

W0. Introduction

W0.1

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

Galp is an integrated energy operator with activities that span from exploration and production of oil and natural gas to refining and marketing oil products and biofuels, distributes and supplies natural gas and generates and markets electricity. To guarantee success, and thrive through the energy transition, Galp updated its purpose to 'Let's regenerate the future together'. To fulfil this purpose, Galp will regenerate its portfolio, relationships but also our people. Overall, this will set a direction for the company, internally and externally, towards a low carbon the future.

All these changes will be translated into our portfolio and operations. In the first half of the decade, we intend to allocate 50% of our net capital to low and zero carbon products and services. By 2030, we aim to have a more electrified, diversified and decarbonized global portfolio, offering a combination of long-term growth and value opportunities in the energy sector.

Our mission is to create value for all our stakeholders (customers, employees, shareholders, suppliers and business partners), acting in energy markets with ambition, innovation and competitiveness, promoting respect for the principles of ethics and sustainability. Our activities are expanding strongly worldwide and are predominantly located in Portugal, Spain, Brazil and Africa. The activity of our Company is also based on 4 key business pillars, such as: Upstream, Commercial, Industrial & Energy Management and Renewables & New Businesses.

The Upstream business comprises a portfolio of c.40 projects in different phases, such as exploration, development and production along 3 countries (Brazil, Angola and Mozambique). Galp's projects under development include two of the largest oil and natural gas discoveries of the last decades, located, respectively, in the pre-salt of the Santos basin (Bacalhau), in Brazil, and the Rovuma basin, in Mozambique (Coral FLNG).

The Industrial & Energy Management business unit, which includes Refining & Midstream, incorporates the refining and logistics business as well as the Group's oil, gas and power supply and trading activities, Cogeneration and Biofuels. In this sense, Galp operates an integrated refining system comprising Sines refinery in Portugal (the refining operations in Matosinhos were discontinued in the first quarter 2021) with a total processing capacity of 226 thousand barrels of oil per day (kbpd), 76.6 mboe of raw materials processed, c. 1 TWh of electricity sold from cogeneration, 67.2 TWh from sales and trading of NG/LNG, 14.8 mton of oil products sales.

The Commercial pillar integrates a distribution network including approximately 1,480 service stations. Refined products are primarily marketed in the Iberian Peninsula but also in Africa, with total sales to direct clients of 6.5 mton and 4.2 TWh of electricity in 2021.

The Renewables & New Businesses unit is a clear step for Galp to embrace the energy transition, by developing a sustainable and diversified portfolio of renewable power generation and represents a natural hedge to our Iberian commercial power activities. With c. 50% of its planned investments up to 2025 to be allocated to projects that promote the energy transition, and c. 30% to the growth of the renewable electricity business, Galp aspires to anticipate new trends, adapt its portfolio to future needs, explore synergies with its current Iberian activities and by promote a progressive reduction of its carbon intensity while sustaining a track record of value creation.

In 2021, Galp had 963 MWP of installed capacity under operation from a portfolio of c. 4.7 GWp, of which > 4 GWp are expected to be operational by 2025. We are targeting a gross renewable operating capacity of c.12 GWp by 2030. We are evaluating the development of green hydrogen solutions, taking advantage of our privileged position and industrial skills. Additionally, we are also assessing entry opportunities in the fast-growing battery value chain, namely in lithium processing, having announced the development of Europe's largest and most sustainable lithium conversion plant, to be located in Portugal, with an annual production capacity of up to 35,000 tons of lithium hydroxide and a start of commercial operations in 2026, in a joint venture with Northvolt, capturing an early mover advantage in Europe.

For further information about GALP please visit our corporate website, at: www.galp.com/corp and our Annual Integrated Report 2021, at: <https://www.galp.com/corp/Portals/0/Recursos/Investidores/SharedResources/Relatorios/en/2021/AIRGalp2021EN1all.pdf>

W-OG0.1a

(W-OG0.1a) Which business divisions in the oil & gas sector apply to your organization?

- Upstream
- Midstream/Downstream

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 2021	December 31 2021

W0.3

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

- Brazil
- Cabo Verde
- Eswatini
- Guinea-Bissau
- Mozambique
- Portugal
- Spain

W0.4

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

EUR

W0.5

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

Companies, entities or groups over which operational control is exercised

W0.6

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

No

W0.7

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

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	PTGAL0AM0009
Yes, a SEDOL code	B1FW751
Yes, a Ticker symbol	GALP.PL
Yes, a Ticker symbol	GALP.LS

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	Vital	Not very important	Regarding direct use of freshwater, Galp needs sufficient amount of good quality freshwater to run its operations. For example, in refining, that represent the greatest materiality in the universe of Galp Group (around 88% of water withdrawal and discharges), the water is a vital input for our operations - mainly to generate steam and cool processes. Regarding indirect use of freshwater, considering the water-use within our supply chain (e.g. production of materials, other products) we can assume that the majority of our key inputs are not water intensive, justifying the importance rating selected. Galp estimates that there will be no relevant changes in water dependency (freshwater, brackish and recycled water) in the near future for both direct and indirect operations, as the Refining segment represent around 88% of water withdrawals and discharges and this segment will remain operating.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	Regarding direct use of recycled water, Galp recycles an important amount of water (around 14% of total water withdrawal in 2021) at the Refining. This water is relevant for the fuel refining process. Reuse and recycling water measures are currently implemented in the refinery, such as the reuse of water in the fire and garden water systems and the reuse of process water. Galp also uses a small amount of brackish water (seawater) at Refining and Midstream segment (logistics) for the firewater system. Regarding indirect use of non-freshwater (e.g. brackish water) within our supply chain (e.g. production of materials and others) we can assume that the majority of our key inputs consumed are not non-fresh water intensive, justifying the importance rating selected. Galp estimates that there will be no relevant changes in water dependency (freshwater, brackish and recycled water) in the near future for both direct and indirect operations, as the Refining segment represent around 88% of water withdrawals and discharges and this segment will remain operating.

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water withdrawals are measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
Water withdrawals – volumes by source	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water withdrawals are measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Produced water is measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
Water withdrawals quality	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water withdrawal are measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
Water discharges – total volumes	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water discharged is measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
Water discharges – volumes by destination	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water discharged is measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
Water discharges – volumes by treatment method	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water discharged is measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
Water discharge quality – by standard effluent parameters	100%	Galp collects data on water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. In case of Sines Refinery the effluent is delivered for appropriate final treatment to an external water and wastewater utility company (Águas de Santo André) after a preliminary treatment performed by the refinery. Success is measured through quality control, ensuring that discharges are complying with the legal requirements. The parameters monitored, such as pH, BOD, COD, TSS, Hydrocarbons, are analysed periodically, using a Sample Plan, by a certified laboratory. The results are compared with the EU legislation. The EU legislation is transposed to national law and environmental permits and water resources use authorization are issued by APA (Environment Portuguese Agency).
Water discharge quality – temperature	100%	Galp collects data on water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. In case of Sines Refinery the effluent is delivered for appropriate final treatment to an external water and wastewater utility company (Águas de Santo André) after a preliminary treatment performed by the refinery. Success is measured through quality control, ensuring that discharges are complying with the legal requirements. The parameters monitored, such as Temperature, are analysed periodically, using a Sample Plan, by a certified laboratory.
Water consumption – total volume	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water consumption is measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
Water recycled/reused	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water consumption, recycled/reused is measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).
The provision of fully-functioning, safely managed WASH services to all workers	100%	Galp collects data on water supply, water use and quality, and water discharge at site level in a global database, named GRID - Management and Reporting of Performance Indicators. The data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control. 100% of Galp sites are monitored for these water aspects. Depending on the nature of data, the frequency of collecting and monitoring the data can vary from monthly, quarterly, half-yearly or annual. Water withdrawals, produced water and water discharges are measured on a monthly basis. Several methods are used (e.g. real measurements, estimates, others).

