



Welcome to your CDP Water Security Questionnaire 2021

W0. Introduction

W0.1

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

Linde plc is a public limited company formed under the laws of Ireland with its principal offices in the United Kingdom. Linde is the largest industrial gas company worldwide and is a major technological innovator in the industrial gases industry. Its primary products in its industrial gases business are atmospheric gases (oxygen, nitrogen, argon, and rare gases) and process gases (carbon dioxide, helium, hydrogen, electronic gases, specialty gases, and acetylene). The company also designs and builds equipment that produces industrial gases and offers customers a wide range of gas production and processing services such as olefin plants, natural gas plants, air separation plants, hydrogen and synthesis gas plants and other types of plants.

Linde plc shares trade on the New York Stock Exchange (“NYSE”) and the Frankfurt Stock Exchange (“FSE”) " under the ticker symbol "LIN". Linde issues an annual report 10K according to US GAAP and a Financial Report/Director’s Report according to IFRS, including a non-financial report following European CSR Directives 2014/95/EU and 2013/34/EU.

W-CH0.1a

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

- Bulk inorganic chemicals
- Specialty inorganic chemicals

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, 2020	December 31, 2020

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

Algeria
Argentina
Australia
Austria
Bahrain
Bangladesh
Belgium
Bolivia (Plurinational State of)
Brazil
Canada
Chile
China
Colombia
Costa Rica
Czechia
Denmark
Dominican Republic
Ecuador
Finland
France
Germany
Greece
Hungary
Iceland
India
Ireland
Italy
Japan
Luxembourg
Mexico
Netherlands
New Zealand
Nigeria
Norway
Panama
Paraguay
Peru
Philippines
Poland
Portugal
Puerto Rico
Republic of Korea
Romania
Russian Federation
Serbia
Singapore
South Africa

- Spain
- Sweden
- Switzerland
- Taiwan, Greater China
- Thailand
- Tunisia
- Turkey
- Ukraine
- United Arab Emirates
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Uruguay
- Zambia
- Zimbabwe

W0.4

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

USD

W0.5

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

Companies, entities or groups over which financial control is exercised

W0.6

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
<p>Small Sales Outlets or Workshops: Linde has defined de-minimis values for environmental parameters. If a site falls below those criteria it is not required to report its eKPIs to the group.</p>	<p>Linde runs hundreds of small sales outlets or workshops worldwide with low levels of energy or water consumption, e.g., where water is primarily withdrawn for domestic sanitary use, but not used in any industrial/production process. Linde excludes these sites because their water use is insignificant compared to the amount of water withdrawn by our plants. In addition, many of our smaller sites are leased offices. These sites are not separately metered and we cannot control the type of equipment (for example, use of low flow faucets) used</p>

	<p>at these sites. This means we do not have financial or operational control over water policies at these sites.</p> <p>Compared to all of Linde operations it is estimated that total water withdrawal of those de-minimis sites is less than 1% of Linde's total water withdrawn.</p>
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W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Neutral	<p>Linde withdrew about 428 million litres of fresh water in 2020, including once-through non-contacting cooling water which is returned to its original source with its original water quality after usage. Sufficient availability of fresh water is vital for Linde's production processes. Primary use of water is for cooling and boiler systems. About 68% of Linde's non-brackish water is drawn from fresh surface water sources, the rest from industrial/recycled sources. Having access to clean, high quality fresh water reduces the need for treating the water, which saves energy and reduces waste.</p> <p>Supply Chain: We do not consider water to be a significant issue in our supply chain. Most of our raw materials (99% per weight) is coming from renewable sources incl. air or water. For the rest, a small amount of our suppliers use water to make products we purchase, such as concrete to construct new facilities or paper used in offices. These suppliers are not in water-intensive sectors; however, they might experience water risk at certain locations with very high water stress. Linde has contingency strategies (e.g., alternative sourcing of raw materials) to mitigate such a risk.</p> <p>Future freshwater dependency in both direct and indirect operations is expected to increase in</p>

			<p>proportion to increases in production and constructing new facilities. However, water use efficiency measures are expected to keep these increases in check.</p>
<p>Sufficient amounts of recycled, brackish and/or produced water available for use</p>	<p>Important</p>	<p>Neutral</p>	<p>Linde used 203 million liters of industrial/recycled water in 2020 and 202 million liters of sea water; this is 48% of the total water withdrawn from all sources (fresh water + non-fresh water sources).</p> <p>The direct use of recycled water is mainly for cooling purposes, and is an important strategic water source based on site location for avoiding the use of freshwater available and helping to increase its availability to local communities.</p> <p>Supply Chain: As an industrial gas company, our raw materials consist largely of air and natural gas as a feedstock. 99% of our raw materials by weight are from renewable sources. Therefore, we do not consider water to be a significant issue in our supply chain. Linde has contingency strategies (e.g., alternative sourcing of raw materials) in case of any procurement issues including potential water issues.</p> <p>Future industrial water dependency in direct operations is dependent on the amount of this water supplied by customers or available from municipal utilities. Linde plc does not foresee any risks associated with its use of recycled/brackish water. We expect an increase in recycled water use and implementation of technology allowing the reuse and recycling of water in areas of water stress.</p> <p>Linde furthermore considers future water dependency for indirect operations (suppliers) to remain not significant, as most of Linde's input materials (such as air or natural gas) are not dependent on water supply for production and Linde continues to pursue alternative sourcing strategies of raw materials.</p>

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%	<p>Water withdrawal is a key performance indicator for Linde and is managed as part of the company's sustainable productivity activity to continuously evaluate water use efficiency and areas of improvement. Water withdrawal volumes and discharge are monitored at 100% of the production facilities and reported per our internal standard environmental reporting procedure. Data is collected based on flow meters and invoices, and reported annually in a global database, consolidated, and reviewed by the Global SHEQ team of the company. Data are verified by an external auditor and published once a year in our sustainability report.</p> <p>In addition, as part of Linde 2028 Sustainable Development Targets, facilities that are high water user sites in areas of high water stress (represent about 5% of Linde total water withdrawal) operate under a Water Management Plan, and must report their water figures more frequently, on a monthly basis.</p>
Water withdrawals – volumes by source	100%	<p>Water withdrawal is a key performance indicator for Linde and is managed as part of the company's sustainable productivity activity to continuously evaluate water use efficiency and areas of improvement. Water withdrawal volumes are monitored at 100% of the production facilities and reported per our internal standard environmental reporting procedure. Data is collected based on flow meters and invoices, and reported annually by water source (following latest GRI criteria) in a global database, consolidated, and reviewed by the Global SHEQ team of the company. Data are verified by an external auditor and published once a year in our sustainability report.</p>

		<p>In addition, as part of Linde 2028 Sustainable Development Targets, facilities that are high water user sites in areas of high water stress (represent about 5% of Linde total water withdrawal) operate under a Water Management Plan, and must report their water figures more frequently, on a monthly basis.</p>
Water withdrawals quality	100%	<p>Having access to clean and sufficient fresh water for our plant operation worldwide reduces the need for costly measures in treating the water, which saves energy and reduces water use and wastewater discharge. Water withdrawal quality is measured through water sample analysis at least annually, or as often as needed (e.g., by local regulations) to ensure it meets the minimum requirements and specifications intended for its use, primarily for cooling and boiler systems. Additional testing for specific constituents that pertain to discharge permits are also performed as needed.</p> <p>Moreover, 13% of Linde's total fresh water withdrawal is supplied by a municipal utility that provides quality data at the minimum on an annual basis.</p> <p>As part of the global annual environmental data collection process, Linde also collects water data based on its quality according to the new GRI standard 303 for Water and Effluents, to have an overview of the breakdown between freshwater and others sources.</p>
Water discharges – total volumes	100%	<p>Water discharge is a key performance indicator for Linde, monitored at 100% of the production facilities and reported per our internal standard environmental reporting procedure. Data is collected regularly based on flow meters and invoices, and reported annually in a global database, consolidated, and reviewed by the Global SHEQ team of the company. Data are verified by an external auditor and published once a year in our sustainability report.</p> <p>Most water discharge relates to once-through non-contacting cooling water that is returned to</p>

		<p>its original source with its original water quality after completion of the cooling cycle.</p> <p>In addition, facilities operating under a Water Management Plan must report their water figures on a monthly basis.</p>
Water discharges – volumes by destination	100%	<p>Water discharge is a key performance indicator for Linde, monitored at 100% of the production facilities and reported per our internal standard environmental reporting procedure. Water discharge volumes by destination are measured regularly with flow meters and reported annually in a global database, consolidated, and reviewed by the Global SHEQ team of the company. Data are verified by an external auditor and published once a year in our sustainability report.</p> <p>Internal training is provided once per year to ensure terms and definitions are well understood for a reliable and consistent data collection and reporting worldwide across the facilities.</p>
Water discharges – volumes by treatment method	Not monitored	<p>94% of Linde's total water discharges is once-through water which is returned unpolluted and without treatment to its original source. Only 6% of Linde's water discharge is non-once through water, e.g. waste water or water returned back to another industrial process. From those, only some sites need to treat their water before discharge based on their discharge permits. Differentiating by treatment method is therefore not relevant for Linde and Linde does not track or monitor those volumes.</p> <p>Permit exceedances are generally tracked at the corporate level.</p> <p>Linde does not expect this to become relevant in the future.</p>
Water discharge quality – by standard effluent parameters	76-99	<p>Linde monitors its water discharge quality at 100% of the production facilities. Data are reported in the global reporting system based on its quality following the new GRI 303 standard that focuses on Total Dissolved Solids (TDS)</p>

		<p>content. Moreover, monitoring requirements are measured and tracked diligently at the site and regional level where specific effluent quality parameters vary depending on the national or regional regulations, including for example Total Suspended Solids (TSS), Total dissolved solids, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), metals, oil and grease, and temperature. Frequency of monitoring and way of measurement are dictated by regulation and permit conditions (e.g., sending samples monthly to laboratory and receiving analytical report).</p> <p>Overall compliance to the environmental discharge permits per local regulations as well as exceedances are tracked at the corporate level.</p>
Water discharge quality – temperature	76-99	<p>Linde monitors its water discharge temperature at 100% of the production facilities where discharge permits are applicable by local regulations. Monitoring frequency and requirements depend on the specific local requirements. Temperature is measured with thermometers and tracked diligently at the site and regional level where those national or regional regulations apply. Overall compliance to the environmental discharge permits per local regulations as well as exceedances are tracked at the corporate level.</p>
Water consumption – total volume	100%	<p>Water consumption volumes are monitored at 100% of the production facilities and reported per our internal standard environmental reporting procedure. Data is collected based on water withdrawal and discharge through flow meters and invoices, and reported annually in a global database, consolidated, and reviewed by the Global SHEQ team of the company. Data are verified by an external auditor and published once a year in our sustainability report.</p> <p>Linde monitors fresh water consumption as well as net water consumption accounting for all non-freshwater sources including third party/recycled and brackish water. Linde is constantly working to improve its net water usage through</p>

		optimization, efficiency projects and innovation.
Water recycled/reused	76-99	Water used in some of Linde’s production process is circulated/re-used several times before discharging. This is measured locally by each site where this applies (e.g., sites with cooling towers, number of cycles). The measurement is mostly using flowmeters. Results, for example, from cycle frequency, are tracked and reported monthly to operations.
The provision of fully-functioning, safely managed WASH services to all workers	100%	<p>Linde recognizes the human right to water access and sanitation.</p> <p>In its minimum requirement procedure for Occupational Health and Safety (OHS) for site engineering, Linde ensures access to safe drinking water, sanitation, and hygiene by providing fully functioning WASH services at the workplace, facilities and living accommodations under the company’s direct control. These are outlined under the Adequate General Working Conditions Standard to protect employee health including provisions for clean water, toilet and washing facilities, as well as safe and clean eating facilities/area.</p> <p>Linde’s global water policy outlines the company’s commitment to provide clean and fully functioning wash services to all its employees worldwide. This is assured as part of the company’s normal management process at 100% of its sites and offices globally.</p>

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	833,200	Higher	In 2020, Linde’s total water withdrawal increased by 4% compared to 2019. Total volume withdrawn include fresh water sources (51%) and non-freshwater (49%) sources such as

			<p>industrial/recycled water and brackish/seawater typically returned to its original source with no substantial impact on its quality.</p> <p>Total water volume from non-freshwater sources increased by 21%, mainly attributed to increased production activities - for example, a new plant start-up in China drawing significant amount (27 million m3) of third-party recycled water, in addition to two major sites using seawater.</p> <p>Total water volume from freshwater sources decreased by 6% relative to 2019 due to reduced operational activities and production impacted by covid-19, but also thanks to continued efforts in improving our fresh water use efficiency and water reduction projects implementation. These efforts realized >20% water reduction since 2006 and yielded more than 1.1 million m3 in water savings in 2020. For example, Linde China executed a project at one of the facilities to replace one third of their municipal water sourced from surface water with third party recycled water.</p> <p>Future trend: While our business grows and sales increase, continued efforts are anticipated to reduce total water withdrawal as we focus on improving our water use efficiency onsite.</p>
Total discharges	759,500	Higher	<p>94% of Linde's water discharges are from once-through cooling water systems with water returned back to its original source of supply with similar quality as withdrawn. In 2020, Linde total water discharges increased by 6% compared to 2019. The increase is mainly driven by an increase in third-party recycled water and brackish/seawater discharges which represent more than 50% the total discharges. These volumes are returned to the source of supply with no substantial impact on its quality as they are used in once-through non-contacting cooling systems. Larger non-fresh water sources come mainly from increased production activities. For example, Linde China new plant start up drawing significant amount (27 million m3) of third-party recycled water, and another site discharging its seawater back to its source.</p>

			<p>Discharge volume from freshwater sources decreased by 6% mostly due to water efficiency measures and more effective cooling processes.</p> <p>Future trend: While our business grows and sales increase, continued efforts are anticipated to reduce total water discharges as we focus on improving our water use efficiency onsite.</p>
Total consumption	73,700	Much lower	<p>In 2020, Linde total water consumption decreased by 11% compared to 2019. The decrease is driven by the overall decrease in both non-freshwater and fresh water sources consumption.</p> <p>Water consumption from freshwater sources decreased by 6% mostly due to water efficiency measures and more effective cooling processes. Furthermore, the discharge of recycled water increased relative to withdrawal, among others due to a new plant startup in China returning 100% of their water as once-through water (27 million cubic meters).</p> <p>Future trend: While our business grows and sales increase, continued efforts are anticipated to reduce overall water consumption by minimizing total water withdrawal and discharges as we focus on improving our water use efficiency onsite.</p>

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	1-10	About the same	WRI Aqueduct	Water withdrawal for sites located in areas of water stress represented 5% of Linde total water withdrawal in 2020 and remains in similar proportion compared to previous year reporting. Water withdrawal from water stress areas is a key

					<p>performance indicator for Linde plc and is managed as part of the company's sustainable productivity activity to continuously evaluate water use efficiency and areas of improvement.</p> <p>As part of Linde 2028 Sustainable Development Target, we used the WRI Aqueduct Water Risk Atlas mapping tool to assess overall water stress areas in regions where facilities are operating or plan to site new facilities. We determined "areas of water stress" to mean that the baseline water stress was "high" or "extremely high". In addition, businesses are encouraged to voluntarily use local determinants of water risk; sites thus defined are included in this target scope. The water figures for the identified sites in areas of water stress are monitored monthly as part of the Sustainable Development Management System (SDMS), and those sites must provide and report water figures monthly against a Water Management Plan (WMP).</p>
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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,	Relevant	361,200	Lower	Fresh water withdrawal decreased by 6% compared to 2019.

<p>water from wetlands, rivers, and lakes</p>				<p>This category is relevant because 43% of Linde's total water withdrawals is sourced from freshwater, primarily used for cooling and steam production purposes. About 78% of fresh water withdrawn is returned to its original source with its original water quality after usage.</p> <p>The decrease is mainly driven by slightly reduced operational activities and production impacted by covid-19, but also from continued efforts to improve fresh water use efficiency plus water reduction projects implemented, for example, to increase cooling and boiler systems cycles, implement machinery energy efficiency programs, and other water projects that reduce the use of freshwater sources and convert to recycled water.</p>
<p>Brackish surface water/Seawater</p>	<p>Relevant</p>	<p>202,400</p>	<p>Much higher</p>	<p>This category is relevant because 24% of total water withdrawal is from brackish/sea water. The significant increase by 15% compared to 2019, is mostly attributed to two major sites increasing their seawater usage due to an increase in production.</p> <p>A small number of plants use sea water for their cooling purposes making up for the total withdrawal of Linde brackish water supply. 100% of brackish water withdrawn is returned</p>

				unpolluted to the sea.
Groundwater – renewable	Relevant	10,100	About the same	This category is relevant because, even though it is a small portion compared to other sources, 1% of total water withdrawal is from groundwater, and it is the best available source of water for the few sites using groundwater. Water is typically withdrawn from well(s) that are naturally replenished from the water table. The amount of water has not changed from the previous year because the few sites using this source maintained relatively stable production levels in both years.
Groundwater – non-renewable	Not relevant			This source is not relevant because Linde does not withdraw any water from non-renewable groundwater sources.
Produced/Entrained water	Not relevant			Produced water typically occurs onsite when the water condensate from compressing air at different stages in the process is recovered and reused back in the facility. The amount of water produced depends largely on ambient conditions and is insignificant compared to the total water withdrawal, therefore not systematically tracked.
Third party sources	Relevant	259,500	Much higher	This source is relevant because 31% of total water withdrawal is from 3rd party sources, including a majority

				<p>of recycled/industrial water (24% of total withdrawal) and a smaller percentage of municipal water (7% of total withdrawal).</p> <p>Linde defines much higher as >10% increase. The overall third-party water volumes increased by 19% compared to 2019, which is attributed to the higher withdrawal of industrial/recycled water.</p> <p>Municipal water that is considered freshwater source decreased by 4%.</p> <p>The increase in recycled/ industrial water withdrawal is driven by the slight increase in production activities, for example, a new plant start-up in China drawing significant amount (27 million m3) of third-party recycled water.</p>
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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	334,800	Lower	This destination is relevant because most freshwater withdrawn is returned to its original surface water source with its original water quality. Total water discharge to surface water reduced by 6% in 2020 relative to 2019, mainly due to a decrease in water withdrawal from fresh water sources driven by efficiency measures, plant downtimes and a shift in third-party recycled water sources.

Brackish surface water/seawater	Relevant	202,400	Higher	<p>This destination is relevant because a small number of plants use sea water, which is discharged to the sea with no change in quality.</p> <p>Brackish water discharge volumes increased by 15% in 2020 compared to 2019.</p> <p>The increase is consistent with the increase observed in brackish water withdrawal since 100% of brackish water withdrawn is returned unpolluted to the sea and used for cooling purposes only.</p> <p>The increase is mainly attributed to two major sites increasing their seawater usage due to an increase in production.</p>
Groundwater	Not relevant			<p>1% of total water withdrawal is from groundwater, which is a small portion compared to the other renewable and non-renewable sources. Water is typically withdrawn from well(s) that are naturally replenished from the water table. Only a minimum portion of Linde's water withdrawal is returned to groundwater (below 1,000 megaliters m³).</p>
Third-party destinations	Relevant	222,300	Higher	<p>This includes water discharged to water sources other than fresh water (e.g., discharge to 3rd party treatment facility or to a destination where water is recycled and reused in industrial processes). 100% of water withdrawn from industrial water sources (used, recycled water) is returned to the same water source.</p> <p>This source is relevant because Linde discharges 29% of water to this destination.</p>

				Water discharges to third party destinations (for industrial/ recycled water) increased by 23% in 2020 driven by the higher recycled water withdrawal from a significant new plant start up.
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W-CH1.3

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

Yes

W-CH1.3a

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

Product type

Bulk inorganic chemicals

Product name

All products: For reasons of confidentiality of business data, Linde is reporting water intensity for all products under a single row, rather than per product type.

Water intensity value (m3)

7.42

Numerator: water aspect

Total water withdrawals

Denominator

Other, please specify
thousand Nm3

Comparison with previous reporting year

About the same

Please explain

The water intensity value represents the ratio of total water withdrawal against our total production volume sold. Water intensity remained about the same with a slight increase by 2%. The trend is consistent with the slight increase in production as well as in total water withdrawal at the ASU production plants.

