have four facilities that reuse/recycle water and collect this information via meter reading or by using extrapolation base on running time of the processes reusing water. The data are measured on a monthly basis and then consolidated in quarterly volume data of water recycled/reused. The data are reported on a quarterly basis by the local data reporter in our online platform before being assured by external audits conducted every year with onsite verification based on a 3 years rolling cycle as per our Sustainability assurance process.
The provision of fully-functioning, safely managed WASH services to all workers	100%	WASH is essential for our manufacturing facility to operate efficiently and effectively according to Givaudan's Environmental, Health and Safety (EHS) Policy. We provide access to WASH services to 100% of our facilities. The provision of WASH services is measured by weekly or monthly (depending the site location) visits conducted on sites by internal employees to review, as part of the Environmental, Health and Safety (EHS) contacts, the status of the WASH services. These visits are documented in EHS contact reports monitored by site management team on a monthly basis. Finally, the WASH services are internally audited via our Responsible Care Management System on a 3 year rolling cycle by our global EHS teams.

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	9263.47	About the same	The total water withdrawals data reported here is the consolidation of each Givaudan manufacturing facilities water withdrawals. These data are reported on a quarterly basis and consolidated at corporate level. The total water withdrawal across all manufacturing sites in (LATAM, NOAM, EAME and APAC) of Givaudan regions has remained stable between 2018 and 2019 with a reduction of 0.75%. The stable withdrawal between 2018 and 2019 is due to two factors: 1- the increase of production coming from acquisitions (3 facilities from Active International) and organic growth (new facility in Pune, India and increase production in existing sites) for about +4% of production tonnage which impacts the water demand for cleaning, processes, cooling and sanitation, 2- the impact of water efficiency and maintenance projects which reduced in parallel the demand for water withdrawal. For example, our facility in the UK reduced its water intensity by 61% by enhancing its maintenance programme, including the repair of leaking pipes. Another example is the better production planning in Egypt allowing avoiding cleaning steps reducing its consumption by 50% between 2018 and 2019. In the future we expect an increase in water withdrawal due to the following reasons: 1) Recent acquisitions (Naturex, Vika) will be included next year in the portfolio. Total withdrawals are going to be higher due to the addition of about 20 facilities to the portfolio. 2) Part of the water withdrawal is used for cooling purposes. Due to the impact of climate-related hazards such as long period of droughts and increase of average temperature in our European sites, we expect an increase of water for cooling purposes. As a general rule we characterised a change <2% as "about the same", a changes between 2% and 10% as "lower" / "higher" and a change >10% as "much higher" / "much lower".
Total discharges	8713.69	About the same	The total water discharges reported here is the consolidation of each Givaudan manufacturing facilities water discharged. These data are reported on a quarterly basis and consolidated at corporate level. The total water discharge across all manufacturing sites in LATAM, NOAM, EAME and APAC of Givaudan regions has remained stable between 2018 and 2019 with a reduction of 1.69%. Part of that is directly due to the stable total water withdrawal. The slight difference between variation in water withdrawal and discharge is due to changes in portfolio which are consuming more water like the biotechnology and the more intensive need for cooling (evaporation). In the future we expect an increase in water discharge due to the following reasons: 1) Recent acquisitions (Naturex, Vika) will be included next year in the portfolio. Total withdrawals are going to be higher due to the addition of about 20 facilities to the portfolio. 2) Part of the water withdrawal is used for cooling purposes. Due to the impact of climate-related hazards such as long period of droughts and increase of average temperature in our European sites, we expect an increase of water for cooling purposes. As a general rule we characterised a change <2% as "about the same", a changes between 2% and 10% as "lower" / "higher" and a change >10% as "much higher" / "much lower".
Total consumption	549.78	Much higher	The total water consumption reported here is an aggregation of local calculations using withdrawals minus discharges for each of the Givaudan manufacturing facilities. These data are reported on a quarterly basis and consolidated at corporate level. The total water consumption across all manufacturing sites in LATAM, NOAM, EAME and APAC regions of Givaudan has increased between 2018 and 2019 by 17% which is considered much higher. We estimate the breakdown of consumption as follow: 30% has been incorporated into products or waste, 30% has evaporated, 30% consumed by humans for sanitation and 10% other. Despite that it represents an important increase (+17%), the absolute variation of water consumption is only 80 Mega Litres representing less than 1% of the total withdrawal. This change is mainly due to our new zero discharge facility in India which consumed all the water withdrawal as required by local regulation. This is done by intensive recycling and the use of natural based solution to consumed and evaporate the water. In addition, the more intensive use of biotechnology is also more water demanding which impacts our consumption. In the future we expect an increase in water consumption due to the following reason: - Recent acquisitions (Naturex, Vika) will be included next year in the portfolio. Total consumption is going to be higher due to the addition of about 20 facilities to the portfolio. As a general rule we characterised a change <2% as "about the same", a changes between 2% and 10% as "lower" / "higher" and a change >10% as "much higher" / "much lower".

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	26-50	Lower	WWF Water Risk Filter	Using the WWF Water Risk Filter and the indicator of water stress we identified 27.0% of our water withdrawals are located in water stressed areas. The selection of facilities in water stress areas is done considering the indicator called: Baseline Water Stress which measures the ratio between total annual water withdrawals and total available annual renewable supply, accounting for upstream consumptive use. In that case, a higher percentage indicates more competition among users. We consider all regions/basins facing a baseline water stress over 40% as an area with water stress. This level is usually called "High stress" or "Extremely high stress" in the WWF Water Risk Filter. The calculation of the percentage of water withdrawn from areas with water stress is done by dividing the total water withdrawal from the sites facing water stress (numerator) by the total water withdrawal of the company (denominator). It represents about 27% of water withdrawal and 32% of the manufacturing facilities (number of manufacturing facilities with water stress divided by total number of manufacturing facilities). With very important acquisitions which happen in the past years and the trend regarding water stress level around the world, we foreseen this % to increase as a combination of more area facing water stress and new acquired facility which are located in water stress areas. Compared to 2018, Givaudan reduced by 8% the part of water withdrawal from areas with water stress. We consider this as lower. As a general rule we characterised a change <2% as "about the same", a changes between 2% and 10% as "lower" / "higher" and a change >10% as "much higher" / "much lower".

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	5261.1	Lower	Fresh surface water is used for cooling purposes in European facilities. With about 58% of the total withdrawal of Givaudan in 2019 it is a relevant water source. The amount consumed is influenced by product portfolio, weather conditions and efficiency in the processes. In 2019 Givaudan collected rainwater but did not collect water from wetlands. Surface water from rivers and rainwater is included here. There is a decrease of 2% compared to 2018 fresh surface water withdrawal. With one facility in Vernier, Switzerland responsible for 80% of this consumption especially for cooling purposes we can attribute the reason for change to the weather condition in summer 2019 requiring less cooling. It is foreseen to have the amount of fresh surface water withdrawal increasing due to recent acquisitions that consume surface water. As a general rule, we consider a change <2% as "about the same", a changes between 2% and 10% as "lower"/"higher" and a change >10% as "much higher"/"much lower".
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	This source is not used by Givaudan therefore, it is not relevant. Except if a future acquisition would lead to include this source in our reporting there is no reason for this source to become relevant for Givaudan in the future.
Groundwater – renewable	Relevant	1329.62	Higher	Groundwater supplies about a third of our facilities', it is therefore relevant to be considered. There is a 6% increase compared to 2018. The change is due to the development of one facility in Indonesia which increased its production capacity and therefore its water consumption, in combination with the opening of our research centre in Kempththal, Switzerland (part of the manufacturing site). It is foreseen to have the amount of fresh surface water withdrawal increasing due to recent acquisitions that consume ground water. The increase will be mitigated thanks to efficiency programmes but the timeline in programme implementation will certainly lead to some temporary increase. As a general rule, we consider a change <2% as "about the same", a changes between 2% and 10% as "lower"/"higher" and a change >10% as "much higher"/"much lower".
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	This source is not used by Givaudan therefore, it is not relevant. Except if a future acquisition would lead to include this source in our reporting there is no reason for this source to become relevant for Givaudan in the future.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	Produced water is not relevant for our company because it represents a very small amount (less than 1%) in one of our facility. This amount is included in the discharged water. We are currently assessing the possibility to include this water source in our reported figures as we foreseen an increase of the water produced due to new businesses that are joining Givaudan thanks to recent acquisitions.
Third party sources	Relevant	2672.75	About the same	Third party sources (municipal water) represent about 30% of Givaudan's water supply. This source is therefore relevant. The quantity of water supplied from third party is stable between 2018 and 2019 with a change of about 1%. The change is mainly due the inclusion of recent acquisition in the scope (increase) and the leak repair in our facilities in China and the UK (decrease). It is foreseen to have the amount of third party sourced water increasing in the next years due to recent acquisitions (Naturex and Vika) that consume municipal water and will be integrated in the next reporting year. As a general rule, we consider a change <2% as "about the same", a changes between 2% and 10% as "lower"/"higher" and a change >10% as "much higher"/"much lower".

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	6643.5	About the same	This category encompasses water discharged with and without treatment in our facilities. It is our main water discharged destination, therefore this destination is relevant. The amount discharged to fresh surface water has been stable compared to 2018 with a reduction of 1.7%. Here the stable situation is related to the relative stable cooling demand (-2%) in our site in Switzerland which is the main driver for the amount of water discharged to surface water As a general rule, we consider a change <2% as "about the same", a changes between 2% and 10% as "lower"/"higher" and a change >10% as "much higher"/"much lower".
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	Givaudan does not discharge directly to this destination. Therefore, it is not relevant. Except if a future acquisition would lead to include this point of discharge in our reporting there is no reason for this destination to become relevant for Givaudan in the future.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	Givaudan does not discharge directly to this destination. Therefore, it is not relevant. Except if a future acquisition would lead to include this point of discharge in our reporting there is no reason for this destination to become relevant for Givaudan in the future.
Third-party destinations	Relevant	2070.19	About the same	This category encompasses water discharged to external treatment facilities with and without pre-treatment at our facilities. It covers all water discharged we cannot treat directly and entirely at our facilities, therefore it is relevant. There is 1.8% less water discharged to third-party compared to 2018. This is considered a stable situation. The minor change is mainly due the increase water consumption on site which impact the quantity of water discharged. We increase our water consumption by using more biotechnologies and more cooling (evaporation) in our sites in APAC in 2019 for example but the overall impact on the company performances stay limited. As a general rule, we consider a change <2% as "about the same", a changes between 2% and 10% as "lower"/"higher" and a change >10% as "much higher"/"much lower".

W-CH1.3

(W-CH1.3) Do you calculate water intensity for your activities in the chemical sector?

Yes

W-CH1.3a

(W-CH1.3a) For your top five products by production weight/volume, provide the following water intensity information associated with your activities in the chemical sector.

Product type

Other, please specify (Fragrance compound)

Product name

Fragrance compound 1

Water intensity value (m3)

13.59

Numerator: water aspect

Total water withdrawals

Denominator

Ton

Comparison with previous reporting year

About the same

Please explain

- Water intensity is monitored at site level using measurement of total water withdrawal (Numerator) and production tonnage (Denominator). With more than 100 products per site it is not possible to monitor water intensity per product but rather per facility. Therefore, we report water intensity related to the manufacturing site of the flavor or fragrance compounds. All products from a facility have similar water intensity - Internal use of the metric: As Givaudan established a 15% reduction target on the water intensity by 2020 from a 2009 baseline, this measure of water intensity is our main water performances indicator for our manufacturing facilities. The metric is used internally to monitor our water performances over time and track our progress in achieving this target. This indicator is part of quarterly management review which allow dedicating resources when deviation is observed. - With a change from 2018 to 2019 of about 2.0% in water intensity for this product we consider the performance to be "about the same". Both water withdrawal and production tonnage did evolve in similar proportion over the last year. Givaudan characterised changes from the previous year as about the same when change is smaller or equal to 2%. The stable performance for this specific product is due to stable operation and good maintenance of water related equipment/processes. - We anticipate a reduction of water intensity for this product in the future because the manufacturing site is ongoing development which include more efficient water usage processes when cleaning equipment with automatic cycles and reduce demande by using more effective spray nozzles and dry cleaning solution. - The strategy in place to reduce water intensity is based on process improvement and new technology applications for water recycling or dry cleaning. For example, by implementing dry cleaning technologies we can totally avoid using water on a specific equipment, reducing water demande drastically.

Product type

Other, please specify (Flavor)

Product name

Flavor compound 1

Water intensity value (m3)

14.34

Numerator: water aspect

Total water withdrawals

Denominator

Ton

Comparison with previous reporting year

Much lower

Please explain

- Water intensity is monitored at site level using measurement of total water withdrawal (Numerator) and production tonnage (Denominator). With more than 100 products per site it is not possible to monitor water intensity per product but rather per facility. Therefore, we report water intensity related to the manufacturing site of the flavor or fragrance compounds. - Internal use of the metric: As Givaudan established a 15% reduction target on the water intensity by 2020 from a 2009 baseline, this measure of water intensity is our main water performances indicator for our manufacturing facilities. The metric is used internally to monitor our water performances over time and track our progress in achieving this target. This indicator is part of quarterly management review, as the financial performances, which allows dedicating resources when deviation is observed. - With a change from 2018 to 2019 of about 11.0% in water intensity for this product we consider the intensity "much lower" than last year. Givaudan characterised changes as much lower or much higher when change is bigger than 10%. In that case the change in water intensity for the facility is mainly due to change in the portfolio of production from water intense products to less water intensive products. This change improve directly the performance of the facility. - For the future trends, the sales and production volumes are planned to continue to increase in the next 4 – 6 years. The flavor division water intensity is foreseen to increase due to recent acquisition with a much higher water intensity level due to new portfolio of product. The integration of these new product in the portfolio will increase the water intensity but the reduction trend addressed by the strategy will continue to decrease. - The strategy in place to reduce water intensity is based on process improvement and new technologies application for water recycling or dry cleaning in addition to preventive maintenance processes.

Product type

Other, please specify (Flavor)

Product name

Flavor compound 2

Water intensity value (m3)

0.28

Numerator: water aspect

Total water withdrawals

Denominator

Ton

Comparison with previous reporting year

Much lower

Please explain

- Water intensity is monitored at site level using measurement of total water withdrawal (Numerator) and production tonnage (Denominator). With more than 100 products per site it is not possible to monitor water intensity per product but rather per facility. Therefore, we report water intensity related to the manufacturing site of the flavor or fragrance compounds. - Internal use of the metric: As Givaudan established a 15% reduction target on the water intensity by 2020 from a 2009 baseline, this measure of water intensity is our main water performances indicator for our manufacturing facilities. The metric is used internally to monitor our water performances over time and track our progress in achieving this target. This indicator is part of quarterly management review as the financial performances which allow dedicating resources when deviation is observed. - With a change from 2018 to 2019 of about -50% in water intensity for this product we consider the intensity of this year "much lower" than last year. Givaudan characterised changes from the previous year as much lower or much higher when change is bigger than 10%. This achievement was possible due to important changes in production planning and longer production of similar products in our plant in Egypt which allow to reduce the need for cleaning between batches. - As for flavor compounds 1, the future trends, the sales and production volumes are planned to continue to increase in the next 4 – 6 years. The flavor division water intensity is foreseen to increase due to recent acquisition with a much higher water intensity level due to new portfolio of product. The integration of these new products in the portfolio will increase the water intensity but the reduction trend addressed by the strategy will continue to decrease. - The strategy in place to reduce water intensity is based on process improvement - smart production planning - to avoid cleaning needs.

Product type

Other, please specify (Fragrance)

Product name

Fragrance compound 2

Water intensity value (m3)

13.59

Numerator: water aspect

Total water withdrawals

Denominator

Ton

Comparison with previous reporting year

About the same

Please explain

Product manufactured in the same facility as Fragrance compound 1 which implies the same performances and same strategy. - Water intensity is monitored at site level using measurement of total water withdrawal (Numerator) and production tonnage (Denominator). With more than 100 products per site it is not possible to monitor water intensity per product but rather per facility. Therefore, we report water intensity related to the manufacturing site of the fragrance compound. - Internal use of the metric: Givaudan established a 15% reduction target on the water intensity by 2020 from a 2009 baseline, this measure of water intensity is our main water performances indicator for our manufacturing facilities. The metric is used internally to monitor our water performances over time and track our progress in achieving this target. This indicator is part of quarterly management review which allow dedicating resources when deviation is observed. - With a change from 2018 to 2019 of about 2.0% in water intensity for this product we consider the performance to be "about the same". Givaudan characterised changes from the previous year as about the same when change is smaller or equal to 2%. The stable performance for this specific product is due to stable operation and good maintenance of water related equipment. - We anticipate a reduction of water intensity for this product in the future because the manufacturing site is ongoing development which include more efficient water usage processes when cleaning equipment with automatic cycles and reduce demand by using more effective spray nozzles or dry cleaning solution. - The strategy in place to reduce water intensity is based on process improvements and new technology applications for water recycling or dry cleaning. For example, by implementing dry cleaning technology we can totally avoid using water on specific equipment reducing water demande drastically.

Product type

Other, please specify (Fragrance)

Product name

Fragrance compound 3

Water intensity value (m3)

0.48

Numerator: water aspect

Total water consumption

Denominator

Ton

Comparison with previous reporting year

Much lower

Please explain

- Water intensity is monitored at site level using measurement of total water withdrawal (Numerator) and production tonnage (Denominator). With more than 100 products per site it is not possible to monitor water intensity per product but rather per facility. Therefore, we report water intensity related to the manufacturing site of the fragrance compound. - Internal use of the metric: As Givaudan established a 15% reduction target on the water intensity by 2020 from a 2009 baseline, this measure of water intensity is our main water performances indicator for our manufacturing facilities. The metric is used internally to monitor our water performances over time and track our progress in achieving this target. This indicator is part of quarterly management review as the financial performances which allow dedicating resources when deviation is observed. - With a change (decreased) from 2018 to 2019 of about 17% in water intensity for this product we consider the intensity of this year "much lower" than last year. Givaudan characterised changes from the previous year as much lower or much higher when change is bigger than 10%. In that specific case the change is due to increase production tonnages with constante efficiency improvement (stable absolut water consumption but increase of production). - For future trends, we anticipate the sales and production volumes increase in the next 4 – 6 years. The water intensity should stay stable as the process is stable and improvement have been implemented recently. There is no reason for experiencing an important change in water intensity in this facility for this product. - The strategy in place to reduce water intensity is based on process improvement and new technology applications for water recycling or dry cleaning. For example, by implementing dry cleaning technologies we can totally avoid using water on specific equipment reducing water demande drastically.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

1-25

% of total procurement spend

26-50

Rationale for this coverage

In 2019, we participated for the third year in the CDP Supply Chain Programme, asking our key suppliers to provide data on water through the supply chain module of the CDP's water security questionnaire. The survey asks suppliers to identify risks and opportunities associated with water, report what their water use and give details on their water management strategy including targets and action they are taking to mitigate risks. The suppliers selection criteria for Givaudan are: - 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 more than 15'000 suppliers, only the most relevant suppliers were requested to report which explains the low % of suppliers but the relatively large % of total procurement spend.

Impact of the engagement and measures of success

Using CDP's water security questionnaire, we request our suppliers information on risks and opportunities associated with water, what their accounting is, details on their water management strategy such as targets, and actions to reduce impact. It impact indirectly their water management. In 2019, 80% of our suppliers have reported active targets and goals and 73% have reported risk assessment procedures. The collect of information is used by Givaudan to feed the supply chain water risk assessment by using primary data from our main suppliers. By promoting data reporting within our supply chain we foster water management improvement and water risk identification. We measure the success of our engagement with suppliers through the improvement of different KPIs: (+5% is a success) 1. Supplier response rate: 53% compared to 48% in 2018 2. Percentage of suppliers with a leadership (A or A-) or management (B or B-) score: 23% (no prior record)

Comment

Small but constant increase for these numbers are planned for the future by including specific critical business aspects criteria for filtering with small tonnage but key raw materials. Since we have more than 15'000 suppliers, our % of suppliers by number is small but our % spend is quite important.

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

Incentivizing for improved water management and stewardship

Details of engagement

Water management and stewardship is integrated into supplier evaluation processes

% of suppliers by number

1-25

% of total procurement spend

51-75

Rationale for the coverage of your engagement

Coverage: main direct suppliers 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. They are accounting for over 50% of our total volume which is a good measure of the impact they have on Givaudan. The rationale for this coverage is to focus on sustainable suppliers with whom we can develop long terms project and exchange good practises and expertise. This is not possible to cover the 15000 suppliers with so much attention. This is done via the Sedex platform and the SMETA Audits. Our Procurement team works closely with suppliers to guide them through their self-assessment procedure which allow Givaudan to collect key information on the supplier water management processes.

Impact of the engagement and measures of success

Impact of engagement: The Sedex self-assessment procedure gives Givaudan access to intensive information about the maturity of the supplier regarding water management. For example we collect answer about: - % reduction targets for water - How much water is used, on average? These are good criteria to evaluate our suppliers and start a discussion on improvement opportunities. This allows us to identify whether water is managed in a proper way and agree on improvement actions plans where necessary. These are the beneficial outcomes of the engagement activity. See collaboration example in the comment box. Measure of success: In total, by the end of 2019, 169 out of 200 (85%) of our top direct raw material suppliers were compliant on Sedex SMETA assessment. Success is measured with the percentage rate of top direct raw material suppliers compliant on Sedex SMETA assessment and we will consider a success if in 2020, 100% of these suppliers are compliant.

Comment

As an example of collaboration with suppliers integrated in Sedex platform: in communities around our vanilla supply chain in Madagascar, in order to give more people access to safe drinking water, 64 wells have been built and restored as part of the Communities at Source programme. With information campaigns, the programme has also raising the villagers' awareness about health risks related to water, sanitation and hygiene.

Type of engagement

Onboarding & compliance

Details of engagement

Requirement to adhere to our code of conduct regarding water stewardship and management

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for the coverage of your engagement

Givaudan's Responsible Sourcing Policy includes our clear environmental requirements. Suppliers must apply environmental management principles, including water-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 the policy, we have a 3 steps approach: 1) coverage: all suppliers We start our supplier engagement by introducing them to the Responsible Sourcing Policy by sending it

to them. 2) coverage: main direct suppliers (50% total volume) This is done via the Sedex platform, SMETA, or an equivalent protocol to ensure their sites are audited against a protocol that covers the policy requirements 3) coverage: entire supply chain of raw materials of natural origin (NRM) We are mapping the supply chains of key NRM to check the practices in each supply chain against our Responsible Sourcing Policy. Our target is that 90% of our NRM volume are responsibly sourced by 2020.

Impact of the engagement and measures of success

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, in social, environmental and business integrity. Measure of success: 1) By the end of 2019, over 14,000 of our suppliers have received the policy. We are continuously increasing on this number as we include in this exercise the suppliers of our new acquisitions. We are no longer tracking the absolute numbers and % since the changes related to integration of new entities. 2) In total, by the end of 2019, 169 out of 200 of our top direct raw material suppliers were compliant on Sedex SMETA assessment. This represented 85% against our 100% by 2020 target. 3) By the end of 2019 we were mapping 50 raw material categories, representing 69% against our 90% target by 2020.

Comment

The variety and complexity of our supply chains forced us to implement different approaches at different level which explain the number of indicators and measure of success shared.

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

1-25

% of total procurement spend

26-50

Rationale for the coverage of your engagement

In the context of the CDP supply chain programme, Givaudan has worked in collaboration with the other Fragrances & Flavors (F&F) houses to educate suppliers about water stewardship and its importance in our water stewardship journey. The goal was to increase the number of suppliers responding to CDP and to increase the quality of the responses. This was done through a series of webinars hosted jointly by the four biggest F&F houses, and moderated by the CDP team. A supplier feedback webinar was also organised 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: - top suppliers by volume and strategic suppliers to our business - top suppliers by spend.

Impact of the engagement and 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 water stewardship. 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 water stewardship 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 2019, our supplier response rate was 53% compared to 48% in 2018.

Comment

no comment

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

Givaudan engages with 3 main partners over its whole value chain: suppliers, employees and customers with different methods and strategies to engage:

- Givaudan engages with its key suppliers using CDP's water security questionnaire to identify their risks and opportunities associated with water and to understand their actions to reduce impact. Main direct suppliers are also audited to ensure they are compliant with Givaudan's Responsible Sourcing Policy.
- Volunteering Givaudan employees are engaged through their participation to Local Green Teams with the objective to work on water savings project through behavioural change and/or small investment/improvement initiatives. They develop environmental and social solution to improve the company performances.
- Givaudan engages with its customers by offering innovative product solutions and clear information on specific water-related issues. Givaudan is committed to raise awareness of its customers and promote products that consume less water, which would allow Givaudan to limit its impacts on water. Customers are important stakeholders to engage with because some of their water risks are shared with us.

The rationale for prioritisation of our value chain partners is based on the importance of each partner and the role they have for our activity. Our employees being our first and most important key partners, the provided Green team network is a great platform to develop innovative internal projects that impact the whole company.

We measure the success of our engagement through:

- progress over the compliance with our responsible sourcing policy (number of supplier that received our RS policy)
- Customer satisfaction rate and the amount of Green Team Award projects submitted. This year we increased the number of projects submitted by 30%. (10% is considered a success)
- The CDP response rate is a key indicator of engagement success. Last year we overachieved our goal (+5%) by improving the response rate by 10% compared to 2018

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

No

W3. Procedures

W-CH3.1

(W-CH3.1) How does your organization identify and classify potential water pollutants associated with its activities in the chemical sector that could have a detrimental impact on water ecosystems or human health?

Water is critical to our manufacturing activities and we want to lead the industry in conservation and stewardship. All products at Givaudan, finished products shipped to our customers or raw materials provided by our suppliers are assessed to identify any possible hazard for the environment which includes water ecosystems. Our Wastewater Managers at each facility analyse, assess and monitor our wastewater effluents from our chemical production, aiming to determine water pollutants. We work to ensure that the waste water from our operations is disposed in a responsible manner, we treat our effluents and monitor its quality through pH, conductivity, COD, BOD, TSS, Phosphorus, Ammoniacal nitrogen, total nitrogen, nitrites, toxicity, POX, AOX below the limits of each local legislation where we operate. When one or several of these indicators deviate from the standard operational value we can identify the source (location of production) of pollutant and its nature thanks to cross analysis between indicators, production planning, water flow infrastructures and water meters. This allows us to avoid discharging pollutant in the environment, stopping the source of pollution and/or applying more appropriate treatment.

All our products are classified following the GHS (Globally Harmonized System) principles of classification and labelling of chemicals and the corresponding national implementations where Givaudan operates or places its products on the market. E.g. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) for Europe or the Hazard Communication Standard 2012 (HCS 2012) from OSHA in the United States.

These classification principles define the hazard classes and categories for the chemical substances and mixtures based on their physical and chemical properties and the hazards to the human health or environment. They also describe and provide guidelines on how these hazards need to be communicated in a way that they can be easily understood by everyone to ensure the safe handling, storage and transportation and mitigate potential impact to the environment.

The protocol to identify and classify potential water pollutants associated with our operation is as follow:

We test samples from each production line with all reject points together. The tests include:

- TOC and TN analyses (total nitrogen)
- Toxicity analysis by respirometry (stratox) in the event of toxicity, confirmation of the result by an external laboratory (on 3 organisms bacteria, daphne, rotifers)
- Measurement of biodegradability according to Zahn-Wellens. (std OECD 302 C)
- POX measurements

In the event of non-compliant results, the tests are carried out on each release point of the production line to identify the source or pollution.

Depending on the result of the second test: acceptance in WWTP because there is no risk for the environment or the discharge from this release point is put on a restrictive list (classification as a potential water pollution) with the need for separation if the purification conditions were temporarily not compliant or permanent external elimination process. This way we ensure the identification of the water pollutant source and their correct treatment. This process is repeated on a monthly basis or based on management of change process in production.

In addition, the outlet water is analysed each month (external laboratory on three types of organisms (bacteria, daphnea and algae). The acceptable toxicity thresholds (in toxic units) have been established by this same external body and validated by the authorities

In addition, Givaudan follows different established standards for a correct environmental classification assessment and awareness of the materials having a risk to contaminate the water bodies:

- **Water-related impacts on ecosystems and human health are mainly tox and eco-tox impacts.** Givaudan follows the criteria laid out in the UN Globally Harmonized System (GHS) guidance document, which is currently the 7th revised edition (the so-called "Purple Book"). The UN GHS principles consider the acute and the chronic aquatic toxicity of substances and mixtures. All these criteria are applied at Givaudan to ensure that all environmental hazards and the potential to contaminate water bodies are properly identified for a safe use, handling, storage and transport of the products. This information is clearly visible on the label of the packaging or summarised in the SDS that is available to all users of our products.

Throughout our vendor quality management programme we audit our most strategic suppliers and we can ensure the policies for water pollutant management are very similar to our, especially in the chemical industry. In the same time, because of the very different challenges face by other industries (i.e. agricultures, transports, retail) we also see a variety of maturity and efficiency regarding water pollutant policies in our entire value chain.

W-CH3.1a

(W-CH3.1a) Describe how your organization minimizes adverse impacts of potential water pollutants on water ecosystems or human health. Report up to ten potential pollutants associated with your activities in the chemical sector.

Potential water pollutant	Value chain stage	Description of water pollutant and potential impacts	Management procedures	Please explain
Chemical Oxygen Demand (COD)	Direct operations	In all types of wastewater treatment facilities the chemical oxygen demand (COD) is the reference standard to qualify the degree of contamination of the waste water. COD quantifies the amount of organic and in-organic matter in waste streams and is the main indicator for compliance with effluent quality standard internally as well as with local legislation. In terms of pollution a high level of COD correlates with threats to human health including bacteria from organic wastes, toxic algae blooms and seafood contamination. The waste water will also decrease the amount of dissolved oxygen available for aquatic organisms called eutrophication, a condition of natural water that can lead to the death of animal life. The scale of the pollution will be relatively local but the potential impact can be substantial as it impacts both the environment and the health of communities in which we operate. The magnitude depends on local conditions such as type of effluent discharged, local weather conditions and is generally low and unlikely considering the preventive measured in place and full compliance with regulation.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages	We ensure that the waste water from our operations is disposed in accordance with local regulation on effluent quality standards to avoid any risk of pollution. We operate our own waste water treatment plant in several of our manufacturing facility and apply the highest preventive measure to reduce risk of negative impact related to water pollution. Indeed, a high COD level in the discharged water conduct to the consumption of oxygen from the ambient environment and eutrophication of the receiving environment (water body). We monitor our discharge water quality through Chemical Oxygen Demand (COD) analysis and reports. A great effort is also applied upstream on new substances or products develop at our manufacturing sites by going throughout a number of acute aquatic toxicity test which includes in some cases heavy metals and micro pollutants. The measure of success is based on full compliance with local regulation which is a limit value in concentration max of 100 mg / l. COD is measured on a daily basis per 0.45 micron filtered sample, combined catalytic oven measurement for TOC (total organic carbon) measurement and acid reaction for IC (inorganic carbon) measurement COD = TOC-IC (standard methods 5310 B).
Biological Oxygen Demand (BOD)	Direct operations	In all types of wastewater treatment facilities the biological oxygen demand BOD is a pollution parameter mainly used to assess the quality of effluent or wastewater. BOD quantifies the amount of organic only matter in waste streams and is an important indicator for compliance with effluent quality standard internally as well as with local legislation. In terms of pollution a high levels of BOD correlates with threats to human health including bacteria from organic wastes, toxic algae blooms and seafood contamination. The waste water will also decrease the amount of dissolved oxygen available for aquatic organisms called eutrophication, a condition of natural water that can lead to the death of animal life. The scale of the pollution will be relatively local but the potential impact can be substantial as it impacts both the environment and the health of communities in which we operate. The magnitude depends on local conditions such as type of effluent discharged, local weather conditions and is generally low and unlikely considering the preventive measured in place and full compliance with regulation.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages	We ensure that the waste water from our operations is disposed in accordance with local regulation on effluent quality standards. We operate our own waste water treatment plant in several of our manufacturing facility and apply the highest preventive measure to reduce risk of negative impact related to water pollution. Indeed, as for COD, high BOD level in water discharge conducts to the consumption of oxygen from the ambient environment and eutrophication of the receiving environment (water body). We monitor our discharge water quality through Biological Oxygen Demand (BOD) analysis and reports to prevent any risk of pollution from the receiving water body. A great effort is also applied upstream on new substances or products develop at our manufacturing sites by going through a number of acute aquatic toxicity test which includes in some cases heavy metals and micro pollutants. BOD is measured by oxytop respirometry over 5 days (standard method 5210 D) on a weekly basis. We ensure success by avoiding exceeding the maximum concentration of 80 mg / l
Phosphorus	Direct operations	High levels of phosphates in aquatic environments could result in algal blooms that can potentially lead to eutrophication. Oxygen is stripped from the water as the dead algae cells decompose, leading to anoxic conditions that can result in mass die-offs of fish and other aquatic life. The scale of the pollution will be relatively local but the potential impact can be substantial as it impacts both the environment and the health of communities in which we operate. The magnitude depends on local conditions such as type of effluent discharged, local weather conditions and is generally low and unlikely considering the preventive measured in place and full compliance with regulation.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages	We ensure that the waste water from our operations is disposed responsibly and monitor closely through Phosphorus analysis to prevent any pollution risk of the receiving water body. The level of Phosphorus is measured 5 times per week by colorimetry (in tank tests) offered by various external service providers. Compliance with effluent quality standards for our local wastewater treatment plant encompasses the level of phosphorus max 2 mg/l in full charge max 5 kg/day. The measure of success is based on this standard. The phosphorus can be toxic from time to time for large vertebrates and fish, and eutrophication phenomenon.
Nitrogen	Direct operations	High levels of ammonia and nitrate in aquatic environments could result in algae blooms that can potentially lead to eutrophication. Oxygen is stripped from the water as the dead algae cells decompose, leading to anoxic conditions that can result in mass die-offs of fish and other aquatic life. The scale of the pollution will be relatively local but the potential impact can be substantial as it impacts both the environment and the health of communities in which we operate. The magnitude depends on local conditions such as type of effluent discharged, local weather conditions and is generally low and unlikely considering the preventive measured in place and full compliance with regulation.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages	We ensure that the waste water from our operations is disposed responsibly and monitor closely through ammonia and nitrate analysis on a daily basis. As for the phosphorus the level of Nitrogen is measured by colorimetry (in tank tests) offered by various external service providers. Compliance with effluent quality standards for our local wastewater treatment plant encompasses the level of Nitrogen max 2 mg/l in full charge max 5 kg/day. The measure of success is based on this standard. As for the phosphorus the nitrogen can be toxic from time to time for large vertebrates and fish, and eutrophication phenomenon
Total Suspended Solids	Direct operations	TSS are small undesirable small particles present in wastewater effluents. It is considered as one of the parameters to evaluate water pollution. The suspended solids might absorb light and then cause increased water temperature and decreased oxygen. This environment is then considered polluted as it impacts negatively the biological life in water. The scale of the pollution will be relatively local but the potential impact can be substantial as it impacts both the environment and the health of communities in which we operate. The magnitude depends on local conditions such as type of effluent discharged, local weather conditions and is generally low and unlikely considering the preventive measured in place and full compliance with regulation.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages	We ensure that the waste water from our operations is disposed responsibly and monitor closely the total suspended solids (TSS) to avoid any risk of fermentation and consumption of oxygen from the receiving medium. Compliance with effluent quality standards for our local wastewater treatment plant is ensured by compliance with local limit of max 35 mg/l. The measure of success is based on full compliance with this local regulation. We measure TSS by filtration through a 0.45 micron filter. (dry filter weighing, filtration of a volume of water, drying 105 ° C 1 hour, tempering in a bell and reweighing) (standards methods 2540 D)

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
Enterprise Risk Management
Databases
Other

Tools and methods used

WRI Aqueduct
WWF Water Risk Filter
Internal company methods

Comment

Enterprise Risk Management (ERM) 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. Managing risk is an integral part of Givaudan's business. In addition to the corporate ERM process, Givaudan carries out specific corporate water risks assessment to allow a more detailed identification of the water risks. Givaudan has identified a set of risks: - Sustainability risks including risk of climate change and water scarcity - Operational risks for disruption or breakdown of operations - Disruption of supply chains or suppliers risk - Strategic risks include business model risk - Legal and regulatory risks include product quality and safety risks, as well as legal and compliance risks. They cover the four water risk aspects by addressing physical risk, quality risks, regulatory risks and reputational risks.

Supply chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Enterprise Risk Management
International methodologies
Other

Tools and methods used

Environmental Impact Assessment
Life Cycle Assessment
Internal company methods
External consultants

Comment

Enterprise Risk Management (ERM) 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. The procedure to identify and assess water-related risks in the supply chain is based on a corporate water footprint crossed with water stress index indicators and information from the SEDEX platform, SMETA audits and internal responsible sourcing policy.

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Every two years

How far into the future are risks considered?

1 to 3 years

Type of tools and methods used

International methodologies

Other

Tools and methods used

Environmental Impact Assessment

Internal company methods

External consultants

Other, please specify (SEDEX risk assessment tool)

Comment

The important number of products that end-uses our ingredients forced us to assess risk only on a selected part of all the portfolio. This is the reason for having a partial coverage to the end-uses stage of the value chain.

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	In all locations where Givaudan manufacturing sites are located, we assess the water availability at watershed level at two dimensions: Global water risk assessment and Local water risk assessment. Water is a key element to produce natural raw materials that cannot grow without appropriate irrigation, as well as synthetic ingredients, needing water for their production. It's also an issue for the end-use phase of our product as it required water to be consumed (i.e. food, soaps, detergents, etc.). This is why this issue is relevant for the company business. The current approach of water risk assessment related to water availability at catchment level includes information gathered via several indicators from the WWF Water Risk filter (1.5 - Drought frequency probability, 2.1 - Estimated flood occurrence, 1.2 - Baseline Water Stress and BRG - Basin regulatory risk) for all our manufacturing facilities. For our supply chain we develop a water scarcity index (combination of water scarcity level and importance of the value chain for Givaudan) to represent to level of risk for our supply chains. This information is compiled in our Global Water Risk Assessment procedure allowing the identification of the hot spots regarding water related risk both in our operations and in our supply chain. A facility or a supply chain is considered a hot spot when one of these indicators is at the highest level (5/5) or when it reach the top 10 list for supply chain scarcity index. The consolidated data are used for the Enterprise Risk Assessment conducted by ERM to evaluate supply chain or operational disruption risks. In addition, the facilities identified as hot spots identified have to complete The Local Water Risk Assessment procedure to evaluate their response to risk and to detailed the level of water related risk at facility level. We work on the local water risk assessment in close collaboration with site managers, aiming to understand our dependency on water as a vital input for our activities and to define a detailed mitigation action plan for all water-related risks that have been identified and ranked as critical.
Water quality at a basin/catchment level	Relevant, always included	Water is important for our manufacturing processes, so water availability and quality are part of routine quality and risk assessment. Water is a key element to produce natural raw materials that cannot grow without appropriate irrigation, as well as synthetic ingredients, needing water for their production. This is why this issue is relevant for the company business. Water availability and quality are monitored by both global and local EHS entities through meter readings, sample lab tests, and reporting on water (withdrawal, consumption, discharge, COD). Quality issues include both withdrawal and discharge as we aim to reduce our impact on the communities where we operate by ensuring compliance with standard quality of water discharged. In addition to the internal company knowledge, the WWF Water Risk Filter and the WRI Aqueduct are used to provide water quality indicators (3.1 - Surface water contamination index 3.1.1 - Nitrogen loading 3.1.2 - Phosphorus loading 3.1.3 - Pesticide loading 3.1.4 - Soil salination 3.1.5 - Organic loading 3.1.6 - Sediment loading 3.1.7 - Mercury loading 3.1.8 - Potential acidification 3.1.9 - Thermal alteration) representing risks in terms of water quality at a basin/catchment level. The consolidated data are used for the Enterprise Risk Assessment conducted by ERM to evaluate operational disruption risks.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	The water resources governance is important specifically where we operate and where the raw materials grow. Indeed, stakeholders' conflicts could affect our reputation and create more competition for water access at a catchment level. It is also part of several supply chain programme to ensure farmers do not put supply at risk due to inefficient water resources management. This is why this issue is relevant for the company business. This aspect is key for developing our water stewardship programme as we aim to develop measures at watershed level in collaboration with other stakeholders. This issue is measured with the WRI Aqueduct tool. One of the indicators chosen used in our risk analysis is 1.2 - Baseline Water Stress, which expresses levels of competition between stakeholders at watershed level. This indicator is part of the "first filter" used to shortlist sites defined as "at risk" for water related issue. As part of the catchment stakeholders we always try to reduce our impact on our neighbour by limiting our water consumption and ensuring discharged water quality is at the highest level.
Implications of water on your key commodities/raw materials	Relevant, always included	The implication of water in our key commodities and natural speciality products is an essential element of our main products; either to grow crops, as an ingredient or cleaning processes and cooling towers at site. This is the reason why Givaudan considers this issue relevant for the company business. Our procurement supply risk management process (called Windmill) analyses the risk of possible disruptions of supply. In that domain, water related risks, like for example drought, floods or raise of water stress are issue depicted in the risk assessment procedure because these issues could negatively influence crop availability for our key natural resources. Furthermore, our responsible sourcing programme assesses supply chains on sustainability criteria including potential water related issues. Assessments are done through audits with 200 global suppliers of raw materials against SEDEX criteria and through field assessments of entire supply chains of raw materials with natural origin. This allows us to identify whether water is managed in a proper way and agree on improvement actions plans where necessary. Givaudan used a metric-based methodology to characterise our corporate water footprint based on ISO 14046. This allowed us to identify hot spots in our main product supply chain and gave us a clear understanding of the risk and impacts encountered. It allowed us to: - Quantify the total water consumption of our activities, taking into consideration the whole value chain from raw materials extraction to product use and end-of-life; - Quantify the water scarcity footprint to highlight water consumption located in water stressed areas along the value chain; - Identify water hotspots and physical water risks along the value chain This assessment allows us to set priorities for reducing use and develop a mitigation plan.
Water-related regulatory frameworks	Relevant, always included	Givaudan operates under the regulation of each country or region where we are located which is why the current and future regulation frameworks are relevant and are included in our risk and opportunity assessment. Water-related regulatory frameworks are key aspects to take into account for future development of the company and are relevant for Givaudan's business. This topic is handled locally as all sites must ensure compliance with applicable environmental legislation and regulations as part of the licence to operate currently and in the future. The risk is evaluated based on the impact of the potential changes in the regulation on the Givaudan revenue either because of price increase or because of necessity to invest to reach regulatory compliance in our water discharge for example. The Business continuity plans are also developed in order to assess such issues and develop mitigation plans. It is part of the requirement from our global environment, health and safety policy as well to make sure regulatory changes are monitored and managed. In addition to local regulatory monitoring system, the WWF Water Risk Filter provides several indicators (5.1 - Freshwater policy status (SDG 6.5.1), 5.2 - Freshwater law status (SDG 6.5.1), 5.3 - Implementation status of water management plans (SDG 6.5.1)) which are included in our global water risk assessment process related to regulatory risks. Every facility with one of these indicators at the highest level (4/4) is considered facing a regulatory water risks. We currently don't have any facility facing such risk in our portfolio.
Status of ecosystems and habitats	Relevant, always included	This topic is handled locally as all sites must ensure compliance with applicable environmental legislation and regulations as part of their respective licence to operate and as a requirement from our global environment, health and safety policy as well. It is a subject relevant for Givaudan as our business benefits from ecosystem services which must be maintained or regenerated (biodiversity, clean water, natural raw material production). This is part of the ordinary local environmental risk assessment as well as the impact assessment for new projects. Our Responsible Sourcing Policy includes respect of local ecosystems and habitats as one of its requirements for our suppliers thereby endeavouring to ensure local communities are not impacted by Givaudan's business supply chain. In addition, we include in the corporate water risk assessment the WWF Water Risk Filter rate for threats to biodiversity around our local facilities using location based data to identify facilities facing risks to the ecosystems.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	Givaudan considers safely managed WASH services for all employees a relevant contextual issue as it's considered a human right and it's part of the SDGs 2030. As there are employees working all along our value chain, this topic is important for us, our customers and our suppliers. Givaudan's responsible sourcing policy includes WASH requirement to foster suppliers to ensure access to WASH services for all their employees. Givaudan's EHS policy covers the safety and health of people and the environment, our workplaces and the communities in which we operate. This includes WASH facilities for all of our employees. It is why this issue is relevant for the company business. Risk linked to that issue as the average annual renewable water supply per person for individual river basins and the annual actual renewable water resources per inhabitant as collected from the WBCSD Global Water Tool are indicators monitored by global EHS in terms of water risks. One tangible example of WASH access is in Haiti where we partner with members of a vetiver Cooperative and group of woman to support a project to improve access to water to both. The new sanitation and hygiene facility features showers, toilets and a washing area for clothes. Open to all villagers in the area, it is already being used by approximately 100 families, and is expected to contribute to a reduction of water-borne diseases in the community. The project also involved, in partnership with the NGO Terre des hommes, the installation of a drinking water kiosk on the same premises. The women who initiated the whole project sell purified water to the community at low prices, and use the profit to ensure the maintenance of the sanitation facility. This project was just the latest achievement in our collaboration with this cooperative of vetiver root farmers across three villages in South Haiti. Going back to 2012, the relationship has helped Givaudan source organic and fair trade vetiver essential oil and allowed more than 270 vetiver farmers to benefit from price premiums and technical support. The three villages have also benefited from community infrastructure projects.
Other contextual issues, please specify	Not relevant, explanation provided	no other contextual issues

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain

	Relevance & inclusion	Please explain
Customers	Relevant, always included	Customers are considered because they could be impacted by several identified potential impacts caused by water hazards in Givaudan supply chain and operations. If a supply chain is disrupted because of a water-related issue, this disruption might prevent the supply of our customers which has a negative impact on Givaudan business and revenue. It is the same logic for our operations when water related issue interrupt the production of certain ingredient for example. This might impact Givaudan customers' ability to manufacture products and retroactively Givaudan's revenue. In addition to that, Givaudan has a reputation of reliable partner for business and that includes being able to supply customers as planned by developing mitigation plan and business continuity plan avoiding any risk of interruption. Givaudan has been developing specific tools for several years to support stakeholder engagement with the various stakeholder panels at both global and local levels. The starting point was the identification of all of our stakeholder groups in which customers have been identified. In addition, "A Sense Of Tomorrow", our sustainability approach sets new performances targets and provide structure that will benefits Givaudan and our customers to reach our common targets. We indeed, also develop collaboration with Customers when it comes to reducing the water footprint of products. The customers are the main contact of our internal customer care service (CCS). CCS is the central link between the customer, operations, sales team and our Global Business Solution Centre to ensure client's requirements are met in the most efficient and cost-effective way as well as in terms of business continuity which include water related risks (physical, regulation and reputation) We expect Customers to stay an important stakeholders in the future, as consumer demand for naturals increases.
Employees	Relevant, always included	Givaudan has been developing specific tools for several years to support stakeholder engagement with the various stakeholder panels at both global and local levels. The starting point was the identification of all of our stakeholder groups in which employees have been identified. Employees are a key stakeholder in the company water risk assessment as their well-being is directly linked with WASH risks. These risks are factored in several categories of the enterprise risk management like the compliance risk, the Environmental Health and Safety (EHS) risks and the operational risks. All these categories can be impacted by water related risks and this is why we consider employee in our organisation water related risk assessment. Health issue for employees is crucial; this is why employees are always included in the company risk assessment. Using both internal audit to assess WASH access and compliance with our EHS policy regarding health issue for employees we monitor the level of risks and management regarding WASH. Employees are current and future stakeholder for water related risks particularly for our own operation where we want to keep WASH at the highest level and ensure all mitigation measure are in place to keep our employee safe and in good health. Employees are engaged into water related programs via intranet campaigns and/or when participating to the local green teams which dedicate time to develop environmental friendly solutions for their own facility. The green teams work is recognised by a yearly award and several publications.
Investors	Relevant, always included	Givaudan has been developing specific tools for several years to support stakeholder engagement with the various stakeholder panels at both global and local levels. The starting point was the identification of all of our stakeholder groups in which investors and shareholders have been identified. Investors are a key stakeholder in the company water risk assessment as they are the owners of the company and play an important role in the business of Givaudan. The investors are factored in several categories of the enterprise risk management like operation disruption, disruption in supply chain and business model risk. All these categories can be impacted by water related risk and this is why we consider investors in our organisation water related risk assessment. By participating to the CDP Water Security questionnaire we establish transparent relation with investors which force us to demonstrate our commitment to mitigate water risks. The enterprise risk management is the main body that handles risks related to investors but the global water risk assessment is key to ensure business continuity and investor confidence. Investors are also met on regular face to face meeting where both business topics are addressed and operational risk as well. This operational risk includes water risk. The investors are impacted by all the value chain as each of its parts impact the business and the company revenue. The investors are current and future stakeholders as the owner of Givaudan.
Local communities	Relevant, always included	Local communities are current and future stakeholders. They are a key partner in several of our sourcing programmes where we both work together with farmers and with the local communities as well to safeguard raw-material supply. This is why they are relevant stakeholders. We usually engage through local meetings, projects and forums. Local communities are a key stakeholder in the company water risk assessment as the locations where we procure some specific raw-material are currently facing water risks and there is no possible relocation of the sourcing. The local communities are our main partner in several of our specific supply chains and they play an important role in the business of Givaudan. The local communities are factored in several categories of the enterprise risk management like supply chain disruption, climate risks and financial risks. All these categories can be impacted by water related risks and this is why we consider local communities in our organisation water related risk assessment. The local communities are the main stakeholders of our "Communities at Source" initiatives which support producers and their communities through a range of projects in 22 countries around the world. In the past 10 years, in collaboration with NGOs, local partners and the communities themselves, we have positively impacted thousands of producers and their families in the areas of agriculture and production practices, education, health and nutrition. We also support sourcing communities in safeguarding their surrounding environment and natural resources which imply water management at local level either where we operate or where we source.
NGOs	Not relevant, included	Givaudan has been developing specific tools for several years to support stakeholder engagement with the various stakeholder panels at both global and local levels. The starting point was the identification of all of our stakeholder groups in which NGOs were identified as part of the local communities. The NGOs are one of the stakeholders of our "Communities at Source" initiatives which support producers and their communities through a range of projects in collaboration with NGOs, local partners and the communities themselves. For example, our Communities at Source initiative supports a programme aimed at improving local livelihood and protecting the forest/ecosystem in the Caura basin through an agreement with Conservation International NGO. The local communities are part of a conservation agreement by which they receive support and guidance on techniques for the handling and selling of tonka beans. Regarding water management the NGOs do not represent a relevant partner for our direct operations but they are great partners to support our suppliers and projects with local communities. The water stress level of regions where we source and the regulatory framework are two indicators in which NGOs are factored. NGOs are generally engaged in local committees or as external partners for specific projects in the field. We foresee them to become a more important stakeholders in the future as more attention is given into the sourcing part of the value chain.
Other water users at a basin/catchment level	Relevant, always included	As a responsible company we aim to manage water at river basin level in collaboration with our neighbours and local entity so they are important stakeholders to be added in our enterprise risk assessment Other water users are a key stakeholder in the local and global water risk assessment as they are facing similar water risks and can be potential partners when it comes to finding solutions to mitigate risks. These risks are factored in several categories of the enterprise risk management like the compliance risk, the operational risks and EHS risks. All these categories can be impacted by water related risks and this is why we consider water users in our organisation water related risk assessment. We have collected data and information in order to be able to include them in our risk assessment framework as other stakeholders and we already use water stress level and regulatory framework assessment to engage with them. All site managers of our sites are in close contact with the other basin users either in forum or local meetings aiming to address specifically water issue.
Regulators	Relevant, always included	Givaudan has been developing specific tools for several years to support stakeholder engagement with the various stakeholder panels at both global and local levels. The starting point was the identification of all of our stakeholder groups in which regulators have been identified. From our principle of conduct: Givaudan's Environment, Health and Safety Policy emphasizes our commitment to comply with environmental laws and regulations applicable to our business in the countries in which we operate. Regulators represent part of our licence to operate and they are key stakeholders when it comes to water tariff, access and quality This is why they are always included in the risk assessment. Regulators are taken into account in local risk assessment and regulation monitoring. As a general practices Givaudan is part of the national or local industry association which is a place where we can meet and engage with regulators. This is a local partner in all regions.
River basin management authorities	Relevant, always included	As a responsible company, Givaudan aims to manage water at river basin level in all locations where we operate; this is why river basin management authorities are always included in water-related risk assessment. It is part of the local risk assessment and the business continuity plans to establish adequate relations and include the river basin authorities in order to mitigate risks. The river basin management authorities are a very important source of information regarding level of risks and regulation for water management. This is why they are included in the assessment. We usually engage with these authorities via local industrial association that represents the interest of the whole or a great part of the basin. It's the responsibility of the EHS managers to engage with the authorities via forums or dedicated work-shops and to include the basin river management authorities into the water risk assessment process.
Statutory special interest groups at a local level	Relevant, always included	Several special interest groups at a local level have been identified as stakeholders who are included systematically in the enterprise risk management which cover water related risks. This topic exists especially when our facilities are located in protected area or in high risk of water scarcity. They are always taken into account as part of the stakeholder mapping of local sites. They are especially relevant for the operation of our facilities in Europe. They are relevant for our water risk assessment because we are part of these groups in several location where our water withdrawal is impacting the watershed. They are usually groups that will help us implementing initiative to mitigate risks and we can also collaborate with them to consolidate expertise and knowledge about innovation or technology that might be implemented in our operations. They are usually representing the water governance body for the specific location which is a key contact for a manufacturing site dependant on access to fresh and good quality water like us. As an example of our engagement methodology with statutory special interest groups at a local level, we are participating as a member of the Rhône special interest group for our manufacturing site in Vernier, Switzerland. This is a close collaboration which allow including this body in our risk assessment.
Suppliers	Relevant, always included	The suppliers are included into the risk assessment process as they represent a key component of our value chain. Givaudan is dependent on suppliers to conduct its business and that is the reason why it is crucial to secure our supply chain reliability which include taking water issues into consideration. In addition, a great part of the suppliers being farmers or other industries they all consider water access and quality as important or vital for them. At the end, their level or risk and mitigation are impacting our level of water risks for each supply chain. For example, when flooding disrupts the electricity supply for our site in Brazil, we are impacted by a water hazard impacting our supplier and disrupting our operations. The suppliers are our main partner in several of our specific supply chains and they play an important role in the business of Givaudan. The suppliers are factored in several categories of the enterprise risk management like supply chain disruption, climate risks and financial risks. All these categories can be impacted by water related risks and this is why we consider suppliers in our organisation water related risk assessment. We engage with the suppliers directly when conducting assessment through Sedex participation and SMETA Audits. These audits include sites visits and assessment on environmental impact and risks in general including physical water risks. These audits and visits play a central role in our supplier engagement methodology. We are also collecting information from the key suppliers about the relevance of water availability and quality for their performance as supplier. The participation to CDP Supply chain program is key to engage with some selected suppliers (based on region or industry) and to better understand how they address water risks. CDP Supply chain programme also improves our risk mapping by using information collected directly from our suppliers. The suppliers are current relevant stakeholders and will stay important in the future for the company. As a manufacturing company, suppliers are particularly important for our operations and for the customers that required high standard and quality in our products.

	Relevance & inclusion	Please explain
Water utilities at a local level	Relevant, always included	From our principle of conduct: Givaudan's Environment, Health and Safety Policy emphasizes our commitment to comply with environmental laws and regulations applicable to our business in the countries in which we operate. This is why water utilities at a local level are always included in the water-related risk assessment. Local entities have contact with the utilities supplier and manage close relationship with them to develop scenarios and ensure information is shared for better water management planning. The utilities are often the best source of information regarding future water stress level and potential water hazards, this is why they are included in our assessment. In addition, the utility suppliers are often a key partner to develop water mitigation project. Water utilities are current and future relevant stakeholders for Givaudan. It is the responsibility of the local EHS manager to ensure close collaboration and shared information with the utility suppliers. They are an important stakeholder for the operations of Givaudan. It is usually done on a yearly basis and the information shared is then collected in our local water risk tool.
Other stakeholder, please specify	Not relevant, explanation provided	There are no other stakeholders identified

W3.3d

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

Enterprise Risk Management (ERM) at Givaudan includes all types of risks in terms of their nature, their sources or their consequences. The risk assessment follows an annual cycle coordinated by the Corporate Compliance Officer. It involves managers from all business areas to identify risk profiles and opportunities they present for Givaudan. The current major risk areas include water risk.

In addition to ERM Givaudan carries out specific corporate water risks assessments based on the CEO water Mandate recommendation to allow a more detailed identification of the water risks and a specific analysis related to the context at watershed level. This process applies for both the operations and the supply chain as they are the most material stages of our value chain in terms of water consumption.

Operations:

All Givaudan manufacturing facilities are included in the water risk assessment. The annual mapping takes into account 6 indicators from WWF Water Risk Filter and WRI Aqueduct covering all water risk aspects: physical, regulation & reputation.

Here is the list of indicators: Physical - Scarcity/ quantity*, Physical - Pollution/ quality*, Regulatory risk*, Reputation risk*, Occurrence of droughts, Occurrence of floods, Water Stress 2030, Baseline Water Stress.

* risk indicators consolidated from sub risk indicators as from the WWF Water Risk filter

In addition, we use a set of criteria on production volume, amount of water withdrawal, level of risks for each indicators and internal knowledge (materiality) to prioritise and filter the facilities. This first selection resulted in prioritising 17 manufacturing sites with inherent water risks. All prioritised facilities have to fulfil a Local Water Risk Assessment aiming to get contextual information, develop mitigation plans and evaluate the residual risks remaining after specific actions have been taken to manage the risks. This final evaluation result in selecting only 5 sites with a remaining high risk level (level 6 or higher over 9). The 5 sites are then on a priority list which implies a close monitoring and follow-up on the mitigation plan in addition to the prioritisation of water topics in our operational risk management process which conduct on site assessment and mitigation plan development.

Because of the transparency of data source and the global coverage of the WRI aqueduct and WWF water risk Filter tools, both tools were selected to identify risks in our operations.

Supply chain:

All Supply chains are annually evaluated through the Enterprise Risk Management (ERM) procedure which includes risks of supply disruption, climate change and water scarcity. The main contributors for the assessment is the internal knowledge and expertise as stated in the question 3.3a but we also include expertise from our suppliers as key source of information. Givaudan also developed a corporate Water Scarcity Index using the expertise of a third party company which consolidate water scarcity risk at country level and impact on Givaudan business for the whole supply chain. After identification of the risks, a mitigation plan is developed allowing to reduce the risks for the supply chain and for Givaudan (see BCP below).

Our main supply chains are also annually evaluated through the SEDEX platform and during on field internal Vendor Quality Management audits to assess water risks in our supply chain. Both tools were selected because of their application to a broad range of users. In addition, Givaudan has a Business Continuity Plan (BCP) for sourcing activities covering a large range of risk exposure pertaining to water. This includes regular assessments of potential risks, including environmental risks such as droughts, floods, water access and water quality among other issues to maintain the whole supply chain process if any disruption occurs. Key Risk Management strategies to secure sourcing of our materials:

- 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).

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

Description of substantive financial impact' when identifying or assessing climate and water related risks

At company level water risks are identified as part of the company-wide ERM risk assessment process under the supervision of the EC. The risks are assessed once 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 an annual process 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 impact" therefore comprises for us the two categories high and very high impact.

Description of the quantifiable indicator(s) used to define substantive financial impact

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

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

Description of substantive strategic impact when identifying or assessing water-related risks

We define a substantive impact on our business in this context as: cost increase, shortage of water, water quality issue or all other water related issues that could potentially impact more than 2% of a division production volumes. The production volume is highly related to the dependency of the organisation on that unit (of production) which is a great proxy to evaluate the impact on our business. The production volume is used as an average indicator for the divisional revenue which is in fact portfolio specific. The production volume is much more practical to apply in the risk assessment to illustrate a strategic risk than a financial indicator which includes other variability not linked to water risks.

Description of the indicators used to identify substantive change

- the production volume (in tons),

- the water risks metrics as proposed by WWF-DEG Water Risk Filter and WRI Aqueduct (Physical scarcity, physical quality, reputation, regulation, projected water stress level 2030, baseline water stress). Indicators ranked from 1-5 including the potential magnitude and the probability of the event to occur.

The thresholds which indicate a substantive change are:

- 2% for the production volume, expressed as a percentage of the total volume of the division coupled with one of the indicators (e.g. physical stress quantity/quality, regulation, reputation) at the highest level of risk in the local water risk assessment.

The substantive impact definition applied for both our operations and the supply chain.

As an illustrative example: We faced a potential substantive strategic impact in 2018 due to water quality issues that could adversely impact our manufacturing plant using groundwater in Jakarta. The water supply disruption occurred in Q1 2018 due to decreased water quality of groundwater well 2 which did not fulfil the local standard for use at our site. The groundwater well 2 has been closed forcing the facility to be supplied only by groundwater well 1. The water disruption supply did not affect the production volume capacity because alternative source has been found for the site. Nevertheless, in the short term (4 – 6 years) we might (with high probability - level 5/5 from the WWF Water Risk Filter) face decreased water quality for operations in Indonesia impacting more than 2% of our production worldwide which is defined as substantive. Therefore an action plan was developed in order to respond to this potential risk. The contingency plan includes: propose to dig another groundwater well, built a rainwater collection system on the roof of our site (currently under assessment on the Master plan of the site).

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	5	1-25	We consider 44 manufacturing facilities in the scope of the questionnaire, 5 out of 44 represents 11.4% of facilities exposed to water risk.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Singapore	Other, please specify (GHAASBasin1591)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

The calculation is based on 44 manufacturing facilities. One facility in this context refers to a manufacturing site. Our risk assessment takes into account the % of the company revenue that could be affected by the water related event. Proportion figure is selected on the basis of actual production volume of site in relation to global production volume. Other facilities are located in this area (same watershed) but are not identified as potential substantive strategic impact on our business

Country/Area & River basin

France	Seine
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

The calculation is based on 44 manufacturing facilities. One facility in this context refers to a manufacturing site. Our risk assessment takes into account the % of the company revenue that could be affected by the water related event. Proportion figure is selected on the basis of actual production volume of site in relation to global production volume. Other facilities are located in this area (same watershed) but are not identified as potential substantive strategic impact on our business

Country/Area & River basin

South Africa	Limpopo
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

The calculation is based on 44 manufacturing facilities. One facility in this context refers to a manufacturing site. Our risk assessment takes into account the % of the company revenue that could be affected by the water related event. Proportion figure is selected on the basis of actual production volume of site in relation to global production volume.

Country/Area & River basin

Indonesia	Other, please specify (GHAASBasin1666)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

The calculation is based on 44 manufacturing facilities. One facility in this context refers to a manufacturing site. Our risk assessment takes into account the % of the company revenue that could be affected by the water related event. Proportion figure is selected on the basis of actual production volume of site in relation to global production volume.

Country/Area & River basin

Egypt	Nile
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

The calculation is based on 44 manufacturing facilities. One facility in this context refers to a manufacturing site. Our risk assessment takes into account the % of the company revenue that could be affected by the water related event. Proportion figure is selected on the basis of actual production volume of site in relation to global production volume.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Singapore	Other, please specify (GHAASBasin1591)
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Type of risk & Primary risk driver

Regulatory	Higher water prices
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Primary potential impact

Increased operating costs

Company-specific description

- In 2019 as in 2018, the water stress and the baseline water stress indicators of Aqueduct WRI are extremely high > 80 % for this manufacturing site. In addition, we had just experienced a price increase of water in July 2018 which impacted directly the operating cost. Considering that Public Utility Board is the only water provider in Singapore and that they are expecting to spend another CHF 3 billion on water infrastructure from 2017 to 2021, it is rather reasonable to expect an increase in water price in the next years. With a constant increase in water stress and no clear information about the impact of the water infrastructure improvement on the water price, the primary risk driver for the site is a higher water price which will impact site profitability. - In addition the facility cannot operate without access to fresh water. Water stress increase could put this facility at risk of disruption in production capacity. The new infrastructure investments are considered a good mitigation plan for this secondary risk.

Timeframe

1-3 years

Magnitude of potential impact

Medium

Likelihood

Likely

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)

1400

Potential financial impact figure - maximum (currency)

2100

Explanation of financial impact

The financial impact is the additional yearly cost for water supply. It is calculated using the evolution observed between 2017 and 2018 (1750 CHF) and by considering the same trend between 2018 and 2019 with a +/-20% for uncertainties. These numbers are based on historical changes in water costs that occurred in Singapore. (a) yearly increase between 2018 and 2019 (considered the same as between 2017 and 2018): 1750 CHF (b) uncertainties 20% . Financial figures: Minimum: (a)-(a) x (b) = 1750 - (1750 x 0.20) = 1400 Maximum: (a)+(a) x (b) = 1750 + (1750 x 0.20) = 2100

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

- Reduction in water withdrawal: Launch campaign on water conservation programme. The Campaign includes quick improvement to toilet facilities such as: changing sink tap with an efficient model which optimises dispensing time, changing toilet flushing from automatic to manual, changing of bidet washer orifice to a smaller size. Recycling water is currently under assessment at our site in India and this technology could be deployed in other location, such as this Singapore site, when proven adequate. - Water Stewardship: continue the journey along our water stewardship programme with efforts on the operation and the engagement with basin stakeholders. The next steps are about creating synergies with neighbour companies and suppliers to align efforts at watershed level. - Mitigate disruption production capacity: In the frame of the Business Continuity plan monitoring and development, regulation are also monitored as the region is forecasting some important changes in midterm time frame

Cost of response

2000

Explanation of cost of response

This cost of response calculation is based on the purchasing of the equipment for WASH improvement. (a) cost of the equipment (2000 CHF) no cost for installation considered Financial figure = (a) = 2000

Country/Area & River basin

France	Seine
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Type of risk & Primary risk driver

Physical	Drought
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Primary potential impact

Reduction or disruption in production capacity

Company-specific description

- Water access and quality is essential to operate for our facility in France. The facility is mainly supplied by groundwater which is at risk of declining quality and quantity specifically during drought period which would therefore impact Givaudan's direct operations capacity. The droughts are the primary risk driver for physical risk with a potential impact for the production capacity which is dependent on water access and quality to operate. Any major delays due to disruption in production would reduce Givaudan ability to supply its customer and then impact our revenue and potentially our ability to win new business.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

About as likely as not

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)

990

Potential financial impact figure - maximum (currency)

1650

Explanation of financial impact

Potential impact is a combination of cost increased due to change of water supplier from ground water to municipal supply (+10-20% of current cost for a year) and the potential change in water price (about 5% increase based on 2019 consumption) (a) yearly cost for water supply 6600 CHF (b) increased by 15% or 25%. Financial figure range: min = (a) x (b)min = 6600 x 0.15 = 990 max = (a) x (b)max = 6600 x 0.25 = 1650

Primary response to risk

Develop drought emergency plans

Description of response

- Technical study with hydrogeologist to check ground water quality and potential impact. - Develop drought emergency plan: Technical study with the external contractors to defined an action plan in case of drought period / to be validated by local authorities (DREAL)

Cost of response

15000

Explanation of cost of response

Cost calculation is based on the cost of consultancy to develop the emergency action plan (a) cost for the consultancy: 5000 CHF/month (b) number of months: 3 Financial figure = (a) x (b) = 5000 x 3 = 15,000

Country/Area & River basin

Indonesia	Other, please specify (GHAASBasin1666)
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Type of risk & Primary risk driver

Physical	Declining water quality
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Primary potential impact

Constraint to growth

Company-specific description

Water access and quality is essential to operate for our facility in Indonesia specially because some products are using as food ingredients. The site has faced water quality issues in the past and that led to affect Givaudan operations capacity. Since 2018 already the facility has reduced its withdrawal water only from one deep well because the water quality coming from the second well did not fulfill the local standard for use in operation. Using only one well limits the potential to growth as the facility reaches its withdrawal limits and cannot currently increase the production tonnages because of water availability (in good quality).

Timeframe

1-3 years

Magnitude of potential impact

Medium-high

Likelihood

Likely

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)

1000000

Potential financial impact figure - maximum (currency)

2000000

Explanation of financial impact

Financial impact is calculated based on a non-revenue estimation over the next 3 years' time period because of limitation to growth. Of course this value is theoretical as the primary mitigation measure will be to have this increase absorbed in an other facility but for the exercise we estimated the risk for this specific facility. (a) estimated non-revenue because of limiting growth 500,000 CHF (b) number of cumulative year considered: 3 years (c) error margin : 33% Financial figures (all figures have been rounded): Minimum : ((a)x(b))-((a)x(b)x(c)) = (500,000 x 3) - (500,000 x 3 x 0.33) = 1,000,000 Maximum: ((a)x(b)) + ((a)x(b)x(c)) = (500,000 x 3) + (500,000 x 3 x 0.33) = 2,000,000

Primary response to risk

Secure alternative water supply

Description of response

Currently the manufacturing site in Indonesia is undertaking a study to dig a new groundwater well that would overcome the current limitation and to develop more efficient water processes in order to limit the water withdrawal demand on site. Access to water from municipality supplier is also considered in the study and in 2019 the assessment of collecting rainwater was also included but these ideas will also increase the cost of water.

Cost of response

45000

Explanation of cost of response

This estimate figures considers cost of Installation & permits request to local authorities as well as administrative paper work for 4 months. In addition, consultancy cost have been estimated at 5,000 CHF (a) cost of Installation 35,000 CHF (b) permits & administrative paper work : 5,000 CHF (c) consultancy : 5,000 CHF Financial figure: (a)+(b)+(c) = 35,000 + 5,000 + 5,000 = 45,000

Country/Area & River basin

South Africa	Limpopo
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Type of risk & Primary risk driver

Physical	Pollution incident
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Primary potential impact

Fines, penalties or enforcement orders

Company-specific description

Due to the relatively old waste water treatment plant in Johannesburg and the changes in production portfolio, the difficulty to manage waste water quality is identified as a potential risk driver for the facility. In case of malfunction and non-compliance with local quality regulation, the requirement for additional treatment by the municipality will conduct to fines, penalties or enforcement orders which will impact the company reputation and the company revenue.

Timeframe

1-3 years

Magnitude of potential impact

Medium

Likelihood

Likely

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)

5000

Potential financial impact figure - maximum (currency)

11000

Explanation of financial impact

Anyone who discharges water with non-compliant pH level or a too high Chemical Oxygen Demand level can be subject to fine from the local regulator estimated between 5000 CHF (75,000 ZAR) and 11,000 CHF (150,000 ZAR) per month.

Primary response to risk

Improve pollution abatement and control measures

Description of response

Givaudan started to build a wastewater treatment plant in Johannesburg site. With this new internal wastewater treatment plant, we are aiming to reduce Chemical Oxygen Demand levels from a baseline of 15000 COD to around 7000 COD, i.e. reduction of 8000 CODs. In the meantime, the wastewater treatment plant aims to regulate and stabilise the pH level of our water discharged. These two new features will allow our site in Johannesburg to cope with regulation and avoid any fines due to non-compliance.

Cost of response

200000

Explanation of cost of response

The cost of response is the estimation of the waste water treatment plant upgrade dedicated to the pollution abatement. This cost is part of the whole wastewater treatment plant upgrade that also includes more capacity and infrastructure maintenance. The return on investment is based on avoiding the cost of fines which can led to save about 80,000 CHF per year in Johannesburg. cost of upgrade: (a) equipment: 150,000 CHF (b) human resources: 50,000 CHF Financial figure: (a)+(b) = 150,000 + 50,000 = 200,000

Country/Area & River basin

Egypt	Nile
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Type of risk & Primary risk driver

Physical	Drought
----------	---------

Primary potential impact

Increased operating costs

Company-specific description

Water access and quality is essential to operate Givaudan manufacturing sites. In Egypt, during drought periods, water supply disruption happens which could interrupt the site operations or reduce its capacity. In order to mitigate this risk, Givaudan has secured other water supply source and procure water from water tanker trucks delivering the facility with fresh water which comes with an increased cost because water tanker trucks cost more than regular municipal water withdrawal.

Timeframe

4-6 years

Magnitude of potential impact

Medium

Likelihood

Unlikely

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)

10800

Potential financial impact figure - maximum (currency)

13200

Explanation of financial impact

Financial impact is calculated based on the price of water tanker trucks delivering facility with fresh water during drought period. It is calculated based on the water consumption at Egypt site for 3 months, which will directly affect Givaudans' direct operations costs. We estimated the drought period lasting for 3 months as a pessimistic scenario. (a) price of water delivered by trucks: 1.04CHF/m³ (b) average water delivery volume per month when drought period: 4000m³ (c) uncertainties: 10% (d) number of month: 3 Financial figure (all figures have been rounded): Maximum : ((a) x (b) x (d)) + ((a) x (b) x (d) x(c)) = (1.04 x 4000 x 3) + (1.04 x 4000 x 3 x 0.1) = 12000 +1200 = 13,200 Minimum : ((a) x (b) x (d)) - ((a) x (b) x (d) x(c)) = (1.04 x 4000 x 3) - (1.04 x 4000 x 3 x 0.1) = 12000 - 1200 = 10,800

Primary response to risk

Secure alternative water supply

Description of response

In order to avoid the need for trucks delivery, the facility built two water spare tanks on site. These tanks should cover the need for water during water supply disruption (Capacity: 2 tanks of 34,5 m³ each)

Cost of response

20000

Explanation of cost of response

The cost is calculated considering the cost of internal resources and external resources to build and maintain the water tanks for the next 10 years (a) cost internal and external resources: 3,000 CHF (b) cost equipment: 14,000 CHF (c) maintenance over 10 years: 3,000 CHF Financial figure = (a) +(b) +(c) = 3000 + 14,000 + 3000 = 20,000

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Madagascar	Other, please specify (Pangalanes)
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Stage of value chain

Supply chain

Type of risk & Primary risk driver

Physical	Drought
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Primary potential impact

Disruption to sales due to value chain disrruption

Company-specific description

Madagascar faces important risks of drought between December and January as well as more variability in seasonal weather and increasing temperatures that affect ecosystems and water availability. Givaudan depends on specific raw materials as a source of natural ingredients. Most of the natural ingredients sourced by Givaudan are not commodities, rather specialities produced in small volumes. In recent time, raw material supply chains are becoming more volatile, uncertain, complex and ambiguous (VUCA context). The supply of clove leaf oil was identified at high risk because of operation disruption in case of drought during the dry period. As a key component of our raw material this risk is directly affecting our own operations and creating a financial substantive and strategic impact on our business. As a concrete example; during drought period the supplier manufacturing facility might stop its operations because lack of water availability. Indeed, the supplier cannot operate because it needs water to produce steam, to wash equipment and to provide WASH services to the employee. Without access to sufficient water the operations are disrupt and Givaudan raw material supply as well.

Timeframe

1-3 years

Magnitude of potential impact

High

Likelihood

More likely than not

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)

2000000

Potential financial impact figure - maximum (currency)

4000000

Explanation of financial impact

The financial impact is calculated by estimating the losses generated by 2 months of operation closure on the plant in terms of revenue for Givaudan. (a) estimated average volume product supply to Givaudan by month (b) estimated average value of this product by volume (c) number of month of closure The financial impact Financial figure : Maximum : ((a) x (b)) + ((a) x (b) x(c)) = 4,000,000 Minimum : ((a) x (b)) - ((a) x (b) x(c)) = 2,000,000

Primary response to risk

Supplier engagement	Promote investment in infrastructure and technologies for water saving, re-use and recycling among suppliers
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Description of response

Givaudan has invested to install a roof rain water collection system in order to reduce the site's dependency on municipal water and groundwater availability and in the same time allows the storage of water for the periods of drought. It represents about 3000m2 of collector using gravity only to move water stream. Thanks to this equipment, the water needs for the site are covered during the whole drought period and allows the site to operate and supply Givaudan without interruption. In the past 2 years the solution has proven its capacity to mitigate the risk and allow having zero interruption due to water availability.

Cost of response

100000

Explanation of cost of response

This is the addition of the cost of material for the infrastructure and the piping work with an estimate work from construction supplier. The maintenance costs are not included (a) Estimated equipment cost : 70,000 CHF (b) Estimated installation cost: 30,000 CHF The financial impact= (a) + (b) = 70,000 + 30,000 = 100,000

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Resilience

Primary water-related opportunity

Increased supply chain resilience

Company-specific description & strategy to realize opportunity

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, water access 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. Therefore, increased supply chain resilience is the unique opportunity considered strategic for Givaudan to secure supply chain for iconic substances. One action to realise the opportunity would be to train farmers/smallholders on 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. Here are different examples of the strategy in action : "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 and improve water efficiency. In parallel, 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.

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial 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

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 MioCHF 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".

Type of opportunity

Products and services

Primary water-related opportunity

New R&D opportunities

Company-specific description & strategy to realize opportunity

Why this opportunity is strategic : 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 water intense 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. Action to realise the opportunity : 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 Vetivine™. It is made from a water-soluble extract from exhausted vetiver roots, a by-product of the extraction procedure used to produce vetiver oil for fragrances. Its water-based extraction and purification processes are highly respectful of the environment. 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. It is fully natural, concentrated, odour-free, and it offers great benefits: helps enhance skin hydration, suppleness and removing wrinkles.

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial 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

1) Givaudan's global sales in 2019 were CHF 6.2 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 sustainable positioning. 2) Financial

implications of our competitive advantage could include : - Increased product demand and sales revenue due to visibility of our progress on water stewardship 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)

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 2

Facility name (optional)

Pioneer

Country/Area & River basin

Singapore	Other, please specify (GHAASBasin1591)
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Latitude

1.320278

Longitude

103.701702

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

29.95

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

29.95

Total water discharges at this facility (megaliters/year)

27.38

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

27.38

Total water consumption at this facility (megaliters/year)

2.57

Comparison of total consumption with previous reporting year

Much lower

Please explain

This facility is a manufacturing site located in one area without decentralised buildings. The facility is located in a water stressed area according to WWF Water risk filter indicator 1.2 - Baseline Water Stress level higher than 3. All figures are based on local measurement (meters or invoices) reported in our corporate data base according to our standard on Environmental Data Reporting and Analysis. In 2019, compared to 2018, the site withdrawal the same amount of water (change of -0.4%) but increase the amount of discharge water by 2.3% which is considered higher. The increase of water discharged is mainly due to the stabilisation of a new production line for encapsulation technology. The stabilisation allowed to better treat the waste waters and better segregate the sludge from the clean water which increase the amount of water discharged. This mechanism (stable withdraw and increase discharge) implies a much lower water consumption (-22.3%) which was in the past partially included in the sludge from the pre-treatment operated on site. In this facility we withdrawal water from the municipal supplier and discharge directly to a municipal WWTP after pre-treatment. We considered the following criteria: - changes <2% are characterized as "about the same" - between 2 and 10% changes are characterized as "higher" respectively "lower" - changes > 10% are characterized as "much higher" respectively "much lower" This data has been audited by a third party.

Facility reference number

Facility 3

Facility name (optional)

Pomacle

Country/Area & River basin

France	Seine
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Latitude

49.358856

Longitude

4.199092

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

130.32

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

126.92

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

3.4

Total water discharges at this facility (megaliters/year)

107.65

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

107.65

Total water consumption at this facility (megaliters/year)

22.67

Comparison of total consumption with previous reporting year

Much higher

Please explain

This facility is a manufacturing site located in one area without decentralised buildings. The facility is located in a water stressed area according to WWF Water risk filter indicator 1.2 - Baseline Water Stress level higher than 3. All figures are based on local measurement (meters or invoices) reported in our corporate data base. In 2019, compared to 2018, the site reduced its water withdrawal by 6.8% which is considered lower by Givaudan. In the same period the amount of water consumed increased by

32.9% which is considered much higher. The reduction of water withdrawal reflect the change in portfolio for our biotechnologies which is less water intensive and the improvement in the cleaning process to reduce the water demand. In parallel, the consumption of water is mainly driven by evaporation and steam production which have increase to cope with the need for cooling and heating with the new portfolio. This mechanism (lower withdrawal and much higher consumption) implies a much lower water discharged (-12.8%). The water is withdrawal from the municipal supplier and ground water and discharge directly to a municipal WWTP after pre-treatment. We considered the following criteria: - changes <2% are characterized as "about the same" - between 2 and 10% changes are characterized as "higher" respectively "lower" - changes > 10% are characterized as "much higher" respectively "much lower" This data has been audited by a third party.

Facility reference number

Facility 7

Facility name (optional)

Cimanggis

Country/Area & River basin

Indonesia	Other, please specify (GHAASBasin1666)
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Latitude

-6.303435

Longitude

106.869278

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

129.06

Comparison of total withdrawals with previous reporting year

Much higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

13.51

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

115.55

Total water discharges at this facility (megaliters/year)

79.39

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

79.39

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

49.67

Comparison of total consumption with previous reporting year

Much higher

Please explain

This facility is a manufacturing site located in one area without decentralised buildings. The facility is located in a water stressed area according to WWF Water risk filter indicator 1.2 - Baseline Water Stress level higher than 3. All figures are based on local measurement (meters or invoices) reported in our corporate data base. In 2019, compared to 2018, the site increase production by 12% and the water withdrawal increase by 19% which is considered much higher. In the same period the amount of water consumed doubled (+107%) which is considered much higher. The increase of water withdrawal reflect the increase of production. The reason for the increase of water withdrawal is mainly due to increase of production tonnage and the additional need for cooling at the facility. In parallel, the consumption of water has double because of an additional cooling tower installation which increased the evaporation of water on site for cooling needs. This mechanism (much higher withdrawal and much more higher consumption) imply a much lower water discharged (-5.9%). The water is withdrawal mainly from municipal supplier (90%) and groundwater and discharged directly

to the environment after treatment. We considered the following criteria: - between 2 and 10% changes are characterized as "higher" respectively "lower" - changes > 10% are characterized as "much higher" respectively "much lower" This data has been audited by a third party.

Facility reference number

Facility 8

Facility name (optional)

6th of October

Country/Area & River basin

Egypt	Nile
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Latitude

30.09093

Longitude

31.095428

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

6.95

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

6.95

Total water discharges at this facility (megaliters/year)

6.28

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

6.28

Total water consumption at this facility (megaliters/year)

0.66

Comparison of total consumption with previous reporting year

Much higher

Please explain

This facility is a manufacturing site located in one area without decentralised buildings. The facility is located in a water stressed area according to WWF Water risk filter indicator 1.2 - Baseline Water Stress level higher than 3. All figures are based on local measurement (meters or invoices) reported in our corporate data base. In 2019, compared to 2018, the site reduced its water withdrawal by 55% which is considered much lower by Givaudan. In the same period the amount of water discharged decreased by 59% which is considered much lower. The reduction of water withdrawal reflect the change in production planning: - Old sequence is random based on urgent request (tomato->clean->cheese->clean->chili->clean->tomato). - Current solution: run long batches from same flavours (all the day tomato then clean and change for long run cheese) This improvement is reflected in the reduction of water withdrawal and discharged (about -50%). In parallel, the consumption increase more than 100% but this number should be taken carefully because the variation is a minor absolute amount of 0.66 Ml which is very sensitive to variation. The water is withdrawal from the municipal supplier and ground water and discharge directly to a municipal WWTP after pre-treatment. We considered the following criteria: - changes > 10% are characterised as "much higher" respectively "much lower" This data has been audited by a third party.

Facility reference number

Facility 9

Facility name (optional)

Johannesburg

Country/Area & River basin

South Africa	Limpopo
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Latitude

-26.068771

Longitude

28.112167

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

28.43

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

28.43

Total water discharges at this facility (megaliters/year)

16.88

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

16.88

Total water consumption at this facility (megaliters/year)

11.55

Comparison of total consumption with previous reporting year

Lower

Please explain

This facility is a manufacturing site located in one area without decentralised buildings. The facility is located in a water stressed area according to WWF Water risk filter indicator 1.2 - Baseline Water Stress level higher than 3. All figures are based on local measurement (meters or invoices) reported in our corporate data base. In 2019, compared to 2018, the site reduced its water withdrawal by 13.4% which is considered much lower by Givaudan. In the same period the amount of water discharged decreased by 16.4% which is considered much lower. The decrease of water withdrawal reflect the decrease of production volume (about -10%) and the governmental restrictions applied in South-Africa . In parallel, the consumption of water decreased by 8.6% aligned with the production changes because water consumption is highly related to the need for cooling in production (evaporation). This mechanism (much lower withdrawal and lower consumption) imply a much lower water discharged (-16.4%). The water is withdrawal from the municipal supplier and discharge directly to the municipal WWTP after pre-treatment. We considered the following criteria: - between 2 and 10% changes are characterized as "higher" respectively "lower" - changes > 10% are characterized as "much higher" respectively "much lower" This data has been audited by a third party.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals – total volumes

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading, invoices, estimation calculation) for all water withdrawal. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

Water withdrawals – volume by source

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading, invoices, estimation calculation) for all water withdrawal by sources. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

Water withdrawals – quality

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database(meter reading, laboratory test reports, local measurement protocols, estimation calculation) for all water withdrawal quality parameters. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

Water discharges – total volumes

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading, invoices, estimation calculation) for all water discharged volumes. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

Water discharges – volume by destination

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading, invoices, estimation calculation) for all water discharged volumes by destination. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

Water discharges – volume by treatment method

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading, invoices, estimation calculation) for all water discharged volumes by treatment method. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

Water discharge quality – quality by standard effluent parameters

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading, laboratory test reports, local measurement protocols, estimation calculation) for all effluent parameters. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

Water discharge quality – temperature

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading (thermometer), laboratory test reports) for all water discharge quality. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification.

Water consumption – total volume

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading, invoices or estimated calculations) for all water consumption. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

Water recycled/reused

% verified

76-100

What standard and methodology was used?

The standard is : ISAE3000 and the methodology is through site verification audit by a third-party organisation. The auditors conduct on site audits verifying each data sources against data reported in our corporate database (meter reading, invoices or estimated calculations) for all water recycled/reused. The manufacturing facilities are audited on a 3 years rolling cycle ensuring full coverage of data verification. The global figure is included in our publicly disclosed and assured 2019 Sustainability Highlights & 2019 Sustainability GRI Index & Integrated Report. Givaudan's standard on Environmental Data Reporting and Analysis (EDRA) covers proper reporting practices and requirements for all Givaudan locations worldwide.

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy, but it is not publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	Our water policy is company-wide and integrated in our Responsible Care Management System(RCMS) which provides the framework for our EHS policy and procedures. This framework is structured around the Responsible Care Charter, ISO standards (ie. ISO 14001), industry best practices, and regulatory requirements. Our Policy consequently adheres to the following principles and covers the following topics: - Water is essential for Givaudan to operate and to grow most part of the raw materials we process - We impact water through water withdrawals and discharges linked to our operations. Water consumed to grow the natural raw materials that we buy is one of these impacts. - Responsibility is essential to our leadership: The water policy is part of the RCMS Statement of Givaudan which is signed and endorsed by the CEO. -We continuously improve our management systems: Company-wide targets and goals have been set. Our strategy for monitoring water performance, mitigating water risks and guide our growth strategy is embodied in our Water Stewardship Programme which is based on the CEO water mandate (that we endorsed) and refer to AWS International Water Stewardship Standard. - We promote water stewardship: We work towards a continued reduction of water use through projects including reduced water withdrawal, water recycling and investigation into alternative sources such as rainwater. We carry out periodic corporate risk assessment which include both water and climate related risks as we recognise the strong interlink between this two topic. This allows us to identify relevant exposures and perform analysis specifically related to the watershed-level context. - We champion best practices across the value chain: We leverage our influence with business partners and suppliers to promote water management practices in the entire value chain. - We engage our stakeholders: We create relationships with our different stakeholders: employees, shareholders, suppliers, customers, authorities, industry partners and the general public. We conduct educational campaigns, raising the communities awareness about health risks related to water and we focus attention on WASH aspects in workplaces where we operate. - We aim to make a positive difference in the communities in which we operate. To do so we strive to conserve resources and protect the environment and human rights to water and sanitation, thus aligning with global policy initiatives such as the SDGs.

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	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 water stewardship. General review of all Company risks, including water 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 water risk management. As part of its overall control, the Board is responsible for approving the high-level vision for sustainability (which includes water stewardship) within Givaudan, the public communication of annual results (including water stewardship performance) in the Annual Report and, assisted by its Audit Committee, for ensuring the functioning of internal controls and reporting accuracy, including for water 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 and become a climate-positive business before 2050 which include water related issues. This has been expressed on page 6 of our 2019 integrated annual report by our chairman: "The climate crisis is one area where businesses need to be stronger in their actions to avoid the potential disruption to economies, society, people and planet. We've set ourselves the highest bar of becoming climate-positive business before 2050. In 2019, for the first time, Givaudan was ranked in the list of top 25 sustainable companies in the SXI Switzerland Sustainability 25 Index®, recognizing our sustainability endeavours."

W6.2b

(W6.2b) Provide further details on the board’s oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Reviewing and guiding business plans Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy	The board receives annual reports on: - the Sustainability strategy, which includes water stewardship (agenda items: Sustainability Programme and Report) - allow to monitor implementation and performances - the Enterprise Risk Management (ERM), discussing water from a risk angle (agenda item: Risks and Opportunities) - allow to reviewing and guiding risk management police - EHS function (including water action performance) (agenda item: Report on EHS) - Include aspects of risks and performances These reports enable an oversight of water-related issues for the board. In addition, the Board receives business updates at every Board meeting. These contain references to the consequences of water risks on the business, whenever relevant, which also give an oversight of water-related issues. These updates are mechanism to guide company business and corporate responsibility strategy. The Audit Committee receives biannual reports on Enterprise Risk Management and quarterly reports on Ethics & Compliance. This report allow to review and guide risk management policies including water risk management. Major CAPEX, acquisitions and divestitures are part of regular board’s discussion. This allows overseeing acquisitions and divestiture as well as the major capital expenditures projects.

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Operating Officer (COO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

Position in the corporate structure: The COOs (COO Flavor Division & COO Fragrance Division), who are C-Suite Officers with the responsibility for sales, are members of the Executive Committee (EC) and report to the Chief Executive Officer (CEO). In Swiss stock-traded companies, the Board of Directors delegates all day-to-day running of the activities to the EC, 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. Report to the board: The Board receives business updates by the COOs of the two Divisions at every Board meeting (quarterly). These contain consequences of water-related issues on the business. Responsibilities: The COOs of the two Divisions are responsible for assessing and managing the consequences of water related issues as they affect the divisions. This includes issues of operational continuity, supply chain, customer expectations among others.

Name of the position(s) and/or committee(s)

Chief Sustainability Officer (CSO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Annually

Please explain

Position in the corporate structure: The Chief Sustainability Officer is a member of the Executive Committee (EC) and report to the Chief Executive Officer (CEO). In Swiss stock-traded companies, the Board of Directors delegates all day-to-day running of the activities to the EC. Report to the board: The Board receives annual reports by the CSO on the Sustainability strategy, which includes water-related issues (agenda items: Sustainability Programme and Report) . Responsibilities: - The CSO is responsible for the Global Sustainability programme, including water-related issues. He approves strategy, direction and resources of the programme and serves as the overall executive committee sponsor. - The CSO heads the Sustainability organisation and the Sustainability Leadership Team reports into the Chair of Sustainability. - The current CSO is also responsible for Global Procurement, which ensures an advanced embedding of sustainability issues in the supply chain.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	No specific comments

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Corporate executive team	Improvements in efficiency - direct operations Improvements in waste water quality - direct operations	The short term incentives for all executives include a profitability element (EBITDA) which is heavily influenced by cost efficiency. Reduction of use of water has a material cost impact. According to the Enterprise Risk Management (ERM) risk assessment process, members of the Executive Committee (EC) are given specific responsibility over the management of material issues (which include water-related issues). This is reflected in the short term incentive. The success is measured in comparison with the company strategy targets including both water efficiency and improvements in waste water quality management. The targets is the reduce water intensity by 15% between 2010 and 2020 and to mitigate potential risks related to waste water discharge. These two indicators are chosen because they represent the both the dependency of the company on water and the impact we can have on the water basin where we operate. This is why they are selected as performance indicators.
Non-monetary reward	Other, please specify (All employees)	Reduction of water withdrawals Improvements in efficiency - direct operations	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 increase water efficiency. In this context, annual Green Team Awards are granted by the Executive Committee for successful eco-efficiency projects. Local indicators are applied to assessed water related community project but our main indicator for project in our operation is the reduction of water withdrawal for a specific facility. This measure ensures a good impact on the watershed and an improvement in the water efficiency of the site. The threshold for success is often qualitative for projects in communities. However, a decrease of more than 2% of the amount of water withdrawal per tonnes of product is considered as a success.

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, trade associations

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Process to ensure consistency:

Givaudan is represented on the board of the associations (IFRA - International Fragrance Association & IOFI - International Organization of the Flavor Industry) which strengthens our implication and influence in advancing water stewardship and ensure consistency with our company's commitments . We actively participate in the discussions bringing a progressive view on what our industry can and should do to mitigate water risk both at level of operations and notably, in the supply chain. 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. 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.

In case of inconsistency

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 veto-ing) so the board of directors can land on consensus for a revised industry positioning with regards to Policy makers.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

GIV_2019_SustainabilityGRIIndex.pdf
GIV_2019_IntegratedAnnualReport.pdf

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	Givaudan based its long term business objectives on revenue increase and risk mitigation among others criteria. Water issues integrated: - disruption in the supply of the raw materials due to water scarcity and water stress increase in some re-gions: The risk of a disruption in the supply or volatility of raw material prices which increases the spend and thereby decreases our revenues has been linked with water scarcity level and water stress increase in several regions. Examples of how are they integrated into the plan: The response to the disruption in the supply of the raw materials in some regions was to develop a global strategic programme with our suppliers called "Sourcing at Origin"(SaO) which was included in the long terms business objectives of Givaudan. Our SaO initiatives targets the direct sourcing of raw materials by working with local smallholder farmers especially on water management improvement. This initiative strengthens the fabric of the local economy by contributing to more stable incomes for thousands of farmers and mitigates the risk Givaudan supply chain faces regarding water. This is an example where Givaudan included water-related issues in the business objectives by focusing efforts and resources on a long term objective of safeguarding several key supply chains A time horizon of 11 to 15 years was selected as it corresponds to a time lapse that we internally define as a "long-term" horizon. This time frame is relevant to Givaudan business.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	Which water issues are integrated? - Water supply shortage in our operations: The risk of extreme weather events in locations where we operate leading to water supply shortage and potential business interruption has a potential negative impact on the "excellence of execution" pillar of our business strategy. - disruption in the supply of the raw materials due to water scarcity level and water stress increase in some regions: 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. Examples of how are they integrated into the plan: 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. Our Water Stewardship Programme outlines our overall strategy for monitoring and reducing water consumption and guides our growth strategy. It helps us put priority on places where water stress is expected, carrying out risk assessments to develop water mitigation action plans including efficiency improvements and water reuse opportunities. A time horizon of 11 to 15 years was selected as it corresponds to a time lapse that we internally define as a "long-term" horizon. This time frame is relevant to Givaudan as we are evolving in a sector with a relatively rapidly changing context.
Financial planning	Yes, water-related issues are integrated	11-15	Integrated water issues: -Changes in precipitation could adversely impact our operations and may negatively impact our ability to produce at competitive prices and on time which might decrease revenue. 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. - Disruption in the supply of the raw materials due to water scarcity level and water stress increase in some regions 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. - Water targets: Plans to reach our environmental targets are developed via cross functional teams with key decision makers and are embedded in the annual budget review and capital. Examples of how are they integrated into the plan: -The risk of extreme weather events in locations where we operate leading to water supply shortage and potential operation continuity issues is addressed in our business continuity plans. This impacts operating costs through cost of the business continuity plan to anticipate transfers due to operations continuity issues. A time horizon of 11 to 15 years was selected as it corresponds to a time lapse that we internally define as a "long-term" horizon. This time frame is relevant to Givaudan as we are evolving in a sector with a relatively rapidly changing context.

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

300

Anticipated forward trend for CAPEX (+/- % change)

3

Water-related OPEX (+/- % change)

-2.5

Anticipated forward trend for OPEX (+/- % change)

15

Please explain

OPEX: -2.5% change in OPEX is the result of water cost reduction in water supply and treatment. Despite the stable absolute water withdrawal, the OPEX have reduced in 2019 compared to 2018. Regarding the water related OPEX, we anticipate a very high increase in the OPEX due to the integration of recent acquisitions in the scope of reporting . CAPEX: The CAPEX tripled between 2018 and 2019 because of a new chiller project in our facility in Edison that cover more than half of the CAPEX 2019. It is complicated to segregate water projects from others because most of the time water is a part of the project (i.e. when installing a new boiler that saves water, the main driver is not water related but this project has impact on water performances. According to anticipated budget and project plan the CAPEX will increase (3%) in the next years as the level of water stress is increasing and the regulation stringent their requirements like our new zero water discharge plant in India.

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row 1	Yes	Scenario analysis is a powerful tool to imagine how nature and society can respond to the different paths of future human, environmental, economic and political development. The scenario developed for our global corporate assessment has explored the impact that the water related issues (from climate change and scarcity) and the resulting socio-economic instability of local communities can cause in our procurement activities and more generally on our business. The aim of the scenario was to explore alternative opportunities to guarantee supply, potential synergies, compromises but also scientific and technological innovations. We used a participatory approach and involved a selected group of stakeholders in the exercise.

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

No

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

Right valuation of water for security seems to be as important as valuation of GHG emissions for climate change issues. Introducing a direct price on water seems to be very difficult for our company due to the wide range of prices, regulations, challenges and different options around the world. We currently prefer to assess opportunity to value projects that save water or initiatives that lower the risks with the appropriate mechanism taken into account non business aspects as well. We are currently assessing the different mechanisms related to carbon pricing. Water valuation will benefit from this assessment. Our zero water discharge plant in India is a good practical example where we can assess our business cases and methodologies for our operations.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Site/facility specific targets and/or goals Basin specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Targets and goals are set based on the focus areas defined in the sustainability and the company strategy. These focus areas reflect both the materiality of the topic for the company and our aspiration for a sustainable development. The setup of the water target is the conjecture of reducing water related risks and to align our commitments to the sustainable development goals as best practices. Reducing water intensity globally but at facility/Basin level is key to address water risks in our operations in addition to risk mitigation plans (business continuity) at facility level that must be deployed. In parallel of setting targets we conduct regular assessment to ensure that targets and goals reflect geographic, regulatory, and other contextual factors. It might happen that water related risks evolve or that important changes happen in our operation requesting an adjustment of the targets to best align with contextual factors. Each focus area of our strategy is monitored using at least one target which in this case is on water intensity. Several goals are defined with a more qualitative aspect reflecting the aspirations and the vision of the company. The goals have also the objective to link water related aspects with other key topics of the company and key stakeholders. In this case WASH and risk mitigation are framed into goals as they concern an ambition more than a specific target to meet and they impact directly some key stakeholders (employees and communities where we operate). All data necessary to track the progress over these targets and goals are reported on a quarterly basis and consolidated at corporate level to ensure proper monitoring and correction if deviation is observed. Water goals and aspirations evolve inline with the strategic business plans when water use scheme change drastically. As an example, the development of biotechnologies in our industry can lead to increase demand for water withdrawal but reduce the impact in terms of potential pollutant content in waste water. These changes are taken into account with the company materiality assessment (conduct every three years) and the local water risk assessment conduct as part of the business continuity plan.

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Water stewardship

Description of target

This target is a global corporate target related to water efficiency and reduce withdrawal. The target is: -15% water per tonne of product by 2020 (use of municipal and groundwater, baseline 2010) As a manufacturing company, efficient processes are part of our DNA which apply to water as well. We have a small amount of water consumption so it was more material to focus our attention on reducing the withdrawal in order to mitigate the risk related to water stress at basin level.

Quantitative metric

% reduction per unit of production

Baseline year

2010

Start year

2011

Target year

2020

% of target achieved

100

Please explain

We exceeded the intermediate target by reaching -28.4% in 2019. This is mainly due to efforts made during the last years at different level (operations and management) to improve water efficiency at site level. Several production plannings have been improved to allow more efficient use of water like in our plant in Egypt and different solution to harvest rain water or reuse water directly have also supported these efforts in Mexico. We developed more efficient cleaning stations, shortened cleaning processes in place in Hungary and worked on better monitoring of water usage which allowed us to fixed leaks and malfunctioning infrastructures relate to water usage. This year two main leakages have been fixed saving about 37Mliter of water. As this is an intensity target the effort should be maintained to stay at this level in the next year and make sure it represents a continuous reduction. We are currently assessing the opportunity to setup new water targets, which will be context based.

Target reference number

Target 2

Category of target

Other, please specify (Local Water Risk Assessment rollout)

Level

Basin level

Primary motivation

Risk mitigation

Description of target

The target aims to complete the local water risk assessment for all facilities located in a watershed facing water risks as defined in our corporate water risk procedure (12 facilities in 2019). In order to do that, the local team must fulfil our internal Local Water Risk Assessment tool which is the last steps in our water risk assessment procedure. This tool consolidates local knowledge and information related to contextual aspects to best define the inherent water risk of the manufacturing facility. The tool allows to include and take into account procedures already in place at the facility level to determine the residual risks. The Local Water Assessment allows Givaudan to better understand the residual risk for a facility despite its inherent risk level and allows resources and effort to be allocated to mitigate risk as much as possible. We monitor this target by reviewing each Local Water Assessment to define if they are considered completed or not.

Quantitative metric

Other, please specify (number of site with completed Local Water Risk Assessment)

Baseline year

2017

Start year

2018

Target year

2020

% of target achieved

75

Please explain

The target is to cover all our facilities located in water stressed area with the Local Water Risk Assessment tool in order for Givaudan to be able to better monitor the risk level and the mitigation plan implementation. We monitor this target by reviewing each Local Water Assessment to define if they are considered completed or not. We also include new facilities or remove facilities that change risk level due to local conditions or change in operation.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Providing access to safely managed Water, Sanitation and Hygiene (WASH) in workplace

Level

Site/facility

Motivation

Water stewardship

Description of goal

- Access to water and sanitation is a basic human right, and as a responsible company, we must provide a WASH access to all our employees and collaborators - Providing WASH at workplace is important for Givaudan to ensure that all of our employees and collaborators have good working conditions - The company is implementing the goal with the EHS Policy. This is part of the EHS policy to ensure all our manufacturing facility provide WASH services even with a important acquisition rate observed these last years.

Baseline year

2000

Start year

2001

End year

2030

Progress

-The indicator used to assess the progress is the percentage of facilities providing WASH to our employees - Currently 100% of our manufacturing facilities provide WASH services to our employees and integration of the last acquisitions includes WASH aspects, which we consider to be the threshold of success. - Our goal is to keep 100% of our manufacturing facilities with WASH services.

Goal

Engagement with suppliers to help them improve water stewardship

Level

Basin level

Motivation

Water stewardship

Description of goal

Under the responsible sourcing policy we ensure water use efficiency and water resource management plan are implemented by our suppliers. A significant share of Givaudan water footprint is driven by its supply chain, therefore this aspect is considered within our goals to achieve water security Ensuring that suppliers are using water efficiently, and that water is well managed is important to mitigate water risks along the supply chain and therefore it is important to the company. Givaudan expects all its suppliers to observe the following environmental management principles at their manufacturing plants: water use is efficient and a water resource management plan is implemented. The goal 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.

Baseline year

2012

Start year

2017

End year

2020

Progress

By the end of 2019, 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 2% more suppliers and about 1% more spend compared to 2018 corresponding to 88% of our total spend for 2019 (compared to respectively 7.7% more suppliers, 35% more spend and 87% of our total spend for the disclosed 2018 progress). As we consider that an increase of more than 5% in the number of suppliers engaged is a success for the company, it is clear that the 2019 progress indicators did not show the desired improvement, but this is mostly due to the way we calculate the progress indicator (that underestimates the true value due to scope and supplier base overlaps from acquisitions).As part of the planned launch of our new responsible Sourcing program in 2021, a new progress tracking methodology and baseline will be introduced.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

Yes

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W6 Governance	Materiality matrix entire process has been audited and verified by third party auditors.	ISAE 3000	All the content of our 2019 Annual Integrated report, 2019 Sustainability GRI Index report and 2019 Sustainability Highlights report has been verified through third party/external audit.
W8 Targets	Targets and progress towards our KPIs	ISAE 3000	All the content of our 2019 Annual Integrated report, 2019 Sustainability Index report and 2019 Sustainability Highlights report, including targets and progress, has been verified through third party/external audit.
W1 Current state	Engagement initiatives	ISAE 3000	All the content of our 2019 Annual Integrated report, 2019 Sustainability Index report and 2019 Sustainability Highlights report, including engagement initiative with stakeholders and their progress, has been verified through third party/external audit.

W10. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

SW. Supply chain module

SW0.1

(SW0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	6203000000

SW0.2

(SW0.2) Do you have an ISIN for your organization that you are willing to share with CDP?

Yes

SW0.2a

(SW0.2a) Please share your ISIN in the table below.

	ISIN country code	ISIN numeric identifier (including single check digit)
Row 1	CH	0010645932

SW1.1

(SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

Yes, CDP supply chain members buy goods or services from facilities listed in W5.1

SW1.1a

(SW1.1a) Indicate which of the facilities referenced in W5.1 could impact a requesting CDP supply chain member.

Facility reference number

Facility 3

Facility name

France

Requesting member

KAO Corporation

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 3

Facility name

France

Requesting member

L'Oréal

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 3

Facility name

France

Requesting member

Johnson & Johnson

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 3

Facility name

France

Requesting member

Colgate Palmolive Company

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 3

Facility name

France

Requesting member

Unilever plc

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 7

Facility name

Indonesia

Requesting member

KAO Corporation

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 7

Facility name

Indonesia

Requesting member

L'Oréal

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 7

Facility name

Indonesia

Requesting member

Philip Morris International

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 7

Facility name

Indonesia

Requesting member

Johnson & Johnson

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 7

Facility name

Indonesia

Requesting member

Diageo Plc

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 7

Facility name

Indonesia

Requesting member

Ajinomoto Co.Inc.

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 7

Facility name

Indonesia

Requesting member

Unilever plc

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 8

Facility name

Egypt

Requesting member

Ajinomoto Co.Inc.

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 8

Facility name

Egypt

Requesting member

Unilever plc

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 9

Facility name

South Africa

Requesting member

Johnson & Johnson

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 9

Facility name

South Africa

Requesting member

Diageo Plc

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 9

Facility name

South Africa

Requesting member

Colgate Palmolive Company

Description of potential impact on member

refer to question W4.2

Comment

Facility reference number

Facility 9

Facility name

South Africa

Requesting member

Unilever plc

Description of potential impact on member

refer to question W4.2

Comment

SW1.2

(SW1.2) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	No, this is confidential data	

SW2.1

(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

SW2.2

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

No

SW3.1

(SW3.1) Provide any available water intensity values for your organization's products or services.

Product name

flavors and fragrances

Water intensity value

7.8

Numerator: Water aspect

Water withdrawn

Denominator

tonne of production

Comment

numerator: m3 This figure represents the global water efficiency for 1 ton of our products.

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms