Ardagh Glass Packaging Holding Sarl - Water Security 2023

W0. Introduction

W0.1

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

Ardagh Glass Packaging Holdings SARL (“AGP”) is a leading global supplier of value-added, infinitely recyclable glass packaging solutions for the world’s leading brand owners. AGP has a truly global presence. AGP operates 41 glass production facilities in 12 countries, employing about 14,600 people with recorded revenues of $4.3 billion in 2022.

Market-leading innovation, quality and customer service, backed by investment in customers, suppliers, our people and processes are the hallmarks of our operating strategy. We are firmly focused on continuous improvement in all aspects of our business to deliver long-term, sustainable success for our stakeholders.

As well as offering a choice of numerous colour options, we have the resources and expertise to create distinctive, innovative glass packaging that creates brand differentiation. Glass protects its contents perfectly, is transparent, has a strong shelf appeal and can be designed to express a brand’s personality.

The glass packaging AGP manufactures is an inherently environmentally friendly product, characterised by being infinitely recyclable, meaning glass can be recycled repeatedly without loss of quality. AGP builds off these natural environmental advantages of glass by clearly supporting our customer’s sustainability platforms, reducing our impact on the environment, and improving the communities we do business in. It is a strategy that leverages the unique capabilities and expertise of our entire global team as we organise such actions as material, energy, waste, and water reductions and charitable actions according to our three strategy pillars:

Emissions – reduce our greenhouse gas (GHG) and Nitrogen oxides (NOx) emissions;

Ecology – minimise our impact on the environment;

Social - safe, diverse, and inclusive team focusing on customer satisfaction and supporting the communities we do business in.

This document contains data confirming our sustainability strategy advancements, complete with greenhouse gas emission results from our production facilities and locations. To note, the data included herein has been externally verified.

For additional information please visit, www.ardaghgroup.com

W0.2

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

	Start date	End date
Reporting year	January 1 2022	December 31 2022

W0.3

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

Denmark
Ethiopia
Germany
Italy
Kenya
Netherlands
Nigeria
Poland
South Africa
Sweden
United Kingdom of Great Britain and Northern Ireland
United States of America

W0.4

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

USD

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
Standalone office facilities are not part of this evaluation.	Stand-alone offices (non operational control) and research and development (R&D) locations are excluded. It is not possible to gather effective data from offices as all supplies including water are provided through the lease and is managed by office ownership. Furthermore, consumption for those production facilities is considered minor as e.g., water is only used for functional purposes.

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
No	<Not Applicable>

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	DIRECT USE: AGP consumes water for multiple cooling purposes e.g. cooling of equipment, production buildings and molten glass. We rated the direct use of water as "important" because, in our direct operations, the sufficient volume and acceptable quality of freshwater are essential to prevent equipment scaling, corrosion, and fouling. Moreover, good water quality is essential for washing glass bottles returned from customers for reuse to provide clean surfaces for treatment, decoration on products, and food compliance with no contamination from water used in processes. Fresh water for drinking purposes is provided to our employees and therefore its high quality and safety is important. INDIRECT USE: Water is essential for input materials that prevent deposits and/or corrosion. We define “supplier failure” as a risk category in Ardagh’s Risk Management System (ARMS). Thereby, we rated indirect water use as "important” because insufficient amounts of good quality freshwater being available for our suppliers could disrupt our operations and have a serious negative impact on the viability of our business. IN THE FUTURE, sufficient volume and quality of water will still be necessary for optimal operations and we expect that increasing our production could result in higher water dependency in our direct and indirect use. We are aware of predicted water-related risks such as water stress specific to individual geographies and industries relevant to our supply chain. Thereby, we are monitoring water-related risks regularly. We also aim at increasing our production facilities' water efficiency to address any potential future risk.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	DIRECT USE: At AGP, recycled water is important for direct use in operations, mainly for cooling processes. We implemented internal closed-loop water systems as a key practice to reduce water consumption and minimise pollution whenever feasible. We rated direct use of recycled water as "important” because it reduces our water demand and, accordingly, our operational costs, but also increases our capacity to address current and future regulatory, reputation, and physical water-related risks. INDIRECT USE: Indirect use of recycled water occurs in our supply chain. Our suppliers are actively increasing water efficiency by closing the loops for recycling water and installing equipment for water reuse e.g., cleaning and reuse of washing water, closed cooling systems etc. Using recycled water in our supply chain is important because it decreases our suppliers’ water demand and, accordingly, reduces their operational costs. Moreover, we define “supplier failure” as one of the risk categories in ARMS and, therefore, we rated indirect use of recycled water as " important.” Furthermore, using recycled water increases capacity in our supply chain to address future water-related risks such as water shortage. IN THE FUTURE, as a result of climate change impacts and overconsumption of non-renewable water resources, water scarcity would continue to affect more geographical areas within AGP. We expect an increase in water dependency if this occurs. Therefore, increasing water efficiency by closing loops in our production facilities to increase water recycling will be increasingly important in the future for our direct and indirect water use.

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	Invoice and/or meter readings: Either we utilise smart meters installed by our suppliers or ourselves to measure constantly (usually in an 15min to 1hr rhythm) or alternatively we read data from supplier invoices.	All production facilities report their water consumption to ARMS on a monthly basis. The water withdrawals are measured based on invoices from suppliers and/or utilising onsite water metering devices. The total water withdrawals are monitored to track performance of our water management system.
Water withdrawals – volumes by source	100%	Monthly	Invoice and/or meter readings: Either we utilise smart meters installed by our suppliers or ourselves to measure constantly (usually in an 15min to 1hr rhythm) or alternatively we read data from supplier invoices.	All production facilities report monthly the source of their water withdrawals including surface water, groundwater, and third party (e.g. municipal water) to ARMS. Environmental control standards (ECS) have been defined and implemented to ensure best practices in our operations. The production facilities must ensure effective implementation of these requirements and document an ECS audit in ARMS.
Entrained water associated with your metals & mining and/or coal sector activities - total volumes [only metals and mining and coal sectors]	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	Yearly	Measurements are done via smart meters or laboratory testing via 3rd parties.	Water withdrawal quality is measured and reported at facility level according to local legislation requirements and our minimum water quality requirements ranging from quarterly to annually. For municipal water, our water providers ensure the water delivered to our production facilities meets quality standards according to local and federal regulations. For groundwater withdrawals, we have monitoring parameters onsite according to production requirements.
Water discharges – total volumes	100%	Monthly	Depending on the local requirements based on meter readings and or invoices	All production facilities monthly report the total volume of their water discharges to ARMS. Depending on the site requirements data capture ranges from constant measurements to calculated values. Furthermore, all respective permits and documents related to wastewater discharge and treatment are controlled and monitored at facility-based registers of wastewater discharge.
Water discharges – volumes by destination	Not monitored	<Not Applicable>	<Not Applicable>	Wastewater discharge volume by destination is reported and documented at facility level according to local legislation requirements, ranging from monthly to annually.
Water discharges – volumes by treatment method	Not monitored	<Not Applicable>	<Not Applicable>	Wastewater discharge volume by treatment method is reported and documented at facility level only according to local legislation requirements, ranging from monthly to annually.
Water discharge quality – by standard effluent parameters	100%	Yearly	Measurement devices or laboratory testing via 3rd parties depending on the requirements and parameters.	At AGP, wastewater discharge quality is controlled and documented at facility level according to standard parameters set by local legislation requirements, ranging from monthly to annually. All respective permits and documents related to wastewater treatment are controlled and monitored at a facility-based register.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	Not monitored	<Not Applicable>	<Not Applicable>	At AGP, wastewater discharge quality is controlled and documented at facility level according to standard parameters set by local legislation requirements, ranging from monthly to annually. All respective permits and documents related to wastewater treatment are controlled and monitored at a facility-based register.
Water discharge quality – temperature	100%	Yearly	Measurements are done via smart meters or laboratory testing via 3rd parties.	At AGP, wastewater discharge temperature is controlled and documented at facility level according to standard parameters (including temperature) set by local legislation requirements, ranging from monthly to annually. All respective permits and documents related to wastewater temperature are controlled and monitored at a facility-based register.
Water consumption – total volume	100%	Monthly	Calculated based on total withdrawal and discharge based on invoices and/or measurements	All production facilities report the monthly water consumption (including surface water, groundwater, and municipal water) in ARMS based on invoices and/or measurements. Volume of water consumption is estimated by calculating the difference between withdrawals and discharges.
Water recycled/reused	Not monitored	<Not Applicable>	<Not Applicable>	We do not monitor this water aspect.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Monthly	Employee Satisfaction Surveys	AGP measures the quality of WASH services regularly with Employee Satisfaction Surveys. All our production facilities provide fully functioning WASH services for all workers. Furthermore, canteens are provided in our larger production facilities for our employees. AGP respects the Universal Declaration of Human Rights, that water and sanitation is essential. The satisfaction of employees is very important for AGP, and it is measured by online and paper-based surveys.

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	5880	About the same	Increase/decrease in efficiency	Higher	Increase/decrease in efficiency	AGP´s total water withdrawals increased from 5834 ML/yr in 2021 to 5880 ML/yr in 2022 which indicates 46 ML/yr or 0.8% more water withdrawal. We consider this slight increase as "about the same". This slight increase is mainly BECAUSE OF additional capacity and sight efficiency effects. We assume our measurement error to be +/- 5%.
Total discharges	4302	Lower	Change in accounting methodology	About the same	Change in accounting methodology	Total discharges are lower mainly BECAUSE of the revised reporting procedure last year and fixed reporting and measurement equipment. Therefore, now all our facility report waste water, including rainwater, in their water discharge reporting in alignment with Global Reporting Initiative (GRI) guidelines. Accordingly, the collected data wastewater decreased in 2022 from 5326 ML in 2021 to 4303 ML in 2022, which indicates 1024 ML or 19% less discharge. We assume our measurement error to be +/- 5%.
Total consumption	1577	Much higher	Change in accounting methodology	About the same	Change in accounting methodology	AGP´s total water consumption is not comparable for 2021 vs 2022 as the reporting systematic of the underlying data has changed.

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	About the same	Increase/decrease in efficiency	About the same	Increase/decrease in efficiency	WRI Aqueduct	APPLICATION OF TOOL: We applied the "Baseline Water Stress" Indicator from the "WRI Aqueduct Water Risk Atlas" to identify whether our production facilities are located in a catchment/region with high risk of water stress. WRI Aqueduct Water Risk Atlas ranks the risks in five levels: "low," "low-medium," medium-high," "high," and "extremely high." We considered the "high" and "extremely high" risk rank of the baseline water stress indicator as threshold. AGP operates 41 production facilities in 12 countries (all included in Aqueduct). We checked all production facilities worldwide by location and address 41 production facilities (19% from total AGP water withdrawal) ranked as "high" and "extremely high" according to the water stress indicator of WRI Aqueduct Water Risk Atlas. Results for previous reporting year (2021) was THE SAME. REASON FOR CHANGE TO PREVIOUS YEAR: Since the WRI Aqueduct Water Risk Atlas has not been updated from August 2019, the result is the same for 2022. For the purpose of complete CDP reporting, we disclose the comparison as presented below but we do not compare these data points internally as presented here.

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	Relevant	281	Lower	Increase/decrease in efficiency	Fresh surface water, including rainwater/river/lakes is considered relevant as it is essential for production and cooling purposes. In 2022, 5% of our total water withdrawals were supplied from fresh surface water sources. Total freshwater withdrawal from previous reporting year (2021) was 555 ML which was decreased to 281 ML in 2022. The amount of fresh surface water stated is directly measured and shows a reduction of approximately 49% compared to the previous reporting year. Production facilities report monthly in ARMS. The lower fresh water supply from surface water sources is mainly due to reduced withdrawals from surface water source in our Swedish facility. Furthermore, we managed to reduce our water consumption by raising awareness among employees and replacement of critical equipment which resulted in lower water withdrawals from surface water source.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	We do not use brackish surface water or seawater in our production facilities due to low water quality.
Groundwater – renewable	Relevant	1105	Lower	Increase/decrease in efficiency	Groundwater is considered relevant because it is used in our production facilities, accounting for 19% of our total water withdrawals in the facilities. Withdrawal from groundwater is directly measured and is reported monthly in ARMS. Total withdrawals from groundwater sources in the previous reporting year (2021) was 1291 ML which was decreased to 1105 ML in 2022. It shows a reduction of approximately 14% compared to the previous reporting year. The decrease of water withdrawals from ground water sources was driven by multiple production facilities that source from groundwater.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	We do not use non-renewable groundwater in our production facilities due to continuous production demand.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	We do not use non-renewable groundwater in our production facilities due to continuous production demands.
Third party sources	Relevant	4494	Higher	Increase/decrease in efficiency	Third Party Sources (municipal sources) is the major water supply source for AGP and are used in most of our production facilities, which is why it is relevant and important for us. In 2022, 76% of our total water withdrawals were supplied from third party sources. Water from third party sources is directly measured in production facilities and reported monthly in ARMS. Total water withdrawals were supplied from third party sources from previous reporting year (2021) were 3988 ML which was increased to 4494 in 2022. It shows an increase of approximately 13% compared to the previous reporting year. The increase of water withdrawals from third party was DUE TO increase of water supply from municipal source and reduced withdrawal from groundwater source in in multiple facilities.

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	4300000000	5880	731292.517006803	Although we predict a growth in our output and expect higher revenue in next years, we predict that water withdrawal efficiency will decrease by 2030. Our 2030 target is to reduce water intensity by 26% compared to base year 2020.

W1.4

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

	Products contain hazardous substances	Comment
Row 1	No	Our final product the Glass Container does not contain any substances classified as hazardous by a regulatory authority. This has been proven also be the BVGlass in it study.

W1.5

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

	Engagement	Primary reason for no engagement	Please explain
Suppliers	Yes	<Not Applicable>	<Not Applicable>
Other value chain partners (e.g., customers)	Yes	<Not Applicable>	<Not Applicable>

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 assess the impact of our suppliers and have no plans to do so within the next two years

Considered in assessment

<Not Applicable>

Number of suppliers identified as having a substantive impact

<Not Applicable>

% of total suppliers identified as having a substantive impact

<Not Applicable>

Please explain

As part of our supplier engagement programme, we ask our suppliers about their total impact on environment and if they have environmental management systems like ISO 14001 in place, but we don´t ask for dedicated water usage data.

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	Comment
Row 1	No, and we do not plan to introduce water-related requirements within the next two years	

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 WASH information at least annually from suppliers

% of suppliers by number
1-25

% of suppliers with a substantive impact
<Not Applicable>

Rationale for your engagement
WHY THESE SUPPLIERS WERE SELECTED: AGP defines the basic principles in our Responsible Procurement Policy to ensure that all suppliers are engaged in our environmental management efforts. However, it is not feasible to assess all suppliers due to the complexity of data gathering among all suppliers. Therefore, these suppliers were selected based on strategic importance. In 2022, our Top 50 suppliers from our critical commodities are evaluated using Sustainability Scorecard. Additionally, more than 100 suppliers from critical categories have completed our supplier survey. We ensure these suppliers with most interactions are prioritised and engaged. HOW SUPPLIERS ARE INCENTIVISED: Our suppliers have benefited from our evaluation as they are aware of mutual benefits in exchanging best practices of environmental management. We expect our suppliers to comply with the sustainability standards and requirements defined in our Responsible Procurement Policy. These standards and requirements include environmental management systems such as ISO14001 or Eco-Management and Audit Scheme (EMAS) and water saving programmes.
HOW SUPPLIERS ARE INCENTIVISED: Our suppliers have benefited from our evaluation as they are aware of mutual benefits in exchanging best practices of environmental management. We expect our suppliers to comply with the sustainability standards and requirements defined in our Responsible Procurement Policy. These standards and requirements include environmental management systems such as ISO14001 or Eco-Management and Audit Scheme (EMAS) and water saving programmes.

The TYPE OF INFORMATION REQUESTED FROM SUPPLIERS are the water-related information gathered for the implementation of the standards and meeting requirements such as ISO14001, Eco-Management and Audit Scheme (EMAS), and water saving programmes. They include water aspects e.g. water consumption. THE SHARED INFORMATION IS USED to improve products' water footprint measurements and to create added value for us and our suppliers. The shared information allows AMP to review suppliers' water and environmental performance, their dependency on water, their water-related risks. Moreover, the shared information will be reviewed by Procurement and Sustainability, and any significant performance gap to our responsible sourcing requirements will be communicated to the supplier with the aim to improve water performance through developing possible action plans.

Impact of the engagement and measures of success
We monitor the SUCCESS OF SUPPLIER ENGAGEMENT on a regular basis through questionnaires. The annual survey and sustainability scorecard are sent to major suppliers and covers Environmental Management and Policy including reduction programmes (GHG, water, etc.). During the last assessment, we successfully risk mapped more than 100 suppliers across different commodities: About 40% have reported water or wastewater reduction programmes and more than 65% have at least one reduction programme in place.

Comment

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
Education / information sharing

Details of engagement
Educate and work with stakeholders on understanding and measuring exposure to water-related risks
Share information about your products and relevant certification schemes

Rationale for your engagement
When AGP works with customers we can try to ensure that all aspects are addressed in environmental management, including water management.

We support customers in the development of environmentally friendly design, manufacturing, and logistics to achieve maximum results and a minimum footprint. We offer socially and environmentally beneficial products considering the product lifecycle to reduce environmental impacts as our materials are permanent materials and, as such, can be infinitely recycled without loss of quality. Moreover, AGP, through our involvement in trade associations, supports customers, consumers, and legislators in making responsible decisions, e.g. through driving understanding of the sustainability advantages of glass packaging.

Furthermore, our sustainability reports provide stakeholders with updates on our sustainability performance.

Impact of the engagement and measures of success
SUCCESS IS MEASURED using our 2030 target tracker.

Type of stakeholder
Investors & shareholders

Type of engagement
Education / information sharing

Details of engagement
Educate and work with stakeholders on understanding and measuring exposure to water-related risks
Share information about your products and relevant certification schemes

Rationale for your engagement
We engage with our communities, consumers, and industry. It is only when AGP works with all stakeholders along the entire value chain, that we can try to ensure that all aspects are addressed in environmental management, including water management.
AGP increases awareness through the exchange of Information, and education e.g. via our Project Lead The Way programme to inform students (elementary through high school) about the advantages of glass packaging. This includes communicating to stakeholders, key environmental glass advantages via our official website featuring fact sheets about sustainability, recyclability of glass, etc. We also aim to have a robust, transparent, and positive relationship with communities through investments in jobs, infrastructure projects, and education and engaging with communities. AGP´s 2030 goal is to achieve at least one meaningful Community Involvement Project (CIP) annually per location. The aim is to enhance the integration of AGP into local communities and establish relationships with local stakeholders. Successful CIP projects can also improve customer relations and AGP's image and brand credibility.

Furthermore, our sustainability reports provide stakeholders with updates on our sustainability performance.

Impact of the engagement and measures of success
SUCCESS IS MEASURED by the number of meaningful Community Involvement Project (CIP) annually per location.

W2. Business impacts

W2.1

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

W2.1a

(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and the total financial impact.

Country/Area & River basin

Poland	Oder River

Type of impact driver & Primary impact driver

Acute physical	Heavy precipitation (rain, hail, snow/ice)

Primary impact
Reduction or disruption in production capacity

Description of impact
At a production facility in our Gostyn, Poland, an electrical cabinet was flooded during heavy rainfall, resulting in machine downtime. Total machine downtime was about 160 minutes. The loss was calculated to be around 1,100 (1,000€) of EBITDA and around $3,300 (3,000€) for repairs and corrective actions.

Primary response
Other, please specify (protections were triggered and the voltage was automatically switched off)

Total financial impact
4000

Description of response
Secure the place where water entered to the cabinet
Change routing of the cables to the cabinet from the bottom instead of top entrance. Install additional roof protection to intercept rainwater.

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	Fines, enforcement orders, and/or other penalties	Comment
Row 1	No	<Not Applicable>	

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	Please explain
Row 1	Yes, we identify and classify our potential water pollutants	• The group-wide Environmental Control Standard (ECS) is a self-defined internal standard to ensure compliance with environmental standards aligned with the International Organisation for Standardization (ISO) without having external certification. It defines water pollutions to be identified and tested by analyses in chapter A.16 • The best available Technique Reference (BREF) describes typical water pollutants of the container glass industry which are taken as reference • In all countries of our operations permits are defining pollutants to be analyses and if needed treated • A general approach of Ardagh sites is to have a register of all used chemical products for the different process steps of manufacturing. The chemical products are identified which are used either to condition the needed water quality in closed loop circuits or which are in contact with water. • Most important pollution to be controlled are: * pH * oil (carbons) * CSB * tin * suspended solids • * AOX (chloride)	<Not Applicable>

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
Inorganic pollutants

Description of water pollutant and potential impacts
Glass containers are sprayed with a solution containing tin while the glass surface is hot.
The level of pollutants is very low as only rejected containers at the first stage of production can be in contact with water of a closed-loop water system. Tin itself is not regarded as harmful to aquatic life forms. It is not regarded as a hazardous substance.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts
Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Resource recovery
Implementation of integrated solid waste management systems
Industrial and chemical accidents prevention, preparedness, and response
Water recycling
Reduction or phase out of hazardous substances
Requirement for suppliers to comply with regulatory requirements
Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Please explain
• The manufacturing processes and assets are evaluated to identify any environmental risk (according to ISO14001).
• Waste and residues in transport containers are known and collected in dedicated areas to get transported by licenced companies and treatment facilities.
• Substitution of hazardous substances is a continuous process, knowing the hazardous handling is defined to avoid pollution.
• As a producer of food containers suppliers and contractors are bound to state regulatory requirements by contract which not only covers hazardous substances and the environment.
• Frequent measurements of wastewater pollutants, continuous measurements of leading indicators of water condition state effectiveness preventive technical measures.
• Round tours, audits, and reporting of incidents are evaluated at different management levels to evaluate the effectiveness of environmental protection.

Water pollutant category
Oil

Description of water pollutant and potential impacts
Can be part of wastewater rejected by a closed-loop water circuit. Potentially harmful to aquatic life forms.

Value chain stage
Direct operations

Actions and procedures to minimize adverse impacts
Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Resource recovery
Implementation of integrated solid waste management systems
Industrial and chemical accidents prevention, preparedness, and response
Water recycling
Reduction or phase out of hazardous substances
Requirement for suppliers to comply with regulatory requirements
Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Please explain
• The manufacturing processes and assets are evaluated to identify any environmental risk (according to ISO14001).
• Waste and residues in transport containers are known and collected in dedicated areas to get transported by licenced companies and treatment facilities.
• Substitution of hazardous substances is a continuous process, knowing the hazardous handling is defined to avoid pollution.
• As a producer of food containers suppliers and contractors are bound to state regulatory requirements by contract which not only covers hazardous substances and the environment.
• Frequent measurements of wastewater pollutants, continuous measurements of leading indicators of water condition state effectiveness preventive technical measures.
• Round tours, audits, and reporting of incidents are evaluated at different management levels to evaluate the effectiveness of environmental protection.

Water pollutant category
Other nutrients and oxygen demanding pollutants

Description of water pollutant and potential impacts
Biocides to condition close-loop water circuits. Harmful to fish and water live forms and harmful to humans and animal when incorporated

Value chain stage
Direct operations

Actions and procedures to minimize adverse impacts
Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Resource recovery
Implementation of integrated solid waste management systems
Industrial and chemical accidents prevention, preparedness, and response
Water recycling
Reduction or phase out of hazardous substances
Requirement for suppliers to comply with regulatory requirements

Please explain
• The manufacturing processes and assets are evaluated to identify any environmental risk (according to ISO14001).
• Waste and residues in transport containers are known and collected in dedicated areas to get transported by licenced companies and treatment facilities.
• Substitution of hazardous substances is a continuous process, knowing the hazardous handling is defined to avoid pollution.
• As a producer of food containers suppliers and contractors are bound to state regulatory requirements by contract which not only covers hazardous substances and the environment.
• Frequent measurements of wastewater pollutants, continuous measurements of leading indicators of water condition state effectiveness preventive technical measures.
• Round tours, audits, and reporting of incidents are evaluated at different management levels to evaluate the effectiveness of environmental protection.

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
More than once a year

How far into the future are risks considered?
More than 6 years

Type of tools and methods used
Tools on the market
Enterprise risk management
International methodologies and standards
Databases

Tools and methods used
EcoVadis
SEDEX
WRI Aqueduct
Enterprise Risk Management
Life Cycle Assessment
ISO 14001 Environmental Management Standard
Maplecroft Global Water Security Risk Index

Contextual issues considered
Water availability at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks

Stakeholders considered
Employees
Local communities
Regulators
Suppliers
Water utilities at a local level

Comment

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
Enterprise risk management
International methodologies and standards
Databases

Tools and methods used
Enterprise Risk Management
Life Cycle Assessment
IPCC Climate Change Projections
ISO 14001 Environmental Management Standard
Maplecroft Global Water Security Risk Index

Contextual issues considered
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

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	Ardagh SA and its subsidiaries including AGP (AGSA) sustainability assesses water risks for all production facilities as part of our Enterprise Risk Management (ERM) Processes. These processes are based on the (COSO) Enterprise Risk Management Framework, providing a clear direction and guidance for enterprise risk management including water-related risks such as flood and water shortage. WRI Aqueduct provides 13 different indicators of water-related physical, regulatory, and reputation risks to get a 360 degree picture of water-related risks. Supplier annual desktop risk assessment and Maplecroft risk data, e.g. Maplecroft Global Water Security Risk Index, is used to identify potential risks and opportunities across our supply chain. ISO 14001 Environmental Management Standard is implemented in our facilities.	1. Implications of water on our key commodities/raw materials: Water availability is important for us because we use it for process, cooling, cleaning as well as for drinking purposes by our employees. Without water, the manufacturing processes is stopped and there would be no output. We are aware of predicted water-related risks such as water scarcity specific to individual geographies and industries relevant to our supply chain. Therefore, any potential risks related to water availability and quality are monitored and assessed. 2. Water regulatory frameworks: noncompliance with local and national water wastewater regulations can be costly - not only would it potentially increase our costs through increased charges and fines but also it can lead to a conflict with water authorities and local communities. Therefore, we monitor and assess water-related regulatory risks. 3. Access to fully functioning, safely managed WASH services for all employees: All our production facilities provide fully functioning WASH services for all workers. Furthermore, canteens are provided in our larger production facilities for our employees. AGP respects the Universal Declaration of Human Rights, that clean drinking water and sanitation are essential.	Employees: Employees health and safety is very important to us. Fresh water for drinking purposes is provided to our employees and therefore its high quality and safety is important. Therefore, any water-related risks with potential impact on our employees' health and safety are monitored and assessed. The satisfaction of employees is very important for AGP and is measured by online and paper-based surveys. Local communities: it is very important for us to have a positive social, economic, and environmental impact on the local community where we are present. In order to avoid competing/conflict with local communities in water consumption and protect water resources and aquatic ecosystems from wastewater issues, we regularly assess and monitor any water-related risks with respect to local communities and local media coverage. Suppliers: insufficient amounts of good quality freshwater being available for our suppliers could disrupt our operations and have a serious negative impact on the viability of our business. We define "supplier failure" as a risk category in ARMS and monitor and assess the risk regularly. Water utilities at a local level: To assure compliance with regulations, we monitor and assess our engagement with local water and wastewater authorities.	Risk owners are responsible for the elaboration of action plans under the coordination of ERM Lead. Each action consists of a person responsible for implementation; action description; costs of actions in financial amount and/or a full-time equivalent value; progress. Action plans are submitted by risk owners to Global Operational Executive Team (GOE) or management. Management ensures adequate resources are allocated to risk owners for implementation. The coordination of the execution and follow-up of action plans is the responsibility of risk owners. Action owners provide risk owners with detailed information on action progress, potential difficulties, and KPI updates ahead of the reporting deadlines defined by Group Risk Management. Risk owners report information to their ERM Lead to Group Risk Management, and whenever necessary or justified by circumstances. ERM leads centralised risk owner inputs and reports in turn to Group Risk Management based on the annual reporting schedule. Reports are consolidated by Group Risk Management and reviewed by GOE. The closure of action plans is submitted by risk owners and validated by GOE, Corporate functions, or key projects. When applicable, closed action plans are documented as existing risk mitigation measures in the description of the concerned risk.

W4. Risks and opportunities

W4.1

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

Yes, only within our direct operations

W4.1a

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

AGP defines a water-related risk as having a substantial impact if the identified risk within direct operations and supply chain could generate any change in AGP's businesses, operations, revenue, or expenditures. We operate an Enterprise Risk Management (ERM) System with oversight by an ERM management committee. ERM comprises 51 risk categories. This ensures that strategic risks, such as environmental, operational, financial, and market risks are identified, assessed, and appropriately treated. In ERM, water-related risks are categorised as an “Environmental Risk” or an “Adverse Event.”

Furthermore, water-related risks from direct operations and supply chains are assessed according to the indicators and criteria defined in our Business Continuity Management (BCM) system. The purpose of A’s BCM system is to identify potential disruptions to critical business processes and link these to mitigation and response plans.

INDICATORS: At AGP, we rank the risks using a matrix based on the risk’s financial impact (from Low to Catastrophic) and likelihood (from Low to Almost Certain) by applying an impact scale that reflects the financial impact. This is also relevant for all types of water-related risks such as physical risks (e.g. flood events and water scarcity), regulatory, and reputational risks. THRESHOLDS: Any financial impact higher than $45 million EBITDA is deemed to be Substantive. AGP defines thresholds for "Low", “Significant, “Critical,” and "Catastrophic" financial impacts as well. Impacts lower than $15m EBITDA are considered “Low" financial impacts and any impact higher than $110m EBITDA is considered as a "Catastrophic" impact.

FOR EXAMPLE, according to our flood exposure assessment, the loss due to the exposure of our Germersheim facility to a 500-year flood risk event was estimated to be €55.17 million ($64.90 million) which is higher than $45 million and could be a substantive financial impact. However, the loss due to the exposure of our Gostyn facility to a 500-year flood risk event was estimated to be €1.28 million ($1.5 million), which is lower than $15 million so is considered a “Low" financial impact.

W4.1b

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

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	13	26-50	We consider 13 of our 41 production facilities to be categorised as “high” and “extremely high” risk for water stress indicator, according to WRI Aqueduct Water Risk Atlas.

W4.1c

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

Country/Area & River basin

United States of America	Sacramento River - San Joaquin River

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company’s annual electricity generation that could be affected by these facilities
<Not Applicable>

% company’s global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company’s total global revenue that could be affected
1-10

Comment
We consider one of our facilities located in US to be exposed to water stress risk, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

Italy	Other, please specify (East Coast)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company’s annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider one of our facilities in Italy to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

Germany	Weser

Number of facilities exposed to water risk
3

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider three of our facilities in Germany to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

Germany	Elbe River

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider three of our facilities in Germany to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

Germany	Elbe River

Number of facilities exposed to water risk
2

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider two of our facilities in Germany to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

Netherlands	Meuse

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider one of our facilities in Netherlands to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

Nigeria	Other, please specify (Gulf of Guinea)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider one of our facilities in Nigeria to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

South Africa	Other, please specify (Indian Ocean)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider one of our facilities in South Africa to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

South Africa	Limpopo

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider one of our facilities in South Africa to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

Ethiopia	Other, please specify (Blue Nile)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider one of our facilities in Ethiopia to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

Country/Area & River basin

Kenya	Other, please specify (Indian Ocean)

Number of facilities exposed to water risk
1

% company-wide facilities this represents
1-25

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

% company's total global revenue that could be affected
1-10

Comment
We consider one of our facilities in Kenya to be exposed to water stress, according to WRI Aqueduct Water Risk Atlas.

W4.2

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

Country/Area & River basin

Italy	Other, please specify (East Coast)

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
We consider one glass facility in Italy to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas.
IMPACT ON DIRECT OPERATIONS: Our production facility in Montorio Al Vomano is dependent on availability for water resourcesas it is important for the cooling processes in our glass facilities, Iit is required along the entire manufacturing processes, especially during the melting. If water were to be unavailable in the location, there would be a risk that the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control our water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat the potential water-related risk, Ardagh's Glass facility in Montorio Al Vomano has implemented a process water recirculation system, efficient water technology, water re-use, recycling and conservation practices (e.g. closed water cycles). AGP's Montorio Al Vomano production facility is one of the EU's top five glass manufacturers when it comes to production low water consumption, per tonne of glass produced. We also act to prevent possible contamination of water by implementing various wastewater treatment and recycle technologies. The water used in the process is treated and recirculated, eliminating any wastewater discharge and decreasing water consumption. We have implemented a process water recirculation system where rainwater and groundwater are collected and used for the manufacturing processes. Furthermore, we have implemented ECS and ISO 14001 to control our water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

United States of America	Sacramento River - San Joaquin River

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
To combat potential water-related risk, the AGP production facility in Madera has implemented a process water recirculation system, efficient water technology, water re-use, recycling and conservation practices (e.g. closed water cycles). AGP Madera employs a closed loop water cooling system. This facility is a zero wastewater discharge plant. All water and sanitary wastewaters are discharged into a series of permitted impoundments that allow for percolation of water back into the ground having zero wastewater discharge. Risks are managed together with our insurance company. Only low risk is seen from our side as we are not a water intensive industry. We ensure our wastewater is discharged in good quality to protect water resources. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
POTENTIAL FINANCIAL IMPACT FIGURE: The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat potential water-related risk, the AGP production facility in Madera has implemented a process water recirculation system, efficient water technology, water re-use, recycling and conservation practices (e.g. closed water cycles). AGP Madera employs a closed loop water cooling system. This facility is a zero wastewater discharge plant. All water and sanitary wastewaters are discharged into a series of permitted impoundments that allow for percolation of water back into the ground having zero wastewater discharge. Risks are managed together with our insurance company. Only low risk is seen from our side as we are not a water intensive industry. We ensure our wastewater is discharged in good quality to protect water resources. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

Germany	Weser

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
We consider three glass production facilities in the Weser River basin, Germany to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas. IMPACT ON DIRECT OPERATIONS: These production facilities depend on the availability of water resources as it is important for the cooling processes in our glass facilities, It is required throughout the entire manufacturing process, especially during the melting. If water were to be unavailable in the location, there would be a risk that the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control our water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat the potential water-related risk, these production facilities in Germany have implemented a process water recirculation system, efficient water technology, water re-use, recycling and conservation practices (e.g. closed water cycles). We also act to prevent possible contamination of water by implementing various wastewater treatment and recycle technologies. The water used in the process is treated and recirculated, eliminating any wastewater discharge and decreasing water consumption. We have implemented a process water recirculation system where rainwater and groundwater are collected and used for the manufacturing processes. Furthermore, we have implemented ECS and ISO 14001 to control our water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

Germany	Elbe River

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
We consider three glass production facilities in the Elbe River basin, Germany to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas. IMPACT ON DIRECT OPERATIONS: These production facilities depend on the availability of water resources as it is important for the cooling processes in our glass facilities, It is required throughout the entire manufacturing process, especially during the melting. If water were to be unavailable in the location, there would be a risk that the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
POTENTIAL FINANCIAL IMPACT FIGURE: The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Primary response to risk
Amend the Business Continuity Plan

Description of response
To combat the potential water-related risk, these production facilities in Germany have implemented a process water recirculation system, efficient water technology, water re-use, recycling and conservation practices (e.g. closed water cycles). We also act to prevent possible contamination of water by implementing various wastewater treatment and recycle technologies. The water used in the process is treated and recirculated, eliminating any wastewater discharge and decreasing water consumption. We have implemented a process water recirculation system where rainwater and groundwater are collected and used for the manufacturing processes. Furthermore, we have implemented ECS and ISO 14001 to control our water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

Netherlands	Meuse

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
We consider three glass production facilities in the Ems River basin, Netherlands to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas. IMPACT ON DIRECT OPERATIONS: These production facilities depend on the availability of water resources as it is important for the cooling processes in our glass facilities, It is required throughout the entire manufacturing process, especially during the melting. If water were to be unavailable in the location, there would be a risk that the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
POTENTIAL FINANCIAL IMPACT FIGURE: The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat potential climate-related risk, this production facility implemented process water recirculation systems, efficient water technologies, water re-use, recycling and conservation practices (e.g. closed water cycles) and we aim to expand the use of those technologies where possible. Risks are managed together with our insurance company. Only low risk is seen from our side as we are not a water intensive industry. We ensure our wastewater is discharged in good quality to protect water resources. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

Nigeria	Other, please specify (Gulf of Guinea)

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
We consider three glass production facilities in the Gulf of Guinea, Nigeria to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas.
IMPACT ON DIRECT OPERATIONS: These production facilities depend on the availability of water resources as it is important for the cooling processes in our glass facilities, It is required throughout the entire manufacturing process, especially during the melting. If water were to be unavailable in the location, there would be a risk that the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)

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

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

Explanation of financial impact
POTENTIAL FINANCIAL IMPACT FIGURE: The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat potential climate-related risk, this production facility intent to implemented process water recirculation systems, efficient water technologies, water re-use, recycling and conservation practices (e.g. closed water cycles). Risks are managed together with our insurance company. Only low risk is seen from our side as we are not

a water intensive industry. We ensure our wastewater is discharged in good quality to protect water resources. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

South Africa	Other, please specify (Indian Ocean)

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
We consider three glass production facilities in the Indian Ocean, South Africa to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas. IMPACT ON DIRECT OPERATIONS: These production facilities depend on the availability of water resources as it is important for the cooling processes in our glass facilities, It is required throughout the entire manufacturing process, especially during the melting. If water were to be unavailable in the location, there would be a risk that the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
POTENTIAL FINANCIAL IMPACT FIGURE: The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat potential climate-related risk, this production facility intent to implemented process water recirculation systems, efficient water technologies, water re-use, recycling and conservation practices (e.g. closed water cycles). Risks are managed together with our insurance company. Only low risk is seen from our side as we are not a water intensive industry. We ensure our wastewater is discharged in good quality to protect water resources. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

South Africa	Limpopo

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
We consider three glass production facilities in the Limpopo River basin, South Africa to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas. IMPACT ON DIRECT OPERATIONS: These production facilities depend on the availability of water resources as it is important for the cooling processes in our glass facilities, It is required throughout the entire manufacturing process, especially during the melting. If water were to be unavailable in the location, there would be a risk that

the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
POTENTIAL FINANCIAL IMPACT FIGURE: The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat potential climate-related risk, this production facility intent to implemented process water recirculation systems, efficient water technologies, water re-use, recycling and conservation practices (e.g. closed water cycles). Risks are managed together with our insurance company. Only low risk is seen from our side as we are not a water intensive industry. We ensure our wastewater is discharged in good quality to protect water resources. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

Ethiopia	Other, please specify (Blue Nile)

Type of risk & Primary risk driver
Please select

Primary potential impact
Please select

Company-specific description
We consider three glass production facilities in the Blue Nile River basin, Ethiopia to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas. IMPACT ON DIRECT OPERATIONS: These production facilities depend on the availability of water resources as it is important for the cooling processes in our glass facilities, It is required throughout the entire manufacturing process, especially during the melting. If water were to be unavailable in the location, there would be a risk that the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
POTENTIAL FINANCIAL IMPACT FIGURE: The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat potential climate-related risk, this production facility intent to implemented process water recirculation systems, efficient water technologies, water re-use, recycling and conservation practices (e.g. closed water cycles). Risks are managed together with our insurance company. Only low risk is seen from our side as we are not a water intensive industry. We ensure our wastewater is discharged in good quality to protect water resources. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

Country/Area & River basin

Kenya	Other, please specify (Indian Ocean)

Type of risk & Primary risk driver

Chronic physical	Water stress

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
We consider three glass production facilities in the Indian Ocean, Kenya to be exposed to physical water risk, according to WRI Aqueduct Water Risk Atlas.
IMPACT ON DIRECT OPERATIONS: These production facilities depend on the availability of water resources as it is important for the cooling processes in our glass facilities, It is required throughout the entire manufacturing process, especially during the melting. If water were to be unavailable in the location, there would be a risk that the production in that facility would need to be stopped.

Timeframe
More than 6 years

Magnitude of potential impact
Low

Likelihood
Unlikely

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2000000

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

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

Explanation of financial impact
POTENTIAL FINANCIAL IMPACT FIGURE: The potential financial impact is low therefore not quantified financially. $2 million is entered as it is our threshold for low potential financial impact. We are aware of water risks but, so far, we do not anticipate substantive impact in the near future on our operations, revenue or expenditure. This is because we have initiated all relevant management strategies to combat the risk. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
To combat potential climate-related risk, this production facility intent to implemented process water recirculation systems, efficient water technologies, water re-use, recycling and conservation practices (e.g. closed water cycles). Risks are managed together with our insurance company. Only low risk is seen from our side as we are not a water intensive industry. We ensure our wastewater is discharged in good quality to protect water resources. Furthermore, we have implemented ECS and ISO 14001 to control water management.

Cost of response
0

Explanation of cost of response
No additional cost incurred as cost of responses are incurred as normal business activities.

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	At AGP, we rank the risks using a risk matrix based on risks financial impact (from Low to Catastrophic) and likelihood (from Low to Almost Certain) by applying an impact scale that reflects the financial impact. This is also relevant for all types of water-related risks such as physical risks (e.g. flood events and water scarcity), regulatory, and reputational risks. Physical water-related risks initially are assessed through the WRI Aqueduct Water Risk Atlas and are based on the location of suppliers and customers. Any financial impact higher than $45 million EBITDA is deemed to be substantive. AGP considers itself exposed to water-related risks in its value chain but not with the potential to have a substantive financial impact. Because we have not identified any water-related risk with the potential financial impact of higher than $45 million EBITDA in our value chain. Therefore, we do not anticipate water-related risks as substantive impact on our value chain.

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

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Improving water efficiency in operations is considered strategic for AGP because water availability is important for our business and our two production facilities located in water stress watersheds in the USA and Italy where the water stress will be escalated in the future as consequences of climate change according to the WRI Aqueduct Water Risk Atlas. Therefore, any efforts to improve water efficiency in operations will reduce the risk and enhance our adaptive capacity against future water stress.

AN EXPLANATION OF THE ACTION TO REALIZE THE OPPORTUNITY: We constantly evaluate opportunities across engineering, analysing latest technology developments on the market and run trials in production facilities to realise water savings to decrease costs. As a result of identifying opportunities, one of our 2030 targets is to reduce water consumption. We have set a target to reduce water intensity by 26%. All our production facilities have implemented certain tools to prevent wasting water such as closed water cycles, cascades or state of the art spray nozzles. Furthermore, we also prevent possible water contamination by implementing various wastewater treatment technologies. Due to the closed water cycles and preventive water contamination measures, we experience less need for water to be discharged and more water resources can be conserved. We have implemented ECS and ISO 14001 for water management. The water withdrawals are monitored to track performance of water management.

EXPLANATION OF THE ACTION TO REALIZE THE OPPORTUNITY:
Our ECS are implemented to analyse risk, with assistance from local regulatory authorities and our appointed insurance company. Our Emergency Response Plan prepares us to be effective, efficient and more resilient before/during/after natural hazards occur, thereby, reducing operational costs. Our Emergency Response Plan was put into action when there were damages from storms, with leadership reacting effectively, and serious losses prevented. We are continually improving our strategy and plans regarding impacts from climate change to increase resiliency toward other extreme events.

Each AGP region maintains a list of projects across all sustainability KPIs, including water reduction. For example, AGP-North America has listed two water recirculation projects, one in Pevely, Missouri and one in Bridgeton, New Jersey, that would reduce water consumption across AGP-North America by 241k m3 per year.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

EXPLANATION OF THE APPROACH: Water reduction projects are included as normal operational costs; therefore, no additional potential financial impact is needed to apply this opportunity. We expect cost savings that drive share owner value. We also position the organisation as a leading business partner example in our local communities.

W5. Facility-level water accounting

W5.1

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

Facility reference number

Facility 1

Facility name (optional)

Madera

Country/Area & River basin

United States of America	Sacramento River - San Joaquin River

Latitude
36.926289

Longitude
-120.104158

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
304.26

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
304.26

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
0

Comparison of total consumption with previous reporting year
About the same

Please explain
AGP's production facility in Madera, California derives its water demand from groundwater. According to WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as extreme high risk for water stress. The total water withdrawals increased by 16%compared to the previous year (304.263 ML/year in 2022 vs 262.212 ML/year in 2021). This facility has a fully closed-loop system in place.

Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 2

Facility name (optional)
Montorio al Vomano

Country/Area & River basin

Italy	Other, please specify (East Coast)

Latitude
42.592682

Longitude
13.694891

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
18.51

Comparison of total withdrawals with previous reporting year
Please select

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
11.19

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
7.317

Total water discharges at this facility (megaliters/year)
0

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
18.51

Comparison of total consumption with previous reporting year
About the same

Please explain
AGP's production facility in Montorio, Italy derives its main water demand from groundwater but also uses the local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as extreme high risk for water stress. The total water withdrawals decreased by 7% compared to the previous year (18.510 ML/year in 2022 vs 19.9 ML/year in 2021). This facility has a fully closed-loop system in place.
Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 3

Facility name (optional)
Dongen

Country/Area & River basin

Netherlands	Meuse

Latitude
51.61079

Longitude
4.99506

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
88.58

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
9.78

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
2.2

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
76.59

Total water discharges at this facility (megaliters/year)
41.36

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations
41.36

Total water consumption at this facility (megaliters/year)
47.22

Comparison of total consumption with previous reporting year
Higher

Please explain
AGP's production facility in Dongen, Netherlands derives its main water demand from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals increased by 2% compared to the previous year (88.58 ML/year in 2022 vs 86.86 ML/year in 2021). This facility has partially closed-loop systems in place but consumes water also for social purpose.
Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 4

Facility name (optional)
Bad Münder

Country/Area & River basin

Germany	Weser

Latitude
52.19042

Longitude
9.44813

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
20.34

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
20.34

Total water discharges at this facility (megaliters/year)
10.17

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations
10.17

Total water consumption at this facility (megaliters/year)
10.17

Comparison of total consumption with previous reporting year
About the same

Please explain
AGP's production facility in Bad Münder, Germany derives its main water demand from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals increased by 3% compared to the previous year (20 ML/year in 2022 vs 21 ML/year in 2021). This facility has partially closed-loop systems in place but consumes water also for social purpose.
Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 5

Facility name (optional)
Drebkau

Country/Area & River basin

Germany	Elbe River

Latitude
51.6493

Longitude
14.23005

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
56.48

Comparison of total withdrawals with previous reporting year
Much higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
56.48

Total water discharges at this facility (megaliters/year)
32.59

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations
32.59

Total water consumption at this facility (megaliters/year)
23.89

Comparison of total consumption with previous reporting year
Lower

Please explain
AGP's production facility in Drebkau, Germany derives its main water demand from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals increased by 30% compared to the previous year (56 ML/year in 2022 vs 43 ML/year in 2021). This facility has partially closed-loop systems in place but consumes water also for social purpose.
Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 6

Facility name (optional)
Neuenhagen

Country/Area & River basin

Germany	Elbe River

Latitude
52.53652

Longitude
13.71521

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
24.98

Comparison of total withdrawals with previous reporting year
Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
24.98

Total water discharges at this facility (megaliters/year)
2.99

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations
2.99

Total water consumption at this facility (megaliters/year)
21.99

Comparison of total consumption with previous reporting year
Lower

Please explain
AGP's production facility in Neuenhagen, Germany derives its main water demand from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals decreased by 27% compared to the previous year (25

ML/year in 2022 vs 34 ML/year in 2021). This facility has partially closed-loop systems in place but consumes water also for social purpose. Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 7

Facility name (optional)
Nienburg

Country/Area & River basin

Germany	Weser

Latitude
52.65907

Longitude
9.21215

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
101.61

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
92.31

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
9.304

Total water discharges at this facility (megaliters/year)
33.02

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations
33.02

Total water consumption at this facility (megaliters/year)
68.59

Comparison of total consumption with previous reporting year
Higher

Please explain
AGP's production facility in Nienburg, Germany derives its main water demand from groundwater but also uses local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals increased by 8% compared to the previous year (101 ML/year in 2022 vs 94 ML/year in 2021). This facility has partially closed-loop systems in place but consumes water also for social purpose. Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 8

Facility name (optional)
Obernkirchen

Country/Area & River basin

Germany	Weser

Latitude
52.26273

Longitude
9.14006

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
41.32

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
15.79

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
25.53

Total water discharges at this facility (megaliters/year)
21.84

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations
21.84

Total water consumption at this facility (megaliters/year)
19.5

Comparison of total consumption with previous reporting year
About the same

Please explain
AGP's production facility in Obernkirchen, Germany derives its main water demand from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals decreased by 5% compared to the previous year (41 ML/year in 2022 vs 43 ML/year in 2021). This facility has partially closed-loop systems in place but consumes water also for social purpose.
Withdrawal is measured with +/- 5% error

Facility reference number
Facility 9

Facility name (optional)
Aba State

Country/Area & River basin

Nigeria	Other, please specify (Gulf of Guinea)

Latitude
5.151151

Longitude
7.386984

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

27.36

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
27.36

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
27.36

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year
Please select

Please explain
AGP's production facility in Aba State, Nigeria derives its main water demand from groundwater as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals increased by 3% compared to the previous year (27 ML/year in 2022 vs 27 ML/year in 2021). This facility has partially closed-loop systems in place but consumes water also for social purpose.
Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 10

Facility name (optional)
Bellville

Country/Area & River basin

South Africa	Other, please specify (Indian Ocean)

Latitude
-33.929534

Longitude
18.648939

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
161.34

Comparison of total withdrawals with previous reporting year
Much higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
1.5

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources

159.85

Total water discharges at this facility (megaliters/year)
161.88

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year
Please select

Please explain
AGP's production facility in Bellville, South Africa derives its main water demand from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals increased by 21% compared to the previous year (161 ML/year in 2022 vs 134 ML/year in 2021). This facility consumes water also for social purpose.
Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 11

Facility name (optional)
Clayville

Country/Area & River basin

South Africa	Limpopo

Latitude
-25.973758

Longitude
28.229222

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
178.61

Comparison of total withdrawals with previous reporting year
About the same

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

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
178.61

Total water discharges at this facility (megaliters/year)
178.61

Comparison of total discharges with previous reporting year
About the same

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year

Please select

Please explain
AGP's production facility in Clayville, South Africa derives its main water demand from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals decreased by 7% compared to the previous year (178 ML/year in 2022 vs 192 ML/year in 2021). This facility consumes water also for social purpose.
Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 12

Facility name (optional)
Debre Berhan

Country/Area & River basin

Ethiopia	Nile

Latitude
9.637801

Longitude
39.502817

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
25.7

Comparison of total withdrawals with previous reporting year
Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
0

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
25.7

Total water discharges at this facility (megaliters/year)

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year
Please select

Please explain
AGP's production facility in Debre Berhan, Ethiopia derives its main water demand from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals increased by 13% compared to the previous year (26 ML/year in 2022 vs 23 ML/year in 2021). This facility consumes water also for social purpose.
Withdrawal is measured with +/- 5% error.

Facility reference number
Facility 13

Facility name (optional)
Nairobi

Country/Area & River basin

Kenya	Other, please specify (Indian Ocean)

Latitude
-1.231547

Longitude
36.888025

Located in area with water stress
Yes

Primary power generation source for your electricity generation at this facility
<Not Applicable>

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
75.47

Comparison of total withdrawals with previous reporting year
Higher

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable
3.98

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water

Withdrawals from third party sources
71.49

Total water discharges at this facility (megaliters/year)
75.47

Comparison of total discharges with previous reporting year
Higher

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year
Please select

Please explain
AGP's production facility in Nairobi, Kenya derives its main water demand mainly from local supply network as a source. According to the WRI Aqueduct Water Risk Atlas, this facility is located in an area (basin) which ranked as high risk for water stress. The total water withdrawals increased by 16% compared to the previous year (75 ML/year in 2022 vs 65 ML/year in 2021). This facility consumes water also for social purpose.
Withdrawal is measured with +/- 5% error.

W5.1a

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

Water withdrawals – total volumes

% verified
76-100

Verification standard used
Annual verification of water data is complete based on ISAE 3000 for reporting year.

Please explain
<Not Applicable>

Water withdrawals – volume by source

% verified
76-100

Verification standard used
Annual verification of water data is complete based on ISAE 3000 for reporting year.

Please explain
<Not Applicable>

Water withdrawals – quality by standard water quality parameters

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain

Water discharges – total volumes

% verified
76-100

Verification standard used
Water discharge documented at production facility location level according to local legislation. Annual verification of water data is complete for reporting year. All discharges are sent to municipal treatment. All production facilities report withdrawal and discharge monthly in ARMS based on invoices and/or measurements to assess facilities' competitiveness, risks and for external communication purposes.

Please explain
<Not Applicable>

Water discharges – volume by destination

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain

Water discharges – volume by final treatment level

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain

Water discharges – quality by standard water quality parameters

% verified
Not verified

Verification standard used
<Not Applicable>

Please explain

Water consumption – total volume

% verified
76-100

Verification standard used
Annual verification of water data is complete based on ISAE 3000 for the reporting year. All production facilities report withdrawal and discharge monthly in ARMS based on invoices and/or measurements to assess facilities' competitiveness, risks and for external communication purposes.

Please explain
<Not Applicable>

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 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	RATIONALE FOR THE SCOPE: Water is an important resource along our value chain. We use water in production, processing, and in cooling purposes. Hence water is treated as a company-wide influencing factor, and it is covered in our Environmental Policy. OVERVIEW OF THE POLICY CONTENT: Responsible Procurement Policy – suppliers are encouraged to have water reduction plans. AGP target is to reduce water intensity 26% by 2030. Furthermore, we have implemented ECS and ISO 14001 to ensure the sustainable management of water. AGP shall ensure environmental compliance and responsibility takes precedence over expediency. Commitment to innovation - closed cycle, cascade/spray nozzle, customer/supplier collaboration, e.g. website - company/product info e.g. recyclability fact sheets, sustainability report, and youth online education featuring “Captain Cullet” informing of glass/recycling benefits. AGP actively engages with the association of European manufacturers of glass containers (FEVE). FEVE helps AGP stay up to date on environmental and water-related regulatory risks. We plan to have at least one Community Involvement Project (CIP) (e.g. water reduction projects) at every AGP production facility incorporated in our Sustainability Targets 2025. Regarding CSR Policy, we respect UDHR, focusing on clean drinking water and sanitation.

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
Board-level committee	HOW THE INDIVIDUAL'S RESPONSIBILITY IS RELATED TO WATER-RELATED ISSUES: The board of directors of AGSA (the “Board”) has established a Sustainability Committee (the “Sustainability Committee”) that has oversighted over water-related issues that is chaired by the AGP CEO. The Sustainability Committee has full oversight and decision-making capabilities and consists of high-level executives within the organization and a non-executive director of AGSA. The Sustainability Committee includes the following members: the AGP CEO, who chairs the Sustainability Committee; the AGSA Chief Financial Officer; the AGP Chief Sustainability Officer; and a non-executive director of AGSA. The meetings of the Sustainability Committee are also attended by the AGP CEO’s of Europe and Americas as well as the Corporate Development and Investor Relations Director, the Chief Risk Officer and the Chief Human Resources Officer AGSA The Sustainability Board objectives include: - Assist the Ardagh Board of Directors in fulfilling its oversight responsibility for the Company’s environmental and social sustainability objectives, including water-related objectives. - Make recommendations to the Board relating to environmental, climate, water, and social sustainability matters. - Develop and oversee the implementation of the AGP Sustainability Strategy in order to deliver clear Emission, Ecology, and Social objectives. AN EXAMPLE OF A WATER-RELATED DECISION: in 2021, the Sustainability Board signed off on a 10-year action plan for AGP that outlines the actions and investments the company will make in order to achieve water intensity reduction by 26% by 2030 as well as to achieve 1.5 degree Celsius pathway to deliver on the Science Based Target initiative.

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 - all meetings	Monitoring implementation and performance Overseeing acquisitions, mergers, and divestitures Overseeing major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding corporate responsibility strategy Reviewing and guiding major plans of action Reviewing and guiding strategy Reviewing innovation/R&D priorities Setting performance objectives Other, please specify (Monitoring and overseeing progress against goals and targets for addressing climate and water related issues)	AGSA has a Sustainability Committee that has oversight over climate-related issues that is chaired by the AGP CEO. The Sustainability Committee has full oversight and decision-making capabilities and consists of high-level executives within the organization and a non-executive director of AGSA. The Sustainability Committee includes the following members: the AGP CEO, who chairs the Sustainability Committee; the AGSA Chief Financial Officer; the AGP Chief Sustainability Officer; and a non-executive director of AGSA. The meetings of the Sustainability Committee are also attended by AGP CEOs of Europe and the Americas as well as the Corporate Development and Investor Relations Director, the Chief Risk Officer, and the Chief Human Resources Officer. The Sustainability Committee objectives include: - Assisting the Board in fulfilling its oversight responsibility for the Company's environmental and social sustainability objectives, including climate-related objectives; - Make recommendations to the Board relating to environmental (including climate) and social sustainability matters. - Develop and oversee the implementation of the sustainability strategy to deliver on the clear Emission, Ecology, and Social objectives. All major risks, including climate and water-related, are covered by the Enterprise Risk Management (ERM) Policy and Framework. A Sustainability call is conducted on a monthly basis, reporting climate-related issues and environmental performance in AGP. Topics discussed on these monthly calls include the latest needs of customers, suppliers and the industry on water-related topics. The topics discussed on these monthly calls informs the agenda of the quarterly Sustainability Committee meeting, in which progress towards achieving sustainability objectives is presented.

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	Primary reason for no board-level competence on water-related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
Row 1	Yes	One of our Sustainability Committee members has climate related, water related and ESG experience. Following criteria used to assess her competence: • Familiarity with existing and developing climate and water regulations and standards. • Regular engagement with outside experts to further understanding on climate and water-related risks and their impact on the business. • Understanding of climate-related risks and opportunities, and specifically how they relate to the industry and the business. • Understanding the importance of integrating climate change this into an organisation's decision-making and risk framework. • Interaction with investors on climate and water issues to ensure that action is central to stewardship. • Experience in addressing climate-related issues across related industries, including executive-level experience championing sustainability issues and helping to formulate strategy with a sustainability consideration. • Promotion of sustainability as part of people development within the organisation. • Consideration of climate-related expertise in nominating members of the Sustainability Committee.	<Not Applicable>	<Not Applicable>

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)
Sustainability committee

Water-related responsibilities of this position
Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Providing water-related employee incentives

Frequency of reporting to the board on water-related issues
More frequently than quarterly

Please explain
AGSA has a Sustainability Committee that has oversight over climate-related issues that is chaired by the AGP CEO.

See question 6.2 for the Sustainability Committee objectives.

An AGP Sustainability team meeting is conducted on a bi-weekly basis, reporting on climate-related issues and environmental performance . This includes latest needs of customers, suppliers and the industry on climate-related topics. The topics discussed on these calls informs the agenda of the quarterly Sustainability Committee meeting, in which progress towards achieving sustainability objectives is presented.

Examples of WATER-RELATED TOPICS that are reported to the committee: water consumption, progress in achieving targets in water efficiency and water saving, flood risk (damages and risks), trends in water supply and price and water-related regulatory and reputation issues.

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 GoGreen Index (GGI) is the leading indicator for environmental progress. Herein we have included different targets for the reduction of emissions, waste, water, etc. As these reductions positively influence our EBITDA, and our management is, in part, incentivised by EBITDA performance, there is a link between environmental performance and EBITDA performance.

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	Chief Executive Officer (CEO) Chief Sustainability Officer (CSO)	Reduction of water withdrawals – direct operations Reduction in water consumption volumes – direct operations Improvements in water efficiency – direct operations Improvements in water efficiency – supply chain	Lower water consumption reduces AGP's operational costs and leads to higher EBITDA and cash flow which is the basis for the management bonus. As these reductions positively influence our EBITDA, and our management is partly incentivised by EBITDA performance, there is a link between water and environmental performance and EBITDA performance. Herein we have included targets for reducing water consumption.	The GoGreen Index (GGI) is the leading indicator for environmental and water performance. For example, reducing total water consumption in manufacturing processes is used as an indicator for providing incentives to C-suite employees or board members.
Non-monetary reward	No one is entitled to these incentives	<Not Applicable>	<Not Applicable>	

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, direct engagement with policy makers
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?

A DESCRIPTION OF THE PROCESS TO ENSURE CONSISTENCY: We have different processes in place to make sure that our multiple water-related engagement activities across our business are in line with our company-wide environmental and water strategies. Environmental management is fundamental to our business performance in our operations. An established philosophy of continuous improvement supports the implementation and maintenance of environmental management systems at all our production facilities, for which ISO 14001 serves as the basis for management and monitoring.

Since we actively engage with trade associations such as FEVE, we ensure that our concerns and aspirations, which are aligned in and with our environmental and water strategies, are identified and taken into account; and those governments and other authorities are provided with first-hand information relevant for the packaging sector.

AN EXPLANATION OF WHICH ACTION IS TAKEN IF INCONSISTENCY IS DISCOVERED:

In our group-wide Code of Conduct we outlined a guide for conducting our business in an honest and professional manner and this should be used in determining key business decisions and actions. Our Environmental Policy is included in our Code of Conduct, and it is part of the group sustainability strategy, which supports the achievement of the group sustainability targets, including water-related targets.

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)

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	5-10	INTEGRATED WATER ISSUES: Water-related issues such as “reducing water consumption” where possible, “using high quality water,” “discharging only treated wastewater,” and “having operations only in locations where we do not pose any environmental threat to the local environment including water-related threats” are integrated to AGP’s long-term strategic business plan. These water-related issues were integrated into our business strategy not only for reducing our total costs but also for building resilience to address environmental and water-related regulatory and reputation risks. We believe that integrating environmental and water-related issues to our long-term business strategy can strengthen our business viability. EXAMPLES: Since we are aware of water stress in certain regions, our objective is to invest considerably to reduce the volume of our process water. For example, one of the objectives of AGP’s long-term target is to reduce water intensity 26% by 2030. Furthermore, we consider water-related issues throughout our value chain: E.g. assessment of water issues of suppliers is based on Responsible Procurement Policy. We expect our suppliers to have water reduction programmes and to strive for continuous improvement.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	AGP uses water in the manufacturing processes. Therefore, rising water scarcity in certain regions where our production facilities are situated is an issue that we are acutely aware of and constantly monitor to be able to manage the risks financially. We implement internal closed-loop water systems to reduce water wherever feasible. Assessment of water-related issues of our suppliers is in place based on our Responsible Procurement Policy. In addition, we expect our suppliers to have Environmental Management System and Water Reduction Programmes and to strive for continuous improvement. EXAMPLES: One of the objectives of AGP’s targets is to reduce water intensity by 26% by 2030. Therefore AGP has invested considerably to reduce the volume of water required for our process water systems. , 2022 we achieved significant water savings with a Closed Loop Water Cooling Process in our Limmared, Sweden facility What does this mean: We installed a two-step, closed loop, air and water cooling system, air now replaces water previously taken, to cool down the manufacturing processes, delivering a 66% reduction in water usage compared to the previous year consumption.
Financial planning	Yes, water-related issues are integrated	5-10	AGP has invested considerably to reduce the volume of water required for our process water systems. Our operations and properties are subject to extensive laws, ordinances, regulations, and other legal requirements relating to environmental protection. Such laws and regulations may affect our water supply and use, natural resources, and water discharges. Failure to obtain and maintain relevant permits, as well as noncompliance with such permits e.g., water and trade effluent discharge permits, could have material adverse effects on our business, financial condition, and results. We have incurred, and expect to continue to incur, costs to comply with such legal requirements, and these costs are likely to increase in the future and therefore are included as part of our financial planning (annual budgeting, CAPEX Budget, and long-term strategic planning). EXAMPLES: AGP has invested considerably to reduce the volume of water required for our process water systems. FOR EXAMPLE, one of the objectives of AGP’s targets is to reduce water intensity by 26% by 2030. As part of this strategy, we invested about € 2.5 million in our European plants in the past 2 years to drive further efficiencies by implementing closed-loop systems or additional metering.

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)
156

Anticipated forward trend for CAPEX (+/- % change)
-67

Water-related OPEX (+/- % change)
19

Anticipated forward trend for OPEX (+/- % change)
-4

Please explain
AGP's water-related CAPEX increased by 156% and Water-related OPEX by 19% in 2022 compared to 2021.
We increased CAPEX due to stronger focus with having published our long-term targets and associated planned investment to achieve these goals. Initially, OPEX has increased but over time we expect this to go down.

What is the water-related expenditure (CAPEX and/or OPEX) for:
Mainly for the installation of water meters, water recycling projects, repair/replacement of cooling towers /systems with newer technology, etc. For example, in our production facility in Limmared, by installing a two-step, closed-loop, air, and water cooling system, air now replaces water previously taken from the nearby river, to cool down the production process, delivering a 66% reduction in surface water usage compared to 2021.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	AGP's production facilities and transport hubs exposure to physical climate hazards including water related hazards were assessed under two temperature pathways, 1.5°C ("Paris-aligned") and 4°C ("Business-as-usual"). Please see the detail in the next question.

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 Socioeconomic	We assessed AGP's production facilities and transport hubs exposure to physical climate hazards under two temperature pathways, 1.5°C ("Paris-aligned") and 4°C ("Business-as-usual"). In order to quantify AGP's physical risks, we screened AGP's sites to identify those that are particularly at risk of potential climate-related physical risks. We performed a light touch physical risk assessment across AGP's facilities. These sites were: • Identified by AGP stakeholders for existing physical risks. • Demonstrated a high-risk rating in the initial screening. • Financially material for AGP. • Demonstrated high water usage. The screening process generated an overall Maximum site Value At Risk (MVAR)% score and failure probability % value per site, which was aggregated for individual hazards to a point in time e.g. 2030, 2050. The MVAR% score indicates whether a site is at risk from at least one of the hazards. The key physical hazards include soil subsidence, surface water flooding, riverine flooding, sea level rise, extreme heat, and water stress. Each site has been assessed for the risk of physical damage to the asset and the risk of business interruption at the site. The results of this hazard assessment are then integrated with information on a site's strategic relevance and its operational data to generate a final shortlist of sites. The overall approach to risk assessment of climate hazards aligns with IPCC AR5/6 definitions and approaches to risk assessment.	Water stress was noted as current physical risk to the business. Furthermore, future water-related stressors identified as sea level rise and riverine flooding are considered relatively low risk relative to other hazards and locations globally. Site damages due to water-related hazards estimated to be lower than $2 million and business interruption lower than $7 million by 2050 under 1.5°C climate scenario analysis is categorised as low business risk at AGP.	Although water-related risks are categorised as low business risk at AGP, sustainable water supply is strategic for our business. Therefore, we have several plans and actions to decrease our water withdrawal, water consumption, and water discharge, as well as increase our water efficiency, recycled and reused water in our facilities. The priority of investment would be the production facilities located in water stressed basins and those exposed to potential water related regulatory and reputation risks.

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, and we do not anticipate doing so within the next two years

Please explain
Water is crucial to our businesses, thus AGP is implementing real internal closed loop water systems and reducing water use in production wherever feasible, instead of using an internal price on water. We believe that closing water loops and reducing water use is key to achieving usage objectives.

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	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	Yes	Low water impact product is defined as a product that AGP could save water consumption in our operation and manufacturing processes compared to a conventional product with the same function. We classify a low water impact product based on water quantity by using our trade association LCA tool. Our low water impact products contribute to our water intensity target of a 26% reduction by 2030 compared to the base year of 2020.	<Not Applicable>	Based on an Instant Lifecycle Analysis (LCA) Tool created by our trade association, FEVE, we calculated that our lightweight bottle (75cl with a weight reduction of 4.4%) also reduces net water consumption by 0.24 litre / litre packed.

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	AGP complies with all relevant international, national and local environmental laws and regulations, including water discharge quality. All production facilities manage water discharge parameters, monitoring and reporting in alignment with local environmental laws and regulations.
Water withdrawals	Yes	<Not Applicable>
Water, Sanitation, and Hygiene (WASH) services	No, and we do not plan to within the next two years	AGP offers clean water access, sanitation, and hygiene (WASH) services to all of our employees globally.
Other	Yes	<Not Applicable>

W8.1b

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

Target reference number
Target 1

Category of target
Water use efficiency

Target coverage
Company-wide (direct operations only)

Quantitative metric
Other, please specify (Reduction per unit of production)

Year target was set
2021

Base year
2020

Base year figure
0.95

Target year

2030

Target year figure
0.7

Reporting year figure
0.86

% of target achieved relative to base year
36

Target status in reporting year
Please select

Please explain
Last year's response:

COMPARED TO 2021, water use intensity was reduced 18.6%, from 0,86 m3/tonne packed (2021) to 0.70 m3/tonne packed (2022). This improvement indicates that we can achieve our 36% water intensity reduction target by 2030.

We continuously improve our water efficiency and reduce our water consumption. Two water reduction projects undertaken over the past year have achieved significant water savings: the Closed Loop Water Cooling Process in Limmared, Sweden, and the Water Reduction Project in Ujscie, Poland:

In Limmared, by installing a two-step, closed-loop, air and water cooling system, air now replaces water previously taken from the nearby river, to cool down the production process, delivering a 66% reduction in surface water usage compared with 2021.

In Ujscie, independent closed loop systems have been installed for clean and dirty water, in place of using local groundwater, to cool the IS machines, delivering a 25% reduction in water usage compared with 2021.

Target reference number
Target 2

Category of target
Community engagement

Target coverage
Company-wide (direct operations only)

Quantitative metric
Other, please specify (Number of Community Involvement Project (CIP))

Year target was set
2021

Base year
2021

Base year figure
0

Target year
2022

Target year figure
100

Reporting year figure
38

% of target achieved relative to base year
38

Target status in reporting year
Underway

Please explain
(CIP), including water-related CIPs per location. In general, we expect that a CIP must create a positive and direct impact on our local community and should include the following:
• At least one external stakeholder involved (e.g. school, university, customer, supplier, or nearby business).
• Multiple employees are encouraged to participate.
• There must be a direct positive impact on the community.

WHY THIS GOAL IS IMPORTANT: Our aim is to have a robust and open relationship with, as well as a positive impact on, the communities in which we operate.

HOW THE COMPANY IS IMPLEMENTING THE GOAL: To achieve this, we invest in jobs, infrastructure projects, and water saving, as well as engaging with the communities themselves. Water-related community involvement projects could reduce water conflicts, which helps to maintain the water supply to our facilities. We track the number of CIP as a percentage of all AGP production facilities with active CIP/year.

As an INDICATOR, we track the number of CIPs as a percentage of all AGP manufacturing production active CIP/year. THE THRESHOLD OF SUCCESS is to have at least one meaningful Community Involvement Project (CIP) per location, per year. In 2022, 93% of our production facilities achieved at least one CIP.

Target reference number
Target 3

Category of target
Supplier engagement

Target coverage
Company-wide (including suppliers)

Quantitative metric
Other, please specify (Engagement with suppliers to reduce the water-related impact of supplied products)

Year target was set
2021

Base year
2020

Base year figure
0

Target year
2030

Target year figure
100

Reporting year figure
65

% of target achieved relative to base year
65

Target status in reporting year
Underway

Please explain
WHY THIS GOAL IS IMPORTANT: Reducing our products' water footprint requires engagement with our key suppliers. We expect our suppliers to demonstrate an adequate level of environmental awareness, in particular with regard to improving the organisation's environmental footprint and establishing a reduction programme for one or more environmental impacts e.g., water saving.

HOW THE COMPANY IS IMPLEMENTING THE GOAL: In our Responsible Procurement Policy, all suppliers must accept and adhere to all relevant environmental laws and regulations. Our environmental requirements are monitored on a regular basis, through questionnaires and/or onsite audits. The annual survey is sent to major suppliers and covers Environmental Management and Policy, including water reduction programmes.

Our INDICATOR that is used to assess progress is the number of suppliers that have water and/or wastewater reduction programmes. In total, more than 100 suppliers have been assessed thus far and 65% have water and/or wastewater reduction programmes, and at least one reduction programme in place. In addition, we use onsite assessments in order to monitor the environmental performance of our suppliers (incl. water, waste) and provide improvement suggestions.

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 Statement - AGP.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	Water withdrawals and wastewater discharge.	ISAE 3000	Assurance adds credibility to AGP's sustainability reporting process, and it is expected from stakeholders, especially investors. Our assurance programme focuses on data acquisition, data processing, and data aggregation for environmental KPIs. The 2022 ARMS dataset is reviewed and verified for plausibility, potential misstatements, etc., while simple statistical analysis is made, and year-on-year consistency checks and follow-ups on any questionable data points are completed. One on-site production facility audit has been carried out during this reporting period to follow the data audit trail and confirm that operational activities support/reflect the data presented. Water consumption (with the source of withdrawal) and wastewater discharge from all production reported by all facilities are verified by an independent verification company every year. The procedures and methods used by the assurance providers are based on the requirements of ISAE3000. ISAE3000 was chosen as this is an internationally recognized and widely applied standard for developing assurance engagements for non-financial information. ISAE3000 is commonly used for engagements covering the assurance of sustainability-related data. The assurance of our environmental data was performed as part of a wider assurance exercise covering all our non-financial sustainability KPIs and was therefore subject to the same standard.
W8 Targets	Water withdrawals and wastewater discharge.	ISAE 3000	Assurance adds credibility to AGP's sustainability reporting process, and it is expected from stakeholders, especially investors. Our assurance programme focuses on data acquisition, data processing, and data aggregation for environmental KPIs. The 2022 ARMS dataset is reviewed and verified for plausibility, potential misstatements, etc., while simple statistical analysis is made, and year-on-year consistency checks and follow-ups on any questionable data points are completed. One on-site production facility audit has been carried out during the reporting period due to the pandemic to follow the data audit trail and confirm that operational activities support/reflect the data presented. Water consumption (with the source of withdrawal) and wastewater discharge from all production reported by all facilities are verified by an independent verification company every year. The procedures and methods used by the assurance providers are based on the requirements of ISAE3000. ISAE3000 was chosen as this is an internationally recognized and widely applied standard for developing assurance engagements for non-financial information. ISAE3000 is commonly used for engagements covering the assurance of sustainability-related data. The assurance of our environmental data was performed as part of a wider assurance exercise covering all our non-financial sustainability KPIs and was therefore subject to the same standard

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	Not mapped – but we plan to within the next two years	<Not Applicable>	

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	Not assessed – but we plan to within the next two years	<Not Applicable>	

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	Value chain stage	Type of risk	Please explain
Row 1	Not assessed – but we plan to within the next two years	<Not Applicable>	<Not Applicable>	

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	No – and we do not plan to within the next two years	<Not Applicable>	<Not Applicable>	

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	No	
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	

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.

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 Sustainability Officer (CSO)	Chief Sustainability Officer (CSO)

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	4300000000

SW1.1

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

This is confidential

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 all facilities	We are able to provide this to our customers if required by them based on an individual request but will not share via CDP.

SW1.2a

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

Identifier	Latitude	Longitude	Comment

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
Oneway Bottle spirit 75cl - 540g (Version 2020)

Water intensity value
5.16

Numerator: Water aspect
Water consumed

Denominator
litre/litre packed

Comment
For the calculation and evaluation of the environmental impacts of our products, we use the InstantLCA PackagingTM tool powered FEVE version 2020. This tool allows us to build a proper scenario and guarantees reliable results. The InstantLCA PackagingTM tool powered by FEVE is based on a full LCA model which encompasses all life cycle stages from the extraction of raw materials to the products end-of-life and include the production and transportation of the packaging. This model follows the principles and requirements of ISO 14067.

Product name
Oneway Bottle wine 75cl - 420g (Version 2020)

Water intensity value
4.01

Numerator: Water aspect
Water consumed

Denominator
litre/litre packed

Comment
For the calculation and evaluation of the environmental impacts of our products, we use the InstantLCA PackagingTM tool powered by FEVE version 2020. This tool allows us to build a proper scenario and guarantees reliable results. The InstantLCA PackagingTM tool powered by FEVE is based on a full LCA model which encompasses all life cycle stages from the extraction of raw materials to the products end-of-life and include the production and transportation of the packaging. This model follows the principles and requirements of ISO 14067.

Product name
Returnable Bottle beer 33cl - 240g (Version 2020)

Water intensity value
3.51

Numerator: Water aspect
Water consumed

Denominator
litre/litre packed

Comment
For the calculation and evaluation of the environmental impacts of our products, we use the InstantLCA PackagingTM tool powered by FEVE version 2020. This tool allows us to build a proper scenario and guarantees reliable results. The InstantLCA PackagingTM tool powered by FEVE is based on a full LCA model which encompasses all life cycle stages from the extraction of raw materials to the products end-of-life and include the production and transportation of the packaging. This model follows the principles and requirements of ISO 14067.

Product name
Returnable Bottle beer 50cl - 310g (Version 2020)

Water intensity value
0.18

Numerator: Water aspect
Water consumed

Denominator
litre/litre packed

Comment
For the calculation and evaluation of the environmental impacts of our products, we use the InstantLCA PackagingTM tool powered by FEVE version 2020. This tool allows us to build a proper scenario and guarantees reliable results. The InstantLCA PackagingTM tool powered by FEVE is based on a full LCA model which encompasses all life cycle stages from the extraction of raw materials to the products end-of-life and include the production and transportation of the packaging. This model follows the principles and requirements of ISO 14067.

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.

No

Please confirm below

I have read and accept the applicable Terms