Internally, water efficiency metrics are part of the company's sustainable productivity activity. Linde continuously evaluates water use efficiency and areas of improvement to minimize water use in the production process, especially where withdrawals are from

freshwater supplies. In 2020, these efforts yielded 1.1 million m3 in water savings and delivered \$6.3 million savings from water-related projects. These benefits also align with the improved intensity results based on freshwater consumption.

Future trend and strategy: While our business grows and sales increase, we expect water intensity to remain stable, and eventually decrease. Water efficiency is managed within Linde's sustainable productivity target, which directs us to save \$1.3 billion cumulatively, 2018-2028. This is a managed target, with clear accountability, ongoing reporting to management, and an annual process of review and continuous improvement. In 2020, productivity projects resulted in savings of \$133 million and water savings of 300 million gallons. Continued efforts are anticipated in optimization projects across its sites worldwide to reduce total water withdrawal as we focus on improving our water use efficiency onsite as well as our overall intensity ratio.

W1.4

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

Yes, our suppliers

W1.4a

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

Row 1

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for this coverage

Linde suppliers must demonstrate sound environmental management and provide reliable service, including for water, which is essential for many parts of Linde's business. Consistent with our mission, values and business requirements: 100% of contracted suppliers are required to follow Linde's terms and conditions in the contracts they sign with us. The terms and conditions include a reference to Linde's Supplier Code of Conduct (SCOC) and require suppliers to demonstrate compliance with the requirements of the Code.

The SCOC, as part of the standard documentation for all new and renewing contracts, outlines Linde's expectations of suppliers to commit to continuous improvement of environmental protection, have an environmental management system, and support Linde's programs and targets related to climate change, environmental stewardship and sustainability.

Linde engages with these suppliers in order to collect information about their

environmental initiatives and performance, including those related to water use, to promote increased awareness and develop collaborative and mutually beneficial relationships.

Impact of the engagement and measures of success

Linde's SCOC requires suppliers to provide information about environmental management, including for water; and to provide data or conduct self-assessments in environmental (and other) performance. Where Linde considers the result of this reporting to be unacceptable or critical, suppliers are requested to rectify the identified problems within an allocated time period based on a specific action plan.

This collaboration has helped us to maintain our level of production across the value chain. We set ambitious targets and measure success in terms of target fulfillment in our risk-based supplier audit schedule, which audits suppliers on a planned basis. Success is additionally measured through re-assessments or follow-up audits. Several suppliers have implemented water consumption programs using this resource responsibly and have achieved noticeable results where they have achieved up to 90% reduction in water use, either in their production processes or for other administrative uses.

Comment

W1.4b

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

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for the coverage of your engagement

In conformance with Linde's Supplier Code of Conduct and audit requirements, suppliers provide Linde with information on sustainability initiatives, including projects to optimize water use, which reduces Linde's value chain water footprint. In addition, Linde invests in these supplier relationships by engaging with suppliers to share best practice in water stewardship and collaboration.

Impact of the engagement and measures of success

Linde supports, in cooperation with the suppliers, analyses and action plans that help suppliers improve environmental management and water consumption. The impact of the engagement is a reduction in supplier water consumption of product sold to Linde. Success is measured from reports on water reduction/ other sustainability initiatives. The level of detail provided by suppliers is increasing. On procurement direct categories, suppliers have engaged in the past years in long term programs with clear target to minimize their activity impact on water. In some cases they have achieved up to 90% reductions in water use. Example: As part of its general sustainability program and its supply agreement with Linde, two of our global cylinder manufacturers undertook to reduce the CO₂e emitted and water used per cylinder sold to Linde. Based on annual sales to Linde, these combined savings were >500MT CO₂e and >300,000 M³ potable water.

Comment

W2. Business impacts

W2.1

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

No

W2.2

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

No

W3. Procedures

W-CH3.1

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

While Linde's raw materials do not contain significant amounts of chemicals classified as potential water pollutants, and the production processes are generally non-polluting, Linde's management process to identify and classify potential water pollutants is supported by SHEQ teams and in accordance with local regulations where applicable.

Linde is signatory to the Chemical Industry's Responsible Care Global Charter which commits to tracking and avoiding risks to humans and environment from chemical production activities. Linde has established a global RC policy which provides clear directives to all regions/sites on risk assessment and management throughout the complete product life-cycle in order to ensure

that no harm is done to nature or society from its end-to-end business processes. 100% of Linde’s products undergo a risk assessment, which includes an evaluation of water quality impacts, in order to ensure this requirement.

Linde has operating permits/licenses that limit pollutant levels in wastewater discharges at production sites where it is required based on local governing authorities and water quality programs. Linde applies standard protocols per regulatory framework requirements for identifying, measuring and monitoring pollutants, in order to closely manage our discharge quality and minimize the environmental impact. Many of our sites have discharge permit/licenses with limits and requirements for pH, oil & grease, total dissolved solids, total suspended solids, COD, other water emissions such as nitrates, phosphate, and metal concentration limits in effluents like zinc and copper.

Linde's current level of harmful water emissions from its production processes is minimal. Linde’s Responsible Care Global Policy and global water policy (water position statement) state that the company is committed towards further minimizing detrimental impacts of its operations on humans and ecosystems, including water emissions.

Water-related impacts are mainly focused on production during the operation phase, and have a minor level of impact across Linde's other value chain phases. Linde asks suppliers to assess their environmental risks and closely monitors environmental performance during regular supplier audits, including the suppliers’ impacts on water consumption and quality.

W-CH3.1a

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

Potential water pollutant	Value chain stage	Description of water pollutant and potential impacts	Management procedures	Please explain
chemical oxygen demand (COD)	Direct operations	Chemical Oxygen Demand is an important water quality parameter because it provides an index to assess the effect discharged wastewater will have on the receiving environment, e.g. a high COD concentration can lead to algal growth and reduction of oxygen in receiving waters. Several of Linde's plants operate under wastewater discharge permits issued	Compliance with effluent quality standards Other, please specify Monitoring of KPI trends at corporate level	More than 75% of Linde's freshwater withdrawal is once-through cooling water that is returned to the water sources (either directly or through a municipal utility) at similar quality than it was withdrawn. Water emissions are measured, monitored and tracked diligently per local requirement at the site and regional level. Specific effluent quality parameters vary depending on national

		<p>by a government body that require us to monitor and manage COD levels.</p>	<p>and local regulations. Parameters include for example Total Suspended Solids (TSS), Total dissolved solids, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), phosphate, metals, etc..</p> <p>Overall compliance to the environmental discharge permits per local regulations as well as exceedances are tracked at the corporate level.</p> <p>Data on chemical oxygen demand are collected annually at corporate level, and fulfil general reporting requirements according to GRI.</p> <p>How the procedures selected manage the risks of the potential impacts: By closely monitoring and tracking compliance with water emissions at the local level, it is ensured that local effluent quality standards are met and water emissions do not exceed allowable thresholds, meaning adverse impacts to the environment are avoided.</p> <p>Furthermore, at the corporate level COD water emissions as well as water emission intensity trends are closely analysed and reasons for variations or increases are identified, and corrective actions discussed with the sites.</p>
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				<p>How success is measured and evaluated: Success is measured by monitoring at the corporate level compliance with local standards (tracking if there were any issues of non-compliance and how many sites were concerned). Linde maintains an incident management system to track potential non-compliances with permits and exceedances. Where incidents are found actions and improvements are investigated. Linde also reviews permit compliance through local and global audits. Permits and monitoring results are reviewed at audits and any actions, improvements or best practices are followed through.</p> <p>In 2020, Linde had no incidents related to water quality.</p>
Other water emissions like nitrates, phosphates or BOD	Direct operations	Water quality parameters provide an index to assess the effect discharged wastewater will have on the receiving environment, e.g. a high BOD can lead to algal growth and reduction of oxygen in receiving waters. Keeping BOD low means minimal impact to receiving waters. Several of Linde's plants operate under wastewater discharge permits issued by a government body that require to monitor and	Compliance with effluent quality standards	<p>Overall, the amount of other water emissions for the whole Linde group are insignificant, therefore Linde does not collect those figures globally during its annual environmental key performance indicator reporting process.</p> <p>Water emissions are measured, monitored and tracked diligently at the site and regional level where specific effluent quality parameters vary depending</p>

		<p>report on specific water emission levels. Those are different per site/location.</p>	<p>on the national or local regulations. They include for example Total Suspended Solids (TSS), Total dissolved solids, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), phosphate, metals, etc.</p> <p>Overall compliance to the environmental discharge permits per local regulations as well as exceedances are tracked at the corporate level.</p> <p>How the procedures selected manage the risks of the potential impacts: By closely monitoring and tracking water emissions at the local level, it is ensured that local effluent quality standards are met and water emissions do not exceed allowable thresholds. For example, maintaining low COD and BOD reduces the risk of reducing dissolved oxygen in the receiving waters. This means that flora and fauna have sufficient oxygen which helps maintain a healthy ecosystem.</p> <p>How success is measured and evaluated: Success is measured by monitoring at the corporate level compliance with local standards (tracking if there were any issues of non-compliance and how many sites were concerned).</p>
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			<p>Linde maintains an incident management system to track potential non-compliances with permits and exceedances. Where incidents are found actions and improvements are investigated. Linde also reviews permit compliance through local and global audits. Permits and monitoring results are reviewed at audits and Linde determines and follows through on the appropriate corrective and preventive actions.</p>
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W3.3

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

Yes, water-related risks are assessed

W3.3a

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

Direct operations

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

- Tools on the market
- Enterprise Risk Management
- Other

Tools and methods used

WRI Aqueduct

- Internal company methods
- External consultants
- Other, please specify
 - Water Management Plan (tool to assess current water status, water risks and mitigation actions)

Comment

As part of the quarterly risk assessment exercise, all sites are asked to report potential water-related risks which are collected in the global risk reporting database and presented regularly to local, regional, and corporate management teams.

Linde used the WRI Aqueduct Water Risk Atlas tool to identify the production sites located in water stress areas based on their GPS coordinates. We also assessed future changes in water availability at production sites that are under evaluation in our risk assessment until 2030 and 2040 for where potential increase in water stress may exist. The Global mapping tool contains projections of future water stress for the years 2030 and 2040, considering optimistic, business-as-usual and pessimistic climate and growth scenarios..