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	9435	Lower	Total withdrawals decreased 5% regarding previous year due to the implementation of eco-efficiency measures that reduce the water withdrawal as well as the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. Galp has made an effort to reduce the water withdrawals from third party (reduction of 4% compared to the previous year). Galp estimates that the global water withdrawals (volumes) will continue to reduce as a result of the efforts made in recent years (implementation of water efficiency measures). Galp also has set water intensity reduction targets for the refining segment (which represent around 88% of total water withdrawals of Galp) in order to reduce water withdrawals in next years. These targets are supervised by the Sustainability Committee which meets quarterly to define, approve and monitor Sustainability targets, including water-related, among other topics. Refining team is working to further reduce water withdrawals through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023).
Total discharges	5822	Lower	Total discharges decreased 2% regarding previous year due to the implementation of eco-efficiency measures that reduce the water withdrawal as well as the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. The water discharges for downstream activities reduced 2% comparing to 2020. Galp estimates that the global water withdrawals (volumes) will continue to reduce as a result of the efforts made in recent years (implementation of water efficiency measures) and consequently the total volume of water discharge. Galp also has set water intensity reduction targets for the refining segment (which represent around 88% of total water withdrawals of Galp) in order to reduce water withdrawals in next years. These targets are supervised by the Sustainability Committee which meets quarterly to define, approve and monitor Sustainability targets, including water-related, among other topics. Refining team is working to further reduce water withdrawals, water discharge and water consumption through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023).
Total consumption	3613	Lower	Regarding the previous year, the total consumption decreased 9% due to higher % of water recycled or reused, as well as the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. Consequently, decreasing the water consumption due to the decrease in water withdrawals (-5%), and a decrease of discharges (-2%). Discharges to seawater decreased around 7% regarding the previous year mainly due to discharges efficiency improvements in Sines refinery and to the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. The water withdrawals decreased, mainly for water withdrawal from third party sources (4% compared to the previous year). Galp estimates that the global consumption (volumes) will continue to reduce as a result of the efforts made in recent years (implementation of water and wastewater efficiency measures). Galp also has set water and wastewater intensity reduction targets for the refining segment (which represent around 88% of total water withdrawals and wastewater discharges of Galp) in order to reduce water withdrawals and wastewater discharges in next years. These targets are supervised by the Sustainability Committee Commission which meets quarterly to define, approve and monitor Sustainability targets, including water-related, among other topics. Refining team is working to further reduce water consumption through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023).

W-OG1.2c

(W-OG1.2c) In your oil & gas sector operations, what are the total volumes of water withdrawn, discharged, and consumed – by business division – and what are the trends compared to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year %	Please explain
Total withdrawals - upstream	0	Much Lower	Total withdrawals in upstream are 0, due to the selling of upstream operations in Brasil (Rabo Branco). Currently, Galp does not operate any upstream asset.
Total discharges – upstream	0	About the same	Total discharges in upstream are 0, due to the selling of upstream operations in Brasil (Rabo Branco). Currently, Galp does not operate any upstream asset.
Total consumption – upstream	0	Much Lower	Total consumptions in upstream are 0, due to the selling of upstream operations in Brasil (Rabo Branco). Currently, Galp does not operate any upstream asset.
Total withdrawals - midstream/downstream	9435	Lower	Total water withdrawals decreased 5% due to the implementation of eco-efficiency measures that reduce the water withdrawal as well as the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. Galp estimates that the global water withdrawals (volumes) will continue to reduce as a result of the efforts made in recent years (implementation of water efficiency measures). Galp also has set water intensity reduction targets for the refining segment (which represent around 88% of total water withdrawals of Galp) in order to reduce water withdrawals in next years. These targets are supervised by the Sustainability Committee which meets quarterly to define, approve and monitor Sustainability targets, including water-related, among other topics. Refining team is working to further reduce water withdrawals through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023).
Total discharges – midstream/downstream	5822	Lower	Total water discharges decreased 2% due to the implementation of eco-efficiency measures (such as higher % of water recycled or reused) as well as the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. Galp estimates that the global water withdrawals (volumes) will continue to reduce as a result of the efforts made in recent years (implementation of water efficiency measures) and consequently the total volume of water discharge. Galp also has set water intensity reduction targets for the refining segment (which represent around 88% of total water withdrawals of Galp) in order to reduce water withdrawals in next years. These targets are supervised by the Sustainability Committee which meets quarterly to define, approve and monitor Sustainability targets, including water-related, among other topics. Refining team is working to further reduce water withdrawals through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023).
Total consumption – midstream/downstream	3613	Lower	Total water consumption decreased 9% due to the implementation of eco-efficiency measures (such as higher % of water recycled or reused) as well as the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. Galp estimates that the global water withdrawals (volumes) will continue to reduce as a result of the efforts made in recent years (implementation of water efficiency measures), and consequently the volume of water consumption. Galp also has set water intensity reduction targets for the refining segment (which represent around 88% of total water withdrawals of Galp) in order to reduce water withdrawals in next years. These targets are supervised by the Sustainability Committee which meets quarterly to define, approve and monitor Sustainability targets, including water-related, among other topics. Refining team is working to further reduce water withdrawals through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023).
Total withdrawals – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total discharges – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total consumption – chemicals	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total withdrawals – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total discharges – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total consumption – other business division	<Not Applicable>	<Not Applicable>	<Not Applicable>

W1.2d

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

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	51-75	Much higher	WRI Aqueduct	We annually update the mapping of risks associated with the use of water in 100% of our operations. This mapping is performed using the Water Risk Filter and Aqueduct Water Tool, developed by WWF and World Resources Institute (WRI). As water is a material topic getting higher relevance within the scope of our current and future activities, in 2021, the assessment tool was updated, guarantying a more accurate and transparent report. According to the mapping carried out in 2021, and from the global universe of Galp's facilities, 19% are located in areas with high overall water risk and 9% in areas with extremely high overall water risk, according to the WRI Aqueduct Water Tool and WRI. The sites located in areas with water stress represents 71% of Galp's total water withdrawal.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable/Not relevant, as Galp did not withdrawal fresh surface water in 2021 neither in 2020. Galp estimates that in the future, this situation remains, as occurred in the previous years.
Brackish surface water/Seawater	Relevant	114	Lower	Relevant as Galp uses the seawater in logistics activities to supply our firewater system. Seawater withdrawal decreased around 23% regarding previous year due to water efficiency measures.
Groundwater – renewable	Relevant	123	Lower	Relevant, as Galp uses renewable groundwater in Marketing segment in Portugal (wells). Groundwater withdrawal decreased around 22% regarding the previous year mainly due to water efficiency measures.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable/Not relevant, as Galp did not withdrawal non-renewable groundwater in 2021 neither 2020. Galp estimates that in the future, this situation remains, as occurred in the previous years.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	Not relevant/Not Applicable, as the water produced at Exploration and Production segment only occurs at blocks where Galp is not the operator (does not have operational control). Galp estimates that future produced water volumes withdrawn may continue to be not relevant as previous years.
Third party sources	Relevant	9198	Lower	Relevant, as water provided by third parties (e.g. municipal supply of water) is highly relevant for the Refining segment. Water supplied by third parties decreased around 4% regarding previous year mainly due to water efficiency measures.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	2.9	Higher	Relevant, as Galp need to discharge to fresh surface water, mainly in the midstream and commercial businesses (Oil Marketing and Logistics in Portugal). However, this volume is small compared to other destinations. In Oil Marketing segment, discharges to fresh surface water increased from 2.5 megaliters to 2.9 megaliters, representing a small increase. Galp estimates that discharges to fresh surface water (volumes) will be reduced as result of the efforts made in recent years (implementation of water and wastewater efficiency measures).
Brackish surface water/seawater	Relevant	1269	Lower	Relevant, as Galp need to discharge to seawater, mainly in the Matosinhos facility. Discharges to seawater decreased around 7% regarding the previous year mainly due to wastewater efficiency measures implemented. Galp estimates that the discharges to seawater (volumes) will reduce as result of the efforts made in recent years (implementation of water and wastewater efficiency measures) and to the implementation of wastewater reduction targets for the refining segment.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	Not applicable/Not relevant. Galp did not discharged to groundwater in 2021 neither 2020. Galp estimates that future groundwater volumes discharged may continue not relevant as previous years.
Third-party destinations	Relevant	4550	About the same	Relevant, as Galp discharges to third party destinations the majority of its wastewater, mainly in the refining segment (Sines refinery). Discharges to third party destination still around the same regarding previous year mainly due to operational maintenance. Galp estimates that discharges to third-party destinations (volumes) will be reduced as a result of the efforts made in recent years (implementation of water and wastewater efficiency measures) and to the implementation of wastewater reduction targets for the refining segment.

