Welcome to your CDP Water Security Questionnaire 2023

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

GEA is one of the largest suppliers of process technology to the food industry and to a wide range of other industries. The international technology group focuses on machinery, plants, process technology, and components. GEA provides sustainable energy solutions for sophisticated production processes in diverse end-user markets and offers a comprehensive service portfolio. In 2022, GEA generated consolidated revenues of around EUR 5.2 billion. GEA is one of the largest suppliers of systems and components to the food, beverage, and pharmaceutical industries worldwide. As of December 31, 2022, the group employed 18,236 full-time employees worldwide. GEA is a market and technology leader in its business areas. The company is listed on the German MDAX stock index (G1A, WKN 660 200), the STOXX® Europe 600 Index, as well as the DAX 50 ESG Index, MSCI Global Sustainability Indexes and the Dow Jones Sustainability Europe Index.

GEA plants, processes, components, and services enhance the efficiency and sustainability of production processes around the globe. They contribute significantly to the reduction of CO2 emissions, plastic usage and food waste. In doing so, GEA makes a key contribution toward a sustainable future, in line with the company's purpose: 'Engineering for a better world.'

GEA Group Aktiengesellschaft is home to central management functions of the group. Profit and loss transfer agreements exist with key domestic subsidiaries. In addition, GEA Group Aktiengesellschaft performs central financial and liquidity management. Furthermore, it provides its subsidiaries especially with services from the Global Corporate Center and the Shared Service Center on the basis of service agreements.

Since the course of business, the economic position and the opportunities and risks associated with the future development of GEA Group Aktiengesellschaft do not differ from the course of business, the economic position and the opportunities and risks associated with the future development of the group, the management report of GEA Group Aktiengesellschaft has been combined with that of the group in accordance with section 315 (5) of the Handelsgesetzbuch (HGB – German Commercial Code). In contrast to the consolidated IFRS financial statements, the annual financial statements of GEA Group Aktiengesellschaft are based on the HGB, supplemented by the Aktiengesetz (AktG – German Stock Corporation Act). All the financial statements refer to the 2022 financial year (January 1 to December 31, 2022). Since 2016, GEA's Annual Reports have included an annual sustainability report, however, since 2020 GEA has published a separate Sustainability Report. The sustainability report follows the international standards of the Global Reporting Initiative (GRI).

GEA is a specialist in its respective core technologies and a leader of its sales markets worldwide. GEA consistently promotes an innovation-led culture in an effort to preserve its technological edge. Active risk management, stability through diversification and a focus on the markets of the future are binding principles for all GEA business units. The group's enduring success is founded on a number of major global trends:
1. Continuous growth in the global population
2. Growing middle class
3. Growing demand for high-quality foods and beverages (food safety)
4. Increasing demand for production methods that are efficient and conserve valuable resources
5. Demand for meat and dairy alternatives (new food)

The group is divided into divisions with up to six business units, the units comprise similar technologies and each command leading positions in the market. Each division is headed by a management team of three members: a divisional CEO, a divisional CSO (Chief Service Officer) and a divisional CFO. The five divisions include: Separation and Flow Technologies, Liquid & Powder Technologies, Food & Healthcare Technologies, Farm Technologies and Heating and Refrigeration Technologies.

- Separation & Flow Technologies is home to all activities concerned with the manufacture of process-related components, notably separators, decanters, valves, pumps and homogenizers.
- Liquid & Powder Technologies is the development of process solutions for the diary, brewing, food and chemical industries. Its technological focus is on liquid processing, concentration, industrial drying, powder processing and handling and emission control.
- Food & Healthcare Technologies includes solutions for food processing and packaging, baking industry, extrusion and milling and process technology for the pharmaceutical industry.
- Farm Technologies includes automatic milking and feeding systems, manure management systems and barn equipment.

- Heating & Refrigeration Technologies develops, manufactures and installs industrial heating and cooling solutions for climate-friendly production processes.

W0.2

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

	Start date	End date
Reporting year	Januar 1, 2022	Dezember 31, 2022

W0.3

(W0.3) Select the countries/areas in which you operate.

Algeria
Argentina
Australia
Austria
Belarus
Belgium
Brazil
Bulgaria
Canada
Chile
China
China, Macao Special Administrative Region
Colombia
Croatia
Czechia
Denmark
Egypt

Estonia
Finland
France
Germany
Greece
Hong Kong SAR, China
Hungary
India
Indonesia
Italy
Japan
Latvia
Lithuania
Malaysia
Mexico
Morocco
Netherlands
New Zealand
Norway
Peru
Philippines
Poland
Portugal
Romania
Russian Federation
Saudi Arabia
Slovakia
Slovenia
South Africa
Spain

Sweden
Switzerland
Taiwan, China
Turkey
Ukraine
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
Viet Nam

W0.4

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

EUR

W0.5

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

Companies, entities or groups over which operational control is exercised

W0.6

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain

Offices	Leased office spaces, primarily sales and service offices where water usage is minimal, are excluded since data on water usage is low and largely managed by office landlords, thereby making collection of water withdrawal amounts from those locations not feasible. The excluded water withdrawal does not represent a significant portion of the total water used as the office spaces only use water for sanitation (handwashing) and kitchen facilities. Therefore, the pollution load discharged to the municipal water system is also not significant. The exclusion represents less than 5% of GEAs total water withdrawal, therefore the volume of water use associated with the leased office spaces is extremely minimal when compared to the total water withdrawn in 2022. Starting in 2021, GEA has increased its coverage to 95% primary data by including further offices where it is possible to collect data.

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	DE0006602006

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Neutral	Vital	'Neutral' was selected as the chosen importance rating for direct operations because GEA is not a water intensive company. In total at GEAs 84 largest facilities, GEAs water withdrawal in 2022 was 347,972 cubic meters. The primary use for freshwater sourced from the municipality

			or ground water is for irrigation/human consumption/use (85%), and the remaining 15% is used for production, primarily by dairy farming hygiene plant production. Future water dependency will decrease as GEA implements further projects to recycle/re-use water. In relation to indirect operations, the primary use of water in GEA's value chain is consumed by GEAs steel suppliers. 'Vital' was selected because our steel suppliers require a sufficient water supply both in terms of quantity and quality. A steel plant uses a large quantity of water for steam generation, cooling, waste transfer and dust control etc. It comes into contact with the material and equipment and is treated before reuse or discharge. The processes of the plant cannot take place without the availability of water. Stainless steel as a raw material accounts for a relatively small proportion of the overall volume acquired since GEA usually acquires it in the form of processed products or as part of assembly services. Future water dependency will remain the same in GEAs indirect operations because steel and other metals will continue to be a primary resource needed to create GEA's primary products/technologies. With regards to downstream operations, GEA's core value is 'engineering for a better world'- this entails sustainable business practices and contributing to the protection of the natural environment by offering our customers efficient products/ solutions. In general, the technologies and processes our customers employ are water intensive, which is why water savings increasingly impact customers' investment decisions.
Sufficient amounts of recycled, brackish and/or produced water available for use	Neutral	Important	'Neutral' was selected as the chosen importance rating for direct operations because, as previously mentioned, GEA is not a water intensive company but uses recycled water for some processes, primarily irrigation. In 2022, 51,609 cubic meter was reported as used as industrial/recycled water. This water is process water used to wash metal from machining, pressure testing, cooling of machines, closed heating systems, as well as irrigation. This accounts for approximately 15% of our total water that was withdrawn. While GEA is not water intensive, GEA collects and reports usage data and derives water reduction and recycling

			programs. 'Important' was selected for GEA's indirect operations because steel suppliers require a sufficient amount of recycled water. Even though the steel industry uses large quantities of water, very little of that water is actually consumed as most is reused or returned to source. For example, sea water is almost exclusively used in cooling operations and the loss during these processes may account for less than 1% of the total due to evaporation. Although the intake is considerable, the water is returned to the sea without any change in quality. To reuse or recycle water, it usually involves cleaning and cooling water flows between each use. Stainless steel as a raw material accounts for a relatively small proportion of the overall volume acquired since GEA usually acquires this commodity in the form of processed products from the market or as part of assembly services. Future water dependency will remain the same in GEA's indirect operations because steel and other metals will continue to be a primary resource needed to create GEA's primary products and technologies. An important water treatment customer are water authorities which must recycle/treat/clean water. GEA provides technologies which remove the sludge/oil contamination.

W1.2

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

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	100%	Monthly	Flow Meters and Invoices	Water withdrawal is measured on a monthly basis at GEA's production, service, large offices and administration sites. Methods for measurement include water flow meters & invoices. 84 sites report 100% water aspects which is checked by

				4-eyes-principle and audited by KPMG. The final data is always taken from invoices and is part of the audit. As these invoices are in most cases only provided once a year by the providers, we use flow meters to ensure data collection during the year. In addition, the collection helps us to achieve and monitor target achievement.
Water withdrawals – volumes by source	100%	Monthly	Water invoices or water meter readings	Water withdrawal is measured on a monthly basis at GEA's production, service, large offices and administration sites. The sources that are measured include groundwater or municipal water. Methods for measurement include water flow meters & invoices. 84 sites report 100% water aspects which is checked by 4-eyes-principle and audited by KPMG. The final data is always taken from invoices and is part of the audit. As these invoices are in most cases only provided once a year by the providers, we use flow meters to ensure data collection during the year. In addition, the collection helps us to achieve and monitor target achievement. Ground water is measured using water meters.
Water withdrawals quality	Not relevant			Not measured or analyzed: The quality of raw water that GEA draws from groundwater is not measured or analyzed because the quality is not important to the processes they are used in, as it is used for gardening (85%), utility (like washrooms & kitchen), floor cleaning purposes, and some industrial processes in which quality is not material. This aspect is not expected to be relevant in the future

				as the uses for the water will remain the same. If quality is important, municipal water is used instead.
Water discharges – total volumes	100%	Monthly	Water invoices or water meter readings, depending on availability and access to the invoices from the water treatment facility	Water discharge or wastewater is measured on a monthly basis at GEA's production, service & administration sites. Methods for measurement include water invoices or water meter readings, depending on availability & access to the invoices from the water treatment facility. If no meter or invoice is available, the wastewater amount is calculated using site-specific formulas based on water consumption of the site. 84 sites report 100% water aspects which is checked by 4-eyes-principle and audited by KPMG. The final data is always taken from invoices & is part of the audit. As these invoices are in most cases only provided once a year by the providers, we use flow meters to ensure data collection during the year. In addition, the collection helps us to achieve & monitor target achievement. Every country has a specific calculation when invoices are not available, which depends on local legal requirements: E.g. in China wastewater is calculated by authorities as 90% of total water withdrawal.
Water discharges – volumes by destination	100%	Monthly	Water invoices or water meter readings, depending on availability and access to the invoices from the water treatment facility.	We have the wastewater data available per GEA site and therefore know the volumes per region/destination. Water discharge or wastewater is measured on a monthly basis at GEA's production, service, large offices and administration sites. Methods for measurement include water invoices or water meter readings. 84 sites report 100% water aspects which is checked by 4-eyes-principle and audited by KPMG. The final data is

				always taken from invoices and is part of the audit. As these invoices are in most cases only provided once a year by the providers, we use flow meters to ensure data collection during the year. In addition, the collection helps us to achieve and monitor target achievement. 100% of GEAs discharged water is sent back to the local municipality and third parties. This is tracked by the local QHSE Responsibility & Governance Team, due to legal requirements and GEA standards. It is assured through GEA's environmental certification (ISO 14001).
Water discharges – volumes by treatment method	Not relevant			It is normal practice to discharge site wastewater into municipal sewage systems; therefore, normally there is no treatment necessary. The proportion of GEAs discharge is not relevant to track according to treatment method applied before being returned to the environment since GEAs wastewater primarily does not require a treatment method applied before being returned to the environment/third parties. This is illustrated by the following figures: On behalf of GEA, external disposal companies collected and treated 432 m3 of wastewater which could not be discharged into municipal sewage systems. In 2022, 0.26% (904 m3) of total water is filtered for hazardous substances, cleaned by GEA itself before being sent to the wastewater municipality. This aspect is not expected to become relevant in the future as the uses for the water will remain the same

				and GEA targets to decrease the amount of hazardous substances.
Water discharge quality – by standard effluent parameters	100%	Monthly	manual testing to ensure the water does not contain hazardous and/or total suspended solids are not released to the municipal water discharge.	25 GEA locations (30%) use process water & therefore must measure their discharge quality monthly. These sites are GEA production locations. Methods for measurement incl. manual testing to ensure the water does not contain hazardous and/or total suspended solids are not released to the municipal water discharge. As this water aspect is only relevant to a proportion of facilities & all relevant facilities are included, we select 100% as the relevance of this aspect is considered. GEA's internal measurement shows that our wastewater does not require a treatment method applied before being returned to the environment/3rd parties. In 2022, 0.26% (904 m3) of total water is filtered for hazardous substances incl. effluents, cleaned by GEA itself before being sent to the wastewater municipality. GEA does not dispose effluents to the wastewater, they are removed beforehand. This is tracked by local QHSE responsibilities/operations to comply with local legal requirements & GEA standards.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	Less than 1%	Quarterly	measured by external specialist company	There is only one site which has potential water emissions; for all other sites this is not relevant: We have one manufacturing site that checks water discharge quality quarterly (Galvanic) according to legal requirements (Chlorine, turbidity, intensity, cobalt, nickel, etc.). Other production sites are not affected and discharge water back to municipality or third parties

				because no other production site has manufacturing processes with potential emissions to water.
Water discharge quality – temperature	Not relevant			The temperature of our discharged water/effluents is not relevant since GEA released 99% of its withdrawal water back to the municipality and it is primarily room temperature, not hot or cold water. This category is not expected to be relevant in the future since the conditions are expected to remain the same. The uses for water are expected to remain the same and the temperature of water discharge is not expected to change.
Water consumption – total volume	100%	Quarterly	meters and invoices	Water consumption is measured/calculated on a quarterly basis for GEA's production, service, large offices, and administration sites in the Chief Operating Officer reporting, using total reported values for water withdrawal and discharge. The amount of water withdrawn and not discharged back to the environment or a third party over the course of the reporting year is tracked by subtracting GEAs water discharge from GEAs water withdrawal volumes. In 2022, water consumption was 50,210 cubic meters, approximately 14.4% of GEA's total water withdrawal.
Water recycled/reused	100%	Monthly	Water Flow Meter Readings	Recycled water is measured on a monthly basis at GEA's production, service and administration sites. The method for measurement is water meter readings. Water and wastewater (treated or untreated) that has been used more than once before being discharged

				from GEA is tracked and primarily used in certain processes in GEAs production. This allows GEA to reduce its water demand. In 2022, 4.9% of GEAs water that was withdrawn was recycled (used more than once before being discharged).
The provision of fully-functioning, safely managed WASH services to all workers	100%	Daily	Inspection	The provision of WASH services is measured daily by the local site HSE manager through site inspections, ensuring these services are available and continue to be available. Every GEA site is required to guarantee every employee the right to a safe environment by ensuring, among other things, access to clean toilets and drinking water. This is monitored through internal HSE audits and HSE managers present at every location, including office spaces, therefore 100% is selected. This is required by every location as part of our official Water Policy as well as by our new Environmental Responsibility Policy.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain

Total withdrawals	347,97	Lower	Increase/decrease in efficiency	Lower	Increase/decrease in efficiency	Water withdrawal volume figures are collected using water bills and water meters readings, depending on which are available at the location. The data and attachments of invoices or photos of meter readings are checked on a monthly basis by the QHSE/Sustainability manager in order to verify the data, so there is a very low level of uncertainty. In 2022, the total withdrawal volume was 347.97 megaliters/year, so this is a reduction of 3% (11 megaliters). This is categorized as 'lower' because a 'much lower' withdrawal volume is categorized as 4.2% or above (this is based on doubling GEA's water savings target of 2.1%). GEA's global target is a 2.1% continuous reduction in water consumption. Therefore, a reduction of 3% helped us to achieve our Net Water consumption target.
Total discharges	297,76	Lower	Increase/decrease in efficiency	Lower	Increase/decrease in efficiency	Water discharge figures are collected using water meters readings and discharge calculations/estimations, depending on which are available at the location. Due to the calculations, there is some level of uncertainty. The total discharge volume was lower in 2022 compared to 2021. In 2021, the total discharge volume was 307.6 megaliters/year (289.4 municipal discharge + 18.2 ground water discharge). In 2022, GEAs total water discharge was 297.8 megaliters (283.19 municipal

						discharge + 14.57 ground water discharge) so this is a decrease of 3.2%. This is categorized as 'lower' because a 'much lower' discharge volume is categorized as 4.2% (this is based on doubling GEA's water savings target of 2.1%). Future discharge volume is expected to continue to decrease due to further investments in water reduction/recycling projects and mitigating water leakage events by continuous inspection and repair of water related infrastructure.
Total consumption	50,21	Lower	Increase/decrease in efficiency	Lower	Increase/decrease in efficiency	Total consumption figures are calculated using the formula: C= W - D C=347.97-297.76=50.21 C= total consumption W= total withdrawals D= total discharges The total consumption volume was lower in 2022 than in 2021. In 2022, the total consumption was 50.2 and in 2021, the total consumption was 51.48 megaliters/year. As this is a decrease of 2.5%, GEA has achieved its target of 2.1% YoY reduction. Some factors to highlight: 1. Due to changes in allocation and calculation, the basis of reporting sites was corrected for 2021 2. In 2021, there were two leakages in France and Italy 3. There is a decrease in the total number of sites

						in 2022 due to sales of operations and site relocations GEA is on track to reduce future water consumption.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress, provide the proportion, how it compares with the previous reporting year, and how it is forecasted to change.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Identification tool	Please explain
Row 1	Yes	11-25	Lower	Facility closure	Lower	Investment in water-smart technology/process	WRI Aqueduct	In 2022, a mapping of GEA sites located in water-stressed regions was again carried out using the tool Aqueduct Water Risk Atlas provided by the World Resources Institute. Using the tool, GEA identified sites located in areas exposed to extremely high and high water risks. Out of GEA's 84 production facilities, 4 were identified in extremely high water risk areas and another 11 locations are exposed to high risk level. These 15 locations account for 16% of GEA's overall water consumption.

								This is categorized as 'lower' than the proportion in 2021 (which was 22.3% of GEA's overall water withdrawal). Therefore, GEA had a decrease of 6.3%. Our water withdrawal from these locations is not estimated, it is reported and based on water invoices and water meters. Water is audited by KPMG for the annual report. The final data is always taken from invoices and these are part of the KPMG audit. In most cases, the invoices are only provided once a year by the external provider, therefore, we use flow meters to ensure data collection during the year. In case the invoice is not yet available during the audit, it is allowed to present data from flow meters for the KPMG audit. The final data is anyhow corrected in the following year. GEA uses the WRI Aqueduct tool to measure water stress. The data sets used include overall water risk of our locations which takes into account physical risks related to quantity,

								physical risks related to quality and regulatory and reputational risks. Within the overall physical risks, the tool measures both baseline water stress (i.e. withdrawals as a percentage of available flow) and baseline water depletion (i.e. consumption as a percentage of available flow). The tool was selected due to its high data quality, good usability, and recommendations from organizations such as the CDP. GEA's response to the exposure includes following up with the sites and asking them whether water risks are known and relevant to the local operations, which legal requirements must be fulfilled and which water conservation and saving measures were taken. In India for example, due to water scarcity, the production sites in Vadodara and Bangalore have initiated water conservation projects aimed at reusing water/reducing water consumption. All sites in water stressed areas meet the relevant local laws and legal requirements and none of them

								has experienced water shortages in 2018-2022.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Not relevant				Water withdrawal is not measured from this particular source since it is not a source of water at present time. However, as rainwater collection projects are set to be implemented, this source will start to be measured.
Brackish surface water/Seawater	Not relevant				GEA does not use brackish or seawater as a water source, therefore it is not relevant.
Groundwater – renewable	Relevant	58,4	Much higher	Other, please specify The reason for this increase is a decrease in municipal water, shifting from municipal to ground water	16.7% of GEA's water withdrawal comes from groundwater sources. GEA utilizes ground water sources in 12 GEA locations where it is used for gardening (50%), utility (like washrooms & kitchen) and floor cleaning purposes. The volume withdrawn increased in 2022 by 1.6% compared to 2021 as the volume was 1 megaliter higher than in 2021. The reason for this increase is a decrease in municipal water, shifting from municipal to ground water.

Groundwater – non-renewable	Not relevant				GEA does not source ground water (non-renewable) from deeper depths/water tables, therefore it is not relevant.
Produced/Entrained water	Not relevant				GEA does not use processes that create produced/entrained water; therefore this water source is not relevant.
Third party sources	Relevant	289,56	Much lower	Other, please specify The reason for decrease is the shift of more ground water being sourced rather than municipal water.	83.2% of GEA's water withdrawal is provided by municipal water suppliers and public/private utilities in 2022. The volume withdrawn from third party sources decreased in 2022 by 4% compared to 2021, in which the volume was 301.58 mega-liters (a decrease of 12 megaliters). Since it is nearly a 4.2% decrease, it is considered 'much lower' instead of 'lower.' The reason for the decrease is the shift of more ground water being sourced rather than municipal water. Some factors to highlight: 1. Due to changes in allocation and calculation, the basis of reporting sites was corrected for 2021. 2. In 2021, there were two leakages in France and Italy. In 2022, GEA did not experience any essential water leakages. 3. There is a decrease in the number of sites in 2022 due to sale of operations and site relocations.

					GEA is on track to reduce future water consumption.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Not relevant				GEA does not discharge water to fresh surface water destinations. Therefore, this destination is not relevant/applicable. 4.9% of GEAs water discharge is released to the groundwater through irrigation, i.e. outside services; 95.1% of GEAs water is discharged back to the local municipality and 3rd parties. We don't anticipate a change in this area in the next three years.
Brackish surface water/seawater	Not relevant				GEA does not discharge water to brackish/seawater destinations; therefore this destination is not relevant/applicable. 4.9% of GEAs water discharge is released to the groundwater through irrigation i.e. outside services; 95.1% of GEAs water is discharged back to the local municipality and 3rd parties. We don't anticipate a change in this area in the next three years.

Groundwater	Relevant	14,57	Much lower	Other, please specify Only one of GEA's locations discharges its water to the ground after on-site filtering and treatment. In 2022, GEA discharged 14.57 megaliters which was 20% lower than in 2021 (18.20 megaliters); therefore, it is considered "much lower".	Only one of GEA's locations discharges its water to the ground after on-site filtering and treatment. This water is used for irrigation/cleaning of grounds i.e. outside services. This is tracked by local QHSE Responsibility & Governance Team, due to legal requirements and GEA standards. 4.9% of GEAs water discharge is released to the groundwater through irrigation/cleaning of grounds i.e. outside services. In 2022 GEA discharged 14.57 mega-liters which was 20% less than in 2021 (18.20), therefore it is considered 'much lower'.
Third-party destinations	Relevant	283,19	Lower	Other, please specify In 2022, GEA discharged 283.19 megaliters, which is 2.1% lower than 2021, therefore 2022 is considered 'lower'. The decrease is due to the decrease of municipal water withdrawal.	Water discharge or wastewater is measured on a monthly basis at GEA's production sites. Methods for measurement include water invoices or water meter readings, depending on availability and access to the invoices from the wastewater treatment facility. If no meter or invoice is available, the wastewater amount is calculated using site-specific formulas. Every country has their specific formula when invoices are not available, which depend on local legal requirements. 95% of GEA's water is discharged back to the local municipality and 3rd parties. This is tracked by QHSE managers & Governance Team. In 2022, GEA discharged 2% less than in 2021

					(289.36 mega liters), therefore 2022 is considered 'lower'. The decrease is due to the decrease of municipal water withdrawal.

W1.2k

(W1.2k) Provide details of your organization's emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

	Emissions to water in the reporting year (metric tonnes)	Category(ies) of substances included	List the specific substances included	Please explain
Row 1	3.421,5	Priority substances listed under the EU Water Framework Directive	EDTA, chlorine free, cyanide slightly releasable, sulfide slightly releasable, arsenic, lead, cadmium, chromium total, chromium VI, cobalt, copper, nickel, silver, zinc, tin, AOX, dichloromethane, trichloromethane, tetrachloromethane, trichloroethene, tetrachloroethene, PFT (perfluorobutanoic acid)	We only have one site which produces water emissions. This specific production site uses a water treatment plant after Galvanic in order to extract water from sewage sludge. Afterwards, external specialists check cleaned water according to European regulations regularly before discharge to municipality. This ensures that no polluted water is directed to municipality. In addition, the site participates in a project of the Environmental Federal Office in Germany for the treatment of water after Galvanic processes. Water is analyzed according to legal requirements as well as DIN 38402-11, DIN EN 27888, DIN EN ISO 10523, DIN EN ISO 7393-2, DIN 38404-4, DEV B1/2, DIN EN ISO 11885, DIN EN ISO 7393-2, DIN 38407-43, DIN 38407-42.

W1.3

(W1.3) Provide a figure for your organization's total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	5.164.714.000	347,97	14.842.411,7021582	In comparison to the last rating, the water withdrawal efficiency has increased based on less water withdrawal and higher revenue. GEA expects the water withdrawal efficiency to further increase as GEA expands water recycling projects, particularly in sites located in water stress areas, targets to further reduce its water consumption and aims for further revenue growth until 2026.

W1.4

(W1.4) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances
Row 1	Yes

W1.4a

(W1.4a) What percentage of your company's revenue is associated with products containing substances classified as hazardous by a regulatory authority?

Regulatory classification of hazardous substances	% of revenue associated with products containing substances in this list	Please explain

Annex XVII of EU REACH Regulation	Less than 10%	For some gaskets, as well as products made of brass, there are substances involved, i.e. lead. We try to minimize and substitute mentioned materials, but some do not have a substitution. Furthermore, its usage has proven to be beneficial for society according to the EU taxonomy. Our auditor verified this as we have mentioned substances in products which are EU taxonomy aligned in categories where Appendix C is relevant, e.g. environmental objective 1, activity 3.6.

W1.5

(W1.5) Do you engage with your value chain on water-related issues?

	Engagement
Suppliers	Yes
Other value chain partners (e.g., customers)	Yes

W1.5a

(W1.5a) Do you assess your suppliers according to their impact on water security?

Row 1

Assessment of supplier impact

No, we do not currently assess the impact of our suppliers, but we plan to do so within the next two years

Please explain

From beginning of 2022 on, GEA started to request water-related information (primary data) via EcoVadis from its suppliers. This includes assessments of the suppliers regarding their initiatives on the points mentioned above (e.g. mapping of water-related risks, measures to reduce water consumption, etc.). GEA expects its suppliers to undergo this sustainability-related assessment every year and to share the results. EcoVadis carries out this assessment and prepares the results of a survey and makes them available to GEA. This transparency allows us to select and develop suppliers based on their sustainability performance.

In 2023, it is planned to start with a comprehensive deep dive analysis on the impact of our suppliers regarding water-related aspects as well as on how to classify suppliers as having a substantive impact.

W1.5b

(W1.5b) Do your suppliers have to meet water-related requirements as part of your organization's purchasing process?

	Suppliers have to meet specific water-related requirements
Row 1	Yes, water-related requirements are included in our supplier contracts

W1.5c

(W1.5c) Provide details of the water-related requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Water-related requirement

Reducing total water withdrawal volumes

Mechanisms for monitoring compliance with this water-related requirement

Fines and penalties

Grievance mechanism/Whistleblowing hotline

Response to supplier non-compliance with this water-related requirement

Retain and engage

Comment

Accepting the Code of Conduct for Suppliers and Subcontractors (CoCSS) is an essential part of the purchasing process. There is a section in the Code of Conduct that relates to water-related requirements, in specific water reduction consumption. By accepting the CoCSS, the supplier agrees to comply with all the conditions that are included in it.

Water-related requirement

Substituting hazardous substances with less harmful substances

Mechanisms for monitoring compliance with this water-related requirement

Fines and penalties

Grievance mechanism/Whistleblowing hotline

Response to supplier non-compliance with this water-related requirement

Retain and engage

Comment

GEAs Code of Conduct for Suppliers and Subcontractors (CoCSS) requires suppliers to avoid harmful soil changes, water/air pollution, noise emissions & excessive water consumption along the supply chain. Suppliers must ensure that their production/procurement processes (PPP) comply with the req. of the Minamata Convention & that there are no violations of the prohibitions on the manufacture of products containing mercury/use of mercury/mercury compounds in manufacturing processes/treatment of mercury waste.
Suppliers must ensure that their PPP comply with the req. of the Stockholm Convention on Persistent Organic Pollutants & that there are no violations of the prohibitions on the production/use of certain chemicals & on non-environmentally sound handling/collection/storage/disposal of waste incl. these chemicals.
Suppliers shall ensure that their PPP comply with the req. of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

W1.5d

(W1.5d) Provide details of any other water-related supplier engagement activity.

Type of engagement

Information collection

Details of engagement

Collect water management information at least annually from suppliers
Collect information on water-related risks at least annually from suppliers
Collect water quantity information at least annually from suppliers (e.g., withdrawal and discharge volumes)

% of suppliers by number

51-75

Rationale for your engagement

From beginning of 2022 on, GEA started to request water-related information (primary data) via EcoVadis from its suppliers. This includes assessments of the suppliers regarding their initiatives on the points mentioned above (e.g. mapping of water-related risks, measures to reduce water consumption, etc.). GEA expects its suppliers to undergo this sustainability-related assessment every year and to share the results with us. EcoVadis carries out this assessment and prepares the results of a survey and makes them available to GEA. This transparency allows us to select and develop suppliers based on their sustainability performance.
Alongside acceptance of our Code of Conduct, the outcome of the sustainability assessment influences supplier selection. Each year, EcoVadis sends suppliers an extensive questionnaire on the topics of labor and human rights, environment, ethics and sustainable procurement. The respective results are compiled in a comprehensive scorecard. In the year under review, this assessment had already been carried out for 68 percent of the purchasing volume accounted for by preferred suppliers and the results made available to GEA. Suppliers must therefore actively address certain sustainability criteria. According to the principle "You can't manage what you don't measure", it is first very important to get an overview of the current situation in order to then actively manage and improve it.
Therefore, we decided to implement this as a first step.
Currently, we are extending our engagement to each of GEA's A-Supplier, hence extending the water-related information collection to 80% of its spend. When available, this information is already integrated in the supplier management system, and in particular displayed in the GEA Supplier Score Card.

Impact of the engagement and measures of success

An example of the beneficial water-related outcomes of this engagement activity is that suppliers become aware of their environmental impact, also with regards to water aspects, and see what could or should be improved here. Furthermore, we gather valuable knowledge on current water practices or even issues so that further engagement could follow. A measure of success would be an improved EcoVadis Scorecard of the respective supplier.

The rollout of EcoVadis started with the top 50 suppliers by spend and is rolled out over the next years. By 2026, it is mandatory for all preferred suppliers to share an EcoVadis scorecard, which enables GEA to continuously track/manage its suppliers' water management.

Comment

The engagement is planned to be further rolled-out and specified in the future.

W1.5e

(W1.5e) Provide details of any water-related engagement activity with customers or other value chain partners.

Type of stakeholder

Customers

Type of engagement

Innovation & collaboration

Details of engagement

Collaborate with stakeholders on innovations to reduce water impacts in products and services

Rationale for your engagement

When engaging with our customers during engineering or development, we are able to generate additional value and lower Total Cost of Ownership for our customer and at the same time, a unique selling point for GEA during sales phase. Theoretically, this applies to all our stakeholders/customers or industries and we tend to integrate those with a good know-how of their own processes and overall understanding of market needs. Furthermore, the feedback given to our sales and service colleagues is used for the innovation as well.

Impact of the engagement and measures of success

By hearing the customer voice, we were able to design process and plant solutions utilizing way less or no water at all. For a customer project in 2022, we were able to save approx. 85.000.000 litres of water every year. A measure of success is the decrease of water consumption, which sometimes can be reduced to no consumption at all, as we did at AMUL in India some years ago, saving 400.000.000 litres water a year.

Type of stakeholder

Customers

Type of engagement

Education / information sharing

Details of engagement

Educate and work with stakeholders on understanding and measuring exposure to water-related risks
Run an engagement campaign to educate stakeholders about your water-related performance and strategy

Rationale for your engagement

We strongly believe that an increasing number of customers would choose water saving solutions if they were aware of it and knew how short the payback period could be. We try to reach as many customers as possible by publishing information on our website, containing product information, customer benefits, as well as real success stories of implemented solutions. We also talk at customer meetings to educate their employees, especially their plant-planning-teams, as well as the purchase department to keep them up to date regarding recently finished and ongoing innovation activities, where they can bring in feedback.

Impact of the engagement and measures of success

Impacts vary from customers which set water targets due to our sensibilization, but also include GEA sales of water saving units, i.e., those for our separators, circulating cooling liquid instead of dumping water. This means that there is a direct and an indirect impact through doing this education. We are setting up an environmental label, according to ISO 14021 and will monitor the sales of labelled products. If the share of labelled products sold or EU taxonomy aligned revenue increase, we can assume that the education was a success.

W2. Business impacts

W2.1

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

No

W2.2

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

	Water-related regulatory violations	Comment
Row 1	No	No water-related regulatory violations

W3. Procedures

W3.1

(W3.1) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified
Row 1	Yes, we identify and classify our potential water pollutants	Direct impact: One manufacturing site checks water discharge quality quarterly (Galvanic) acc. to legal requirements (e.g. Chlorine, turbidity, intensity, cobalt, nickel). We check compliance with German “Abwasserverordnung (AbwV)”, esp. App. 40, which defines compliance thresholds which we monitor to ensure the quality of the ejected water. We use a water treatment plant after Galvanic to extract water from sewage sludge. Afterwards, external specialists check the water acc. to European regulations regularly before discharge to municipality. The basis is wastewater sampling acc. to DIN 38402-11:2009-02:L. Water ist analyzed acc. to legal requirements & DIN 38402-11, DIN EN 27888, DIN EN ISO 10523, DIN EN ISO 7393-2, DIN 38404-4, DEV B1/2, DIN EN ISO 11885, DIN EN ISO 7393-2, DIN 38407-43, DIN 38407-42. Other sites are not affected. Indirect impact: On top of that, we identify & classify potential water pollutants from purchased goods/services: Water

		pollutants are identified through supplier labels. Although we do not produce them, we check potentially sourced pollutants from experienced chemical companies. Our procurement policy requires suppliers to follow the latest internat. standards. We have a system to store information of suppliers, i.e. for REACH. QHSE conducts supplier audits & sustainable procurement pushes our suppliers to become more sustainable. In case of audit findings or lack of cooperation, we can end the business relationship & switch to another supplier.

W3.1a

(W3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Water pollutant category

Other nutrients and oxygen demanding pollutants

Description of water pollutant and potential impacts

According to European Water Framework Directives, we check lots of parameters such as cobalt, lead, silver, nickel, copper or perfluorohexanoic acid. Herewith, we follow methods of DIN 38407-42, 38407-38, DIN EN ISO 11885, etc.
Each one of these substances can potentially have negative impacts:

Cobalt: low toxic effect, damage to health, carcinogenic
Lead: toxic effects, damage to health
Silver: no negative impacts known, some positive effects on health reported
Nickel: health impact, e.g. allergies, indisposition, inflammations
Copper: at very high concentration, adverse health effects
Perfluorohexanoic acid (PFHxA): damage to health

However, the treatment processes we use safely help prevent this. We check compliance with the German “Abwasserverordnung (AbwV)”, esp. Appendix 40. Here, the compliance thresholds are defined, which we monitor to ensure the quality of the ejected water. We use a water

treatment plant after Galvanic to extract water from sewage sludge. Afterwards, external specialists check cleaned water acc. to European regulations regularly before discharge to municipality. The basis is wastewater sampling acc. to DIN 38402-11:2009-02:L. This secures that no polluted water is directed to municipality. The site participates in a project of the Environm. Federal Office in Germany for water treatment after Galvanic processes. Other production sites are not affected & discharge water back to municipality/third parties.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Resource recovery

Please explain

There is only one site at GEA, which has an exposure to water pollutants, all other sites at GEA are not affected. At this specific production site, we use a water treatment plant after Galvanic in order to extract water from sewage sludge. After this procedure, resource recovery, external specialists check the quality of cleaned water according to European regulations (Water Resources Act; German law) regularly before discharge to municipality. Therefore, the procedure "resource recovery" manages the env. impact as it is fixed/eliminated. The site participates in a project of the Env. Federal Office in Germany for the treatment of water after Galvanic processes. The process is based on batch treatment. Water can only be discharged after approval and testing, therefore, GEA evaluates the success of the procedure "resource recovery" by re-checking the water quality. In case criteria are not met, water treatment procedure is repeated.

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.

Value chain stage

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

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
International methodologies and standards
Databases

Tools and methods used

WRI Aqueduct
IPCC Climate Change Projections
ISO 14001 Environmental Management Standard

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Impact on human health
Water regulatory frameworks
Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers
Water utilities at a local level

Comment

In 2022, GEA continued its focus on water scarcity for ascertaining the impact of water shortage on its locations and carried out a mapping of GEA sites located in water-stressed regions. The classification is based on the WRI Aqueduct Water Risk Atlas. In 2022, GEA focused on sites in regions exposed to extremely high/high/medium high water risks. Detailed queries incl. asking for specific reasons for the answers provided were performed. It was asked whether water risks were known and relevant to the local operations (incl. water availability/water quality at basin/catchment level), ensuring all water regulatory frameworks were met, and which water conservation measures were taken.
All employees are informed of our environmental core rules (incl. water stewardship & the avoidance of unnecessary water consumption); the rules are presented to all employees incl. practical guidelines. GEA's corporate water targets are defined; further specific targets/programs are individually defined by the respective sites. GEA reports its water consumption and management of water risks in the Annual Report & Sustainability Report (publicly available).
For GEA, sustainability is a key factor in product development as decisions in the development phase influence GEAs customers. Ecological considerations like water consumption are already reflected in the specification & concept stage of the development process. GEA documents each stage of the product life cycle to capture positive/negative effects on natural resources throughout the life cycle. GEA aims to make environmental effects transparent/traceable at every stage of the product's life cycle & to reduce negative effects.
Further Risk assessment procedure: Water risks are assessed in an env. risk assessment. All GEA sites certified by ISO 14001 are following internat. standards and analyze risks/opportunities. This process is aligned with Enterprise Risk Management and audited by external certifier.
Further Risk assessment procedure: For taxonomy-relevant sites, climate change related risk factors incl. water aspects are analyzed. The analysis provides an initial assessment of whether climate-related risks are a material risk to EU Taxonomy activities. Water risks are

considered explicitly: Chronic risks (precipitation pattern, variability of hydrology, acidification of oceans, saltwater intrusion, sea level rise, water shortage) & acute risks (drought, heavy precipitation, flood, glacial lake outburst) are reflected.

Value chain stage

Supply chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Tools on the market
Other

Tools and methods used

EcoVadis
Internal company methods
External consultants

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Implications of water on your key commodities/raw materials

Water regulatory frameworks
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Suppliers

Comment

Key suppliers are visited annually incl. regular environmental assessments (incl. water risks). In 2022, 299 supplier audits (previous year: 165) were carried out. Of these, 103 (previous year: 23) were audits of new suppliers. GEA performs the evaluations by visiting subcontractors, conducting audits or requesting info. It is undertaken by the country organizations & divisions. Responsibility towards water usage is important along the entire supply chain. Suppliers must adhere to env. protection (incl. water) along the entire value chain; compliance in this field is given high priority. The registration process for suppliers requires commitment to GEA's Code of Conduct for Suppliers and Subcontractors. This Code specifies a commitment to engage in env. compatible practices & sustainable use of water.
Since 2020, GEA conducts an analysis of the sustainability impacts along the group’s entire supply chain. The analysis also examined the water consumption by our suppliers & upstream suppliers. GEA was able to identify the hotspots of selected sustainability risks in the supply chain and works with suppliers to reduce/eliminate them all together. The impacts indirectly attributable to GEA were calculated with an established macroeconomic model (PwC ESCHER) based on GEA’s purchasing volumes broken down by purchasing sectors/regions. Fiscal year 2021 served as the reference period for data collection.
In GEAs Mission 26 strategy, GEA has set ambitious targets for monitoring sustainability in the supply chain. One of these targets requires 100% of preferred suppliers (those that meet GEA’s criteria for price, quality, cooperation, global/regional presence) to comply fully with GEA’s sustainability criteria by 2026. The Sustainable Procurement department was established in 2022 to ensure that GEA achieves this ambitious target. It has defined & published GEA’s new sustainability criteria in 2022 which significantly exceed the requirements of Germany’s Act on Corporate Due Diligence in Supply Chains (Lieferkettensorgfaltspflichtengesetz).
Furthermore, water risks are assessed in an env. risk assessment. End of 2021, GEA started to assess its suppliers' water consumption/management via EcoVadis. The rollout of EcoVadis started with the top 50 suppliers by spend and is rolled out over the next years. By 2026, it is mandatory for all preferred suppliers to share an EcoVadis scorecard, which enables GEA to continuously track/manage its suppliers' water management.

W3.3b

(W3.3b) 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.

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	GEA uses various approaches to best address water-related risks & achieve comprehensive coverage. WRI Aqueduct Atlas is used due to its comprehensive coverage of all sites around the world and the diverse indicators. The tool allows to look into different future scenarios & includes various indicators combining qualitative & quantitative factors. Furthermore, water risks are assessed in an environmental risk assessment. This is done through ISO 14001 certifications, audited by external certifier. By 2026, all production sites must be externally certified to ISO 14001. Currently, 22 production sites are already certified (coverage rate 38%) and further roll-out is currently in progress.	As many as possible, and in particular of course the most relevant contextual issues are taken into account in order to ensure a comprehensive overview. Therefore, all of the contextual issues presented here are taken into account. Especially the impact on human health is an important topic that should not be forgotten. Furthermore, the contextual issue Access to fully-functioning, safely managed WASH services for all employees is important for GEA because the primary use for freshwater sourced from the municipality or ground water is for irrigation/human consumption/use (85%). Water regulatory framework should be considered because it is of	As many stakeholders as possible should be involved, and in particular the most relevant ones. In this way, it can be ensured that all involved, affected stakeholders are considered and a comprehensive overview is reached. First of all, our own employees and local communities are considered as they are directly affected of the water conditions at our production sites. In addition, customers are considered as our products enable them to save water. Involving suppliers ensures that our upstream components also use water responsibly and might enable valuable partnerships. And lastly, the external perspective of NGOs, regulators and investors ensures	For the overall risk response, the responsibility lies with QHSE, the sustainability department & risk management department. The risk categorization is based on GEA's risk management system taking reporting units into account. For the residual climate hazards, expert judgement and additional maps like the topography map were used to determine the relevance of the climate risk. For identifying the impact of water shortage on production, GEA has developed a process to identify sites in water stress regions with the "Aqueduct Water Risk Atlas". GEA continuously monitors water demand there, ensures that risks are known by responsible parties and promotes water conservation/saving measures incl. required investments. Furthermore, according to mission 26, sites in water-

	In addition to the basic coverage of all own sites, suppliers are also included. This is done via EcoVadis because EcoVadis is a well-known, recognized and frequently used rating/tool, which is highly accepted and provides target-oriented support. In addition, a direct exchange through supplier audits on site is used to obtain a picture as comprehensive as possible. Finally, key sites, for example sites with EU taxonomy relevance, are considered additionally. They are included in the TCFD analysis which also considers water-related aspects. In the TCFD analysis, IPCC climate change projections are used as scientific perspectives.	fundamental importance to comply with legal requirements and these are usually scientifically based. Water availability as well as quality at a basin/catchment level is considered because water is always a local topic and water stress occurs locally.	that we do not only focus on GEA and our direct influence but also consider further indirect impacts.	stress areas must implement a water strategy by 2026. According to ISO 14001, risks & opportunities for the environment are identified & reviewed quarterly. The risks are evaluated acc. to probability of occurrence & impact & we calculate a classification for each risk. The risk categorization is reduced by internal measures & processes. If the supplier scorecard in EcoVadis results in an (partly) insufficient performance rating, further risk management activities are developed incl. mitigation/remediation measures depending on the results and size of the supplier. If an EcoVadis scorecard is not available & the supplier self-report used instead has a low score, supplier discussions, training & SMETA audits follow.

W4. Risks and opportunities

W4.1

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

No

W4.1a

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

The group-wide opportunity and risk management system is an essential component of GEA's value-oriented corporate governance, contributing to the group's long-term viability and future success. GEA defines opportunities as positive deviations from anticipated short-term operational and long-term strategic targets, and risks as negative deviations. The key variables for the assessment of opportunities and risks are the amount of the potential financial impact and their probability of occurrence (PoO).
The financial impact has been allocated on the basis of the average earnings contribution (EBIT) over the past three years.

At the corporate level, GEA defines a 'significant impact' as a risk and an opportunity with a potential financial impact of € 70-120 million and a PoO of 'likely' (50-75%) or 'almost certain' (>75%). This definition applies to both risks and opportunities.

To identify risks that could have a significant impact on GEA, all issues are assessed for their financial impact and probability of occurrence. This is done on a gross basis, i.e. excluding any risk-mitigating measures. In addition, the timing (less than or more than one year) of each risk is individually assessed.
Generally, opportunities and risks are evaluated over a one-year period. In 2019, GEA revised its risk strategy, adding a new concept for measuring risk-bearing capacity. The risk and opportunity matrix was redefined by switching from a 3-level matrix to classifying probability of occurrence and financial impact to a 4-level system. In the future, the parameters of the risk and opportunity matrix and reporting thresholds will be reviewed on an annual basis and, where necessary, adjusted.

The opportunity and risk management system of GEA is used by all consolidated companies. The quarterly bottom-up reporting workflows are designed to keep decision-makers at all levels informed of top opportunity and risk landscape of the GEA Group. Both direct operations and the supply chain are covered under the definition.

From a water perspective, GEA did not identify any water-related risks that would have a substantive or strategic impact on GEA's business. Some examples of water-related risks that could have an impact, though not identified as substantive, include:

- Direct operations: if a site does not have access to freshwater, which is used for irrigation and sanitation and drinking water purposes. GEA's water recycling programs in areas prone to water stress have reduced this risk considerably. For example, in India we have two primary production facilities who would be at the greatest risk due to their location in a potentially very high water stress region. This risk is managed as

in both locations, GEA has invested approx. € 2 million to install two water treatment plants. These plants are closed systems based on ground water and water recycling (the recycled water is of sufficient quality for human consumption in accordance to valid local laws). So, in the case that ground water is not available or not enough, GEA has the possibility to source water from water delivered by trucks. The financial impact is very low as the cost of water trucks are less than € 100 and only 3 m3/day is used for production process, the rest (25 m3/day) is used for human consumption and irrigation. Thus, this water risk has no impact on the continuation of production at these locations.

- Supply chain: GEA's steel suppliers depend heavily on water resources, however, if one is at risk of not being able to supply due to limited water resources, GEA is able to source from one of its many other suppliers which are located around the world.

The fundamental principles and procedures underpinning an effective group-wide opportunity and risk management system are set out in the Corporate Enterprise Risk Management Policy that applies to the entire group. This policy also documents mandatory risk reporting and management requirements. Compliance with these requirements is monitored regularly at corporate level within the Risk & Internal Control Management & Data Governance Department.

Risk management instruments such as the Risk Assessment and Advisory Committees (RAACs) are supplemented by a reporting system encompassing evaluated risk reports, consolidated financial projections, monthly consolidated financial statements, and regular meetings of the Global Executive Committee (consisting of members of the Executive Board and heads of the Business areas, the regions, and the Global Corporate Center) enable the various risks and opportunities to be identified and analyzed.

Overall, no water-related risks or other types of risks to GEA or GEA Group Aktiengesellschaft were identified in 2022 that, alone or in combination with other risks, could endanger the company's continued existence as a going concern.

W4.2b

(W4.2b) Why does your organization not consider itself exposed to water risks in its direct operations with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	GEA's direct operations are not exposed to substantive financial or strategic risks because GEA is not a water intensive company. At GEA's 84 largest facilities, water withdrawal in 2022 was 347,972m3. 85% of freshwater sourced from the municipality or ground water is for irrigation/human consumption/use, the remaining 15% is used by our hygiene plants. Therefore, while water-related risks may exist, they are not anticipated to have a substantive impact on GEA. No substantive

		water related risks were identified by GEA's risk management system, which includes GEA's risk management instruments (e.g. RAACs, risk reports) or by the Global Leadership Team. Considering the group's materiality, the analysis of physical risks in relation to the production sites under consideration did not reveal any material risks requiring mandatory presentation in the annual report due to the low financial impact. Some examples of water-related risks that could have an impact (not identified as substantive) include: - Direct operations: if a site does not have access to freshwater, which is used for irrigation and sanitation and drinking water purposes. GEA's recycling programs in areas prone to water stress have reduced this risk considerably. In 2022, GEA focused on sites in areas with high and extremely high water stress. Detailed inquiries were carried out on whether water risks are known & relevant to operations, what legal requirements exist and what measures are being taken to conserve water. By 2026, these sites must develop and implement a water strategy. GEA does not see a short-term risk here, as many measures have already been implemented. GEA already puts the topic of water scarcity on its agenda for many years. For example, we launched our program in India back in 2012. In India we have 4 production sites located in a very high water scarcity risk area. This risk is managed as GEA has e.g. invested ~€2m to install two water treatment plants. These plants are closed systems based on ground water & water recycling; recycled water is of high enough quality for human consumption according to valid local laws. If ground water is not available/enough, GEA can source water from water trucks. The financial impact is very low as the costs of water trucks are <100€ and only 3 m3/day is used for production process, the rest (25 m3/day) is used for human consumption/irrigation. Thus, this water risk has no impact on the continuation of production at these locations.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	No substantive water related risks with relation to the value chain were identified by GEA's risk management system, which includes GEA's risk management instruments such as the Risk Assessment and Advisory Committees (RAACs), risk reports, or by the Global Executive Committee. GEA Group is not significantly dependent on individual business partners, whether suppliers or customers.

		With regards to the supply chain, while water is vital for producing stainless steel and other metals, the market for these metals has many suppliers and GEA has the opportunity to select another supplier from the market. GEA also has many different suppliers worldwide with regards to stainless steel/metals and there is no substantive risk: In case that a supplier is not able to supply due to limited water resources, GEA can select another supplier. Around 11% of GEA's total spend represent steel products / materials. With regards to customers, risks exist related to innovative strength. The enduring financial success of GEA as a technology group depends on a large extent on its ability to offer tailored customer solutions that provide outstanding product and process efficiency. Offering its customers water resource/management efficiency is an additional factor that drives GEA's success. For this reason, GEA needs to maintain and continually expand its innovative strength. This risk (with regards to GEA overall, not specifically water) is rated as possible, however with non-substantive financial impact (<70 million Euro).

W4.3

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

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

W4.3a

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

Type of opportunity

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

GEA invests heavily in the development of technologies that reduce water needs in industrial processes & enable efficient water recycling. The dairy processing sector has a pioneering role in becoming water neutral. As milk consists of 85% water, there is huge potential for recovering it for the water demands of the plant.

GEA develops zero wastewater dairy processing plants that recover water using reverse osmosis. Condensate is collected from the evaporation plant & purified through a high pressure reverse osmosis plant using membranes to filter out contaminants & unwanted dissolved substances. GEA has installed >100 reverse osmosis plants globally. Depending on the end use, the recycled water is further treated & purified to meet WHO standards for potable water and re-used.

In New Zealand, 3 GEA milk powder plants used water recovered from milk evaporation to provide process/potable water. Additionally, a major food manufacturer installed a GEA plant in Mexico with savings of 1.6 mill. liters of water/yr. Depending on the end-use, the recycled water is further treated, purified and employed in various dairy plant processes (e.g. final flushing/tank&pipework cleaning). Some years ago, GEA built a water-saving plant in India for Amul and installed 3 sets of reverse osmosis filters to treat condensate from the evaporators (water consumption cut by 420 mill. lit/yr).

GEA AromaPlus PRO reduces the diafiltration water requirement during the dealcoholization of beer by up to 100%. A membrane filtration dealcoholization process needs a large water amount to flush out the alcohol. GEA relies on a filtration technology with special polymer membranes, separating alcohol & water by reverse osmosis. Thus, water consumption is minimized & the alcoholic base, can be used for other beverages.

GEA is a global leader in the provision of filtration systems that are used to recover/recycle condensate from the evaporation stage of milk processing. GEA works with customers to design, equip and construct the latter’s milk powder plants. GEA anticipates new regulations requiring new dairy operations to adopt water-saving/-reusing technologies and reduce the need for external sources, esp. in water-scarce areas. GEA aims to apply the technology to other sectors of the food industry that require high volumes of water for processing.

Timescale of implementation: After tendering, the contract placement took 1 year; after winning the contract, until completion, it took 20 months.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

GEA has already rolled out this strategy in countries with prominent dairy sectors including New Zealand, Mexico and India. GEA hopes to apply the same technology to other sectors of the food industry that require high volumes of water for processing.
Membrane filtration is part of GEA's Liquid and Powder Division. The division generated 1,716 million Euro for GEA in 2022.

Type of opportunity

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

Our centrifuges facilitate efficient wastewater treatment globally via sludge treatment, minimizing overall resource usage. They take wastewater & remove the sludge, evaporate, or filter it before releasing it to the ecosystem. With a certain quality, it can also be reused as process water, e.g. for flushing toilets/watering gardens. Energy efficient environmental decanter centrifuges from GEA thicken & dewater effluent, remove water from the solids to reduce sludge volume, which equates to lower costs for further water treatment. The volume of sewage sludge is reduced by up to 90%. Sludge dewatering can play a key role in providing safe, clean water to local communities.
Governments & industries worldwide are our primary customers for efficient wastewater treatment.
In India, wastewater still ends up untreated in rivers as treatment capacity is insufficient. The consequences include silting, death of freshwater

flora/fauna and negative impacts on human health. Lake Sarakki, one of the largest lakes in Bengaluru, was in danger of dying. GEA has supplied 40 environmental decanters to Bengaluru for the treatment of municipal wastewater. Each year, the decanters recover almost 1.5 billion liters of water from the sewage sludge for further treatment, an amount equivalent to the content of 600 Olympic swimming pools. Plans are in place to recover a further 800 million liters of water each year.
Decanter projects usually have a duration of 1-2 years and this one was finalized in 2021. GEAs opportunity here is to benefit from experience in similar projects, contributing to our mission "Engineering for a better world" and potentially get follow-up projects.
Nowadays, more than 150 GEA environmental decanters have been sold to India for industrial effluent and municipal sewage. The opportunity was realized when GEA's local department in India identified the request from the Indian Government. The Separation Division (sales, R&D & field engineers) were then contacted and worked together to fulfill the requirements using existing technologies/products. The sales team for env. solutions is now following a new strategy to help customers comply with strict env. regulations and double GEA's environmental decanter order intake in the next years. This new strategy helps GEA to increase market share and is expected to double its estimated sales within the next years. The duration is 1-2 years as well & GEA has developed a decanter series specifically for emerging markets.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The magnitude of this is based on the division's latest valuation. This technology is part of GEA's Separation and Flow Technologies Division which generated 1,416 Mill. Euro in 2022.
GEA has already rolled out this strategy in several major municipalities in Indonesia and India and expects to increase the amount of decanters sold and increase market share in these countries.

Type of opportunity

Products and services

Primary water-related opportunity

New R&D opportunities

Company-specific description & strategy to realize opportunity

Growing water scarcity, increasing costs and regulation require manufacturers to reduce freshwater withdrawals and wastewater discharge. GEA helps customers to tackle these challenges with solutions that minimize water usage within individual process steps. As part of our sustainability targets, GEA commits that by 2030, 100 % of GEA solutions can be operated without additional freshwater use, especially during cleaning process. In 2022, GEA launched a significant innovation focusing on safeguarding fresh water: Seeing a potential for optimization and water-saving, GEA membrane filtration engineers combined GEA membrane filtration technology with an intelligent, sensor-based flushing process. During the cleaning process at a plant, the SmartFiltration Flush sensors assess the permeate quality of the water and define when the plant is cleaned properly so that the process can be stopped. During the cleaning process at a plant, the SmartFiltration Flush sensors continually monitor the water’s permeate quality and terminate the cleaning process as soon as the appropriate level of hygiene is achieved. SmartFiltration Flush can be applied to clean-in-place (CIP) processes in membrane filtration systems regardless of the industry, so it has a very broad scope.
The initial KPI for SmartFiltration Flush was to enable up to a 50 % reduction of freshwater consumption during CIP compared to conventional membrane filtration solutions. A typical sized membrane filtration plant without SmartFiltration Flush consumes approx. 14,000 m3 of water per year during its CIP processes. Applying Smart Filtration Flush to the membrane filtration plant's CIP process can save up to 50% of the water consumption. Smart Filtration Flush enables GEAs customers to use less water, benefiting the environment and it enables GEAs customers to discard less water so that they have less wastewater to manage and release. Given that water consumption during CIP is a pain point for the beverage industry, the fact that the GEA SmartFiltration Flush intelligent software solution cuts the fresh water used in CIP flushing processes by 50 % is a real gain.

The software is already used from customers in India, Saudi Arabia, Australia, Poland, Lithuania, Norway, Sweden, Finland and soon France; operating in different industries (brewing, food, dairy). The outcome for GEA are opportunities for increased revenue, a potentially increased market share, gathering knowledge & process know-how.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

GEA's Smart Filtration Flush is part of GEAs LPT Division and part of the membrane filtration projects. The magnitude of this is based on the division's latest valuation.

The software is relatively new to GEA's software portfolio, however, it is already in use at customer sites in India, Saudi Arabia, Australia, Poland, Lithuania, Norway, Sweden, Finland – and soon France – operating in different industries such as brewing, food, and dairy. SmartFiltration Flush can be applied to clean-in-place (CIP) processes in membrane filtration systems regardless of the industry, so it has a very broad scope.

Membrane filtration is part of GEA's Liquid and Powder Division. The division generated 1,716 million Euro for GEA in 2022.

Type of opportunity

Products and services

Primary water-related opportunity

New R&D opportunities

Company-specific description & strategy to realize opportunity

GEA is investing heavily in the development of technologies and processes that can reduce the need for water as water becomes an increasingly important issue. This also contributes to one of our mission 26 targets: By 2030, GEA will offer its customers the option of operating plant & machinery with zero freshwater consumption.

This increasing importance of water creates an opportunity for GEA to sell more of our machines that do not require water or require less water than the market standard. GEA does not only have the opportunity to increase sales of existing sustainable products but also to develop new products and innovations. R&D in this area represents a huge opportunity as sustainable, water-saving machines are in high demand today, as the following example illustrates.

Neuenkirchen-based Naarmann dairy in Germany's Münsterland region has been operating a GEA separator for eight years. Until recently, the engine, hood and catcher had been cooled in a conventional manner with softened well water, which was discharged into the sewer system. A new add-on water saving unit from GEA is now helping the dairy to save 300 liters of water per operating hour. Extrapolated over the year, this amounts to more than one million liters, depending on production time. Equipped with a circulation pump, the Water Saving Unit operates with two separate cooling water circuits for the engine and the hood and catcher. This also optimizes the unit's energy consumption.

The customer needs to provide iced water at a rate of 11 to 13 liters per minute to cool the circulating water in a plate heat exchanger.

While continuous engine cooling is required during separator operation, hood/catcher cooling switches on automatically only when required during processing. This significantly reduces energy consumption compared with the previous cooling process, which required energy for pumping, cleaning as well as preparing and disposing of the separator's cooling water. With the installation of the Water Saving Unit, energy demand is reduced to just the electrical power necessary for cooling the circulating iced water and the unit's power consumption of less than 40 watts.

The implementation timeframe for this product example is short term, as the product has already been introduced and sold in 2022. We introduced the Water Saving Unit at a trade show in 2022 and had a pilot phase in 2022. Even without increased marketing activities, we have already seen strong demand.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

600.000

Potential financial impact figure – maximum (currency)

700.000

Explanation of financial impact

GEA's Water Saving Unit is an add-on for GEA centrifuges but aims to be enrolled to further GEA equipment to help save water. Depending on the acceptance and operation, there is a big potential as the unit is also retro-fittable to old centrifuges.
The magnitude of this is based on the division's latest valuation. This technology is part of GEA's Separation and Flow Technologies Division which generated 1,416 million Euro in 2022.
The potential financial impact figure here is the expectation for 12 months after the launch (forecast for 2023) and is calculated by multiplying the expected number of sales for 2023 (potential financial impact, therefore not 2022 figures) with the individual prices. The individual prices are confidential, hence no exact formula is being spelled out here. We introduced the Water Saving Unit at a trade show in 2022 and had a pilot phase in 2022. Even without increased marketing activities, we have already seen strong demand. The basis for estimating the sales figures was therefore the order intake in 2022 in addition to expectations. The potential sales are global and not only market-based.

W6. Governance

W6.1

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

Yes, we have a documented water policy that is publicly available

W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	Description of the scope (including value chain stages) covered by the policy Description of business dependency on water Description of business impact on water Commitment to align with international frameworks, standards, and widely-recognized water initiatives Commitment to prevent, minimize, and control pollution Commitment to reduce or phase-out hazardous substances	GEA's Water Policy applies to the entire company, because GEA's Water Policy is a global commitment to water stewardship and water security. This document is available both externally and internally. All employees are able to access this policy company-wide through GEA's QHSE intranet, as well as internet. The document is approved by GEA's Executive Board. The policy includes a description of our company’s dependency on water and the business's impact to inform our colleagues of the importance of managing this exhaustible natural resource and to motivate them to engage with our commitment to stewardship. In addition, the policy includes GEAs water scarcity assessment efforts, monitoring procedure of GEAs water performance standards/KPIs and company-wide targets to reduce water consumption from production sites. Furthermore, it contains a commitment to stakeholder awareness through publication of GEA's environmental core rules (guidelines for pro-environmental and resource conservation behaviors of employees worldwide incl. water awareness and stewardship). The policy affirms that GEA's targets are a commitment to align with the SDG 6 'clean water & sanitation'.

		Commitment to reduce water withdrawal and/or consumption volumes in direct operations Commitment to reduce water withdrawal and/or consumption volumes in supply chain Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Commitment to stakeholder education and capacity building on water security Commitment to water stewardship and/or collective action Commitment to the conservation of freshwater ecosystems Commitments beyond regulatory compliance Reference to company water-related targets Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	Beyond the company, the policy highlights GEA's engagement efforts with our suppliers to encourage environmentally compatible business practices, including water consumption reductions. The policy also references GEA's commitment to 'engineering for a better world' and continue to innovate and provide technologies that save water, including GEA's wastewater technologies. We affirm the human right to water & sanitation, including a commitment to provide access to Water, Sanitation and Hygiene (WASH) services at all GEA sites. We also highlight the exacerbation of the global water crisis due to climate change and environmental pollution. We underline the risk of future water availability at some of our sites as well as the process for identifying regions vulnerable to water scarcity risks. This refers to the identification of GEA sites located in water-stressed regions using the ‘Aqueduct Water Risk Atlas’. Thit tool is part of a WRI water initiative to identify both water quantity and quality challenges. In addition, we have worked out a new Environmental Responsibility Policy which replaced the Water Policy in April 2023. However, for the reporting year 2022, the Water Policy was fully applicable. The new policy includes all commitments from our Water Policy and is published at GEAs Website. 1, 2

[1]19072023_GEA Policy_Water_EN.pdf

[2]19072023_GEA_Environmental_Responsibility_Policy_EN.pdf

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 or committee	Responsibilities for water-related issues
Chief Operating Officer (COO)	The COO (Chief Operating Officer) assumes responsibility for the company's worldwide purchasing activities, global production and supply chain as well as QHSE as a member of the Executive Board. The COO is one of three members that comprise the Executive Board. The committee constitutes the management body of GEA Group and is responsible for running the international company with operations all around the globe. The COO is responsible for QHSE, this includes managing GEA's environmental management performance, e.g. water management and water-related issues. Water-related issues that are identified by GEA's QHSE team are directly reported to him. The COO is also presented with data quarterly via the COO dashboard to review reports that include GEAs water consumption trends and water related risks. The COO has initiated and signed global environmental (energy, water, waste) targets, which include newly set water targets. These water targets apply to all GEA sites and will be monitored and followed-up on based on key performance indicators. The targets include short, medium and long-term timelines. In 2020, the COO also developed dashboards in which he and the Division and Regional responsible managers can monitor the development of the water targets/KPIs. The COO is also a member of the Global Executive Committee (GEC) which approved in 2021 new water related targets including sustainable solutions (100% of our solutions

	will be offered with zero freshwater-use by 2030) and responsible operations (all sites in water-stressed areas shall implement a water strategy by 2026). In addition to the COO, our CSO (Chief Sustainability Officer) is responsible for water-related issues as well. The CSO has the overall responsibility for sustainability topics at GEA, which also includes water, and directly reports to the CEO.

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 Monitoring progress towards corporate targets Overseeing acquisitions, mergers, and divestitures Overseeing and guiding scenario analysis Overseeing major capital expenditures Overseeing the setting of corporate targets Overseeing value chain engagement Providing employee incentives	Water-related issues are a scheduled agenda item on a quarterly basis as part of the COO Quarterly Review meetings with Managers of the COO organization. The QHSE organization submits data from each production site regarding water consumption and the sites' performance against water targets is reviewed in 4-eyes-principles by the Performance Team and Regional QHSE organization. Additionally, the COO and Head of QHSE created our new Environmental Responsibility Policy including a water section and rolled it out to all GEA locations worldwide as a mandatory policy. Prior, the COO and the Head of QHSE also created the Water Policy, which was replaced by our new Environmental Responsibility Policy in April 2023. The COO and the HEAD of QHSE also worked together and initiated the global environmental (energy, water, waste) targets, which include water targets. These water targets apply to all GEA sites and will be monitored and followed-up on based on key performance indicators. The targets include short, medium and long-term timelines. GEA's water strategy developed by the CSO (Chief Sustainability Officer) is delegated and

		Reviewing and guiding annual budgets Reviewing and guiding corporate responsibility strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing innovation/R&D priorities Setting performance objectives	managed by the QHSE Governance team and COO, which holds the sites accountable using water related key performance indicators.

W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	The COO assumes responsibility for the company's worldwide purchasing activities, global production and supply chain as well as QHSE as a member of the Executive Board. He is one of three members that comprises the Executive Board. This member's competency includes managing GEA's environmental performance which includes water management and water-related issues. Any water-related issues that are identified by GEA's QHSE team are directly reported to him. He is also presented with data quarterly via the COO dashboard to review reports that include GEA's water consumption trends and water related risks. If water-related risks are detected, he is actively involved with investigating the cause,

		with the QHSE department, and issuing corrective measures/actions. The COO is also leading a qualified team, which includes production, supply chain and QHSE colleagues, that are steering water-related projects, including implementing water strategies in high water-stressed areas.

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)

Water-related responsibilities of this position

Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Conducting water-related scenario analysis
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Managing value chain engagement on water-related issues
Integrating water-related issues into business strategy
Managing annual budgets relating to water security
Managing major capital and/or operational expenditures related to low water impact products or services (including R&D)

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The COO is one of three members of the Executive Board and is directly responsible for all QHSE issues, including water.
He is a representative & spokesperson for the Executive Board and reports directly to it and to the Supervisory Board. He reports the status of

the implementation of GEA's Mission 26 water-related KPIs, including the percentage of solutions offered with zero freshwater-use and the strategy implementation status of sites located in water-stressed areas.
He leads quarterly meetings which include topics like the final discussion of all QHSE topics or KPIs before final publishing. These reports contain also water-related topics/KPIs, e.g. the status at water stressed sites as well as monitoring of water consumption trends. He also provides the final approval or adjustments of GEA's QHSE Strategy.
This is a direct implementation of GEAs commitment, derived from its Environmental Responsibility Policy, to sustainable/environmentally conscious behavior.

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

Chief Sustainability Officer (CSO)

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Conducting water-related scenario analysis
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Managing value chain engagement on water-related issues
Integrating water-related issues into business strategy
Managing annual budgets relating to water security
Managing major capital and/or operational expenditures related to low water impact products or services (including R&D)

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

GEA established a new sustainability department in early April 2021, headed by the Chief Sustainability Officer (CSO), who directly reports to the CEO.

The CSO is responsible for developing GEA's new "Mission 26" Sustainability strategy. The CSO is the Head of the Sustainability Department, which was responsible for developing, communicating and supporting the aforementioned strategy and targets. This includes water-related targets on Sustainable Solutions (100% of solutions will be offered with zero freshwater-use by 2030) and on Responsible Operations (sites in water-stressed areas shall implement a water strategy by 2026). Within the sustainability department, GEA has centrally bundled activities and responsibilities that were previously located in different and diverse departments across the company. The team now combines both the expertise to professionally manage ESG issues and the ability to actively support the implementation of GEA's sustainability goals.

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

Other, please specify

Global Executive Committee

Water-related responsibilities of this position

Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Managing value chain engagement on water-related issues
Integrating water-related issues into business strategy
Managing annual budgets relating to water security
Managing major capital and/or operational expenditures related to low water impact products or services (including R&D)

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The entire Group Executive Board and the divisional and regional management boards, as well as the Chief Human Resources Officer and Chief Sustainability Officer, are part of the Global Executive Committee (GEC). The GEC deals with strategic issues, including topics relating to climate change & water-related risks/opportunities on a monthly basis. In 2021, GEA's sustainability strategy, which includes water, was on the

GEC's agenda various times and was presented to the Supervisory Board of GEA Group AG.
Going forward, water-related opportunities and risks will be regularly monitored and strategically addressed by the Executive Board and top management in the same way.
Lately, our Chief Sustainability Officer, Dr. Nadine Sterley, has been appointed to the GEC, effective immediately. This decision further elevates the strategic significance sustainability has for our company and our commitment to drive it holistically across GEA's divisions, business units and global functions.

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

Other, please specify

Head of QHSE

Water-related responsibilities of this position

Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Conducting water-related scenario analysis
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Integrating water-related issues into business strategy
Managing annual budgets relating to water security

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Head of QHSE reports directly to GEA's COO. He also formulates the global QHSE strategy and targets for Board approval, which includes targets related to water (i.e. water consumption). He provides general guidelines and reports, defines management systems and establishes / supports the implementation of legal and individual requirements made by investors, customers, internal and external stakeholders - including compliance checks. He also evaluates the quarterly submitted QHSE KPIs, assesses water-related risks and applies corrective measures, if necessary.

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	The Executive Board's (EB) current renumeration scheme has been introduced/approved by the shareholders in the Annual General Meeting in 2021. The variable part of the compensation composes of short-term (STI, 40% of variable compensation) & long-term (LTI, 60% of variable compensation) components. STI & LTI have a strong link to sustainability (see Annual Report 2022, p. 268/273). Since 2022, the LTI is based on relative total shareholder return compared to the DAX 50 ESG (60% of the LTI) and strategic targets incl. ESG targets (40% of the LTI). The STI is composed of financial targets & criteria-based modifiers, considering the performance of the EB. The GEA Better World Awards, sponsored by the EB, started in January 2022. With the award scheme, talent, dedication & outstanding performance of individuals & teams across GEA is rewarded. One category is Sustainability & a software lowering water consumption in cleaning processes won. 2023 is GEA's Year of Innovation in Sustainability.

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	Contribution of incentives to the achievement of your organization's water commitments	Please explain
Monetary reward	Corporate executive team Chief Sustainability Officer (CSO)	Reduction of water withdrawal and/or consumption volumes – supply chain	The next management level below the Global Executive Committee (~160 top executives) are forming the so called "top leadership team" (TLT). For 2023, one of their targets is dedicated to product innovation in	We engineer sustainable solutions for a better world. For this, we have set very ambitious environmental targets, making sustainability a fundamental part of the group's Mission 26 strategy. A further step

		Improvements in water efficiency – supply chain Improvements in water efficiency – product use Improvements in wastewater quality – product use Reduction of water pollution incidents Reduction or phase-out of hazardous substances Increased investment in water-related R&D Increased proportion of revenue from low water impact products or services Implementation of employee awareness campaign or training program on water-related issues	sustainability. Lately, GEA launched its Add Better label which visualizes sustainable solutions towards our customers. This label can - among other things - refer to reductions in water consumption. The more sustainable solutions GEA launches successfully, the higher the incentive (2023: 100% = 15 new sustainable products, 200% = 25 new sustainable products, pro rata in case below 100%). This pays directly into our goal of offering our customers products without additional freshwater consumption by 2030. Linking incentives to the Add Better label was selected to further drive sustainable GEA products while contributing to our water goals. The performance indicator "improvements in water efficiency - product use" directly contributes to this goal as water-efficient products help our customers to reduce their water withdrawals. The indicators "increased proportion of revenue from low water impact products or services" and "Increase investment in water-related R&D" underline that innovations for sustainable products like Add Better are incentivised here. And finally, as employee's awareness is increased through Add Better and water-related	towards aligning innovation with sustainability criteria is the introduction of our new green label called "Add Better". The label: - measures the efficiency improvements compared with previous generations - relates to environm. criteria: energy/ water consumption, material and resource use, or greenhouse gas emissions - illustrates environmental claims for solutions such as an equipment, a process or a software - is an ECO Label Type II according to DIN ISO 14021 - presents an efficiency improvement validated by the independent provider TÜV Rheinland - is a self-declared statement by GEA as a supplier - demands a supplementary declaration providing detailed data on efficiency improvement - fosters GEA internal benchmarking of sustainable, resource efficient solutions Timeframe of performance indicator: Short-term; labels must be final on machines this year incl. TÜV audit. It is expected that the process to get Add Better takes ~ 2 months

			innovations, the indicator "Implementation of employee awareness campaign or training program on water-related issues" was chosen.	Regional, sectoral or operational context: The incentive applies worldwide for the entire top leadership team Threshold used for successful performance: 100%=15 new sustainable products, 200%=25 new sustainable products, pro rata in case below 100% How performance impacts the incentive/reward: Financial reward if threshold is achieved
Non-monetary reward	Corporate executive team Chief Procurement Officer Chief Purchasing Officer (CPO) Chief Risk Officer (CRO) Chief Sustainability Officer (CSO) Other, please specify The GEA Better World Awards are open to all full-time and part-time GEA employees. Colleagues can nominate other colleagues or themselves in every category, except Profitable Growth.	Reduction of water withdrawals – direct operations Reduction in water consumption volumes – direct operations Reduction of water withdrawal and/or consumption volumes – supply chain Improvements in water efficiency – direct operations	With the GEA Better World awards, the Executive Board & Global Executive Committee seek to reward talent, dedication & outstanding performance of individuals/teams across GEA. One award category is Sustainability. Sustainable, water-related innovations can save water at GEA and for customers. This contributes to our goals: 1) reducing our water consumption & 2) offering customers the option to operate all our products without additional freshwater consumption by 2030. Linking the awards to sustainability further drives sustainable GEA products and contributes to our water goals. The performance indicators "reduction in water consumption volumes - direct	To recognize excellence & honor contributions that strengthen our common purpose, the GEA Better World Awards, sponsored by the Executive Board, started in January 2022. With the award scheme, the Board & the Global Executive Committee seek to reward talent, dedication & outstanding performance of individuals & teams across GEA. All nominations should reflect projects & initiatives implemented in 2022. One award category is "Sustainability" and a software that lowers water consumption in cleaning processes won the award for 2022 (gold category). Sustainable, water-related innovations can, for example, help GEA to save water and furthermore

		Improvements in water efficiency – supply chain Improvements in water efficiency – product use Improvements in wastewater quality – direct operations Improvements in wastewater quality – supply chain Improvements in wastewater quality – product use Reduction of water pollution incidents Reduction or phase-out of hazardous substances Increased investment in water-related R&D Increased proportion of revenue from low water impact products or services Implementation of employee awareness	operations" or "improvements in water efficiency - product use" underline the reference to our water-related targets. Additionally, QHSE sets a target to reduce overall water consumption, increase transparency & implement a water scarcity risk assessment using the Aqueduct tool. This also includes implementing Env. Core Rules & awareness for water reduction. Success is measurable through achievement of the water consumption reduction target and successful implementation of the Env. Core Rules that were displayed in the form of posters and presentations at each GEA site. The performance indicators "reduction of water withdrawals - direct operations" or "reduction in water consumption volumes - direct operations" relate to this & directly contribute to our objective of reducing our yearly water consumption per employee by 2.1%.	help our customers to do so. At GEA, this contributes to our goal of reducing our water consumption. Furthermore, it pays directly into our goal of offering our customers the option to operate all our products without additional freshwater consumption by 2030. In addition, 2023 is GEA's Year of Innovation in Sustainability.

		campaign or training program on water-related issues Implementation of water-related community project		

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?

GEA's policies guide all activities & commit GEA to the highest standard of moral & ethical behavior. Examples include our Group Code of Conduct and our Environmental Responsibility Policy (replaced in 2023 our prior applicable Water Policy & QHSE Policy). Each GEA legal entity must adhere to the relevant Internal Control Standards (ICS). Compliance with internal regulations is audited by GEAs Internal Audit team. Violations can lead to consequences pursuant to company rules & the law; consequences vary depending on the extent/severity of violation & whether applicable law has been violated. The decision to take part in trade assoc. lies with the sales teams to promote GEA's water saving technologies. Although there is no explicit, water-only process in this area, our general management for trade associations memberships system is applied here, assuring there is no water-related contradiction. This system is based on various steps, starting with a background check of the trade association and an assessment in the Compliance Approval Tool. If the assessment shows risk indicators, the application is either rejected or if risk mitigation is possible, mitigation action is agreed upon with the applicant (e.g. training of key employees of the trade association). The engaging party must regularly review the memberships on alignment with GEA's values and strategy. If decisions by the Corporate Compliance Team are not accepted, escalation (incl. Executive Board) is possible.

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)

GEA Annual Report 2022 ENG.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	As stated by GEA's CEO in the 2022 Sust. Report, GEAs commitment to “engineering for a better world” highlights GEAs central focus on sustainability. Sustainability is more than just a guideline & has fundamental strategic importance. We have set very ambitious env. targets to place GEA at the forefront of the industry. Sustainability is a key element of GEAs Mission26 strategy. With ref. to water, GEA strategically considers water in its product portfolio & own operations. In terms of our products, GEA is committed to offer its customers the operation of machinery/plants with no extra need of freshwater by 2030. The commitment comes with an increase in R&D activities by 45% until 2026. Beyond 2030, GEA expects the demand for such solutions to increase as our customers expect machinery to facilitate economical production throughout its life cycle. For example, GEA is focusing on continuing to improve the applicability of GEAs sludge dewatering equipment to continuously optimize wastewater treatment processes that are already used with great success. GEA has supplied 40 environ. decanters to Bengaluru to treat wastewater; recovering approx. 1.5 bill.

			liters of water/yr. Plans exist to recover a further 800 mill. liters each year. In our own operations, GEA tackles water scarcity by having/implementing water strategies at sites located in water-stressed areas. All GEA sites are assessed annually and the scenarios used have long-term horizons of multiple decades.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	GEA's plan of action to achieve more efficient and resource-conserving systems and plants for our customers is to use GEA's in-house innovative strength. GEA's research and development (R&D) activities are subsumed under its core value proposition and corporate claim 'engineering for a better world.' GEAs new business strategy as part of Mission26 and beyond 2030 focuses on innovations for sustainability, which includes that GEA solutions come with a zero-freshwater need. By doing so, GEA contributes to the responsible design of value creation processes, sustainable management, and the protection of the environment which includes water resources. For this reason, a number of key R&D efforts focus on the development of efficient process technologies including sustainability and water conservation as well as zero-freshwater usage. GEA's business strategy Mission26 ensures that research and development activities across the group are aligned with customer needs and global industry trends. This strategy defines sustainability as well as innovation as two of the seven key levers for attaining the targets. The innovation lever is primarily focused on harnessing technological progress to deliver "engineering for a better world" by developing new technologies with a reduced ecological footprint, thus helping our customers be more sustainable in their operations. GEA aims to measure significant criteria such as zero-freshwater usage, through key performance indicators.
Financial planning	Yes, water-related issues are integrated	11-15	By 2026, GEA is about to increase its R&D investments to 3.0% of revenue (2021: 2.4%). GEAs Mission26 strategy bundles all of its R&D under the umbrella of "Innovation & Digitalization" subdivided into four key growth drivers which includes environmental sustainability. The funding included financing technologies that focus on energy reduction and the related reduction of greenhouse gas emissions and reduction of water consumption, for example through zero freshwater use options as well as promotion of circular economy. To succeed in this transition, GEA has set clear sustainability targets for its product development and the funding for R&D is expected to increase for sustainable products beyond 2030.

			One example of a new product is the GEA Water Saving Unit which is an optional component that is available for new machines and for retrofitting. Used cooling water is cooled to the optimum temperature and returned to the system in accordance with the respective centrifuge requirements. The advantages of the GEA Water Saving Unit include: Reduced water consumption for centrifuge cooling, cooling water for the motor, hood and solids trap is collected, cooled and returned to the system. The savings potential is 99.9% compared with the previous generation, totaling around 1.3 million liters of water per year.

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)

5

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

7

Water-related OPEX (+/- % change)

5

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

7

Please explain

The sust. performance of our products is very important as customers chose suppliers based on ESG factors & expect GEA's products to improve their own sust. performance, i.e. using less water. Therefore, the trend is rather reflected in GEAs revenue than in water-related

CAPEX/OPEX. However, the water-related CAPEX/OPEX figures slightly increased in 2022 compared to 2021 as GEA increasingly focuses on water-related aspects in CAPEX/OPEX & improves its infrastructure. Examples/investments of 2022 include: "Filter system water circuit" (Oelde) & "Wastewater control recording" (Kitzingen). GEA anticipates a future water-related CAPEX increase of 7% to upgrade its buildings & equip. to save water incl. further water recycling projects at sites in water scarce areas. GEA anticipates a future water-related OPEX increase of 7% used on R&D expenditure for development of GEA solutions with zero freshwater-use to enable GEA to fulfill its target: provide 100% zero freshwater solutions by 2030.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	We disclose our assessment of the risks and opportunities arising from climate change in the Sustainability Report in order to create full transparency on our climate mitigation measures. Since 2022, GEA has followed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) when reporting on climate change. To deepen our understanding of the relevant climate-related risks and opportunities and to test the resilience of our strategy, GEA has analyzed scenarios for different time horizons. The scenario analysis was conducted for the first time in 2022 with the involvement of a cross-functional team and on the basis of external sector-related scenarios and studies. This involved assessing the impact along the entire value chain from procurement to markets in order to derive the market potential.

W7.3a

(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization's business strategy.

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy

Row 1	Water-related Climate-related	In our overarching analysis of climate-related opportunities and risks, we distinguish between different time horizons comprising short-term (up to 2030), medium-term (up to 2040) and long-term (up to 2050) analyses. In the scenario analyses we have conducted, we have focused primarily on the medium-term and long-term time horizons. Both horizons are in line with GEA's "Net Zero" target by 2040 as well as regulatory requirements around decarbonization, which have a significant impact on transitory risks and generally cover the period until 2050. At the same time, this time horizon fits well with the specific nature of physical climate change risks, which are increasingly realized over medium- to long-term timeframes. Most established scenarios cover a period until at least 2050. GEA has followed the recommendation of the TCFD and conducted an analysis with two temperature scenarios that depict two very different development paths in relation to climate change. One focuses on successful transformation of the economy, limiting global warming to max. 1.5 degrees C compared to pre-industrial times, in line with the goals of the Paris Climate	As part of the TCFD analysis, we quantified the physical climate impacts on 13 key production sites most affected by droughts, floods, and tropical cyclones in a 2.7°C scenario (by financial materiality and severity of risk). Two sites are significantly impacted - either by damage to e.g. equipment/buildings or by loss of business. The main opportunities & risks of GEA Group are presented in the management report of the annual report as integral part of the opportunity & risk report. Considering the materiality of GEA, no significant risks have arisen from the TCFD analysis that need to be presented in the annual report due to the low financial impact in the analysis of the physical risks in relation to the considered production sites. GEA has conscientiously and comprehensively dealt with the possible effects with the outcome that the potential impact is currently considered as low. GEA reviews the results regularly & monitors developments on an ongoing basis to initiate any necessary measures. In addition to the TCFD analysis, the Aqueduct's Water Risk Atlas shows which sites are potentially in water-scarce areas. For these sites, it is required to have a water	As a result of the TCFD analysis, GEA examines the existing protective measures with local authorities regularly &, if necessary, considers the construction of further protective measures, e.g. flood protection dams to minimize impacts & prepare for extreme weather events. GEA expects increasing insurance costs due to more frequent/ severe extreme weather events (2.7° scenario). Physical climate risks are also considered in the site analysis and assessment of site factors as these are expected to increase in the future. Timescale of measures: Effective immediately; update TCFD analysis every 2-3 years. The scenario analysis ensures comprehensive coverage of the most important business activities along the entire value chain incl. most important supplier industries/sourcing countries, relevant production locations and countries and most important customer markets per operational business area. The analysis revealed that the focus of quantifying climate-related impacts should be on our production sites (potentially greatest losses expected here). GEA shared the results of the analysis with the representatives of sites affected by physical risks in the 2.7°C scenario. This

		Agreement. The other assumes limited success in transformation and the adoption of additional climate policies, leading to a further increase in global temperatures to 2.7 degrees C and thus also significant physical climate risks. The International Energy Agency's (IEA) Net Zero Emissions' (NZE) 2050 scenario was selected as the dominant scenario to examine potential transitory risks of a 1.5 degree C global temperature increase. It was complemented by selected studies, particularly for the agricultural sector, which is not covered by the energy-focused IEA scenarios. To complement this, GEA considered the IEA Stated Policies scenario to assess the transitory impacts of a 2.7 ° C global warming. The three most important climate-related physical risks in the 2.7-°C scenario incl. tropical cyclones, flooding and sea-level rise. Consequently, water-related aspects are also considered here. In addition, to identify the impact of water scarcity on production, GEA analyses sites in water-scarce regions using the Aqueduct Water Risk Atlas tool. GEA continuously monitors water demand there, ensures that risks are known to those responsible &	strategy in place by 2026. The Aqueduct Analysis for 2022 identified: 4 sites (extremely high water risks), 11 sites (high water risks), 9 sites (medium high water risks), 29 sites (low medium water risk) & 28 sites (low water risk). The majority of our sites (57 of 81, i.e.70%) have a low/low medium water risk.	could lead to i.e. the installation of additional protective walls, closer exchange with responsible authorities on existing protection & risk minimization plans. Additional outcome of the Aqueduct Risk Analysis: Sites with an extremely high water risk are required to have a water strategy until 2026.

		promotes water conservation & saving measures, including necessary investments. GEA has set the goal that all sites in water-scarce regions will have implemented a water strategy by 2026.		

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

While GEA is not a water intensive company, GEA is currently working on a new and ambitious sustainability strategy where water security plays an important role. Therefore, GEA is exploring various water valuation practices.
In total at GEA's 84 largest facilities, GEA's water demand in 2022 was 347,972 cubic meters. The primary use for freshwater sourced from the municipality or ground water is for irrigation/human consumption/use (85%), the remaining 15% is used by our hygiene plants where water is used in hygiene processes.

W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Definition used to classify low water impact	Please explain

Row 1	Yes	As part of GEA's new "Mission 26" strategy, GEA has set an ambitious target to develop machinery with zero freshwater-usages, i.e. no freshwater is needed to run GEA's equipment. Additionally, we always aim to develop products and solutions that require less water and include the wholistic customer process into this consideration and not only our equipment. The definition used to classify products/services as low water impact is that these products either reduce (fresh-)water consumption or even better avoid (fresh-)water consumption. Usually, we use a threshold of approx. 10%, but sometimes, even incremental changes of 1-2% have a massive impact due to the sheer amount of water being saved. That's why we have a case-by-case selection to define low water impact products. The criteria apply to the product use and we consider quantitative factors in particular but also intensity figures. Concerning international standards used, we already conducted life cycle assessment with regards to water scarcity under ISO14040 as well as Environmental Product Declaration (EPD).	The industry is investing heavily to develop technologies and processes that reduce and even avoid fresh water utilized in industrial processes and production operations. Therefore, GEA is about to offer its customers the option of operating machinery and plants without extra need of fresh water by 2030. GEAs "Zero Freshwater Usage" target exceeds a "Low water Impact" classification as it consequently focusses on technologies capable to run functions like cleaning, heating, cooling and hydraulic operation without fresh water usage. One example for a low water technology is our 2022 launched water saving unit: Instead of using fresh water, we circulate it and are able to save more than 1 million liter water per year and unit. This very space- saving equipment is retro- fittable and thus poised to become one of the most attractive investments for food and beverage manufacturers aiming to make their production both more sustainable and more cost effective.

W8. Targets

W8.1

(W8.1) Do you have any water-related targets?

Yes

W8.1a

(W8.1a) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category	Please explain
Water pollution	No, but we plan to within the next two years	GEA only has one site that must have water discharge analyzed by external specialists due to Galvanic. Water pollution is excluded based on the analysis. In GEAs Environmental Responsibility Policy, we state: GEA ensures that wastewater from its operations is disposed of in accordance with local legal requirements. The risks of environmental degradation associated with maintaining water quality and preventing water shortage are regularly and systematically identified and addressed to achieve good water status and ecological potential. Contaminated wastewater is either properly treated in an in-house wastewater treatment plant or in an external municipal/industrial wastewater treatment plant. Contaminated wastewater that cannot be disposed of via the municipal network is collected by certified external disposal companies and disposed of accordingly by the same. The policy is publicly available: https://www.gea.com/zh/binaries/environmental-policy-en_tcm28-116878.pdf
Water withdrawals	No, but we plan to within the next two years	At GEA, we have a target on water consumption instead because this indicator is more relevant to our industry or products. However, water consumption is not listed here in W8.1a.
Water, Sanitation, and Hygiene (WASH) services	Yes	
Other	Yes	

W8.1b

(W8.1b) Provide details of your water-related targets and the progress made.

Target reference number

Target 1

Category of target

Water consumption

Target coverage

Company-wide (direct operations only)

Quantitative metric

Reduction in total water consumption

Year target was set

2021

Base year

2021

Base year figure

51,48

Target year

2022

Target year figure

50,39

Reporting year figure

50,21

% of target achieved relative to base year

116,5137614679

Target status in reporting year

Achieved

Please explain

GEA has modified its target (yoy) in 2021, from reduction in water withdrawal to water consumption. Our intention when setting the target was to reduce water consumption by our wholly-owned production facilities across the whole company by 2.1% by 2021, against a baseline year of fiscal 2020. GEA strives to reduce its overall environmental impact and use natural resources, such as water, sparingly and considerately. In order to achieve this, GEA has implemented water saving programs, focusing on production sites located in water-scarce areas. In 2022, the total consumption was 50.21 megaliters and in 2021, the total consumption was 51.48 megaliters, so this is a decrease of 2.5%. Therefore, with the reduction target of 2.1% yoy, 2022 target was achieved. This is a rolling YoY target (2.1%).
The unit of the metric used to track this target is megaliters. The target coverage is company-wide and it refers to our direct operations only.
The motivation for this target is to reduce our whole water consumption worldwide because water scarcity is becoming an increasing problem and there are various regions with water stress worldwide. Therefore, GEA aims to make a positive contribution here.

Target reference number

Target 5

Category of target

Other, please specify

Machine and plant operation with no additional need for freshwater consumption by 2030

Target coverage

Product level

Quantitative metric

Other, please specify

By 2030, GEA will offer its customers the option of "zero freshwater consumption" when operating plant and machinery for all our machines (100% of our machines)

Year target was set

2021

Base year

2021

Base year figure

0

Target year

2030

Target year figure

100

Reporting year figure

1

% of target achieved relative to base year

1

Target status in reporting year

Underway

Please explain

By 2030, GEA will offer its customers the option of "zero freshwater consumption" when operating plant and machinery. We are currently working on the preparation of this ambitious target. At present, the focus is in particular on the identification of products and processes.

We refined our status tracking methodology in the reporting year. 2023 is our Year of Innovation in Sustainability; the focus is on innovations for sustainable products, including water efficiency. However, our innovation duration here is often several years, including product development of around 5 years. Therefore, we are currently only at about 1%.

The unit of the metric used to track this target is the % of products that already fulfill our target.
The target is company-wide and refers to our whole product portfolio. The target motivation is to enable our customers to save large amounts of water, thus contributing to our customers' reduction targets and saving water worldwide.

Target reference number

Target 4

Category of target

Monitoring of water use

Target coverage

Company-wide (direct operations only)

Quantitative metric

Other, please specify

All sites in water-scarce regions will implement a water strategy by 2026

Year target was set

2021

Base year

2021

Base year figure

0

Target year

2026

Target year figure

15

Reporting year figure

4

% of target achieved relative to base year

26,6666666667

Target status in reporting year

Underway

Please explain

GEA’s water-saving plants increase the efficiency of water use and facilitate the integrated management of water resources during the production process. In this way, GEA is supporting Sustainable Development Goal 6 (“Ensure availability and sustainable management of water and sanitation for all”).
All GEA sites are required to save water as a matter of principle, thus reducing water consumption continuously. GEA will also recirculate more water in the future and sites in water-scarce regions must implement a water strategy by 2026 to ensure a more responsible use of this key resource. The target coverage is therefore company-wide (direct operations only).

In 2022, GEA focused on the 4 sites located in areas with an 'extremely high' water risk indicated by the WRI Aqueduct tool. However, until 2026, the 11 sites in regions with "high" water stress also must have implemented a water strategy. The current % of target achieved is 4/15=26.67%. Therefore, the unit of the metric to track this target is the number of relevant sites.
GEA plans to implement water strategies at the remaining 11 locations in the next years.
Status in 2022: Water strategy development initiated with affected sites.

The motivation for the target is to increase water security for our business, people and nature where we operate with the water strategy and to ensure climate change adaptation and mitigation for GEAs locations.

Target reference number

Target 6

Category of target

Water, Sanitation and Hygiene (WASH) services

Target coverage

Company-wide (direct operations only)

Quantitative metric

Increase in the proportion of employees using safely managed sanitation services, including a hand-washing facility with soap and water

Year target was set

2021

Base year

2021

Base year figure

51,48

Target year

2022

Target year figure

50,39

Reporting year figure

50,21

% of target achieved relative to base year

116,5137614679

Target status in reporting year

Achieved

Please explain

At Gea, 85% of freshwater from the municipality or ground water is for irrigation/human consumption/use and is therefore integrated in the overall target to reduce water consumption by our wholly-owned production facilities across the whole company by 2.1%. The provision of

WASH services is measured daily by the local site HSE manager through site inspections who ensures these services are available and continue to be available. Every GEA location is required to ensure every employee the right to a safe environment by ‘ensuring access to clean toilet facilities and drinking water’ among other criteria. This is also the motivation for this target. It is monitored through internal HSE audits and HSE managers present at every location, including office spaces, therefore 'company-wide (direct operations only)' is selected. This is required by every location as part of our official Water Policy as well as our new Environmental Responsibility Policy.
The unit of the metric used to track this target is megaliters.

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

Independent Assurance Practitioner's Report KPMG_Non-Financial Group Statement_2022.pdf

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
W1 Current state	GEAs water withdrawal: municipal water and groundwater and total water withdrawal, total water discharge, and total water consumption have been audited and approved by the external auditor for 2022. This relates e.g. to the following questions: W1.2 W1.2b	ISAE 3000	See page 149 in GEA's Sustainability Report 2022 and pages 93, 98, 100 and 263-265 in GEA's Annual Report. The data is audited as part of the audit of the non-financial reporting, therefore, ISAE 3000 is the verification standard. The frequency with which GEA completes this verification is yearly.

	W1.2h W1.2i		

W10. Plastics

W10.1

(W10.1) Have you mapped where in your value chain plastics are used and/or produced?

	Plastics mapping	Value chain stage	Please explain
Row 1	Yes	Product use phase	Sometimes, during the use-phase of our machinery, we utilize plastics for better results, i.e. our decanter centrifuges use a polymer to support the separation of liquid-solid mixtures. This helps to reduce the required electricity during the process. The required amount is depending on the input-characteristics. Additionally, GEA products are able to pack food and beverages and as plastic is state of the art in terms of food safety, our machinery is capable to operate on plastics film. But at the same time, we can also run recycled material as rPET and prepare our equipment according to our Mission26 target: "100% of packaging solutions will use sustainable packaging materials by 2030".

W10.2

(W10.2) Across your value chain, have you assessed the potential environmental and human health impacts of your use and/or production of plastics?

	Impact assessment	Value chain stage	Please explain

Row 1	Yes	Product use phase	To comply with our Mission26 target "100% of packaging solutions will use sustainable packaging materials by 2030", our business units, which have packaging solutions, are screening the alternatives. To do so, they utilize a GEA tool which includes multiple dimensions. One of them is the environmental impact of the status quo and the possible alternatives. To better understand the levers, we conduct Environmental Product Declaration (EPD) Lifecycle Assessments (LCA) according to ISO standard wherever beneficial. This enables our engineers to design new machinery, which is capable of utilizing the packaging solution of the future. We also include the customer's voice and their requests and expectation as the primary goal of packaging is to avoid food waste. The new packaging solution must have at least similar protection characteristics as food waste is as bad as plastics regarding the environmental impact.

W10.3

(W10.3) Across your value chain, are you exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on your business? If so, provide details.

	Risk exposure	Please explain
Row 1	No, risks assessed, and none considered as substantive	In general, GEA defines a substantive impact on the business at corporate level as a risk that has a significant risk value of 70 million Euro or greater with a probability of likely (50-75%) or almost certain (>75%), in relation to capital allocation/expenditure. To identify risks that could have a substantive impact on GEA, all issues are assessed for their financial materiality and probability of occurrence. This is done on a gross basis, i.e. excluding any risk-mitigating measures. In addition, the timing (less than or more than one year) of each risk is individually assessed. The assessment of risks is based on a 12-month period. All group companies are integrated into GEA's risk management system. Quarterly risk reports and size-related ad hoc risk reports aim to ensure that decision-makers at all levels are informed promptly about material existing risks and potential risks affecting future development. The definition applies to both direct operations and the supply chain. GEA did not identify any plastics-related risks that would have a substantive or strategic impact on GEA's business. We expect a change from virgin plastic to either recycled, biodegradable or other environmental-friendly solutions. This

		might come as consumers ask our customers for it or, within some parts of the world, through regulation. GEA is already today not only following this trend of more environmentally friendly materials but setting the pace: Through our FSC and PEFC certified pasta packaging, produced according to strict environmental, social and economic standards, we were able to even increase UV protection while meeting all other regulatory and customer requests.

W10.4

(W10.4) Do you have plastics-related targets, and if so what type?

	Targets in place	Target type	Target metric	Please explain
Row 1	Yes	Plastic packaging	Reduce the total weight of plastic packaging used and/or produced Increase the proportion of renewable content from responsibly managed sources in plastic packaging Increase the proportion of plastic packaging that is recyclable in practice and at scale Increase the proportion of plastic packaging that is reusable Increase the proportion of plastic packaging that is compostable	Even though GEA is not the producer of the packaging materials and the final decision is within the responsibility of our customers, we want to make the transition towards more environmentally- friendly solutions as easy as possible. That's why 100% of packaging solutions will use sustainable packaging materials by 2030. The timeline for achievement of the targets is therefore 2030. The quantitative metric of the target used is the percentage of packaging solutions that use sustainable packaging materials. The coverage of the target is company-wide.

W10.5

(W10.5) Indicate whether your organization engages in the following activities.

	Activity applies	Comment

Production of plastic polymers	No	
Production of durable plastic components	No	
Production / commercialization of durable plastic goods (including mixed materials)	No	
Production / commercialization of plastic packaging	No	
Production of goods packaged in plastics	Yes	Our Farm Technology Hygiene business provides high quality care products for cow udders and other animals. These are packed within plastic packages as well as cleaning detergents. We minimize the plastic boxes by producing concentrates which will be added into water at the farm.
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	

W10.8

(W10.8) Provide the total weight of plastic packaging sold and/or used, and indicate the raw material content.

	Total weight of plastic packaging sold / used during the reporting year (Metric tonnes)	Raw material content percentages available to report	% virgin fossil-based content	Please explain
Plastic packaging used	1.354,81	% virgin fossil-based content	100	Our Farm Technology Hygiene business provides high quality care products for cow udders and other animals. These are packed within plastic packages, as well as cleaning detergents. We minimize the plastic boxes by producing concentrates, which will be added into water at the farm. The containers are made of HDPE, which is recyclable without big treatments and is still fulfilling all relevant safety criteria. We only have data for this business to date; we are currently working on

				collecting and making available company-wide data on plastic packaging used.

W10.8a

(W10.8a) Indicate the circularity potential of the plastic packaging you sold and/or used.

	Percentages available to report for circularity potential	% of plastic packaging that is recyclable in practice at scale	Please explain
Plastic packaging used	% recyclable in practice and at scale	100	Due to its purity and properties, the HDPE can be and is usually completely recycled (in developed countries). This was also confirmed by our supplier of that particular plastic.

W11. 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.

GEA's 2022 Water Data has been verified by an external auditor.

In our latest Global Town Hall Meeting on March 7, we communicated that 2023 is the Year of Innovation in Sustainability at GEA. Our ambition is to drive the transformation of our industry and to position GEA as the innovation leader in sustainable products and solutions.
As a Mission 26 lever and the key to GEA's long-term success, we have taken important steps to anchor sustainability in our organizational structure. This begins with a dedicated focus on sustainability by the Supervisory Board. Two committees have been re-named to reflect this focus: the Presiding and Sustainability Committee and the Innovation and Product Sustainability Committee.
Moreover, in April 2023, our Chief Sustainability Officer, Dr. Nadine Sterley, has been appointed to the Global Executive Committee (GEC), effective immediately. This decision further elevates the strategic significance of sustainability for our company and our commitment to drive it holistically across

GEA's divisions, business units and global functions. Dr. Nadine Sterley will be supported in her GEC mandate by a significant expansion of the sustainability team. In total, 12 new positions will be added to her team, including five new Sustainability Heads – one for each of GEA's divisions. All new roles are dedicated to sustainability but with different focus areas – including risk management, global marketing focusing on sustainability, operations, finance, community engagement, product portfolio and global projects on the transformation of GEA towards being a more sustainable company overall.

We are confident these measures will have a significant positive impact on our company. From driving innovation to boosting ESG ratings and employee engagement: We are taking our sustainability efforts to the next level, demonstrating once again that GEA is the company that truly engineers for a better world.

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Chief Operating Officer (COO)	Chief Operating Officer (COO)

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	5.164.714.000

SW1.1

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

No facilities were reported in W5.1

SW1.2

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

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	Yes, for some facilities	We are able to provide gelocation data for some of our sites.

SW1.2a

(SW1.2a) Please provide all available geolocation data for your facilities.

Identifier	Latitude	Longitude	Comment
Oelde	51,830458	8,13416	
Soeborg	55,733123	12,484833	
Büchen	53,482883	10,618861	
Tianjin	39,405987	117,045381	
Berlin	52,586561	13,31295	
Parma	44,801932	10,355093	
Huerth/ Elsdorf	50,94484	6,577483	
Vadodara	22,45343	73,18926	
Koszalin	54,19887	16,14759	
Bangalore	12,825617	77,680778	
Den Bosch	51,696621	5,291525	
Drummondville	45,836	-72,4338	
Hudson	44,954375	-92,733348	
Kitzingen	49,746723	10,168521	

Niederahr	50,492044	7,855872	
Richmond	49,19046	-123,076	
Colognola	45,417442	11,160125	
Torrebelvicino	45,712654	11,32124	
Halle	50,72839	4,228222	
Skanderborg	56,043	9,8973	
Ettlingen	48,956	8,37772	
Alcobendas	40,536	-3,63959	
Duisburg 1	51,39456	6,71544	
Duisburg 2	51,38906	6,72706	
Montigny	48,79405	2,03746	

SW2.1

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

SW2.2

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

No

SW3.1

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

Product name

Beverage filling machine

Water intensity value

0,0331

Numerator: Water aspect

Water consumed

Denominator

1000 bottles produced

Comment

The water intensity value is calculated here by dividing the water consumed through the unit "1000 bottles produced".
This is according to the Product Category Rule, which applies for this machine:
https://www.tandfonline.com/doi/epdf/10.1080/21693277.2022.2110170?needAccess=true&role=button

Product name

Average of all GEA products

Water intensity value

67,4

Numerator: Water aspect

Water withdrawn

Denominator

Ratio m3 to EUR 1 million revenue

Comment

This figure indicates the ratio of total water withdrawn in m3 in 2022 to 1 million euros of revenue, i.e. 347,972/5,164.714=67.4

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Yes, CDP may share our Main User contact details with the Pacific Institute

Please confirm below

I have read and accept the applicable Terms