Additionally, Linde's program for Water Management Plans is rolled out to all high water use sites that are in areas of water stress. This includes procedures for water risk assessment and tracking. See also W8, Targets.

For long-term scenario analysis and risk assessment Linde used the CDP Climate Scenario Analysis Toolkit. Linde used the tool to collect and evaluate potential long-term physical risks from climate change, including risks from rise in sea levels or increased water scarcity.

Supply chain

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

More than once a year

How far into the future are risks considered?

1 to 3 years

Type of tools and methods used

- Enterprise Risk Management
- International methodologies
- Other

Tools and methods used

- Environmental Impact Assessment

Internal company methods

Comment

Water-related risks in the supply chain are included in the quarterly risk assessment as part of the enterprise risk framework. Each location needs to report important risks related to suppliers/supply of materials into the global risk management tool. In addition, procurement on a rolling basis is assessing/auditing specific core suppliers annually for any sustainability risks incl. environmental risks. If specific risks are identified the suppliers need to define mitigation actions and the progress of these actions will be checked during annual audits.

Other stages of the value chain

Coverage

None

Comment

W3.3b

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

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	<p>Water is required to operate Linde’s production plants and make our products. Therefore, water availability is considered key and relevant to our operations. Assessing water availability is also part of the CAPEX decision-making process. Since Linde’s plants operate for 15-20 years or more, evaluating water availability helps us make informed decisions about where to site future facilities as well as decisions about plant design.</p> <p>Method of assessment: Risks related to water availability need to be assessed by each local site (e.g., based on local information sources/projections) on a constant basis and important risks need to be included in the quarterly risk reporting to the Group.</p> <p>Tool: Linde uses the WRI Aqueduct Water Risk Atlas tool, which provides an evaluation of the areas of water stress linked to the water availability (current and projected) where production sites are located. The tool provides information on both current and future water stress, including information specific to water availability. This assessment supports Linde’s SD 2018-2028 water target to develop</p>

		<p>water management plans at sites in areas of high water stress. We also consult with insurance providers at least annually who use tools to assess risks related to company assets, incl. water-related risks.</p>
Water quality at a basin/catchment level	Relevant, sometimes included	<p>Water withdrawal quality is monitored several times a year to meet the requirements and water specifications intended for its use at the production facilities. We also work closely with our water treatment suppliers to consider the need for pre-treatment and/or adapt to variable water quality.</p> <p>Water discharge quality is especially considered in locations where Linde has a regulatory compliance obligation to meet wastewater discharge pollutant limits. In these locations, the quality of water withdrawn is monitored per the permit requirements.</p> <p>Method of assessment: Risks related to water quality are assessed by measurement (e.g., water samples sent to laboratory) by local sites on a constant basis. Important risks need to be included in the quarterly risk reporting to the Group.</p> <p>Tool: Onsite water quality measurements and National specific standards includes national (and in some cases local) discharge pollutant limits, which are specified in a site's wastewater discharge permit.</p>
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	<p>Some of our facilities are located in areas where insufficient water supply can impact the operations of our production facilities and can be a concern to the local community and other local stakeholders (customers).</p> <p>Method of assessment: Linde's Water Management Plan SOP requires that relevant facilities engage with key stakeholders to understand potential water conflicts and consider these concerns, as they may also impact our license to operate. This engagement is site specific, but may include attending meetings with key stakeholders and educating the community about Linde's activities.</p>
Implications of water on your key commodities/raw materials	Not relevant, explanation provided	<p>Linde's key raw material is ambient air; and we also use natural gas as a feedstock. Water is not relevant to the current or future production of key raw materials by suppliers. However, as part of Linde supply chain water management, and during the annual risk assessment, Linde</p>

		<p>subsidiaries are expected to assess supplier-related risks including risks due to water issues impacting their operations. In recent years, no significant risk has been reported and we do not anticipate this issue to be relevant in the future.</p>
Water-related regulatory frameworks	Relevant, always included	<p>Legal frameworks and regulations are an important basis under which Linde plants operate. Changes in regulations can have a financial and business impact to Linde's operations and are therefore tracked diligently.</p> <p>Method of assessment: Linde closely monitors regulatory developments related to water, particularly if they will result in restrictions to the amount of water one of our facilities may withdraw. Linde's regional SHEQ groups review local environmental regulatory requirements for sites in their regions, and many use third party services to assist in regulatory monitoring globally.</p> <p>Tool: Linde has several subscription services that provide updates on current and future regulatory developments.</p>
Status of ecosystems and habitats	Relevant, always included	<p>Linde's operations do not have a significant impact on biodiversity. An evaluation of more than 600 production sites established that none of these sites is located in the vicinity of a protected area. Many sites are located in industrial zones or business parks.</p> <p>However, when planning new sites, processes are in place to ensure that Linde minimizes any potential negative impacts on biodiversity. Therefore, status of ecosystems and habitats are always included in the water risk assessment.</p> <p>Tools/method of assessment: Linde manages the risk to biodiversity impacts from its operations through a risk assessment process, its criteria for pre-investment site assessment, and a broad program of employee environmental awareness that has a special focus on biodiversity. Linde follows internationally recognized guidelines when performing its evaluations, such as the Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment issued by the United Nations. We also use the WRI Aqueduct Water Risk Atlas tool , which provides a watershed report.</p>

<p>Access to fully-functioning, safely managed WASH services for all employees</p>	<p>Relevant, always included</p>	<p>Linde includes this element in the periodic risk assessment as a means of ensuring the health and safety of all employees. It is also part of our corporate responsibility to ensure the human right to water and sanitation.</p> <p>Linde’s minimum requirement procedure for occupational health and safety for site engineering includes a section on Adequate General Working Conditions, which requires that general working conditions shall be of an adequate standard to protect employee health that include provisions for clean water, toilet and washing facilities and safe and clear eating facilities/area. This includes living accommodation if provided and managed by Linde.</p> <p>Method of assessment: These procedures are required to be implemented and are verified during site assessments/audits.</p>
<p>Other contextual issues, please specify</p>		

W3.3c

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

	Relevance & inclusion	Please explain
<p>Customers</p>	<p>Relevant, always included</p>	<p>Linde includes customers in its water risk assessment because customers supplied ~24% of the total water withdrawal used in 2020 to operate production facilities. We meet with these customers prior to and during plant construction to evaluate the most appropriate water sourcing and treatment solutions for our plants. We also review water sourcing with these customers at regular intervals once the plant is operating.</p> <p>We also measure how our products help our customers provide safe drinking water. In 2019, two contracts were signed in Texas to use CO2 for lime softening in drinking water treatment. In 2020, Linde furthermore signed a long-term supply agreement for CO2 to be used in desalination in the US. Those plants help to mitigate water shortages and, by diversifying water sources, support the cities' sustainable development efforts.</p>

<p>Employees</p>	<p>Relevant, always included</p>	<p>Linde strives to continually improve its water performance through employee training and awareness to help reduce overall freshwater withdrawals at production facilities and contribute to our sustainability strategy at location in areas of high water stress. Regional teams driving efficiency projects are supported by the water experts at Linde and participate in the water-related risk assessment. Training and best practices communication materials are provided to increase employee engagement and awareness level around water systems operations.</p> <p>Employees are also incentivized to help Linde meet its 2028 sustainable development targets, which include saving \$1.3 billion from sustainable productivity (cumulative, 2018-2028). Sustainable productivity measures financial and environmental savings in Linde's environmental KPI areas, including water management.</p>
<p>Investors</p>	<p>Relevant, always included</p>	<p>There is a growing interest from investors relating to ESG topics, especially related to climate change, but also other environmental topics like water. Linde annually participates in various ESG assessments where water management and water strategy and targets are among the topics asked. Linde furthermore receives regular enquiries from investors regarding sustainability topics, including environmental topics like climate, energy or water. Linde is listed in the FTSE4Good and the Dow Jones Sustainability Index which include assessments regarding the company's water management and stewardship, thus a positive rating also depends on a good management of water related issues. Linde's water target definition of sites that should report water use (sites in areas of water stress) is aligned with the SASB Standard for Chemicals companies. As part of its target setting process, which took investor interests into account, Linde has identified water as an important item and therefore defined a water target among its new suite of 2028 sustainability targets.</p>
<p>Local communities</p>	<p>Relevant, always included</p>	<p>Linde's Global Standard procedure for water management plans requires active engagement with key stakeholders, including an annual assessment of key stakeholder concerns. Local communities are critical to our license to operate and our reputation as a responsible corporate citizen. Active engagement is site specific and may include participating in public meetings, meeting with local community representatives, and providing educational materials about Linde's activities and water strategies.</p> <p>Our activities support conservation in local communities, and</p>

		our products and services help communities increase access to safe drinking water. In 2020, Linde enabled the delivery of safe drinking water to >200 million people.
NGOs	Relevant, sometimes included	<p>Linde's Global Standard procedure for water management plans requires active engagement with key stakeholders, including an annual assessment of key stakeholder concerns. Good management practices have been implemented at sites operating within and near residential areas by alternating between different well supplies and avoiding operation simultaneously which prevents lowering the water table. Linde also engages with key stakeholders on water issues, including with NGOs and local communities in China, Brazil, Mexico and the U.S.</p> <p>Linde engages with NGOs on specific projects. Linde has an SD 2028 target for Global Giving: to increase environmental/ climate-related philanthropic spend by 50 percent. The objective of this target is to direct additional Global Giving funds towards initiatives that will have a positive impact on the environment/climate change and to support Linde's new Climate Change targets. Linde has long-standing relationships with global environmental non-profit organizations such as The Nature Conservancy and the Arbor Day Foundation. Our company also supports regionally based environmental programs in various countries, including Mexico, Canada, South Korea and India. Many of these programs have a direct or indirect water conservation component.</p>
Other water users at a basin/catchment level	Not relevant, explanation provided	<p>Since Linde returns over 75% of the water it withdraws to its original source with no impact to quality, Linde does not consider other water users at the basin or catchment level to be relevant.</p> <p>Other water users are not expected to become relevant stakeholders in the short or medium term.</p>
Regulators	Relevant, always included	<p>Linde's Global Standard procedure for water management plans requires active engagement with key stakeholders, including an annual assessment of key stakeholder concerns. Linde considers current and future regulatory developments in regions where we operate and in areas we consider for siting new facilities.</p> <p>Method of engagement may include meeting with regulators during the permitting process and participating in the legislative</p>