W1.2j

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	1833	Lower	31-40	The tertiary treatment represents 31% of all discharges.
Secondary treatment	Relevant	59	Higher	1-10	The Secondary treatment represents 1% of all discharges.
Primary treatment only	Relevant	75	Lower	1-10	The primary treatment represents less than 2% of all discharges.
Discharge to the natural environment without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Not Applicable
Discharge to a third party without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Not Applicable
Other	Relevant	3212	Lower	51-60	All the other discharges, which represents 55% of of all discharges, were treated before sented to a specialized third party (e.g. includes Sines refinery).

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	1611700000	9435	1708214.09644939	Estimation that water withdrawals will continue to reduce resulting from the efforts made in recent years (implementation of water efficiency measures). Also, Galp has set water intensity reduction targets for the refining segment (which represent around 88% of Galp total water withdrawals) in order to reduce water withdrawals in next years as well as through planned investments in water recycling technologies and the implementation of pilot projects focused on new technologies (2022/2023).

W-OG1.3

(W-OG1.3) Do you calculate water intensity for your activities associated with the oil & gas sector?

Yes

W-OG1.3a

(W-OG1.3a) Provide water intensity information associated with your activities in the oil & gas sector.

Business division

Upstream

Water intensity value (m3)

0

Numerator: water aspect

Total water withdrawals

Denominator

Barrel of oil equivalent

Comparison with previous reporting year

Much lower

Please explain

Water intensity for Upstream is 0 for 2021 (100% decreasing comparing to 2020) due to the selling of upstream operations in Brasil (Rabo Branco). Currently, Galp does not operate any upstream asset.

Business division

Midstream/Downstream

Water intensity value (m3)

0.09

Numerator: water aspect

Total water withdrawals

Denominator

Barrel of oil equivalent

Comparison with previous reporting year

Lower

Please explain

Water intensity for Downstream (Refining segment) decreased 5% (from 0.1017 to 0,0964) mainly due to the decrease in processed feedstock (from 87,100,000boe to 86,472,377boe), the implementation of eco-efficiency measures, the reduction of the water withdrawal as well as the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. Water withdrawal decreased (from 8,862,655 m3 to 8,332,648 m3). Intensity metrics are used to measure and monitor internal performance of downstream activities. Galp tracks water intensity metric quarterly, in order to identify performance deviations (real and potential), to identify mitigation actions in order to improve performance, to set ambitious targets and to implement water efficiency measures. Galp estimates that water intensity metric performance may improve as a result of the efforts made in recent years (implementation of water and wastewater efficiency measures) and to the implementation of ambitious targets for water reduction in the refining segment. These targets are supervised by the Sustainability Committee Commission which meets quarterly to define, approve and monitor Sustainability targets, including water-related, among other topics. Refining team is working to further improve water-related performance through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023).

W2. Business impacts

W2.1

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

No

W2.2

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

No

W3. Procedures

W-OG3.1

(W-OG3.1) How does your organization identify and classify potential water pollutants associated with its activities in the oil & gas sector that may have a detrimental impact on water ecosystems or human health?

Galp is committed to ensure the efficient use of water and other resources, incorporating innovative technologies in our activities and projects management, in order to promote the environment protection. Galp is committed to preserve biodiversity and protect water resources in all geographies, contributing to the Sustainable Development Goals (SDGs). We participate in programmes of protection and recovery of species and habitats in the areas where we develop projects, and assess our natural resources impact, particularly in protected and sensitive areas, or in water scarcity areas.

Galp has an HSE Policy as a support guideline to the corporate strategy to be adopted in use of resources, such as water. In order to guarantee HSE criteria in the decision-making processes, associated to each development stages (through all lifecycle) of projects/assets/operations, Galp has in place an Internal Standard HSSE Specific Requirements in Projects and its Manual - Integration of HSSE specific Requirements in Projects Lifecycle. These documents recognise that water risk assessments must be performed in new projects/assets/operations that could potentially impact water sources (water extraction, use, management, discharge). Water assessment methods are aligned with best international practices and the best available techniques (BAT).

For example, our refinery is under EU legislation, such as the Industrial Emissions Directive (IED) that is the main EU instrument regulating pollutant emissions from industrial installation (e.g. water discharges limits & control). The EU legislation is transposed to national law and the environmental permits and water resources use authorization are issued by APA (Environment Portuguese Agency). Refining facility has the Environmental License, which shows how Galp manages its environmental risks and impacts, in particular through the implementation of the Best Available Techniques, including risk assessment regarding water/wastewater management and the identification of opportunities to promote eco-efficiency.

In certain activities Galp has to comply with water/wastewater requirements, such as the disclosure to APA of a regularly monitoring and performance report.

The Company also has internal and external audits to ensure compliance. Galp's refinery is also certified according to ISO 14001, ISO 9001, OHSAS 18001/ISO 45001, ISO 50001, NP 4469 and ISO 22301. Galp has been investing, for the past years, in water management and water efficiency measures in order to reduce potential water pollutant risks.

Wastewater from Refining segment, if left untreated or poorly treated, can have negative impacts on the environment (e.g. water bodies and soil), such as reduction of biodiversity and ecosystem services or soil contamination, as well as impacts on human health, such as restriction of water use. Pollutants such as phenols, sulphates, hydrocarbons, chlorides, among others, and other parameters such as pH, COD, CBO, TSS, can have severe impacts on the environment and human health. For the refining operations (which represent 70% of Galp's total effluents) the effluent is delivered for appropriate final treatment to an external water and wastewater utility company (Águas de Santo André) after a preliminary treatment performed by the refinery.

W-OG3.1a

(W-OG3.1a) For each business division of your organization, describe how your organization minimizes the adverse impacts on water ecosystems or human health of potential water pollutants associated with your oil & gas sector activities.

Potential water pollutant	Business division	Description of water pollutant and potential impacts	Management procedures	Please explain
Hydrocarbons	Midstream/Downstream	Wastewater from Refining segment is characterized by several specific pollutants, such as: phenols, sulphates, hydrocarbons, chlorides, among others. If wastewater is not treated or poorly treated, it could have severe negative impacts on the environment (e.g. in water bodies and soil), such as reduction of biodiversity or contamination of soils, as well as severe negative impacts on human health, such as restriction of water use. The main industrial facility of Galp (Sines refinery, which represent around 70% of Galp's total effluents), the effluent is delivered for appropriate final treatment to an external water and wastewater utility company (Águas de Santo André) after a preliminary treatment performed by the refinery. Success is measured through quality control, ensuring that discharges are complying. In the case of Sines, it is understood that the water and wastewater utility company performs all the necessary controls and treatments to manage the risks of potential impacts.	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakeholder engagement Emergency preparedness Other, please specify (HSE Risk Assessment during lifecycle of the project (HAZOP, operational hse risk assessment, among others). Management of Change Process Audits and Inspections)	Galp refineries are under EU legislation, such as the Industrial Emissions Directive (IED) that is the main EU instrument regulating pollutant emissions from industrial installation (e.g. water discharges limits and control). The EU legislation is transposed to national law and environmental permits and water resources use authorization are issued by APA (Environment Portuguese Agency). Refinery has the Environmental License, which shows how Galp manages its environmental risks and impacts, in particular through the implementation of the Best Available Techniques (BAT), including risk assessment regarding water/wastewater management and the identification of opportunities to promote eco-efficiency. Galp has to comply with water/wastewater requirements, such as the disclosure to APA of a regularly monitoring and performance report. The Company also has internal and external audits to ensure compliance. Galp's refineries are also certified according to ISO 14001, ISO 9001, OHSAS 18001/ISO 45001 and ISO 50001. Galp has been investing, for the past years, in water management and water efficiency measures in order to reduce potential water pollutant risks. For monitoring groundwater quality, Galp has piezometer networks in place. Galp also has in place internal procedures and applies BAT. For example, at storage (tanks), Galp implemented the following actions: a) Implementation of a leak detection system on the bottom of the tank; b) Install self-sealing hose connections or implement line draining procedures; c) Apply instrumentation or procedures to prevent overfilling of tanks; d) Install level alarms independent of normal tank gauging systems. Regarding emergency preparedness, Galp has an internal procedure (NT-P-025: Emergency Response) that includes an oil spill scenario, defining the response and mitigation measures associated. The procedure defines the operational people responsible for the drills and its responsibilities, as well as the training needed for emergency response. In case of an incident, Galp has an internal procedure (NT-P-031: Incident Investigation) that defines the report and investigation of incidents. This process allows Galp to find the causes, identify the lessons learned and prevent the reoccurrence of a similar event. Regarding Management of Change process, in case of any temporary, permanent or urgent changes, requirements from different types are evaluated, ensuring that all potential environmental impacts are prevented.
Hydrocarbons	Upstream	Currently, Galp does not operate any upstream asset. Still, Galp follows the best guidelines and practices in all Upstream activities, regardless of being main operators. Wastewater from Upstream segment is characterized by several specific pollutants, such as: phenols, sulphates, hydrocarbons, chlorides, among others. If wastewater is not treated or poorly treated, it could have severe negative impacts on the environment (e.g. in water bodies), such as reduction of biodiversity. In case of FPSOs in Brazil, the wastewater is treated in situ before being discharged to the sea. The effluent treated, before being discharged, is always subject to quality control to guarantee that it complies to the legal limit values of the parameters identified as potential water pollutants. The quality control is performed internally and externally by a certified and independent laboratory.	Compliance with effluent quality standards Measures to prevent spillage, leaching and leakages Community/stakeholder engagement Emergency preparedness	Currently, Galp does not operate any upstream asset. Still, Galp follows the best guidelines and practices in all Upstream activities, regardless of being main operators. For example, FPSOs in Brazil are under Brazil legislation and also follows the MARPOL guidelines and regulations, guaranteeing the prevention of pollution from shipping routine operations and accidental pollution.

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 an established enterprise risk management framework

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market

Enterprise risk management

International methodologies and standards

Tools and methods used

WRI Aqueduct

WWF Water Risk Filter

COSO Enterprise Risk Management Framework
Environmental Impact Assessment
Life Cycle Assessment
Other, please specify (Water-related financial impacts)

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats

Stakeholders considered

Employees
Local communities

Comment

Galp has in place a decision-making process that incorporates a risk assessment for all strategic decisions. To assure independence and objectiveness in the analysis, the exercise is conducted by the Risk Management (RM) Department and is addressed to the Chief Risk Officer (executive board member). Relevant water-related uncertainties are also embedded in the risk analysis. Besides the RM system, Galp also supports its decision-making on international methodologies (LCA) and tools on the market (e.g. WWF Water Risk Filter, WRI Aqueduct Water Tool, etc.).

Value chain stage

Supply chain

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
Enterprise risk management
International methodologies and standards

Tools and methods used

WRI Aqueduct
WWF Water Risk Filter
COSO Enterprise Risk Management Framework
Environmental Impact Assessment
Life Cycle Assessment
Other, please specify (Water-related financial impacts)

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats

Stakeholders considered

Employees
Local communities
Suppliers

Comment

Galp has in place a decision-making process that incorporates a risk assessment for all strategic decisions. To assure independence and objectiveness in the analysis, the exercise is conducted by the Risk Management (RM) Department and is addressed to the Chief Risk Officer (executive board member). Relevant water-related uncertainties are also embedded in the risk analysis. Besides the RM system, Galp also supports its decision-making on international methodologies (LCA) and tools on the market (e.g. WWF Water Risk Filter, WRI Aqueduct Water Tool, etc.).

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.

Galp is exposed to a set of risks which may bring uncertainty to its performance and to the accomplishment of strategic objectives. To ensure proper management of these risks, it is defined objectives, processes and responsibilities that enable Galp to establish a solid risk management structure.

Galp's risk management governance and organisational structure follows the three-lines-of-defence model that enables a consistent relationship between risk management activities developed at different levels and of different periodicity. It assures that any relevant risk, including water related risks, identified by those responsible for Organisational Unit (OU) risks and processes with the support of the respective Local Risk Officer (LRO), is analysed and assessed, at the OU level. The LRO is responsible for reporting periodically to the corporate risk department on BU's risk exposure.

The first line of defence is responsible for the daily risk management and internal control activities. Those responsible for OU risks and processes, for control functions and the LRO must carry out their daily duties in line with the business strategy and the internal rules and procedures, including the Company's Risk Management Policy. The second line of defence is responsible for defining compliance, risk and internal control standards. And the third line of defence oversees, monitors and evaluates the effectiveness of the risk management and internal control processes.

Considering this risk management structure, and the established guidelines, Galp periodically identifies, assesses and manages the risks and opportunities inherent to its strategy, including emerging risks and opportunities.

In the identification of risks, Galp considers internal and external factors that may trigger risks or opportunities that, in an adverse or favourable way, may potentially affect its activity, its assets, its financial performance, its competitiveness, and its reputation. This identification process is developed across the company, following the approaches top-down and bottom-up, and includes existing and emerging risks (new trends with rapid and uncertain evolution).

Then, quantitative (it is performed using the Expected Financial Impact) and qualitative (it is calculated by the multiplying the probability of occurrence by the impact in case of occurrence) assessments are carried out and based on the results obtained, risks are prioritized and mapped.

Galp has been analysing climate risks and it is exposure to climate change risks (including water-related risks) driven by changes in regulation and driven by change in physical climate parameters (such as water availability, extreme rain events, average sea level rise, average rainfall) etc. In this analysis, are used scenario-based modelling comprehending relevant IPCC scenarios (including one 1.5°C and/or well-below2°C (WB2C) scenario) for physical variables (RCP 1.9, and RCP 4.5) and in-house or IEA scenarios for market variables.

Additionally, Galp periodically update the mapping of risks associated with the use of water in 100% of its operations. This mapping is performed using the WWF Water Risk Filter and the WRI Aqueduct Water Tool. This study measures Galp's level risks associated with water resources, in all locations where Galp operates. Some indicators are considered (water stress, season variability, water supply and water demand) and scenarios are projected for 2030v (Business as Usual/Optimistic Approach), allowing Galp to identify identify priority actions on a regional and global scale with a view to mitigating risks relating to water use. These results are the output of a large-scale analysis of WR in geographic areas where Galp has assets.

In parallel, complementary risk assessments and river basin analyses are carried out at a local level, whenever necessary.

Regarding internally standards, the Company has an HSE Policy as a support guideline to the corporate strategy to be adopted in use of resources, such as water. In order to guarantee HSE criteria in the decision-making processes, associated to each development stages (through all lifecycle) of projects/assets/operations, Galp has in place an Internal Standard HSSE Specific Requirements in Projects and its Manual - Integration of HSSE specific Requirements in Projects Lifecycle. These documents recognise that water risk assessments must be performed in new projects/assets/operations that could potentially impact water sources (water extraction, use, management, discharge). Water assessment methods are aligned with best international practices and best available techniques.

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?

A substantive financial/strategic impact can be described as (direct operations): one that can directly affect the Company, e.g. financially - changes in EBITDA (up to 10%); one that can indirectly affect the Company - create a relevant reputation impact for the company (local, regional, national and international level) and consequent economic losses; one that can directly or indirectly affect an strategic asset or facility in any other way considered relevant (e.g. operational constraints due to water scarcity or droughts).

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	1	51-75	Sines refinery (Refining and Midstream segment) is the main industrial site of Galp. Water withdrawal of refining represented around 88% of total water consumption of Galp. Sines represented around 68. After the first quart of 2021 Matosinhos refinery was no longer on the scope as in late 2020 Galp announced the discontinuing of refining operations in the Matosinhos refinery after the first quarter of 2021.

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

Portugal	Other, please specify (Sado and Mira)
----------	---------------------------------------

Number of facilities exposed to water risk

1

% company-wide facilities this represents

51-75

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

76-99

% company's total global revenue that could be affected

91-99

Comment

Facility is Sines Refinery, with a global processing capacity of 226 kbpd .

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

Portugal	Other, please specify (Sado and Mira)
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Type of risk & Primary risk driver

Regulatory	Higher water prices
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Primary potential impact

Increased operating costs

Company-specific description

Regulatory risks, namely higher water prices and uncertainty regarding water regulatory agreements (e.g. the addition of the costs of environmental and social externalities in the price of water) may pose significant impacts for Galp. There are national and international references identifying these drivers, and it may affect specifically Galp, namely at its main industrial site: Sines (6.4 million m3) Refinery in Portugal. The price of water is set by political issues and local availability, which may indicate the price does not reflect the true value of the resource. Following the same line of thought, IBM and Waterfund have developed a Water Cost Index (WCI) to allow a comparison of the true cost of water. Similarly, in Portugal, the National Program for the Efficient Use of Water states the importance of adjusting the price of water so it reflects its actual cost. Given this scenario, it is likely that part of the control measures of water use will be reflected in its price (increase in prices), forcing society in general and industry in particular, to optimize its use as a way to ensure competitiveness. Galp developed a case study where it is possible to conclude that if water price reflect the real cost of water, the relative importance of this resource in the operating costs could significantly increase, up to 7.9% for Sines Refinery (273% increase for water related costs). Also, Galp conducted an analysis of climate risks and it is exposure to climate change risks (including water-related risks) driven by changes in several aspects, such as regulation. Regulatory Compliance Risk is monitored by the company since any failures by the company may have adverse effects on the Company's investment, reporting obligations, limits to operations (including in Sines Refinery) and even reputation. This risk is monitored by Galp's Risk Management team This study considered three different time horizons, short, medium and long term (2025, 2030 and 2050).

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8049000

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

Galp developed a case study where it is possible to conclude that if water price reflect the real actual cost of water, the relative importance of this resource in the operating costs could significantly increase, up to 7.9% for Sines, namely a 273% increase for water related costs: increase of €8,049k, from €2,951 k to €11,000k.

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

As a way to anticipate the future and prepare for the possible increase in water prices, Galp has made efforts to improve its water efficiency measures. These investments have the purpose of promoting the reduction of fixed costs and mitigate future risks associated with regulations and tariffs, contributing to reduce the pressure of Galp's activities on water resources at a local and regional level. Galp has made efforts to reduce water withdrawals and volumes of wastewater generated through the adoption of reuse and recirculating water systems. The response strategy is aligned with the Company's strategic sustainability plan up to 2022, which aims to promote a sustainable improvement of the eco-efficiency KPIs at Galp, including water-related indicators. Also, the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021, contributed to the reduction of water withdrawals. In 2021, Galp recycled around 1.28 million m3 of water, around 14% of total water withdrawal of Galp. Additionally, measures that have been implemented in Sines allowed the recirculation of around 650,579 m3 in 2021 (savings €298k). These values can become more significant every time Galp increases the volume of recycled water and if in the future water prices reflect the actual real cost (e.g. internalizing environmental and social externalities). Refining team is working to further improve water-related performance through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023). Also, Regulatory Compliance Risk is monitored by the company since any failures by the company may have adverse effects on the Company's investment, reporting obligations, limits to operations (including in Sines Refinery) and even reputation. This risk is monitored by Galp's Risk Management team.

Cost of response

323840

Explanation of cost of response

In 2021, for the Sines refinery, investments related to the protection of water resources, soil and groundwater amounted for more than €323K. For the development of the study about water risks, the cost was mainly associated to human capital, being estimated at €2k. Also, the company has recently spent €21k in specialized study address these issues, using scenario analysis with physical variables compatible with Galp's in house scenarios. Besides, in 2021 costs associated to BCSD membership related to these issues amounted for €4k.

Country/Area & River basin

Portugal	Other, please specify (Sado and Mira)
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Type of risk & Primary risk driver

Chronic physical	Water stress
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Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Chronic Physical risks, namely water stress may pose significant impacts for Galp, specially the sites located in these areas. We annually update the mapping of risks associated with the use of water in 100% of our operations. This mapping is performed using the Water Risk Filter and Aqueduct Water Tool, developed by WWF and World Resources Institute (WRI). As water is a material topic getting higher relevance within the scope of our current and future activities, in 2021, the assessment tool was updated, guarantying a more accurate and transparent report. According to the mapping carried out in 2021, 28% of our operations are located in areas with water stress (including Sines Refinery). The sites located in areas with water stress represents 71% of Galp's total water consumption. Also, in the assessment, two future scenarios were analysed, for 2030 timeframe, considering a Business as Usual and an Optimistic approach. Considering the Business-as-Usual approach, in 2030, around 76% of the sites will be located in areas where water stress will increase in 1.4x and 2.8x or greater (including Sines Refinery). Galp has been tracking water intensity metric quarterly, in order to identify performance deviations (real and potential), to identify mitigation actions in order to improve performance, to set ambitious targets and to implement water efficiency measures. Galp estimates that water intensity metric performance may improve as a result of the efforts made in recent years (implementation of water and wastewater efficiency measures) and to the implementation of ambitious targets for water reduction in the refining segment. Refining team is working to further improve water-related performance through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2022/2023). Also, Galp conducted an analysis of climate risks and its exposure to climate change risks (including water-related risks) driven by changes in several aspects, such as Chronic Physical risks. Sines refinery is located by the Atlantic Ocean coast and might be threatened by these events (e.g. sea level rise). This is particularly relevant as Galp processed in 2021 76.6mmboe of raw materials vital for the supply of fuels in the Iberian market. Thus, chronic physical risks are classified as strategic risks integrate the top risks included in the Risk Matrix monitored by the Risk Management Department.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

Primary response to risk

Please select

Description of response

Cost of response

Explanation of cost of response

Country/Area & River basin

Portugal	Other, please specify (Sado and Mira)
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Type of risk & Primary risk driver

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)
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Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Galp conducted an analysis of climate risks and its exposure to climate change risks (including water-related risks) driven by changes in several aspects, such as Acute Physical risks. Main industrial facilities of Galp (e.g. Sines refinery) is located in the south of Portugal and might be threatened by these events. Extreme storms can affect the capacity of refineries and that could compromise the supply of raw materials to these refineries through the sea terminals. This is particularly relevant as Galp processed in 2021 76.6 mmboe of raw materials vital for the supply of fuels in the Iberian market. Thus, acute physical risks are classified as strategic risks integrate the top risks included in the Risk Matrix monitored by the Risk Management Department.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

Primary response to risk

Please select

Description of response

Cost of response

Explanation of cost of response

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	Galp has developed a characterization study of its supply chain, aiming a deeper knowledge about the economic, social and environmental impacts of Galp's supply chain (methodology: Impact Explorer). Based on conclusions of this study, and due to the characteristics of Galp's supply chain, the Company knows that risks exist (e.g. water scarcity; water price increase), but not generate substantive impacts, as the majority of the key inputs (Galp's supply chain) are not extremely water intensive. Galp estimates that might repeat this assessment in the next 5 years or when substantial organizational or sector changes may occur.

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

Cost savings

Company-specific description & strategy to realize opportunity

Anticipating water related risks, Galp identified an opportunity for costs savings and improving its performance at the Sines Refinery (around 68 % of Galp water withdrawals). Galp highlights the benefits that water reuse can bring for the business. Through the efforts made to improve the efficiency in regarding water consumption and effluents, the investments made (recirculation/recycling of water and other specific water efficiency measures implemented) have the purpose of promoting the reduction of fixed costs, while contributing to reduce the pressure of the Galp's activities on water resources at a local and regional level. Sines Refinery has implemented specific water recycling and recirculation systems and has set annual targets to increase water recycling/reuse. In 2021 Galp recycled/reused around 1.28 million m3 of water (14% of total water withdrawals of Galp). The measures implemented in Sines allowed the recirculation of around 650,579 m3 in 2021, representing savings of around €298k. Considering the total of Galp's water recycled/reused in 2021 (around 1.28 million m3), savings were around €676k.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

676205

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

The measures implemented in Sines allowed the recirculation of around 650,579 m3 in 2021, representing savings of around €298k. Cost savings were estimated considering actual water price scenarios in Portugal, for different regions. These values (financial opportunity) can become more significant every time Galp increases the volume of recycled water at its refineries and if in the future water prices reflect the real water cost in the future (e.g. internalizing environmental and social externalities).

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Anticipating water related risks, Galp identified an opportunity for water efficiency in its operations at the Sines Refinery (around 68 % of Galp water withdrawals). Through the efforts made to improve the efficiency in regarding water consumption and effluents, the investments made (recirculation/recycling of water and other specific water efficiency measures implemented) have the purpose of promoting the reduction of fixed costs, while contributing to reduce the pressure of the Galp's activities on water resources at a local and regional level. Sines Refinery has implemented specific water recycling and recirculation systems and has set annual targets to increase water recycling/reuse. In 2021 Galp recycled/reused around 1.28 million m3 of water (14% of total water withdrawals of Galp). The measures implemented in Sines allowed the recirculation of around 650,579 m3 in 2021, representing savings of around €298k. Considering the total of Galp's water recycled/reused in 2021 (around 1.28 million m3), savings were around €676k.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Please select

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

676205

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

The measures implemented in Sines allowed the recirculation of around 650,579 m3 in 2021, representing savings of around €298k. Cost savings were estimated considering actual water price scenarios in Portugal, for different regions. These values (financial opportunity) can become more significant every time Galp increases the volume of recycled water at its refineries and if in the future water prices reflect the real water cost in the future (e.g. internalizing environmental and social externalities).

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)

Sines Refinery

Country/Area & River basin

Portugal	Other, please specify (Sado and Mira)
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Latitude

37.963396

Longitude

-8.798748

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

Midstream/Downstream

Total water withdrawals at this facility (megaliters/year)

6432

Comparison of total withdrawals with previous reporting year

Higher

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

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

6432

Total water discharges at this facility (megaliters/year)

4049

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

4049

Total water consumption at this facility (megaliters/year)

2383

Comparison of total consumption with previous reporting year

Higher

Please explain

Water withdrawal and water consumption at the Sines Refinery were higher than the previous year (water withdrawal from 6,055 megaliters in 2020 to 6,432 megaliters in 2021 and water consumption from 1,976 megaliters in 2020 to 2,383 megaliters in 2021). These increases were due to the pandemic context in 2020, as the refinery returned to normal operations in 2021, in heavier loads.

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

This data was verified under the annual verification of sustainability data. Standard used by external third party is ISAE 3000 (limited assurance). Scope of verification is 100%. In what concerns non-financial information (including water data), the data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control thereof.

Please explain

<Not Applicable>

Water withdrawals – volume by source

% verified

76-100

Verification standard used

This data was verified under the annual verification of sustainability data. Standard used by external third party is ISAE 3000 (limited assurance). Scope of verification is 100%. In what concerns non-financial information (including water data), the data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control thereof.

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

This data was verified under the annual verification of sustainability data. Standard used by external third party is ISAE 3000 (limited assurance). Scope of verification is 100%. In what concerns non-financial information (including water data), the data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control thereof.

Please explain

<Not Applicable>

Water discharges – volume by destination

% verified

76-100

Verification standard used

This data was verified under the annual verification of sustainability data. Standard used by external third party is ISAE 3000 (limited assurance). Scope of verification is 100%. In what concerns non-financial information (including water data), the data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control thereof.

Please explain

<Not Applicable>

Water discharges – volume by final treatment level

% verified

76-100

Verification standard used

This data was verified under the annual verification of sustainability data. Standard used by external third party is ISAE 3000 (limited assurance). Scope of verification is 100%. In what concerns non-financial information (including water data), the data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control thereof.

Please explain

<Not Applicable>

Water discharges – quality by standard water quality parameters

% verified

76-100

Verification standard used

This data was verified under the annual verification of sustainability data. Standard used by external third party is ISAE 3000 (limited assurance). Scope of verification is 100%. In what concerns non-financial information (including water data), the data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control thereof.

Please explain

<Not Applicable>

Water consumption – total volume

% verified

76-100

Verification standard used

This data was verified under the annual verification of sustainability data. Standard used by external third party is ISAE 3000 (limited assurance). Scope of verification is 100%. In what concerns non-financial information (including water data), the data consolidation and reporting methodology comprehends all activities where Galp has a 50% stake or more and/or when it has operational control thereof.

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 business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change Other, please specify (Commitment to water reuse/recycle)	For Galp, environment protection is an essential condition to create sustainable value, by assuming the responsibility in managing the risks and impacts of our activities. This strategic view is assigned our policies and internal standards such as Health, Safety and Environment Policy and Corporate Social Responsibility Policy, both company-wide, publicly available and aligned with international standards. Thus, Galp has a Sustainability Committee chaired by the independent Vice-chairman and Lead Independent Director of the Board of Directors which has the mission to integrate sustainability principles into the Galp Group management process, promoting industry best practices in all of its activities, with a view to long-term value creation. The main responsibilities of this committee are: establish strategic objectives and targets (inc. for water) as well as proposals and actions, to improve the sustainability performance of Galp, including water-related issues; take on external commitments; maintain an active knowledge network; continuously monitoring and reporting performance; committing management and employees; promote a culture of sustainability and ensure employee and management training. Thus, Galp is committed to use natural resources (namely water) in an eco-efficient manner and implement technologies and procedures to ensure the operations in safe conditions, throughout its lifecycle (as stated in our HSE Policy). The water management and water risk assessments are specific requirements taken into consideration (business dependency and impacts on water) at the core of our operations, as well as, human right to water, sanitation and hygiene issues. Galp is also committed to go beyond regulatory compliance, to align with public policy initiatives (SDG) and to set water efficiency targets and goals (water reduction and water recycle). Additionally, the Company also has internal and external audits to ensure compliance. Galp's refineries are also certified according to ISO 14001, ISO 9001, OHSAS 18001/ISO 45001 and ISO 50001.

W6.2

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

Yes

W6.2a

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

Position of individual	Please explain
Board-level committee	Galp, is aware of the importance and potential impact water related risks and opportunities in its operations, revenues and of the materiality of these topics for society, investors and other stakeholders. The Company recognises the importance of a responsible leadership and of the definition of robust and effective governance mechanisms that integrate key climate and energy transition related challenges (including water-related topics) into our strategy. The Board of Directors (BoD) oversees the the Company's strategic formulation process and investment planning, along with the Executive Committee (EC), where the CEO is the designated member responsible for climate strategy (which has direct correlation with water related topics). The EC is appointed by the BoD and is directly responsible for developing and implementing the company's strategic objectives and guidelines, including the climate and water related topics. The Sustainability Committee, is the board level committee responsible for climate related issues (including water-related issues), being key in assisting the BoD in integrating sustainability principles into the decision-making process and, with the support of the Risk Management Committee, ensuring that the main risks and opportunities that we face are identified and continually managed. The BoD and the Sustainability Committee, Risk Management Committee, Remuneration Committee and Audit Board have oversight on climate related issues (including water-related issues), including associated risks and opportunities.

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 and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives Other, please specify (Commitment to water reuse/recycle)	The mission of the Sustainability Committee – Board level Committee - is to assist the Board of Directors in integrating sustainability principles (inc water related issues) into the Galp Group management process, promoting industry best practices in all of its activities, with a view to long-term value creation. In 2021, the Sustainability Committee met four times and minutes of these meetings were drawn up regarding the following matters: a) analysis of the regulatory context and main ESG trends; b) analysis of Galp's sustainability context and ESG best practices implemented by the peers, for each of the dimensions of the ESG space; c) analysis of Galp's sustainability performance; d) development of an energy transition plan; e) analysis and discussion of Galp's new climate ambitions and decarbonisation performance; f) overview of the physical climate and transition risks assessment process (inc water); g) discussion of the most relevant COP 26 outcomes and their impact on Galp's activities; h) overview of the sustainability roadmap for 2022; i) context and organisational response level analysis on the disclosure of nonfinancial information. In all of these meetings the water-related issues were mentioned/ discussed. Additionally, in accordance with the Regulations of the Board of Directors (BoD), Galp's BoD meets periodically, and at least quarterly, to review and guide the company's strategy, monitor the implementation of strategic guidelines and performance against objectives. Annually, the BoD approves the company annual Budget, 10-year Business Plan and the strategic investments/divestitures. Regarding the Executive Committee (EC), the respective meetings are held mostly on a weekly basis for reviewing and guiding plans of action, risk management policies, setting performance objectives, among others. The Sustainability Committee, Executive Committee and Board of Directors, are informed on a quarterly basis on our sustainability performance against targets and are updated on the sustainability decarbonisation roadmap status or any key ESG climate change related issues (including water-related issues) via a specialized report, prepared by the corporate Strategy and Sustainability team, with the support of the Risk Management team, when necessary

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	The Vice-Chairman of the Board of Directors is also the Chairman of Galp's Sustainability Committee, a member of Galp's Risk Management Committee and the Lead Independent Director of Galp's Board of Directors. He has ample experience in the areas of corporate governance, international business and sustainable value creation. The mission of the Sustainability Committee – Board level Committee - is to assist the Board of Directors in integrating sustainability principles (inc water related issues) into the Galp Group management process, promoting industry best practices in all of its activities, with a view to long-term value creation.	<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

Responsibility

Assessing future trends in water demand
 Assessing water-related risks and opportunities
 Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The Sustainability Committee ensures the integration of sustainability principles (including water-related) in the management process of the Galp Group, industry all its activities, to ensure long-term value creation. The Sustainability Committee meets at least quarterly (or more frequently when considered relevant by the chair of the Committee) and it directly reports to the ExCom and Board of Directors.

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

Chief Sustainability Officer (CSO)

Responsibility

Assessing future trends in water demand
 Assessing water-related risks and opportunities
 Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Galp's Chief Sustainability Officer is the Head of the Strategy and Sustainability Department, responsible for corporate management of sustainability risks (including water-related risks) and has the power to establish and propose assessment and monitoring methodologies, that are implemented in a coordinated effort with the business units and corporate Risk Management & Internal Control department, thereby ensuring that a plan of action is established to mitigate and/or eliminate these risks.

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

Chief Risk Officer (CRO)

Responsibility

Assessing water-related risks and opportunities
 Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The Chief Risk Officer (CRO), a member of the BoD and the Executive Committee, ensures, among others, that the strategic action plans that minimise risks are in place, and that risk management appetite and priorities are considered in decision making. Since the CFO is present in Risk Management and Sustainability Committees he is able to align climate/water-related topics with the Business Plan objectives.

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

Other C-Suite Officer, please specify (Risk Committee)

Responsibility

Assessing future trends in water demand
 Assessing water-related risks and opportunities
 Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Risk Management Committee is responsible for monitoring Galp's main risks; evaluating the compliance with the tolerance levels and the execution and effectiveness of decided mitigation actions; assessing Galp Group's internal control and risk management systems; issuing appropriate opinions and recommendations; and evaluating compliance with Galp's risk management policy. The main decisions and activities performed by the Risk Management Committee are quarterly reported to the Audit Board.

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	Please see details on W6.4a.

W6.4a

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

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Please select	Please select	
Non-monetary reward	Board chair Board/Executive board Director on board Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Chief Purchasing Officer (CPO) Chief Risk Officer (CRO) Chief Sustainability Officer (CSO) Other, please specify (All employees)	Reduction of water withdrawals Reduction in consumption volumes Other, please specify (Reduction of product water intensity; Behavior change related indicator)	The teams of the operational areas set targets and goals for eco-efficiency KPIs, including water-related, which are accompanied by the top management of the company, that recognises the work done and the team's effort to continuous improvement, for the company's performance as a whole. This work, in addition to being internally recognized, it is also recognized by external entities (e.g. CDP, S&P RobecoSAM). Also, Galp has Objective Key Results (OKR) associated to each Business Unit related with sustainability (objective: Be recognised as one of the most sustainable companies in the world in the Energy sector (inc water related issues; Improve integrity and reliability of all assets)

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?

Galp engages with several key stakeholders for to manage water-related issues and and implement policies and solutions for sustainable water management. (WBCSD; IOGP; CONCAWE; APETRO, among others). Galp plays an active role with the official entities, sectorial and thematic associations and participates in integrated watershed management initiative in locations with key operations. In order to ensure that our activities to influence policy are consistent with our water policy, Galp has specialized working groups with high skills that participate in the development of legislation and in discussion forums with policymakers.

Also, we participate in the climate debate with focus on sustainability (including water-related topics) and the development of clean and affordable energy solutions.

We, as participants, are aware that Industry associations play a key role in society, as players for the development of collaborative platforms and to promote the best practices in different sectors of activity. As a result, Galp benefits from a network of cooperation and knowledge-sharing, allowing us to develop the highest standards of performance and to promote relevant debates, within and outside the organisation

For more information please consult:

<https://www.galp.com/corp/Portals/0/Recursos/Sustentabilidade/SharedResources/Documents/Parceiros%20setoriais/Participation%20in%20Industry%20Associations%20-%20Climate%20Change%202022.pdf>

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)
- Galp_Integrated Management Report 2021.pdf

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	5-10	Galp establishes challenging targets and goals on Sustainability matters, including specific water-related for our refining operations (represent 88% of total water withdrawal) and other BU, related to water consumption reduction and wastewater recycling increase. We monitor our performance in HSE, allowing continuous improvement, and communicate it in a responsible and transparent manner in our external communication channels. These objectives are defined by BoD and internally communicated. Ex: reduction of raw water consumed per feedstock processed (m3/t) or total volume (m3) of recycled/reused water. Resource water and related water issues (e.g. availability and quality of withdrawals; volumes and quality of wastewater; pollutants and soil contamination; among others) is one of the variables included in Galp's Sustainability Strategic Plan (in revision to update to time horizon 2030) and in the Business Plan (2022-2032) to improve Galp's performance. For the effective management, several water-related risks (e.g. transitional and physical risks such as regulation, reputation) are considered over a long-term period. For ex. Refinery changed its operational management in order to reuse/recycle water for several processes. Through the efforts made to improve the efficiency regarding water consumption and effluent production (volumes and quality), the investments made (e.g. recirculation/recycling of water) promoted the reduction of fixed costs, while contributing to reduce the pressure on water resources.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	For Galp, environment protection is an essential condition to create sustainable value, by assuming the responsibility in managing the risks and impacts of our activities. This strategic view is assign our policies and internal standards such as HSE Policy and Corporate Social Responsibility Policy, both company-wide, are aligned with international standards and publicly available and communicated internally for all employees and suppliers through contract conditions and awareness sessions. The resource water and related water issues (such as availability and quality of withdrawals; volumes and quality of wastewater; pollutants and soil contamination; among others) is one of the variables included in Galp's Sustainability Strategic Plan (in revision to update to time horizon 2030) and in the Business Plan (2022-2032) to improve Galp's performance. For the effective management of water related issues, several water-related risks (e.g. transitional and physical risks such as regulation, reputation, financial, among others) are considered over a long-term period. Also, Galp has Objective Key Results (OKR) associated to each Business Unit related with sustainability (objective: Be recognised as one of the most sustainable companies in the world in the Energy sector; Improve integrity and reliability of all assets)
Financial planning	Yes, water-related issues are integrated	5-10	The resource water and related water issues (such as availability and quality of withdrawals; volumes and quality of wastewater; pollutants and soil contamination; among others) is one of the variables included in Galp's Sustainability Strategic Plan (in revision to update to time horizon 2030) and in the Business Plan (2022-2032) to improve Galp's performance. For the effective management of water related issues, several water-related risks (e.g. transitional and physical risks such as regulation, reputation, financial, among others) are considered over a long-term period. Water related issues have factored our financial planning process, namely operating costs and capital expenditure. In 2021 the OPEX of the Refining segment, related to the protection of the water and management of wastewater amounted to more than 4.8M. CAPEX of the Refining segment related to water protection and soil and groundwater protection amounted for more than €197K. The amount is much lower than the previous year due to the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. Additionally, the measures that have been implemented in Sines Refinery allowed the recirculation of around 650,579 m3 in 2021, representing savings of around €298k. Considering the total of Galp's water recycled/reused in 2021 (around 1.28 million m3), savings were around €676k.

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)

-97.4

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

954.2

Water-related OPEX (+/- % change)

-27.9

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

17

Please explain

No relevant change in OPEX for 2020-2021 and 2021-2022 Regarding water related CAPEX is much lower due to the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021. In case of Antecipated forward trend for CAPEX, the value is much higher due to a significant investment planned to start being performed in 2022, the maintenance of the firefighting system in Sines Refinery.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	Galp periodically update the mapping of risks associated with the use of water in 100% of its operations using the WWF Water Risk Filter and the WRI Aqueduct Water Tool. This study measures Galp's level risks associated with water resources. Some indicators are considered (water stress, season variability, water supply and water demand) and scenarios are projected for 2030 (Business as Usual/Optimistic Approach), allowing Galp to identify priority actions. Also, Galp conducted an analysis of climate risks and its exposure to climate change risks (including water-related risks) driven by several parameters such as water availability, extreme rain events, average sea level rise, average rainfall. In this analysis, transition scenarios were developed by adapting IEA scenarios such as the NZE, the SDS and STEPS. The 2 transition scenarios considered were: the Committed scenario (aligned with RCP 1.9) which is aligned with SDS and the Fragmented scenario (aligned with RCP 4.5) based on STEPS.

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 Land-use change	For the scenario analysis and business plan management, several water-related risks with impact on operations) are considered. Galp conducted an analysis of climate risks and its exposure to climate change risks (including water-related risks) driven by changes in regulation and driven by change in physical climate parameters (such as water availability, extreme rain events, average sea level rise, average rainfall) etc.. In this analysis were used the transition scenarios were developed by adapting IEA scenarios such as the NZE, the SDS and STEPS. The 2 transition scenarios considered were: the Committed scenario (aligned with RCP 1.9) which is aligned with SDS and the Fragmented scenario (aligned with RCP 4.5) based on STEPS. All the values for these variables were obtained considering the geographic coordinates of the various assets, using three different time horizons, considering the short, medium and long term (as recommend by TCFD): 2025, 2030 and 2050. Also, we periodically update the mapping of risks associated with the use of water in 100% of our operations, using the WRI Aqueduct Water Tool. This study measures Galp's level risks associated with water resources, in all locations where Galp operates. Some indicators are considered (water stress, season variability, water supply and water demand) and scenarios are projected for 2030 (Business as Usual/Optimistic Approach), allowing Galp to identify the regions that are, or will be, in risk (associated to water use).	Example of Climate risks assessment (including water-related risks) outcomes are the sea level consistent tendency of growth and precipitation variation relatively constant among the different years and scenarios (Chronic Risks).Also, the number of extreme rainfall days has a consistent growth trend between the different years and scenarios (Acute Risk). Regarding the Water Assessment (using WRI Aqueduct Water Tool), currently, only 28% of the sites are located in areas with high water stress, with high or extremely high Overall Water Risks.For 2030, using the Business as Usual (BU) scenario, around 76% of the sites are located in areas where water stress will increase in 1.4x and 2.8x or greater. Considering the Optimistic approach (OA),1 site will be located in an area where water stress is expected to increase in 2.8x or greater and 28 sites in areas with 1.4x increase in water stress. Also, around 7% of the sites will be located in areas where seasonal variability is expected to increase in 1.1x (BU approach). More sites [61%] will be located in areas where seasonal variability is expected to increase 1.1x (OA approach). Considering the Water Supply indicator and the BU scenario, 80% of the sites will be located in areas where water supply is expected to have a 1.4x decrease and a 1.2x decrease. In case of OA approach, despite not having sites located in areas where water supply will increase, the distribution of sites in areas where a decrease is verified is less severe.	As a way to anticipate the future and prepare for the possible increase in water-related risks and its potential impact on Galp's activities, the risks of exposure to events of a disruptive changing are identified and analysed in the context of the Risk Assessments carried out by the Risk Management Department in collaboration with relevant business units. Also, Galp has made efforts to improve its efficiency in what concerns water consumption and effluent production. These investments contribute to reduce the pressure of the Company's activities on water resources at a local and regional level.

W7.4

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

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

Anticipating the future and prepare for the possible increase in water prices, Galp has made efforts to improve its water efficiency and effluent production. Before considering the effect of incorporating the costs of externalities in the water prices, it is important to understand the vulnerability of refineries (around 88% of total water withdrawal of Galp) to eventual increases in the current price. For this purpose, increases of 5%-25% in the water price have been analysed. This means prices of €0.46/m³ (actual scenario) up to €0.57/m³ (25% increase) for Sines refinery. Galp concluded that in the current context, the cost structure of refining operations has a reduced vulnerability to changes of this magnitude in the cost of water. Even in the worst scenario studied (25% increase), the impact of the water costs in the total operating costs would increase by around 0.6%.

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	No, but we plan to address this within the next two years	<Not Applicable >	Important but not an immediate business priority	Galp has an HSE Policy as a support guideline to the corporate strategy to be adopted in use of resources, such as water. In order to guarantee HSE criteria in the decision-making processes, associated to each development stages (through all lifecycle) of projects/assets/operations, Galp has in place an Internal Standard HSSE Specific Requirements in Projects and its Manual - Integration of HSSE specific Requirements in Projects Lifecycle. These documents recognise that water risk assessments must be performed in new projects/assets/operations that could potentially impact water sources (water extraction, use, management, discharge).

W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Activity level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	For Galp, environment protection is an essential condition to create sustainable value, by assuming the responsibility in managing the risks and impacts of our activities. This strategic view is assigned to our policies and internal standards such as HSE Policy and Corporate Social Responsibility Policy, both company-wide, aligned with international standards, publicly available and communicated internally for all employees and suppliers through contract conditions and awareness sessions. Galp establishes challenging targets and goals on Sustainability matters, including specific water-related for our refining operations(that represent 88% of total Galp's water withdrawal) and other business segments, related to water consumption reduction and wastewater recycling increase. We monitor our performance in HSE, allowing continuous improvement, and communicate it in a responsible and transparent manner in our external communication channels (Galp's sustainability website; Annual Report; others). These goals are defined by top management and communicated throughout all organisation. Examples of targets are: reduction of raw water consumed per feedstock processed or total volume of recycled/reused water. Also, Galp has Objective Key Results (OKR) associated to each Business Unit related with sustainability (objective: Be recognised as one of the most sustainable companies in the world in the Energy sector; Improve integrity and reliability of all assets). Also, Galp has Objective Key Results (OKR) associated to each Business Unit related with sustainability (objective: Be recognised as one of the most sustainable companies in the world in the Energy sector; Improve integrity and reliability of all assets).

W8.1a

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

Target reference number

Target 1

Category of target

Water withdrawals

Level

Site/facility

Primary motivation

Recommended sector best practice

Description of target

Galp establishes challenging targets and goals on Sustainability matters, including specific water-related for our refining operations(that represent 88% of total Galp's water withdrawal). Galp establishes the target raw water withdrawal per feedstock processed (m3/t). This target is one of the KPI that measures the eco-efficiency of Galp at Refining sector, as water is a key resource for operations and feedstock processed is the main output.

Quantitative metric

Other, please specify (Raw water withdrawal/feedstock processed)

Baseline year

2014

Start year

2020

Target year

2022

% of target achieved

100

Please explain

Raw water withdrawal per feedstock processed (m3/t). This target is for Sines Refinery (Refining and Midstream segment). Sines Refinery had, by the end of 2021, a performance of 0.58 m3/t, better than the performance of the baseline year (2014: 0,64 m3/t). The target set was 0.51 m3/t by the end of 2021. Refining team is working to further reduce water withdrawals through planned investments in proven water recycling technologies and the implementation of pilot projects focused on new technologies in the coming years (2021/2022).

W8.1b

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

Goal

Improve wastewater quality beyond compliance requirements

Level

Site/facility

Motivation

Cost savings

Description of goal

The Sines refinery (site/facility level), which is Galp's largest industrial site carries out a pre-treatment to its wastewater. After this, the effluent is delivered to a third party supplier for its final treatment and discharge. The refinery has been investing in improving the treatment of the effluent in order to achieve a better quality of the same, having this impact two types of benefits (importance to Galp): 1) A better quality of the effluent allows the refinery to increase the amount of water reused/recycled; 2) A better quality of the effluent (there are 6 quality categories) can reduce the costs of treatment when the effluent is delivered to the external entity. The refinery aims to increase, until 2022, the quality of the effluent to 'Class II' ('Class I' equals best quality; 'Class VI' equals worst quality), so as to be able to reuse/recycle a larger volume of wastewater and, in turn, to reduce the costs associated with treatment of effluent. To implement the goal across the site, Galp is investing in new effluent treatment equipment (e.g. skimmers, sludge treatment systems, among others), so far with success.

Baseline year

2016

Start year

2017

End year

2022

Progress

Galp uses a series of indicators (quality parameters) to measure progress. The refinery has a monitoring system for the control and monitoring of effluent quality, measuring relevant parameters, such as: sulphide; phenol; oils; COD; pH; total suspended solids. The threshold of success is measured by the effluent quality class. The quality class is given by the result of each parameter, and each quality class (from I to VI) has a different window value for each parameter. For example, for the phenol parameter, for Class II (which the refinery intends to achieve), the quality level for phenol should be between 5-10 mg/l. For instance, for Class III, the quality level should be between 10-15 mg/l. By the end of 2017, the effluent quality of the refinery was Class III, hoping to achieve Class II by 2022.

W9. Verification

W9.1

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

Yes

W9.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W8 Targets	Consumption of raw water per feedstock processed	ISAE 3000	Galp verifies the consumption of raw water per feedstock processed for both refineries (Sines and Matosinhos) reported in W8. Despite the discontinuation of refining operations in Matosinhos (Portugal) in the first quarter 2021, the data was verified for all year.Targets.
W1 Current state	Total water withdrawals (m3); Total water discharges (m3); Total water consumption (m3)	ISAE 3000	Galp verifies total water withdrawals (m3), total water discharges (m3), and total water consumption (m3) reported in W1. Current Status.

W10. Sign off

W-FI

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

W10.1

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

	Job title	Corresponding job category
Row 1	Director of Strategy and Sustainability	Chief Sustainability Officer (CSO)

W10.2

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

No

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

The European Climate Pact Submission

Please indicate your consent for CDP to showcase your disclosed environmental actions on the European Climate Pact website as pledges to the Pact.

Yes, we wish to pledge to the European Climate Pact through our CDP disclosure

Please confirm below

I have read and accept the applicable Terms