

W0. Introduction

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W0.1

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**(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 around 10% of annual turnover invested in research, we explore and uncover new and exciting ingredients and technologies to add to our vast palettes and portfolios.

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

W-CH0.1a

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**(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

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

	Start date	End date
Reporting year	October 1 2019	September 30 2020

W0.3

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**(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**

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

CHF

**W0.5**

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**(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**

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

Yes

**W0.6a**

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**(W0.6a) Please report the exclusions.**

Exclusion	Please explain
Acquisitions in 2019 and 2020	The recent acquisitions 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**

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**W1.1**

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(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 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 locations worldwide. The reporting framework includes 5 water sources: municipal, ground water, surface water, rainwater collected and wastewater from another organisation (only in our 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. Regular measures and assessments are conducted on the withdrawal waters to ensure no deviation 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 indicators are included in 2 categories: microbiological (Escherichia coli, Enterococcus, Coliform) and chemical (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. As of Q4 2020 the quality types as per GRI 303 (2018) standard are also monitored: Fresh Water (≤1,000 mg/L TDS) and Other Water (> 1,000 mg/L TDS).
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 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 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 verification based on a 3 years rolling cycle. In 2020, ten sites discharged directly water in the environment after biological treatment.
Water discharge quality – by standard effluent parameters	100%	Water discharge quality is monitored to ensure no negative impact downstream and to evaluate efficiency of our waste water treatment facilities. As per Givaudan standard on Environmental Data Reporting and Analysis based on GRI Standards, the quality is monitored through COD (Carbon Oxygen Demand) to ensure compliance with local discharge regulation for each site. All 12 Givaudan sites that discharge into open water courses report COD quarterly before being assured by external audits conducted every year with verification based on a 3 years rolling cycle. The measurement methodology is country specific but for example in Vernier, Switzerland we measure COD with 0.45 micron filtered sample, combined catalytic oven for TOC (Total Organic Carbon) and acid reaction for IC (Inorganic Carbon). COD = TOC-IC (standard method 5310 B) on a daily basis. As of Q4 2020 the quality types as per GRI 303 (2018) standard are also tracked: Fresh Water (≤1,000 mg/L TDS) and Other Water (>1,000 mg/L TDS).
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**

**(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	8422.44	Lower	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 decreased between 2020 and 2019 with an evolution of - 9.1%. Taking into account a slight increase in the production volume between 2020 and 2019 of + 0.9%, this evolution is mostly due to the impact of water efficiency and maintenance projects which decoupled from the production volume trend the demand for water withdrawal. For example, our facility in Hungary reduced its water intensity [m3/t of product] by 23% by optimizing its cleaning processes with a big focus on several CIP (Clean In Place) improvements. Other examples are coming from the optimization of orders sequences to minimize the changeovers, allowing optimizing the cleanings of the equipments between different ingredients/materials. In addition to this, many other water savings projects are conducted and identified throughout the organisation with the direct involvement of cross-functional teams leveraging the continuous improvements methodologies. In the future we expect an absolute increase in water withdrawal due to the following reasons: 1) acquisitions will be included 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, 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	7488.58	Much lower	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 decreased between 2020 and 2019 with an evolution of - 14.1%. The biggest part of that is directly due to the decrease of total water withdrawal. The remaining difference between variations in water withdrawal and discharge is mostly due to more intensive need for cooling (evaporation) and in some cases with changes in portfolio mix (more water contained in the finished product). In the future we expect an absolute increase in water discharge due to the following reasons: 1) acquisitions will be included next year in the portfolio. Total discharges 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, 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	933.86	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 2020 and 2019 with an evolution of + 70.8% which is considered much higher. We estimate the breakdown of consumption as follows: 30% has been incorporated into products or waste, 30% has evaporated, 30% consumed by humans for sanitation and 10% others. This important relative increase (+ 70.8%) accounts however in absolute variation of water consumption for 4.6% of the total withdrawal. This is happening since overall sites are both decreasing water withdrawal and water discharged, however the latter category is decreasing even quicker than the former one. An example is our zero discharge facility in India which consumes all the water withdrawal as required by local regulation. This is done by intensive recycling and the use of natural based solution to consume and evaporate the water. In addition to this case, also other sites are increasing significantly the evaporation due to cooling for evaporation purposes as well as waste water and sludge concentration. In the future we expect an increase in water consumption since the acquisitions will be included in the portfolio (about 20 facilities). We are currently working on a new water strategy which will focus more on the circularity aspect, further linking the input with the output quantities of water employed . 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	11-25	About the same	WRI Aqueduct	Using the WRI Aqueduct and the indicator of Baseline Water Stress (the same indicator is also available in the WWF Water Risk Filter) we identified that 12.1% of our water withdrawals are located in water stressed areas. The selection of facilities in water stress areas is done considering the above-mentioned indicator called Baseline Water Stress. This 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 as an area with water stress if they are facing a Baseline Water Stress > 40%: "Extremely high (>80%)" or "High (40-80%)". 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 (nominator) by the total water withdrawal of the company (denominator). It represents about 12.1% of water withdrawal and 27.9% of the manufacturing facilities (number of manufacturing facilities with water stress divided by total number of manufacturing facilities). With very important acquisitions which happened 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 2019, Givaudan's part of water withdrawal from areas with water stress slightly reduced with an evolution of -0.1%. Having hit the 2020 internal water targets, we are currently working on a new 2030 water ambition and as of next year the criteria of water stressed sites will be slightly updated together with a higher focus on actions to be implemented in these sites. 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	4504.31	Much lower	Fresh surface water is used for cooling purposes in European facilities. With about 53% of the total withdrawal of Givaudan in 2020 it is a relevant water source. The amount consumed is influenced by product portfolio, weather conditions and efficiency in the processes. Surface water from rivers and rainwater is included here; in 2020 Givaudan however did collect neither rainwater nor water from wetlands. There is a decrease of 14% compared to 2019 fresh surface water withdrawal. With one facility in Vernier, Switzerland responsible for 91% of this consumption we can attribute the reason for change to the evolution in cooling needs due to changes in product mixes and meteorological conditions. It is not foreseen to have a relevant amount of fresh surface water withdrawal increase due to recent acquisitions. 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.
Groundwater – renewable	Relevant	1252.49	Lower	Groundwater supplies about a third of our facilities', it is therefore considered to be relevant. There is a 6% decrease compared to 2019. The change is mostly due to water savings projects implemented in our research centre in Kempthal, Switzerland (part of the manufacturing site) as well as in our Mako facility in Hungary which reduced, despite a significant production volume increase, the absolute amount of water withdrawal by optimizing its cleaning processes with a big focus on several CIP (Clean In Place) improvements. 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	2665.63	About the same	Third party sources (municipal water) represent about 32% of Givaudan's water supply. This source is therefore relevant. The quantity of water supplied from third party is stable between 2019 and 2020 with a change of -0.3%. 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	5463.18	Much lower	This category encompasses water discharged to the environment with and without biological treatment in our facilities. It is our main water discharged destination, therefore this destination is relevant. There is a reduction of -17.8% in the quantity of water discharged the environment compared to 2019. This is mostly related to the overall decrease in water withdrawal with subsequent decrease in water discharged coupled with the evolution trend taking place in cooling purposes with evaporation. 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	2025.4	Lower	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 a reduction of -2.4% in the quantity of water discharged to third-party compared to 2019. This is mostly related to the overall decrease in water withdrawal linked to water savings project with subsequent decrease in water discharged. As a general rule, we consider a change <2% as "about the same", changes between 2% and 10% as "lower"/"higher" and a change >10% as "much higher"/"much lower".

**W1.2j**

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	472.64	Lower	1-10	This category is employed for the sites which are discharging to the environment after onsite waste water treatment (with primary, secondary and tertiary treatments). This is an aggregation of local calculations of the discharges under this categorisation for each of the Givaudan manufacturing facilities at stake. These data are reported on a quarterly basis and consolidated at corporate level. The total water discharge from this category across all manufacturing sites in LATAM, NOAM, EAME and APAC regions of Givaudan has decreased between 2020 and 2019 with an evolution of -3.9% which is considered lower than the previous year. This is mostly explained by a reduction in water withdrawal that took place in the same period for the sites at stake. In 2020 4 sites have this type of water discharge. Some sites can have more than one type of waste water discharge; therefore the sum of all the reported percentages of sites with the different categorisations is higher than 100%. In the future we expect an absolute increase in this type of water discharge due to the integration of about 20 sites from the acquisitions which will be included next year in 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".
Secondary treatment	Relevant	1559.55	Higher	11-20	This category is employed for the sites which are discharging to the environment after onsite waste water treatment (with primary and secondary treatments). This is an aggregation of local calculations of the discharges under this categorisation for each of the Givaudan manufacturing facilities at stake. These data are reported on a quarterly basis and consolidated at corporate level. The total water discharge from this category across all manufacturing sites in LATAM, NOAM, EAME and APAC regions of Givaudan has increased between 2020 and 2019 with an evolution of +4% which is considered higher than the previous year. This is mostly explained by the balance at particular sites (for instance in Vernier, Switzerland) between the quantity of waste water discharged to environment without biological treatment and the one discharged to the environment after onsite waste water treatment: in this particular case the former quantity reduced, which in turn increased the latter category. In 2020 6 sites have this type of water discharge. Some sites can have more than one type of waste water discharge; therefore the sum of all the reported percentages of sites with the different categorisations is higher than 100%. In the future we expect an absolute increase in this type of water discharge due to the integration of about 20 sites from the acquisitions which will be included next year in 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".
Primary treatment only	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	This category is considered "not relevant" since the sites which are having primary treatments, do also have at the same time either secondary and/or tertiary treatments. They are therefore indicated under the highest level to which the discharge is treated.
Discharge to the natural environment without treatment	Relevant	3430.99	Much lower	21-30	This category is employed for the sites which are discharging to the environment without onsite biological treatment. This is an aggregation of local calculations of the discharges under this categorisation for each of the Givaudan manufacturing facilities at stake. These data are reported on a quarterly basis and consolidated at corporate level. The total water discharge from this category across all manufacturing sites in LATAM, NOAM, EAME and APAC regions of Givaudan has decreased between 2020 and 2019 with an evolution of -26.1% which is considered higher than the previous year. We can attribute the reason for this decrease mostly due to the evolution in cooling needs due to changes in product mixes and meteorological conditions in our Vernier site, Switzerland. In 2020 9 sites have this type of water discharge. Some sites can have more than one type of waste water discharge; therefore the sum of all the reported percentages of sites with the different categorisations is higher than 100%. In the future we expect an absolute increase in this type of water discharge due to the integration of about 20 sites from the acquisitions which will be included next year in 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".
Discharge to a third party without treatment	Relevant	479.53	Lower	51-60	This category is employed for the sites which are directly discharging to a third party waste water treatment plant (WWTP) without on-site pre-treatment. This is an aggregation of local calculations of the discharges under this categorisation for each of the Givaudan manufacturing facilities. These data are reported on a quarterly basis and consolidated at corporate level. The total water discharge from this category across all manufacturing sites in LATAM, NOAM, EAME and APAC regions of Givaudan has decreased between 2020 and 2019 with an evolution of -8% which is considered lower than the previous year. This is mostly explained by the reduction of water withdrawal needed for the factories' processes due to higher water efficiencies. In 2020 22 sites have this type of water discharge. Some sites can have more than one type of waste water discharge; therefore the sum of all the reported percentages of sites with the different categorisations is higher than 100%. In the future we expect an absolute increase in this type of water discharge due to the integration of about 20 sites from the acquisitions which will be included next year in 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".
Other	Relevant	1545.87	About the same	41-50	The other category is employed for the sites which are discharging to a third party waste water treatment plant (WWTP) after an on-site pre-treatment. This is an aggregation of local calculations of the discharges under this categorisation for each of the Givaudan manufacturing facilities. These data are reported on a quarterly basis and consolidated at corporate level. The total water discharge from this category across all manufacturing sites in LATAM, NOAM, EAME and APAC regions of Givaudan has decreased between 2020 and 2019 with an evolution of - 0.3% which is considered about the same value than the previous year. In 2020 18 sites have this type of water discharge. Some sites can have more than one type of waste water discharge; therefore the sum of all the reported percentages of sites with the different categorisations is higher than 100%. In the future we expect an absolute increase in this type of water discharge due to the integration of about 20 sites from the acquisitions which will be included next year in 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".

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)**

13.27

**Numerator: water aspect**

Total water withdrawals

**Denominator**

Ton

**Comparison with previous reporting year**

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. 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 allows dedicating resources when deviation is observed. - With a change from 2019 to 2020 of about -7.5% in water intensity for this product we consider the performance to be "lower" than the previous year. Despite a slight increase of +1.0% in the production tonnage, the water withdrawal did evolve with a -6.6% reduction. This performance is, on top of stable operation and good maintenance of water related equipment/processes, due to a cooling tower replacement and efforts started to reduce condensate and cooling water contaminations. 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". - We expect a reduction of water intensity in the future because of ongoing efforts on trying to eliminate the contamination of the condensate and to better balance the cooling water flows. In addition to this, a dedicated global workgroup composed by several departments' representatives will focus on key priority sites like this one. The aim is to provide ad-hoc support and best practice sharing in order to strategically improve the water intensity performances over the next 10 years.

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**Product type**

Other, please specify (Flavor)

**Product name**

Flavor compound 1

**Water intensity value (m3)**

0.35

**Numerator: water aspect**

Total water withdrawals

**Denominator**

Ton

**Comparison with previous reporting year**

Much higher

**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 2019 to 2020 of about +10.2% in water intensity for this product we consider the intensity "much higher" than last year. The production tonnage slight increased of +0.6%, while the water withdrawal did evolve with a + 10.8% evolution. To note that this increase follows an important decrease from 2018 to 2019 of about -50% in water intensity. The change in water intensity of +10.2% for the facility is mainly due to an increased number of production lines cleaning (CIP systems) due to change over process between different materials to clean the equipments and avoid contamination. 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". - For future trends in this site in order to tackle this increase further cross-departmental projects between production, planning and process technology will have to be created in order to identify and implement better orders sequences minimizing the orders changeover and in turn the water needed for CIPs. More globally we forecast for the flavour division sales and production volumes increases in the next 4 – 6 years. In addition to this, the division water intensity is also foreseen to increase due to recent acquisitions 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 and the strategy in place to reduce it is based on process improvements and smart production planning to avoid cleaning needs.

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**Product type**

Other, please specify (Fragrance)

**Product name**

Fragrance compound 2

**Water intensity value (m3)**

13.27

**Numerator: water aspect**

Total water withdrawals

**Denominator**

Ton

**Comparison with previous reporting year**

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. 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 allows

dedicating resources when deviation is observed. - With a change from 2019 to 2020 of about -7.5% in water intensity for this product we consider the performance to be "lower" than the previous year. Despite a slight increase of +1.0% in the production tonnage, the water withdrawal did evolve with a -6.6% reduction. This performance is, on top of stable operation and good maintenance of water related equipment/processes, due to a cooling tower replacement and efforts started to reduce condensate and cooling water contaminations. 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". - We expect a reduction of water intensity in the future because of ongoing efforts on trying to eliminate the contamination of the condensate and to better balance the cooling water flows. In addition to this, a dedicated global workgroup composed by several departments' representatives will focus on key priority sites like this one. The aim is to provide ad-hoc support and best practice sharing in order to strategically improve the water intensity performances over the next 10 years.

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**Product type**

Other, please specify (Flavor)

**Product name**

Flavor compound 2

**Water intensity value (m3)**

15.8

**Numerator: water aspect**

Total water withdrawals

**Denominator**

Ton

**Comparison with previous reporting year**

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 2019 to 2020 of about -2.2% in water intensity for this product we consider the intensity "lower" than last year. The production tonnage increased of +3.2%, while the water withdrawal did evolve with a + 0.9% evolution. In this case the change in water intensity for the facility is due to an optimized planning coupled with process technology that is allowing creating orders sequences to minimize the order changeovers. Cleanings with CIP systems are indeed run after each batch type change between different ingredients/materials to clean the equipment and avoid contamination. This improves directly the performance of the facility. 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". - As for flavor compounds 1, 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 - smart production planning - to avoid cleaning needs.

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**Product type**

Other, please specify (Fragrance)

**Product name**

Fragrance compound 3

**Water intensity value (m3)**

13.27

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

**Comparison with previous reporting year**

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. 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 allows dedicating resources when deviation is observed. - With a change from 2019 to 2020 of about -7.5% in water intensity for this product we consider the performance to be "lower" than the previous year. Despite a slight increase of +1.0% in the production tonnage, the water withdrawal did evolve with a -6.6% reduction. This performance is, on top of stable operation and good maintenance of water related equipment/processes, due to a cooling tower replacement and efforts started to reduce condensate and cooling water contaminations. 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". - We expect a reduction of water intensity in the future because of ongoing efforts on trying to eliminate the contamination of the condensate and to better balance the cooling water flows. In addition to this, a dedicated global workgroup composed by several departments' representatives will focus on key priority sites like this one. The aim is to provide ad-hoc support and best practice sharing in order to strategically improve the water intensity performances over the next 10 years.

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**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

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**(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 2020, we participated for the fourth 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 and potential water risks: 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 their impacts. It impacts indirectly their water management and increase transparency. In 2020, 82% of our suppliers have reported active targets and goals and 74% have reported risk assessment procedures. The collection 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: 51% compared to 53% in 2019. This reduction must be balanced with the increase number of supplier we engage with. Overall we have +23 suppliers responding to CDP water security questionnaire despite a reduction in the rate so we consider that as a success 2. Percentage of suppliers with a leadership (A or A-) or management (B or B-) is 45% compared to 23 % in 2019 (+95%) which is considered a success

#### 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

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**(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 action is integrated into your supplier evaluation

#### % 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: We measure success using the supplier compliance indicators included in the Sedex platform. Due to the COVID-19 situation, at the end of 2020, our supplier compliance rate was 85% the same as in 2019. In addition, we have asked suppliers to complete the self-assessment questionnaire (SAQ) on SEDEX platform. These suppliers represent 8.5% (17 suppliers) of audited suppliers in scope, meaning that in total we worked with 94% of our direct suppliers.

#### 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 environmental requirements for our suppliers. 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 with an email communication to explain Givaudan's position and approach. Givaudan is due to launch an updated RS Policy in 2021 and this approach, to cover all suppliers, will continue. 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 original target was 90% of our NRM volume was to be audit-ed in this way by 2020. In 2020 we began a project to update and strengthen our approach to responsible sourcing, taking into consideration our changing business and the need to increase the scope of our program beyond NRM into the synthetics and Indirect Materials and Services categories

#### 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 2020, over 14,000 of our suppliers 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. As part of the implementation of the updated and strengthened RS program to be launched in 2021, the updated RS policy will be communicated to all vendors, including any new vendors, in a systematic way and progress of this will be monitored. 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. Due to the COVID-19 situation, at the end of 2020, our supplier compliance rate was 85% the same as in 2019. In addition, we have asked suppliers to complete the self-assessment questionnaire (SAQ) on SEDEX platform. These suppliers represent 8.5% of audited suppliers in scope, meaning that in total we worked with 94% of our direct suppliers. 3) By the end of 2019 we were mapping 50 raw material categories, representing 69% against our 90% target by 2020. Much of our focus and attention in 2020 was on the development of an updated and strengthened RS program which accounts for the lack of progress in the mapping activity. As feature of this updated RS program, due to launch in 2021, a new supply chain mapping tool will be implemented which will increase the rate at which our NRM supply chains can be mapped.

#### 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.

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#### 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 leaders F&F houses, and moderated by the CDP team. A supplier feedback webinar was also organised with the same hosts to congratulate 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 2020, our supplier response rate was 51% compared to 53% in 2020. This reduction must be balanced with the increase number of supplier we engage with. Overall we have +23 suppliers responding to CDP water security questionnaire despite a reduction in the rate so we consider that as a success.

#### Comment

no comment

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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 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 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 despite a reduction of rate we increase the absolute amount of supplier by +23 compared to 2019

**W2. Business impacts**

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**W2.1**

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

No

**W2.2**

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**(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**

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**W-CH3.1**

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**(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.

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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 measures 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 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 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 measures 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 measures 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 measures 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 measures 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

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**(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 with a Global Water Risk Assessment which is context based. 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. Quantity - Scarcity, 3. Water Quality, 1.2 - Baseline Water Stress and 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 undergo an ad-hoc evaluation to their response to risk and to detail the level of water related risk at facility level. We work on 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 (5/5) 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 our new Purpose with the sustainability approach sets performances targets and provide structure that will benefit 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 relevant information shared is then collected in our risk management process.
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 a 6 months 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. This process is used to inform our internal decision making process.

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. As the past year, this first selection resulted in a prioritization of more than 15 manufacturing sites with inherent water risks, then ending with a final evaluation selecting only 5 sites with a remaining high risk level. 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.

We are currently working on the revision and improvement of our water strategy, with the intent of deeper focusing with sustainability driven initiatives on water quantity and circularity. We seek therefore to further prioritize facilities with both a Baseline and Future 2030 significant water stress. The aim is to improve contextual information, develop mitigation plans and evaluate the residual risks remaining after specific actions have been taken to manage the risks by leveraging Water Stewardship activities. All the other currently analyzed risk indicators will be still covered by our Enterprise Risk Management (ERM).

#### Supply chain:

All Supply chains are evaluated twice a year 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 based on a life cycle assessment principle 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 impact assessment, 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

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### W4.1

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#### (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

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#### (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 twice annually for their long term impact (5 to 15 years).

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

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

"Substantive financial 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 fulfill 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 response 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 43 manufacturing facilities in the scope of the questionnaire, 5 out of 43 represents 11.6% of facilities exposed to water risk. These 5 sites are the top ones 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 (Johor)
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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 43 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

Less than 1%

Comment

The calculation is based on 43 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 43 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 (Jawa Barat)
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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 43 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 43 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 (Johor)
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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

- The outlook according to the WRI future water stress is extremely high (<80%) for this manufacturing site. In addition, following the price increase of water that took place in July 2018 and that impacted directly the operating cost, significant investments are ongoing as well as planned by the local water provider. The Public Utility Board (the only water provider in Singapore) is well aware that the demand for water continues to increase in tandem with population and economic growth, is therefore expecting to spend another CHF 3 billion on water infrastructure from 2017 to 2021. It is therefore rather reasonable to expect an increase in water price in the next years. With a multitude of drivers (water stress, regulatory and price increase), the primary risk driver for the site is a higher water price. With a constant increase in water stress and no clear information about the impact of the water infrastructure improvement on the water price, a higher water price will indeed impact our direct operations by impacting 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 local awareness together with 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 factual evolution observed between 2017 and 2018 (1750 CHF) and by considering the same trend between 2019 and 2020 with a +/-20% for uncertainties. These numbers are based on historical changes in water costs that occurred in Singapore. (a) yearly increase between 2019 and 2020 (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: in addition to the improvements implemented in the past years, a continuous improvement driven workshop on water was also held. This contributed to identifying more than 100 ideas, out of which 40 have been concretely captured in the next 5 years roadmap plan. By challenging the status quo and Out of Box Thinking, the team already managed to save almost 6% of the yearly water withdrawal mostly due to new ways of running pressure testing (this was done by challenging the regulation requirement and embarking the local authorities) as well as new cleaning methods. - 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

2330

#### Explanation of cost of response

This cost of response calculation is based on the purchasing of the equipment for the above mentioned improvements. (a) cost of the one time purchase of the equipment (2330 CHF) no cost for installation nor operational costs considered Financial figure = (a) = 2330

#### 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)**

&lt;Not Applicable&gt;

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

783

**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 5220 CHF (b) increased by 15% or 25%. Financial figure range: min = (a) x (b)min = 5220 x 0.15 = 783 max = (a) x (b)max = 5220 x 0.25 = 1650

**Primary response to risk**

Develop drought emergency plans

**Description of response**

Both planned actions have been finalized: - 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) The drought emergency plan has also been shared with the local authorities (DREAL) and the site is awaiting for a feedback from DREAL. In the meantime, workshops on conscious water management were held to increase the awareness on the matter leading into water savings ideas to be assessed, prioritized and then implemented on site.

**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 (Jawa Barat)
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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**

Cimanggis factory is located in a groundwater basin area where the government grants very limited permits to extract groundwater to ensure that the water is conserved and that its quality remains adequate. Thus, declining water quality has been identified as a primary risk driver for our direct operations in this basin. Currently the factory only gets a limited extraction permit with a capacity that cannot fully meet the site quantity and quality water related needs and this affects our direct operations. To cope with this the site purchases additional water from municipal supplies to meet its water needs (production and other needs).

**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)**

&lt;Not Applicable&gt;

**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

In addition to the purchase of municipal water, which increased in turn the operating cost of water, the site built a reservoir similar to a dug well which is serving to collect and store the rainwater. This collected rainwater will be then infiltrated back to the ground. The total volume of the reservoir tank is around 30 m3. The reservoir tank is a conservation initiative requested by the government to maintain the quality and quantity of groundwater we are exploiting. In parallel to this engineering water conservation techniques, the site is trying to develop ways to run with more efficient water processes in order to limit the water withdrawal demand on site.

### Cost of response

25170

### Explanation of cost of response

(a) cost of Installation 20450 CHF (b) consultancy : 4720 CHF No operational costs considered Financial figure: (a)+(b) = 25170 CHF

### 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 built a new internal wastewater treatment plant in Johannesburg site with the aim to reduce the Chemical Oxygen Demand (COD) and regulate and stabilise the pH level of our water discharged. This will allow in turn to cope with regulation and avoid any fines due to non-compliance. Currently we are in the process of optimising our effluent treatment plant, to achieve as close as possible to the required COD and pH levels. We are confident that once the effluent plant has been made more reliable we will be achieving the set goals.

### Cost of response

260000

### 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 (ROI) 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 (c) OPEX costs: 60,000 CHF/year Financial figure: (a)+(b)+(c) = 150,000 + 50,000 + 60,000= 260,000 CHF

### Country/Area & River basin

Egypt	Nile
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### Type of risk & Primary risk driver

Physical	Drought
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### 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/m<sup>3</sup> (b) average water delivery volume per month when drought period: 4000m<sup>3</sup> (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 with a capacity for each of them of 34,5 m<sup>3</sup>. These tanks successfully mitigated the issue to cover the need for water during water supply disruption.

**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

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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 of product supply to Givaudan by month (b) estimated average value of this product by volume (c) number of month of closure max (d) number of month of closure min The financial impact Financial figure : Maximum : ((a) x (b) x(c)) = 4,000,000 Minimum : ((a) x (b) x(d)) = 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 a close working relationship with the company and conduct regular review and engagement discussions on several topics including supply chain disruption risks and to discuss potential shared benefits of co-investments to mitigates them. As part of this engagement process, 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**

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**(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".

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**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 KoffeeUp™. It is a new sustainable beauty oil crafted from upcycled Arabica coffee. KoffeeUp™ has been called the "new argan oil" in the beauty industry because of its natural, eco-conscious and effective properties bringing facial skin care benefits to consumers such as hydration, protection and anti-aging. The product was developed in collaboration with Danish company Kaffe Bueno, a biotech start-up at MassChallenge Switzerland that focuses on upcycling spent coffee grounds/waste into active and functional ingredients for cosmetics to bring health and skin benefits to consumers. This ground-breaking 'upcycling' approach helps us to reduce waste and minimise our environmental impact, in line with our commitment to sustainability and consumers' demand for products that are both highly effective and produced in a responsible way.

**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 2020 were CHF 6.3 billion. We estimate the financial implications of growth of 'responsible products consumption' in a range of 100 to 200 Mio CHF, corresponding to the aggregated value of major commercial briefs we receive from key customers for selected brands with 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 (Johor)
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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)**

30.97

**Comparison of total withdrawals with previous reporting year**

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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

30.97

**Total water discharges at this facility (megaliters/year)**

28.43

**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**

28.43

**Total water consumption at this facility (megaliters/year)**

2.54

**Comparison of total consumption with previous reporting year**

About the same

**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 the WRI Aqueduct indicator "future 2030 water stress". 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 2020, compared to 2019, the site water withdrawal increased (evolution of +3.4%), despite the important water savings related implemented projects because of the increase in production volume mix of more water intense products. An increase took place also in the amount of discharged water by 3.8%; this is due to the similar increase in water withdrawal. Both are considered to be higher evolutions. Regarding the water consumption (-1.2% of evolution) trend, there has been an overall decrease which can be categorized as "about the same" compared to last year. In this facility we withdraw 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)**

134.8

**Comparison of total withdrawals with previous reporting year**

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**

133.4

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1.4

**Total water discharges at this facility (megaliters/year)**

108.39

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

108.39

**Total water consumption at this facility (megaliters/year)**

26.41

**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 2020, compared to 2019, the site increased its water withdrawal by 3.4% which is considered higher by Givaudan. This is due to a product mix evolution with an increase in production of products which require more water to be manufactured. In the same period the amount of water discharged stayed about the same, with a slight increase of +0.7%. These both evolutions drove in turn a much higher evolution in the consumed water which increased by 16.5%. This, as for the water withdrawal increase, is mostly due to the increase of production mix with a higher water content in the final product. The water is withdrawal from the municipal supplier and ground water and discharge directly to a municipal WWTP without 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 (Jawa Barat)
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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)**

134.12

**Comparison of total withdrawals with previous reporting year**

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**

16.15

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

117.97

**Total water discharges at this facility (megaliters/year)**

80.59

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

80.59

**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)**

53.53

**Comparison of total consumption with previous reporting year**

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 the WRI Aqueduct indicator "future 2030 water stress". All figures are based on local measurement (meters or invoices) reported in our corporate data base. In 2020, compared to 2019, the water withdrawal increased by 3.9% which is considered higher. This is partly because of an increase in the production volume together with the installation of 2 new

blenders, which required a dedicated usage of water consumption for trial, validation process as well as cleanings. In the same period the amount of water discharged stayed about the same with an evolution of +1.5%. Subsequently the water consumed increased by 7.8%, which is considered higher. This is mainly due to the new installations as well as changes in product mixes. The water is withdrawal mainly from municipal supplier (almost 90%) and groundwater and discharged directly to the environment after on-site 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 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)**

10.73

**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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

10.73

**Total water discharges at this facility (megaliters/year)**

9.97

**Comparison of total discharges with previous reporting year**

Much higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

9.97

**Total water consumption at this facility (megaliters/year)**

0.76

**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 2020, compared to 2019, the site increased its water withdrawal by 10.8% which is considered much higher by Givaudan. This is because of an increased number in the production lines cleanings (CIP systems) due to change over process between different materials to clean the equipments and avoid contamination. A corresponding much higher increase took place also in the amount of discharged water by 10.2%; this is mostly due to the similar increase in the water withdrawal. These both evolutions caused in the same period an increase of 19.3% in water consumption, which is considered much higher. The water is withdrawal from the municipal supplier and discharged 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.

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**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)**

21.4

**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**

21.4

**Total water discharges at this facility (megaliters/year)**

16

**Comparison of total discharges with previous reporting year**

Lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

16

**Total water consumption at this facility (megaliters/year)**

5.41

**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. In 2020, compared to 2019, the site reduced its water withdrawal by 24.7% which is considered much lower by Givaudan. This is because of a decrease in production volume coupled with reduced wash times and stopped leakages. In the same period the amount of water discharged decreased by 5.2% which is considered lower. The decrease of water discharge reflect the changes in water withdrawal due to less production volume and reduced wash times. In parallel, the consumption of water decreased by 53%, which is a much lower evolution. This relevant decrease, in addition to the above mentioned reasons, is also due to less direct production related activities. The water is withdrawal from the municipal supplier and discharge directly to the 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.

**(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 2020 Sustainability Highlights & 2020 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 2020 Sustainability Highlights & 2020 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 2020 Sustainability Highlights & 2020 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 2020 Sustainability Highlights & 2020 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 2020 Sustainability Highlights & 2020 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 2020 Sustainability Highlights & 2020 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 2020 Sustainability Highlights & 2020 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 2020 Sustainability Highlights & 2020 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 2020 Sustainability Highlights & 2020 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

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### W6.1

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

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

### W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	<p>Description of business dependency on water</p> <p>Description of business impact on water</p> <p>Description of water-related performance standards for direct operations</p> <p>Description of water-related standards for procurement</p> <p>Reference to international standards and widely-recognized water initiatives</p> <p>Company water targets and goals</p> <p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>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 and have a set of water-related standards: 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 Program based on the CEO water mandate (endorsed) and refers 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 these two topics. 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 where we operate. To do so we strive to conserve resources and protect the environment and human rights to water and sanitation, aligning with global policy initiatives such as the SDGs.</p>

**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	<p>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 4 of our 2020 integrated annual report by our chairman: "2020 was also an important year as we announced our next five-year plan. "Committed to growth, with purpose" is how we will deliver ambitious financial targets while also making progress in the areas of creations, nature, people and communities. Being a responsible business has always guided the way we act and behave, and the role we play in advancing on some of the key issues affecting society such as climate change and social inequalities. This is reflected in our recently announced objective to become B Corp certified and be a business that acts as a force for a better world."</p>

**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 two updates annually on: - the Sustainability strategy, which includes water stewardship (agenda items: Sustainability Programme, Performance and Report) The board receives annual reports on: - the Enterprise Risk Management (ERM), discussing water from a risk angle (agenda item: Risks and Opportunities) - EHS function (including water action performance) (agenda item: Report on EHS) - Include aspects of risks and performances 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 Fragrance & Beauty Division and COO Taste & Wellbeing 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 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**

Half-yearly

**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 two annual reports by the CSO on the Sustainability strategy, which includes water-related issues (agenda items: Sustainability Programme, Performance 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 to the Global Head 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 are to 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\_2020\_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 regions: 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 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)**

291

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

60

**Water-related OPEX (+/- % change)**

5

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

5

**Please explain**

OPEX: +5% change on like for like vs 2019. Despite the reductions in absolute water withdrawal and discharge, the OPEX increase is the result of higher water costs in water supply and treatments. Regarding the future, we anticipate a similar increase of +5% in 2021. In addition to this, OPEX will increase also due to the integration of recent acquisitions in the scope of reporting. CAPEX: The CAPEX almost quadrupled because of many new projects, including a relevant one on condenser cooling water improvements in our facility in Lakeland. 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 (60%) next year as new projects on water efficiencies, cooling tower replacements and deep wells will be carried out.

**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 -31% in 2020 . 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. . 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.

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**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. 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**

100

**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.

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**W8.1b**

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**(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.

**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 2020 Integrated Annual Report and 2020 GRI Sustainability report has been verified through third party/external audit.
W8 Targets	Targets and progress towards our KPIs	ISAE 3000	All the content of our 2020 Integrated Annual Report and 2020 GRI Sustainability 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 2020 Integrated Annual Report and 2020 GRI Sustainability 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.**

no additional information

**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)