		process by providing comments on proposed rules.
River basin management authorities	Relevant, sometimes included	Linde's Global Standard procedure for water management plans requires active engagement with key stakeholders, including an annual assessment of key stakeholder concerns. River basin management authorities are included where appropriate. For example, in our Brazil business, one of our facilities participates in GPMAI, the local environmental professionals industry group in the area and with the local river-basin/ watershed committee (Ceivap) that often is engaged in local water issues. CEIVAP: Comitê para a Integração da Bacia Hidrográfica do Rio Paraíba do Sul (CEIVAP), was organized in 1996 under the IWRM (Integrated Water Resources Management) principles of catchment integration and stakeholder involvement. IWRM: "a process which promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems."
Statutory special interest groups at a local level	Relevant, always included	Linde's Global Standard procedure for water management plans requires active engagement with key stakeholders, including an annual assessment of key stakeholder concerns. Linde considers current and future legal requirements and obligations in regions where Linde operates and in areas considered for siting new facilities. Method of engagement may include meeting with the respective organization or body the company is required to consult with during the permitting process and participating in relevant discussions with those stakeholder groups on an ongoing basis as required.
Suppliers	Relevant, always included	In recent years, no material risks from suppliers related to water issues were recorded in our risk management system. However, our standard quarterly risk assessment process always includes supplier risk. We also evaluate the impact of extreme weather events on suppliers. Linde evaluates water risk for some of its strategic suppliers via audits and helps them to establish actions plans and monitor those on a regular basis. Linde also engages with water treatment suppliers who service

		our sites to optimize and reduce water usage during operations. This engagement has helped Linde operations realize >20% reduction of water withdrawal since 2006, and contributed to 1.1 million m3 of water savings in 2020.
Water utilities at a local level	Relevant, always included	<p>Linde considers the needs of water utilities - both those supplying water to our sites, and those to whom we provide wastewater treatment products and services – as relevant.</p> <p>Linde sources 7% of water withdrawals from municipal utilities. We engage with utilities as part of the planning process when building new plants, and also during operation, to stay on top of current issues</p> <p>Increased urbanization and urban population growth have exerted significant pressure on urban water demand and expansion of urban water infrastructure. Investments are needed to modernize water infrastructure in many urban areas around the world. Municipalities are seeking solutions to improve water quality. Linde identified the need for its water applications in San Antonio, Texas. The San Antonio Water System (SAWS) in Texas recently signed three long-term gas supply agreements with Linde. In 2019, two contracts were signed to use CO2 for lime softening in drinking water treatment. In 2020, Linde signed a long-term supply agreement for CO2 to be used in desalination in the US. Those plants help to mitigate water shortages and, by diversifying water sources, support the cities' sustainable development efforts.</p>
Other stakeholder, please specify	Not considered	

W3.3d

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

The Linde risk management (RM) department is a global function independent of the business lines, headed by the Group head of internal audit and risk management.

The central RM department is responsible for devising a standardised Linde-wide RM process and for risk reporting. The local business units are responsible for the implementation of this standard RM process. Linde’s RM system is forward-looking. It is continuously being improved in order to enhance its effectiveness.

The RM system is based on three components: Enterprise risk management (ERM), internal controls (IC) and business continuity management (BCM).

Risk identification:

The management team of each operating unit within Linde identifies the main risks affecting that unit. In addition, global functions are asked to report risks affecting their area of responsibility.

When identifying risks, a great variety of areas which might entail risk are taken into consideration, both within and outside Linde. The areas covered by the risk assessments include not only internal processes and resources as well as the economic, financial, regulatory environment, but also social and ecological aspects including water risks. Furthermore, also risks related to the supply chain must be reported. The RM process allows for reporting of short-term risks, medium- or long-term risks and impacts. Suppliers risks are additionally evaluated during regular supplier audits.

With regards to environment Linde has defined 4 risk areas: regulatory risks, market risks, reputational risks and physical risks.

Risk assessment:

The executives in the various units categorise each risk they have identified and evaluate it in terms of criteria determined centrally, including the potential impact of the risk on Linde and the estimated probability of its occurrence. When evaluating the potential impact of risks and the expected probability of their occurrence, the operating units use a standard scale which has four different risk ratings ranging from low risk to very high risk. Each risk is awarded a risk rating on this standard scale based on its potential impact and probability. Risks with the highest potential impact (severity) rating are classified as significant risks. Those significant risks, including their probability of occurrence, are presented in detail to top management on a regular basis.

Additionally, Linde uses the WRI Aqueduct Water Risk Atlas to assess current and future water risk for each site and monthly subscription services to monitor regulatory developments related to water availability and quality. Furthermore, Linde's Water Management plans (WMPs) program is rolled out to all high water use sites that are in areas of water stress. This includes procedures for water risk assessment and tracking. Linde also consults with external consultants and insurance providers at least annually who use tools to assess risks related to company assets. These tools, and local knowledge, help us better understand local circumstances.

To date, significant water risks were not identified.

Risk reporting:

The operating units as well as global functions record the information gathered by the RM process in the central RM database and ensure that their risks and risk treatment plans are kept up-to-date and that significant emerging risks are recorded. Throughout the year, a summary of risks is presented on a regular basis to the regional heads and once a year to the full management committee as well as the Board of Directors.

Company Risks are also described in Linde's annual report (10k).

In addition to the standard RM process, a materiality assessment is conducted regularly to assess the non-financial Priority Factors expected to have a significant impact, positive or negative, on growth drivers over the next 10 years. Water was identified in 2019 as a key element of the priority factor "Environment, Safety & Health". As such, a water target was established to implement a globally standardized WMP at 100% of Linde high-water use sites in areas of water stress.

How the outcome of the risk assessment is used to inform the internal decision making process:

The outcome of the risk assessment is presented periodically to management and annually to the full management committee and the Board of Directors. This also includes specific mitigation actions for each risk, for management/Board discussion and approval. Furthermore, based on the environmental site study for new projects (including water aspects) important decisions are taken by management and operations regarding plant siting and plant design. In addition, the water management plan includes a process for annual review of potential water-related risks pertaining to water regulations, permitting and pricing structures changes as well as projected changes, to confirm the site is in compliance and to minimize risk by defining mitigation actions and projects to encounter those water-stress and water-related risks.

W4. Risks and opportunities

W4.1

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

No

W4.1a

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

When evaluating the potential impact of risks and the expected probability of their occurrence, Linde uses a standard scale devised by the corporate risk management department. This scale has four different risk ratings ranging from low risk to very high risk. Each risk is assigned a risk rating on this standard scale based on its potential impact and probability.

Risks with the highest potential impact (severity) rating are classified as significant (substantive) risks. Those substantive risks, together with their probability of occurrence, are presented in detail to top management on a regular basis.

When analyzing the impact of the risk, Linde considers not only the impact on the financial results of operations, but also the impact on non-monetary aspects such as safety, environment, reputation and strategy.

Monetary aspect: Example: **Substantive financial impact** includes, for example, the replacement cost of a single production facility, which could be more than \$30 million.

Non-monetary aspects: Risks which could cause considerable harm to people or the environment (e.g., loss of life) are considered substantive, regardless of their monetary impact.

The definition of substantive impact applies to direct operations only, as suppliers are “neutral” in terms of importance of water quality and quantity and are not expected to present substantive financial impact.

W4.2b

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

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	<p>Linde reports all substantial financial risks and other factors that could significantly impact the company in its annual report (10K). This includes among others physical risks from extreme weather events such as hurricanes and flooding, which are considered climate-related risks. In 2020, during Linde’s annual risk assessment process, no direct water-related risks were reported which meet the definition of a substantive financial impact and pose a risk at the corporate level, neither currently nor in the short to mid-term. Risks from water scarcity are currently considered to be low and do not meet the financial threshold of a substantive risk. No such risks were reported in the past by our subsidiaries.</p> <p>Water is an essential input into Linde’s operations. For example, water is used for cooling processes in Linde’s ASU operations or for hydrogen production. Therefore, water availability remains a key component of Linde’s periodic risk assessment.</p> <p>Linde does acknowledge that water has become a global concern, on par with climate change. While water has not been identified as a risk in Linde’s annual report (10k), water-related issues such as availability and exposure are part of two priority factors in our sustainable development materiality assessment to address the importance of this critical resource to operations.</p>

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
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<p>Row 1</p>	<p>Risks exist, but no substantive impact anticipated</p>	<p>Linde does not currently consider the company to be exposed to substantive water risks in our value chain. More than 99% of raw materials required for Linde’s production process is not dependent on water. For the remaining raw materials, risks which were reported in previous years during the annual risk assessment process with regards to water issues in the supply chain so far have not met the threshold of a substantive financial risk (only minor or no financial impact on business operations reported), currently and for the short and mid-term. In addition, such risks are very local or asset-related and don’t cause any issue at the corporate level. In the long-term future, there might be cases where single suppliers could face water availability issues in areas of high water stress, but it is difficult to predict at which locations this will actually occur. However, Linde has effective contingency strategies to mitigate such potential supply chain risks (e.g. over alternative sourcing). Furthermore, the company engages with its suppliers in energy and water efficiency initiatives and programs, to help minimize the detrimental impact of its own as well as supplier operations on the environment as well as reduce water risk. Example: As part of its general sustainability program and its supply agreement with Linde, two of our global cylinder manufacturers undertook to reduce the CO2e emitted and water used per cylinder sold to Linde. Based on annual sales to Linde, these combined savings were >500MT CO2e and >300,000 M3 potable water.</p>
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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

Markets

Primary water-related opportunity

Expansion into new markets

Company-specific description & strategy to realize opportunity

Changes in precipitation extremes are leading to water shortages, especially in megacities where there are population pressures. This in turn leads to stricter regulation of water quality, as we are seeing in emerging economies such as China. This presents a market opportunity for Linde to increase revenue in countries such as China through access to new markets as we develop and deliver customized systems to help industrial

plants and municipalities meet their wastewater management goals.

We work directly with our customers to provide beginning-to-end treatment methods, from needs assessment and treatment strategy to equipment design, installation and industrial supply. We offer a wide range of applications that treat and reuse process water, all while maximizing treatment capacity, reducing VOC emissions, improving safety and reducing costs.

Linde's water technology offerings are supported by a business development group, which is actively investing in innovation and business development.

Case study: Increased urbanization and urban populations growth have exerted significant pressure on urban water demand and expansion of urban water infrastructure. Investments are needed to modernize water infrastructure in many urban areas and municipalities around the world. The city of Sydney, Australia, uses desalination, enabled by Linde, to provide water for 15% of its population. Linde identified the need for its water applications in San Antonio, Texas. The San Antonio Water System (SAWS) in Texas recently signed three long-term gas supply agreements with Linde. In 2019, two contracts were signed to use CO₂ for lime softening in drinking water treatment. In 2020, Linde is expecting a long-term supply agreement for CO₂ to be used in desalination in the US. Those plants help to mitigate water shortages and, by diversifying water sources, support the cities' sustainable development efforts.

Water applications are an important area within Linde's eco and social product portfolio (products which bring environmental or social advantages to customers). Linde defined a target that Linde's sustainability portfolio should annually exceed 50% of sales revenues, 2018-2028. In 2020, our sustainability portfolio was 54% of revenue.

By setting a target for our sustainability portfolio, Linde is showing its commitment to serve new markets that will develop to meet needs from increased stress on water quality and availability.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4,000,000

Potential financial impact figure – minimum (currency)**Potential financial impact figure – maximum (currency)**

Explanation of financial impact

The potential financial implications can be calculated from the size of the market and the size of Linde's opportunity. The major factors driving the industrial wastewater treatment market include depleting freshwater resources and stringent regulations pertaining to emission and treatment of industrial waste. According to the new market research report, "Industrial Wastewater Treatment Market by Type (Coagulants, Flocculants, Biocides & Disinfectants), End-Use Industry (Power Generation, Mining, Chemical) and Region (APAC, Europe, North America, MEA, South America) - Global Forecast to 2024", published by MarketsandMarkets™, the Industrial Wastewater Treatment Market is expected to grow from USD 11.3 billion in 2019 to USD 15.0 billion by 2024, at a CAGR of 5.8%. Wastewater treatment is an important end market for Linde and represented a market opportunity of about \$70 million in 2019. Assuming a CAGR of 5.8% this equates to about \$4 million in growth per year ($\$70 \text{ million} \times 5.08\% = \$4,060,000$, which we rounded to \$4 million).

Type of opportunity

Products and services

Primary water-related opportunity

Sales of new products/services

Company-specific description & strategy to realize opportunity

The effects of climate change are increasingly visible on the environment, society and the global economy. Linde expects that in the future demand for products that offer social and environmental benefits will grow, especially in the area of climate change, including solutions for water quality / access to drinking water.

Linde's innovation group is continuously improving the existing product portfolio and finding new and efficient solutions which help our customers to become more productive and help sustain our planet. Linde works directly with its customers to provide beginning-to-end water treatment methods, from needs assessment and treatment strategy to equipment design, installation and industrial supply. We offer a wide range of applications that treat and reuse process water, all while maximizing treatment capacity, reducing VOC emissions, improving safety and reducing costs.

Case study: Many regions in North Africa, the Middle East, Australia, the United States and Mexico are already dependent on the desalination of seawater. Worldwide, there are about 12,000 large water desalination plants. The result of this procedure, however, is pure H₂O, i.e. water without minerals, which is suited neither for drinking nor agriculture. To enrich this water with minerals such as calcium and magnesium, its pH value must first be adjusted using a complex acidification process. This process can be done in a more natural and environmentally friendly manner with the aid of carbon dioxide.

To add the correct dosage of this gas to the water, Linde engineers have developed the SOLVOCARB system. SOLVOCARB is in use at the Sydney, Australia Desalination Drinking Water Plant uses CO₂ produced in industrial processes in order to make the blue gold usable. Up to 6,000 tonnes of this gas flow into the plant yearly. With the help of the carbon dioxide, up to 250 million litres of water can be produced daily – which corresponds to approximately 15 percent of Sydney's water needs.

Linde has a 2028 target that its sustainability portfolio - applications that bring customers sustainability benefits - should annually exceed 50% of annual revenue (excluding Linde Engineering). In the area of water Linde offers solutions for municipal water treatment, application in textiles and pulp and paper, aquaculture and water desalination. In 2020, Linde realized 54% of revenues or \$ 13.1 billion with its sustainability portfolio.

Estimated timeframe for realization

1 to 3 years

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)

122,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The potential financial implications can be calculated based on an assumption of Linde's top line growth and the target that the sustainability portfolio contributes to 50% of the revenue. 50% of \$ 24.4 billion (Linde revenue excluding Linde Engineering) = \$ 12.2 million. If Linde's top line grows 1% per year then this equates to about \$122 million of growth in revenue per year from Linde's sustainability portfolio (.1% of \$12.2 billion = 122 million).

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	<p>Description of business dependency on water</p> <p>Description of business impact on water</p> <p>Description of water-related performance standards for direct operations</p> <p>Description of water-related standards for procurement</p> <p>Reference to international standards and widely-recognized water initiatives</p> <p>Company water targets and goals</p> <p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace</p> <p>Commitment to safely managed Water, Sanitation and Hygiene</p>	<p>Water availability is essential to the operations of Linde's plants and responsible water management is an important element of Linde's sustainability strategy and long-term targets. Linde recognizes the importance of water-related issues to the business and its operations and manages them under its company-wide water policy (Water Position Statement), which is published on the company's web site and complements the Global Health, Safety and Environmental (HSE) Policy, Linde's Responsible Care Policy and its Sustainable Development (SD) plan.</p> <p>Link: https://www.linde.com/sustainable-development/policies-and-position-statements</p> <p>The water policy forms the basis for Linde's internal operating procedures related to water management which are described in Linde's water management plan standard. This internal policy provides clear directives and standards to all sites related to water management and risk assessment.</p> <p>The water policy integrates Linde's contribution towards SDG 6 Clean Water and Sanitation and SDG 12 Responsible Production and Consumption through our product portfolio, as well as our water-related actions. Linde also issues indexes that show alignment with GRI, TCFD and SASB.</p> <p>The water policy commits Linde to setting goals and targets. A corporate water target has been established to develop water management plans (WMPs) for sites in areas of high water stress as defined by the WRI Aqueduct Water Risk Atlas mapping tool. The WMPs address site-specific water-related issues to quantity, quality and availability, including water reduction and reuse initiatives, and proactive monitoring of water use efficiency to optimize usage onsite.</p> <p>Beyond regulatory compliance, the policy acknowledges the human right to water access and sanitation, by</p>

		<p>(WASH) in local communities</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>committing to provide fully functioning WASH services at the workplace, facilities and living accommodations under the company direct control. We participate in multi-stakeholder initiatives and community engagement projects, for example to provide clean drinking water and sanitation programs to schools and communities through collaboration with non-profit organizations.</p> <p>Linde continues to develop innovative applications and technologies that can offer customers solutions to increase the quality of drinking water, treat wastewater and protect water ecosystems. This opportunity created shared value and enabled more than 200 million people to have access to safe drinking water in 2020.</p> <p> 1</p>
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 1 Water Position Statement_Linde plc.pdf

W6.2

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

Yes

W6.2a

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

Position of individual	Please explain
Board Chair	<p>The Board of Directors, chaired by Linde’s CEO, has responsibility for water-related issues.</p> <p>How the individual's responsibility is related to water: The Board, under the chair's leadership, approved the company’s SD 2028 targets, which include a target on water management, and at least annually, the Board reviews Linde's performance against its SD targets, including its water target. The Board also reviews sustainability issues, including those related to water and water risk, at least quarterly. The Board also is responsible for reviewing safety and environmental risk, including water-related risk, at each Board meeting. In addition, the Board has established a strategic business objective to maintain best-in-class performance in environmental responsibility. Annual payout of executive variable compensation partly depends on performance in this area, which includes achievement of the SD water management target.</p> <p>Water-related decision: In 2020, the full Board, under the chair's leadership, approved Linde's new 10-year Climate Change and Sustainable Development (SD 2028)</p>

	targets, which include a target to develop water management plans at sites in water-stressed areas.
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W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing major capital expenditures Providing employee incentives 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	<p>Sustainable development is overseen by the Board and executive leadership and integrated throughout the company.</p> <p>The Linde Board maintains oversight of the company’s values and strategy. Each year, it conducts a comprehensive long-term strategic review of the company’s outlook and business plans and provides advice and counsel to management regarding the company’s strategic issues.</p> <p>Its Audit Committee reviews the guidelines and policies by which Linde undertakes enterprise risk assessment and risk management.</p> <p>The Board has responsibility to review environmental risk at each meeting, including risks from climate change or water-related risks, these may among others include water issues such as the impacts of extreme weather, flooding and hurricanes. Issues related to climate change incl. water-related impacts are a topic at almost each Board meeting.</p> <p>During 2019, Linde developed its new 10-year Sustainable Development targets (which include several climate change targets and a water management target) at the request of the Board. In January 2020, the Linde Board approved Linde’s 10-year SD Targets, and the targets were announced in February 2020.</p> <p>In early 2021, the COO briefed the Board on 2020 target performance against the company’s 2028 sustainable development targets, incl. performance</p>

		<p>against the water target.</p> <p>Performance against those targets will be reviewed at least annually by the full Board of Directors.</p> <p>In addition, the Board reviews safety and risk matters at each meeting, these may include climate change issues such as the impacts of extreme weather as well as water-related risks.</p> <p>The Board has confirmed the importance of setting non-financial objectives as part of variable compensation to reinforce leadership’s focus on maintaining a culture that supports both short- and long-term sustainable results. It has established non-financial goals with respect to elements such as safety, environmental responsibility including climate change, global compliance, productivity and talent management. These measures are described in Linde’s April 2021 proxy statement.</p> <p>While water by itself is not considered a material risk, water-related issues are integral to Linde operations and are therefore considered in the risk assessment. For example, when choosing a location for a new plant, water availability and cost are considered as part of overall operating planning and costs. These are long-term projections as plants are designed for 15-20 years of operation.</p>
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W6.3

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

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

Chief Operating Officer (COO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain



The COO is the highest-ranking executive officer responsible for sustainability, including water issues. He is a member of the Office of the Chairman and reports directly to the CEO. Linde's EVP, Clean Energy, is responsible for sustainability and reports to the COO.

The COO is the position with ultimate responsibility for water issues because water, like other SD issues, is integral to Linde's operations. The COO has oversight over all key aspects of operations as well as SHEQ and Sustainability. The COO briefs the Board about quarterly on climate-related topics (in 2020 this was addressed in 4 out of 5 Board meetings), and at least annually on performance against SD targets, including the water management target.

Details on responsibilities: The COO reviews risks related to water issues, supervises the company-wide water strategy covering all operations, and makes recommendations regarding Linde's strategy and commitments in the area of sustainability, including water.

W6.4

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

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	The Board has confirmed the importance of setting nonfinancial objectives as part of variable compensation to reinforce leadership's focus on maintaining a culture that supports both short- and long-term sustainable results. It has established non-financial goals with respect to elements such as safety, environmental responsibility, global compliance, productivity and talent management. These measures are described in Linde's April 2021 proxy statement. Annual pay-out of executive variable compensation depends on performance in several strategic non-financial areas, including best-in-class performance in safety, environmental responsibility (including water-related issues such as meeting the water targets), global compliance, productivity and talent management. Selected key strategic and non-financial outcomes were included in variable compensation to recognize that these are also critical to measuring our businesses' health and the potential for future success.

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
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Monetary reward	<p>Corporate executive team</p> <p>Chief Executive Officer (CEO)</p> <p>Chief Financial Officer (CFO)</p> <p>Chief Operating Officer (COO)</p> <p>Chief Purchasing Officer (CPO)</p> <p>Chief Risk Officer (CRO)</p> <p>Chief Sustainability Officer (CSO)</p> <p>Other, please specify</p> <p>all managers eligible for Variable Compensation are entitled to this incentive</p>	<p>Reduction of water withdrawals</p> <p>Improvements in efficiency - direct operations</p> <p>Other, please specify</p> <p>Achievement of SD Water Target in relation to water management</p>	<p>The Board has confirmed the importance of setting nonfinancial objectives as part of variable compensation to reinforce leadership's focus on maintaining a culture that supports both short- and long-term sustainable results. It has established non-financial goals with respect to elements such as safety, environmental responsibility (including meeting its water targets), global compliance, productivity and talent management. These measures are described in Linde's April 2021 proxy statement. Annual pay-out of executive variable compensation depends on performance in those areas.</p> <p>At the end of the year, management presented to the Compensation Committee the degree of achievement in meeting each goal. Based on the results, the committee determined that performance with respect to the strategic and non-financial goals was favorable and set the Corporate strategic and non-financial payout factor at 160% of target variable compensation (relative to a 200% maximum). The payout is provided as a lump sum and not broken down by performance indicator.</p> <p>Reduction of water withdrawal and improvements in efficiency are part of Linde's sustainable productivity (SD) activity, and also part of the SD 2028 water target to develop water management plans (WMPs) at sites in areas of high water stress. The WMPs include awareness raising activities, local stakeholders engagement as well as establishing specific procedures (behavior changes) like tracking water figures and water risk monitoring.</p>
Non-monetary reward	<p>Corporate executive team</p> <p>Chief Executive Officer (CEO)</p>	<p>Implementation of water-related community project</p>	<p>Non-monetary rewards include non-financial awards or recognition to C-suite employees or other employees.</p>

	<p>Chief Financial Officer (CFO) Chief Operating Officer (COO) Chief Purchasing Officer (CPO) Chief Risk Officer (CRO) Chief Sustainability Officer (CSO) Other, please specify</p> <p>All employees - Recognition of employee community engagement in water-related projects</p>		<p>Linde has an active employee community engagement program. Each year projects are submitted for recognition in their geographic segments, and then globally. Projects selected are then recognized and financial awards are granted to the benefitting communities or organizations. These are celebrated in Linde's annual Community Engagement brochure, which is published online.</p> <p>For example, in 2019, one of the projects recognized helped support a local community with water sanitation in India. During the recent execution of a new project at a local hospital customer, APAC's Bangalore team reached out to community stakeholders and learned of a problem with water sanitation at a nearby school. With the procurement and engineering expertise of the Bangalore team, help from three other nearby Linde sites, and assistance from our construction contractors, it was a problem that could be solved. The team improved the water system by installing new purifiers and piping to optimize efficiency, and the team created a means for water collection for local gardens. The project also included lessons on hand hygiene and water conservation for schoolchildren. The team is proud of the potential health impacts for more than 100 children who study at the school.</p>
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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?


No

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)

 Linde plc_Annual Report_2020 10-K.pdf

 Linde includes risk factors about catastrophic weather events, such as flooding, in its annual report (10K in Item 1A Risk Factors - page 10. This also includes how Linde responds to such risks. In addition, Linde publishes information about its water target (to implement Water Management Plans in areas of high water stress) in its Sustainable Development Report, which also addresses potential future water-related risks.

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	<p>Linde evaluates the effects of water-related issues as operational risks in the regions in which it operates and those in which new sites are planned, particularly in emerging markets. Water issues considered in Linde's long-term business objectives: water availability and quality are key elements integrated in the company's long-term strategy and growth objectives. For example, for every new plant, facility site studies are performed including physical and environmental parameters, such as water availability and potential water risk to plant operation. The scope covers typical production plant lifetime of minimum 15 – 20 years.</p> <p>In addition, Linde's 2028 long-term water target was developed to implement best water management practices and drive water efficiency improvements, particularly addressing the potential risk of water scarcity which would impact Linde's growth objectives. By 2028, 100% of our production sites located in areas of highest water stress will have established and implemented a water management plan to adapt to potential and future water shortages.</p> <p>Additionally, as part of Linde productivity activity and portfolio, with support from our regional and global operations excellence teams, processes are in place to optimize water use efficiency and drive reduction</p>

			<p>opportunities at production sites across various regions. In 2020, these efforts yielded 1.1 million m3 in water savings and delivered \$6.3 million savings from water-related projects.</p>
<p>Strategy for achieving long-term objectives</p>	<p>Yes, water-related issues are integrated</p>	<p>11-15</p>	<p>Water issues considered in Linde’s long-term strategy: Water availability and quality were identified as key elements integrated in the company’s long-term business strategy and growth objectives.</p> <p>Example on how Linde’s future strategy has been influenced by a water-related issue: Every new plant investment is influenced by water-related issues. Each project undergoes a study on physical and environmental parameters, such as water availability and potential water risk to plant operation. The scope covers typical production plant lifetime of minimum 15 – 20 years. Design decisions are among others dependent on water availability and/or discharge, or recycle opportunities.</p> <p>Linde uses the CDP scenario toolkit to determine and evaluate long-term physical risks from climate change, including risks from rising sea levels or water scarcity. Those risks are taken into account when assessing (strategic) investments and are the basis to define mitigation actions/adaptation plans (such as specific investments in R&D).</p> <p>In addition, Linde analyzed water availability for next 20 years using WRI Aqueduct Water Risk Atlas, which showed that by 2040, under a more pessimistic scenario, an additional 20% of Linde’s sites will see an increase in their baseline water stress level to high or extremely high. This is taken into account in Linde’s long term strategic planning and to achieve its long-term objectives.</p>
<p>Financial planning</p>	<p>Yes, water-related issues are integrated</p>	<p>11-15</p>	<p>Linde evaluates the effects of water risks in the regions in which it operates and in the regions in which it plans to build new sites.</p> <p>Water issues are relevant in several ways for Linde’s financial planning. The availability of water is one of many factors taken into consideration when determining where to site new plants or for selecting the appropriate plant design.</p>

		<p>Linde financial planning (including R&D expenses, capital expenditures and OPEX) is impacted by the type of new plants coming on-stream, where those are sited, and the specific plant designs. Water availability and quality are key aspects to consider for a new plant design and are therefore impacting the amount of CAPEX spent as well as operating cost factors.</p> <p>Linde sites are built to last for 15-20 years or longer and elements such as water availability are projected for the life of the plant. Expected future cost of water or measures to mitigate water risk are factored into the financial long-term project plan. For example, a site in North America was planned for an area with little available water. The plant was designed to run on closed-system glycol rather than on electricity and water which also impacts the financial business plan of the project.</p>
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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)

0

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

0

Water-related OPEX (+/- % change)

0

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

0

Please explain

CAPEX due to water included voluntary projects for permanent process efficiency improvements to primary process equipment and control equipment. Based on 2020 projects, increases in expenditures due to such projects and other efforts resulted in approximately 300 million gallons savings of water and are reported in Linde’s SD productivity efforts.

OPEX for cost of procured water as part of utilities cost: Water consumption decreased from 2019 due to a number of factors, including production volumes. In Linde's 2020 SD report, we report an example from South Latin America, where the business has achieved an overall water reduction for the past few years, totaling more than 2,125,834 cubic meters of water saved.

Linde does not disclose more information regarding the trend of water-related CAPEX and OPEX or make additional projections, due to its confidentiality.

W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	<p>Linde used scenario analysis as part of its climate risk assessment to analyze potential long-term physical risks from climate change. Linde evaluated several public scenarios and selected the RCP 2.6 and RCP 4.5 scenarios as a basis for its risk assessment. Both scenarios are aligned with Linde's aspiration to contribute to limit global warming to below 2 degrees, whereas the RCP 4.5 is the more conservative scenario.</p> <p>Linde's scenario analysis showed that Linde might be exposed to several acute and chronic physical climate change risks in the long term, resulting e.g. from an increase in mean temperature, higher CO2 concentration in the air, or higher water stress. This could lead to higher operating cost, and in the worst case loss of revenue due to reduced production capacity. For example, by 2040, 20% additional sites could see an increase in their baseline water stress to high or extremely high, among others plants at the China Coast.</p>

W7.3a

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

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?

Climate-related	Description of possible water-related outcomes	Company response to possible water-related outcomes
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	scenarios and models applied		
Row 1	Other, please specify RCP 4.5, RCP 2.6	<p>Linde’s scenario analysis shows that there are potential long-term threats from increase in mean temperature, causing among others higher water stress in regions where Linde operates.</p> <p>Linde used the WRI Aqueduct Water Risk Atlas tool to map the production sites based on their GPS coordinates and identify the ones with water-stress related risks. The tool also contains projections of future water stress for the years 2030 and 2040, considering optimistic, business-as-usual and pessimistic climate-related scenarios, which were considered as part of assessments about future changes in water availability. The tool showed that in a pessimistic scenario by 2040, 20% additional Linde sites could see an increase in their baseline water stress to high or extremely high, among others plants at the China Coast.</p>	<p>Management was informed about the outcome of the scenario and risk analysis. As a result, mitigation strategies were defined to address the particular risks, for specific assets and regional areas. Linde’s adaptation plan covers Linde’s industrial gases business representing 100% of the company’s production assets. It includes contingency plans for immediate reaction, required plant upgrades due to changing physical conditions for the mid-term (e.g., 5-10 years), and long-term (10+ years) activities, e.g., related to R&D and innovation (e.g., new water solutions, applied for new plants).</p> <p>While water has not been identified as a risk in our annual report (10-k), we include water-related issues as based on the water stress evaluation and recognize the importance of this critical and vital resource to our operations. Linde water target is managed as part of the company’s sustainable productivity activity to continuously evaluate water use efficiency and areas of improvement to monitor and reduce its use and consumption.</p>

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

Responsible water management is an essential element of Linde’s sustainability strategy. As such, the company manages water-related issues in a risk-based and stress assessment context, to implement best management measures at sites in areas

of high water stress. Linde water target ensures continuous efforts to optimize water use efficiency and identify areas of improvement to reduce water use. We are currently exploring the Water Risk Monetizer tool to assess the true cost of water, which assesses water availability and quality risks, and puts them into financial terms to support better informed decisions and prioritization of water-related investment projects. The outcome is to integrate valuation practices in our strategic planning exercise by utilizing risk-adjusted costs and mitigate future impacts from water scarcity.

W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Site/facility specific targets and/or goals Country level targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	<p>Responsible management of water is an essential element of Linde’s sustainability strategy and long-term goal and targets which are embedded into the business and its direct operations.</p> <p>Approach to setting and monitoring global targets and/or goals: Linde’s corporate SD targets were developed based on a materiality assessment, considering internal and external stakeholder views and expectations, including stakeholders’ interest that look for non-financial information as well as contribute to ESG frameworks and collective actions on water-related policy agendas such as UN SDG (for water in particular towards SDG 6 Clean Water and Sanitation and SDG 12 Responsible Production and Consumption).</p> <p>Water-related issues such as availability and exposure were identified to be part of two priority factors in Linde’s sustainable development materiality assessment.</p> <p>In response to local water issues and security with respect to quantity, quality, and availability, Linde’s SD water target is focused on implementing water management plans (WMPs) at sites in highest water stressed locations and optimizing freshwater usage to minimize risk exposure now and in the future. The latter is based on a risk scenario analysis under different climate scenarios and projections over the next 20 years.</p>

		<p>Water issues further form part of two other SD targets: 1) Linde's 2028 sustainable productivity target includes projects and initiatives to increase water use efficiency (e.g., productivity projects implemented in 2020 will help to save 1.1 m³ of water per year). 2) Linde's community engagement target includes activities/initiatives at the site level such as engagement with local stakeholders or NGOs to provide clean water and sanitation to communities (e.g., to schools).</p> <p>Approach to setting regional/country/site level targets: Each Linde country/local site is asked to contribute to the global WMP target and thus sub-targets have been defined at the regional/local (site) level (global target broken down to country and specific sites). Additionally, some regions/countries have adopted own water management targets based on regional evaluations and management decision. For example, Linde's business in South Latin America defined a target to implement water management plans in 11 plants outside globally defined scope. Linde Brazil voluntarily adopted a target to reduce 1 percent absolute water volume from 2016-2020.</p>
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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

Monitoring of water use

Level

Company-wide

Primary motivation

Water stewardship

Description of target

Linde's 2028 SD corporate water target is to implement water management plans (WMPs) at 100% of its high water use sites located in areas of high water stress. The water stress and risk assessment were carried out using the WRI Aqueduct Water Risk Atlas mapping tool and supported by local determinants of water risks and stress levels. The scope focuses on sites with greater than 50,000 m³ per year of water withdrawn for its operations (excl. once-through non-contacting cooling water) identified in areas of

high and extremely high baseline water stress. By 2028, 100% of those sites are targeted to implement a WMP addressing site-specific risks to water quantity, quality and availability, as well as adaptation measures towards water conservation and reduction initiatives supported by continuous tracking of water KPIs and improved water efficiency. Additionally, an annual review pertaining to water regulations, permitting ,and current and future pricing structures changes is performed.

Quantitative metric

Other, please specify
 # of sites with water management plans

Baseline year

2018

Start year

2018

Target year

2028

% of target achieved

20

Please explain

In 2020, 20% of the sites within the scope of the target initiated the development of their WMP. These are driven by each operating segment and country business units and rolled out to be monitored at the corporate level with potential replication opportunities identified where possible.

Linde focused on improving the water data reporting systems, and definition in place, increasing reporting frequency from annually to monthly, investigating, identifying and sharing opportunities for improving water efficiency across its operations. Additionally, the sites have engaged with the water treatment suppliers to optimize water use and explore alternate water sourcing initiatives to reduce freshwater use.

Target reference number

Target 2

Category of target

Water use efficiency

Level

Company-wide

Primary motivation

Cost savings

Description of target

Sustainable productivity projects are initiatives resulting in efficiency savings (savings in emissions, waste, water use, etc.) plus financial savings. Linde has a productivity target

to deliver \$1.3 billion savings from productivity initiatives by 2028 that are in line with business strategic objectives. These include efficiency projects resulting in reductions in water use and consumption.

Linde has processes and specific initiatives in place to drive water use reduction opportunities at the production sites, and optimize water use efficiency. In 2020, these efforts resulted in 1.1 million m³ in water savings and \$6.3 million financial savings in through water-related projects and initiatives.

Quantitative metric

Other, please specify
Sustainable productivity financial savings

Baseline year

2018

Start year

2018

Target year

2028

% of target achieved

25

Please explain

Cumulatively, in 2018-2020, Linde achieved \$310 million in productivity savings, among others due to a reduction of energy and water usage. For example, in 2020, Linde's productivity projects lead to future annual savings of water consumption of 1.1 million cubic meters of water.

W8.1b

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

Goal

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

Level

Company-wide

Motivation

Climate change adaptation and mitigation strategies

Description of goal

This goal is qualitative (without a tracked, time-specific, quantitative target). It is about providing access to clean drinking water to people and communities through Linde's products and applications.

Why the goal is important to Linde:

It supports our mission statement of "making our planet more productive" and shows actions related to water - to enable safe drinking water to be provided to millions of people in countries where we operate. It indicates how Linde's products help contribute to access to drinking water, as well as to water security, reducing other water-related risks, and/or achieving other water commitments and to business objectives. This goal helps contribute to the UN SDGs.

How the company is implementing the goal:

Linde offers various products and applications for water treatment methods, in order to produce clean drinking water for people. One example is Linde's SOLVOCARB application. Linde provides an overview of all water products on its company web site.

Indicators used to assess the progress:

This goal is one outcome of Linde's Sustainable Development 2028 (SD 2028) target to annually achieve >50% revenue from applications from Linde's sustainability portfolio, i.e. applications that bring environmental and /or social benefits, including water applications. In 2020, Linde achieved 54% revenue from its sustainability portfolio (in 2019: 53%).

Baseline year

2020

Start year

2020

End year

2021

Progress

Linde's mission of making our world more productive includes providing products that offer environmental benefits, including safe drinking water to customers and communities, therefore contributing to water security. This goal was achieved, and Linde enabled more than 200 million people to have access to safe drinking water through our environmental technologies and our gases portfolio.

The goal is reflected within Linde's objective to achieve >50% annual revenue with Linde's sustainability portfolio every year (=threshold of success). In 2020, Linde achieved 54% of revenue over its sustainability portfolio


As this is an annual goal, for this goal the baseline year and the starting year is always the reporting year and the end year is always set as the year after the reporting year.

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

 Linde eKPI Assurance Statement 2020 Data Year_ July 27 2021.pdf

W9.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water withdrawal from municipal supplies, fresh surface water sources, fresh groundwater, once-through cooling water returned to fresh water sources, net fresh water consumption.	Other, please specify ISO 14064-3	Verification protocols specific to water do not exist (like they do for GHGs). Linde's audit also included verification of certain GHG data. The auditors used the same principles in ISO 14064-3 to audit all environmental KPIs. For a copy of the verification statement, see https://www.linde.com/sustainable-development/reporting-center

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	Executive Vice President, Clean Energy	Other C-Suite Officer

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

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	27,243,000,000

SW0.2

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

Yes

SW0.2a

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

	ISIN country code	ISIN numeric identifier (including single check digit)
Row 1	IE	00BZ12WP82

SW1.1

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

No facilities were reported in W5.1

SW1.2

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

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

SW2.1

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

SW2.2

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

No

SW3.1

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

Product name

All products: For reasons of confidentiality of business data, Linde is reporting water intensity for all products under a single row, rather than per product type.

Water intensity value

7.42

Numerator: Water aspect

Water withdrawn

Denominator

thousand Nm³

Comment

The water intensity value represents the ratio of total water withdrawal against our total production volume sold. Water intensity remained about the same with a slight increase by 2%. The trend is consistent with the slight increase in production as well as in total water withdrawal at the ASU production plants.

As part of the company's sustainable productivity activity, Linde continuously evaluates water use efficiency and areas of improvement to minimize water use in the production process. In 2020, these efforts yielded 1.1 million m³ in water savings and delivered \$6.3 million savings from water-related projects. These benefits also align with the improved intensity results based on freshwater consumption.

Future trend: While our business grows and sales increase, continued efforts are anticipated in optimization projects across its sites worldwide to reduce total water withdrawal as we focus on improving our water use efficiency onsite as well as our overall intensity ratio.

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms