

Making our world more productive



Linde ESG Data Overview (2022 Data Year)

A Summary for Investors
September 2023

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Mission, Vision and Values

Our Vision

We are committed to fulfilling our vision to be the **best performing global industrial gases and engineering company**, where our people deliver innovative and sustainable solutions for our customers in a connected world.

Our Mission

We live our mission of making our world more productive every day. Through our high-quality solutions, technologies and services we are making our customers more successful and **helping to sustain and protect our planet.**

Our Values

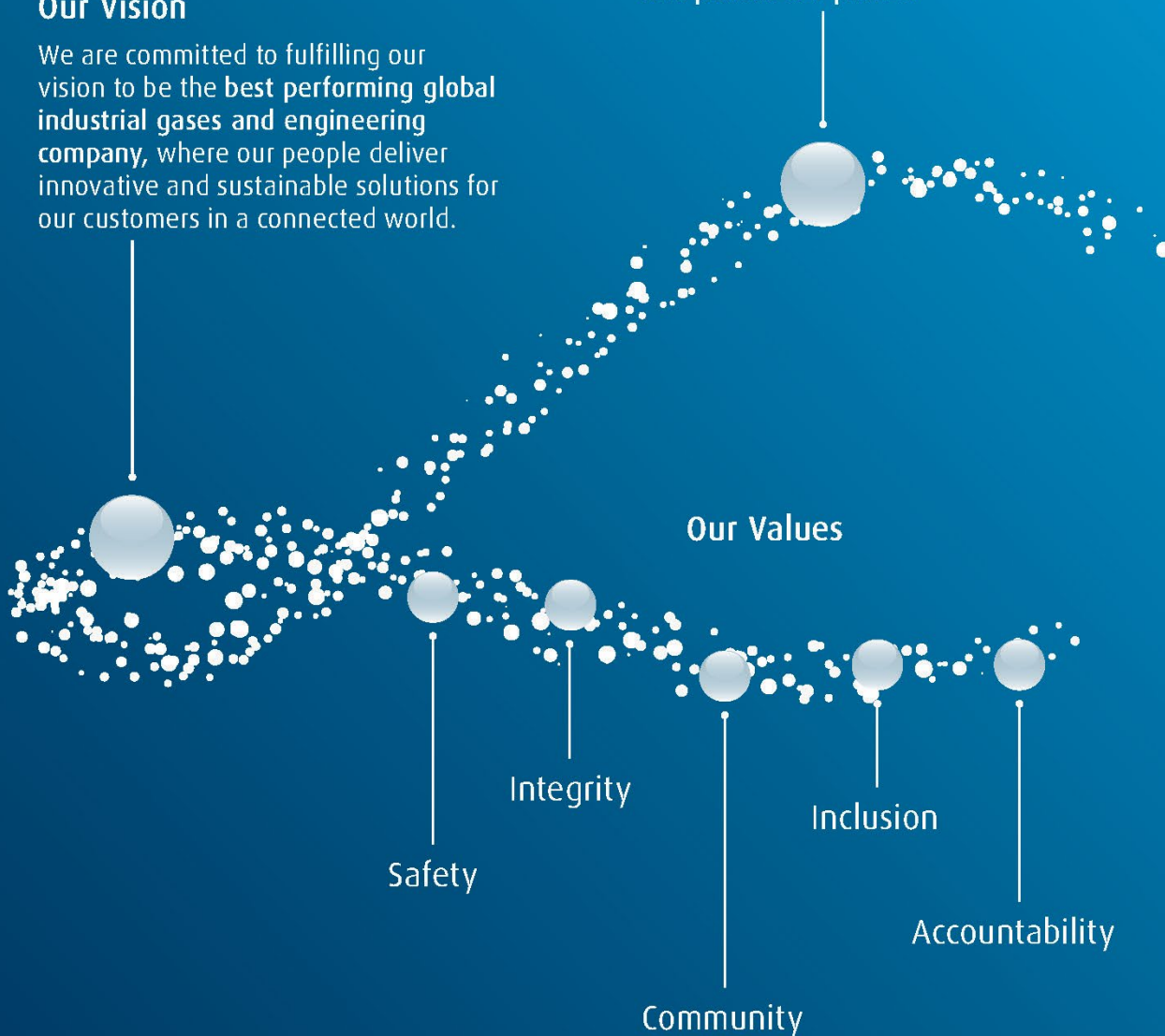
Safety

Integrity

Community

Inclusion

Accountability



Sustainable Development

Every day, Linde team members around the world are helping to make a positive social and environmental impact in our communities, for our customers and within our own operations.



Achievements



Diverted more than **200 million pounds of waste** from landfills



On track to **achieve 30% representation of women** globally by 2030



Saved approximately **400 million gallons of water** through sustainability initiatives



Helped customers avoid approximately **90 million metric tons** of equivalent carbon dioxide



Provided philanthropic support to more than **1,000 organizations** globally



Benefitted more than **300,000 people** through employee **community engagement** projects



Sourced more than **1/3 of electricity from low-carbon and renewable resources**



Best-in-class safety performance

Recognitions & Awards

- Dow Jones Sustainability World Index (DJSI World) and DJSI North America: included in DJSI World for twenty consecutive years
- S&P Global Corporate Sustainability Assessment: industry-leading score in the 99th percentile in chemicals, #1 in industrial gases
- S&P Sustainability Yearbook 2022
- CDP: Linde named to 'A list' for both climate change and water security
- Science-based target approval: Linde's 2035 climate change goal validated by SBTi
- Holder of the Sustainable Markets Initiative Terra Carta Seal
- FTSE4Good Index constituent for seventh consecutive year
- One of World's Most Ethical Companies by Ethisphere Institute
- Bloomberg 2022 Gender-Equality Index

Introduction

This ESG Data report provides a consolidated overview of Linde plc's non-financial performance. Metrics cover the company's activities during the period January 1 to December 31 for the year indicated.

Linde plc was formed in 2017 in accordance with the requirements of the business combination agreement, dated June 1, 2017, as amended, among Linde plc; Praxair, Inc. (Praxair); and Linde Aktiengesellschaft (Linde GmbH). Effective October 31, 2018, the business combination was completed, and Linde plc is comprised of the businesses of Praxair and Linde GmbH. For 2018, pro forma data was calculated for numerous non-financial metrics to reflect what performance would have looked like had the merger been effective for all of 2018. In the tables on the following pages, if a 2018 cell is greyed out, a pro forma value was not calculated for that metric.

Consistent with Linde's financial reporting, all financial figures are reported in US Dollars.

Each year, Linde has various metrics externally audited. The most recent audit covers the 2022 data year. The audit assurance letters can be found in Linde's [Reporting Center](#).

Linde's Business Model

Linde's business model is to transform air and other process gases into applications that, in many cases, help customers become more energy- and resource-efficient or provide social benefits.

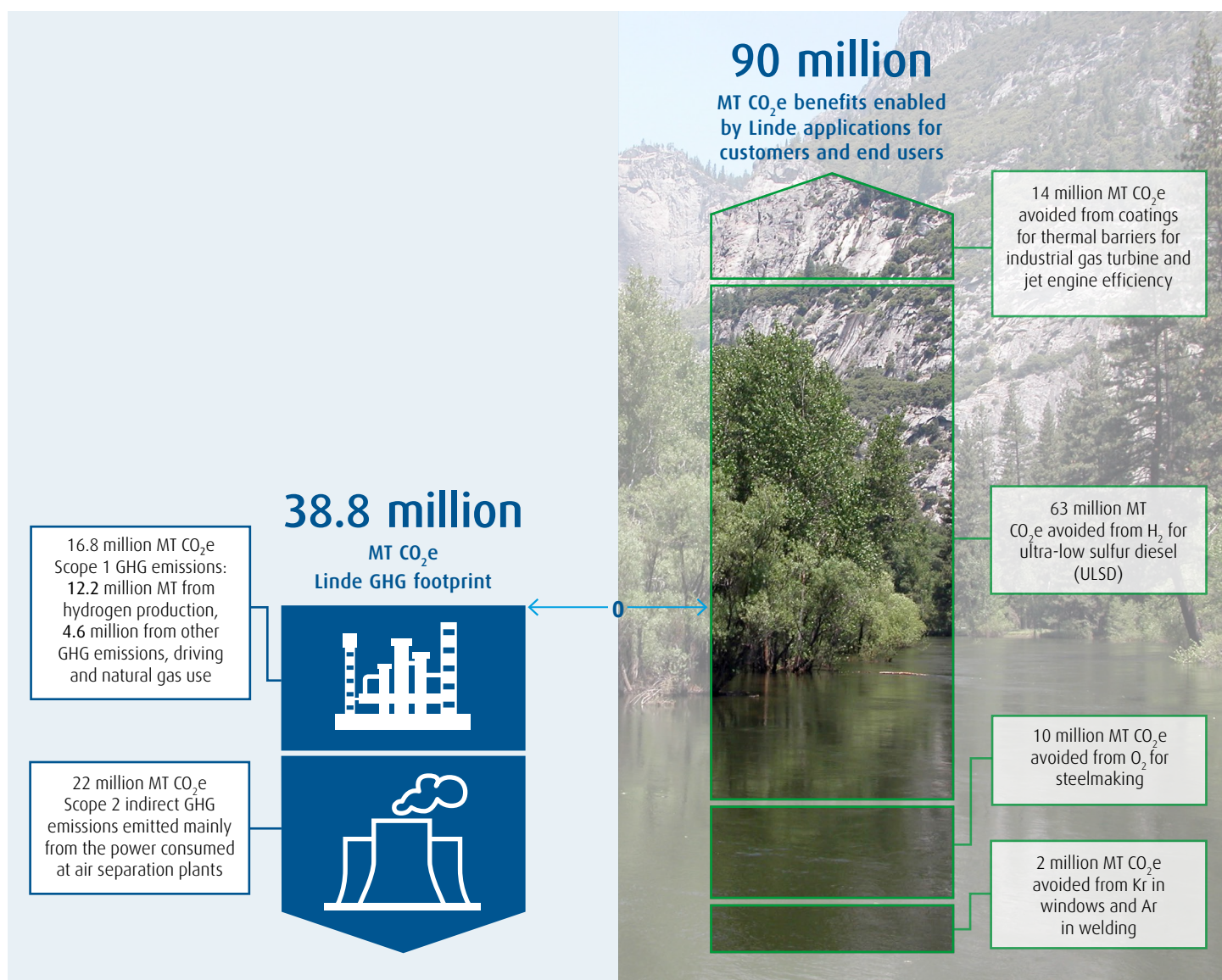
Linde's industrial gas processes transform natural resources into environmental and social value and impact. Principal business operations are to make atmospheric gases from raw materials in the air and electricity, and process gases, principally hydrogen, from natural gas or industry by-products, together with steam. The outputs of these processes, or our product applications, serve multiple end-markets. More than two-thirds of sales are underpinned by fixed fees or resilient end-markets (e.g., healthcare, food and beverage, and electronics as well as portions of sales to chemical and energy, metals, and manufacturing), which provide some protection from market swings.

Many of Linde's applications bring environmental, economic and social benefits to its customers, communities and the planet. For example, Linde's oxygen helps steelmakers save energy, allows sustainable aquaculture to thrive and serves hundreds of thousands of patients needing medical oxygen. Its hydrogen helps oil refiners to make ultra-low sulfur diesel (ULSD), which helps improve air quality, thereby improving the environment and human health. Linde's high-performance surface coatings help improve energy efficiency in jet engines and machine turbines. These outcomes deliver multiple longer-term impacts and sustainable business value.

Linde Applications Enable 2X Carbon Productivity

Linde is a company in the business of resource transformation in a world that is dealing with climate change. Below are our 2022 actual results as reported by Linde plc entities. We demonstrate that a subset of Linde applications allow our customers or their end users to avoid more than twice the GHG emissions of all Linde operations. In 2022, total GHG emissions were 38.8 million MT CO₂e, versus 90 million MT CO₂e avoided by our customers or end users, based upon several applications as shown below.

Again in 2022, a subset of Linde applications enabled more than twice the GHG benefit than was emitted in all global operations—2.3x more.



Values are based on 2022 reported and consolidated results from Linde plc subsidiaries following Linde plc reporting standards.

CO₂e = CO₂ equivalents

How We Create Economic, Environmental and Social Value

EMPLOYEES

A global corporation with a presence in more than 80 countries

- Supported 65,010 employees globally with personnel expenses totaling \$5.7 billion in 2022, including salaries, benefits, Social Security contributions and pensions, and share-based compensation

Committed to Diversity and Inclusion

- 28 percent female employees worldwide (28 percent female professional employees worldwide)
- Trained approximately 1,200 leaders to date on unconscious bias
- Consistently listed on major Diversity and Inclusion indices

Commitment to Safety: Approximately 5 million hours of safety training delivered in 2022 to employees and contractors

- Achieved Lost Workday Case Rate (LWCR) more than 4X better than the U.S. Occupational Health and Safety Administration all industries industrial average



CUSTOMERS AND INVESTORS

Shareholder focus

- Consistently delivered our commitments

Customer-centric, disciplined operations

- Adjusted after-tax return on capital*: 22.9 percent
- Industry-leading sale of gas project backlog of \$5.7 billion

Local business model

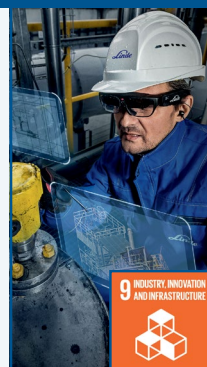
- Linde manufactures and distributes nearly all its products and manages 2+ million industrial customers on a regional basis



INNOVATION

Technology Innovation

- Supplied liquid hydrogen to the world's first hydrogen-powered ferry for cars and passengers in Norway
- Conducted first-ever commercial scale trial for low-carbon steel heating with hydrogen, which enables substantial reductions in carbon emissions
- Delivered 54 percent of revenue from applications that bring environmental and social benefits
- Demonstrated electrolysis expertise: currently building world's largest PEM electrolyzer (24 megawatts)



NATURAL RESOURCES

Resource productivity

- Delivered productivity in line with business strategic objectives
- Realized \$215 million savings from sustainable productivity, including avoiding an estimated >400 million gallons of water usage and 1,000,000 MT CO₂e**

38.8 million MT CO₂e direct and indirect GHG*** emissions

- 18 TWh low-carbon energy sourced (43 percent of all energy)
- Enabled 90 million MT CO₂e to be avoided by customers from five of Linde's key technologies

Risk-based Water Management

- Enabled more than 230 million people to have access to safe drinking water through gases used for water treatment and desalination



SOCIETY

Commitment to Ethics and Integrity

- Maintained strong compliance culture through Code of Business Integrity, which has been implemented globally

\$10.4 million in funding for social projects and initiatives

- Supported more than 1,000 organizations in 49 countries

95,000 employee volunteer hours contributed

- Impacted 350,000 people, including 140,000 children and students, through 489 employee community engagement projects

Healthcare business

- Provided crucial support to hospitals and healthcare facilities during the COVID-19 pandemic and cared for 225,000 COVID-19 patients at home in the U.S. through Lincare's respiratory care services



The icons on this page refer to the United Nations Sustainable Development Goals.

* Adjusted after-tax return on capital is a non-GAAP measure. For definition and reconciliation, please see Appendix to the Investor Teleconference Presentation Fourth Quarter 2022.

** CO₂e: CO₂ equivalents

*** GHG: Greenhouse gas

Another example is for SDG Goal 7, Target 7.2: "Increase the share of renewable energy by 2030." Linde will actively contribute to this target by doubling the purchase of low carbon energy by 2028.

Sustainable Development Targets 2018–2028*

Climate Change



Decarbonization Investment & Innovation

- >\$1 billion in decarbonization initiatives
- >1/3 annual R&D budget to decarbonization

GHG Reduction: Achieve 35 percent intensity reduction in GHG vs. EBITDA

- >2x low-carbon power sourcing, primarily from active renewable electricity
- Improve energy & GHG intensity
 - 4 percent for HyCO GHG
 - 7 percent for ASU energy
 - 10 percent for distribution fleet GHG
- 10 percent absolute reduction in GHG emissions from other GHG

Innovative & Sustainable Solutions

- Contribute >50 percent annual sales from Sustainability Portfolio
- Enable >2x annual carbon productivity



Safety, Health & Environment



Occupational and Distribution Safety

- Achieve annual operational safety better than industry levels (LWCR, TRCR)
- Achieve annual Commercial Vehicle Incident Rate (CVIR) of <2.5/million km

Health/Product Stewardship

- Zero global sales of coating slurries that contain hexavalent chrome by 2029 (surface coatings)

Environment

- Achieve \$1.3 billion Sustainable Productivity
- Implement Water Management Plans at 100 percent relevant sites
- Achieve Zero Waste at 450 sites



People & Community



Diversity & Inclusion

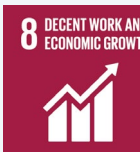
- Achieve 30 percent representation of women globally by 2030

Employee Community Engagement

- Contribute 550 CE projects by 2028
- Integrate Community Needs Assessments into Engineering project design phase (U.S. only)

Global Giving

- Increase environmental/ climate-related philanthropic spend by 50 percent



Integrity & Compliance



Integrity & Compliance



- Confirm 100 percent annual certification to Linde's Code of Business Integrity



* See Performance Towards Targets for definitions of scope and boundary of each target. All targets run 2018 – 2028 except where otherwise noted.

Linde's 2028 Targets

Linde's ambitious Sustainable Development 2028 (SD2028) Targets are our roadmap and plan for the coming 10 years. The targets are organized in four categories that we consider relevant to the company and its internal and external stakeholders. The targets are consistent with Linde's business model, mission and values, and the strategic business objectives named by the Board of Directors as a basis for variable compensation. Linde's businesses and functions are accountable for achieving these targets – they are embedded into our businesses and operations. Each target is a business KPI and managed as part of the business.

	Linde Targets*	2018	2020	2021	2022	Target	Status
	Invest in decarbonization initiatives, cumulative \$ million	14	128	299	542	1,000	↗
	Direct >33% of R&D budget to decarbonization, cumulative %	23	26	27	39	>33	↑
	Contribute >50% revenue from sustainability portfolio, annual %	n/a	54	55	54	50	↑
	Enable >2x GHG benefits, annual	2.5x	2.3x	2.2x	2.3x	>2.0x	↑
	35% absolute reduction in Scope 1 and 2 emissions by 2035, 2021 baseline, cumulative % (million tons CO ₂ e)	n/a	n/a	n/a	-2.8%	-35% (25.9)	↗
	35% Improvement in GHG intensity vs. EBITDA, cumulative %, (intensity MMT CO ₂ e/\$ billion)	(5.3)	-16.1% (4.5)	-26.2% (3.9)	-33% (3.6)	-35% (3.5)	↗
	4% HyCO GHG intensity improvement, cumulative %	0	-7.1	-9.3	-6.7	-4.0	↗
	7% ASU energy intensity improvement, cumulative %	0	-0.5	-1.7	0.1	-7.0	↘
	10% fleet GHG intensity improvement, cumulative %	0	-7.2	-7.5	-4.6	-10.0	↗
	10% absolute reduction in other GHG emissions, cumulative %	0	-9.3	-38	-56.0	-10.0	↑
	>2x low-carbon power sourcing, primarily from active renewable electricity, cumulative TWh	14	15.3	17.0	18.0	>28.0	↗
	\$1.3 billion in sustainable productivity, cumulative \$ million	92	310	497	712	1,300	↗
	Water Management Plans (WMPs) at high-water-use sites in areas of high-water stress (# sites in scope, % WMPs implemented)	n/a	67 (20%)	67 (36%)	64 (48%)	100%	↗
	Achieve Zero Waste to Landfill at 450 sites	217	286	360	371	450	↗
	Annually achieve operational safety better than industry levels for Lost Workday Case Rate (LWCR)	0.32	0.21	0.22	0.19	1.10	↑
	Annually achieve annual operational safety better than industry levels for Total Recordable Case Rate (TRCR)	0.74	0.51	0.54	0.49	2.70	↑
	Annually achieve Commercial Vehicle Incident Rate (CVIR) of <2.5 per million kilometers driven	2.05	1.7	2.08	2.24	<2.50	↑
	Zero global sales of coating slurries that contain hexavalent chrome by 2029 (Surface Coatings)	On track, see reporting section following					↗
	100% employee certification to Linde Code of Business Integrity (CBI), annual % employees certifying	100	100	99	100	100	↗
	Achieve 30% representation of women globally by 2030 (% all employees)	n/a	27	27	28	30	↗
	550 employee community engagement projects completed	410	389	389	489	550	↗
	Community impact assessments in engineering project development at all new sites (U.S. only). (% complete): Target commences in 2021	n/a	n/a	n/a	Started	100	↗
	Increase environmental/climate-related philanthropic spend by 50% (annual \$ '000, % total)	\$555k	\$684k (23%)	\$884k (59%)	\$1,197k (116%)	\$832k (50%)	↑

*All Targets terminate in 2028, unless specified otherwise

achieved ↑

on track ↗

behind target ↘

Reports and Reporting Frameworks

List of Reports

Copies of Linde's current and past sustainable development reports can be found in Linde's Reporting Center. The most recent sustainability reports are:

- [2022 Sustainable Development](#)
- [2023 CDP Climate Change Response](#)
- [2023 CDP Water Response](#)

Reporting Frameworks

Linde uses a number of frameworks to guide the company's sustainability reporting, including:

- [Linde SASB Index \(2022 Data Year\)](#)
- [Linde TCFD Index \(2022 Data Year\)](#)

Policies and Position Statements

Governance

- [Corporate Governance Guidelines](#)

Ethics

- [Code of Business Integrity](#)
- [Human Rights Policy](#)
- [Modern Slavery Policy Statement \(UK\)](#)
- [Diversity & Inclusion Guidelines](#)
- [Responsible Animal Testing Policy](#)
- [Conflict-Free Materials Supply Policy](#)
- [Supplier Code of Conduct](#)

Compliance

- [Anti-Bribery & Anti-Corruption Compliance Policy](#)
- [Competition Law Policy](#)
- [Policy on Doing Business with the Government](#)
- [Political Contributions and Lobbying Policy](#)

Health, Safety and Environment

- [Health, Safety & Environmental Policy](#)
- [Position Statement on the Importance of Ecosystems](#)
- [Responsible Care Policy](#)
- [Position Statement on Sustainable Development and Climate Change](#)
- [GHG Emissions Recalculation Policy](#)
- [Water Position Statement](#)
- [Position Statement Regarding Chemicals of Concern](#)

Climate Change

Metric	Unit	2019	2020	2021	2022
Innovation					
Investment in decarbonization activities	\$ million	66	128	299	542
R&D budget for decarbonization	% of total R&D budget	25	26	27	39
Revenue from Sustainability Portfolio	\$ billion	13.5	13	15	16
% Revenue from Sustainability Portfolio	% of total revenue	53	54	55	54
GHG benefits enabled by select Linde applications	Million MT CO2e	100	85	88	90
GHG Emissions					
GHG Intensity (over EBITDA)	Million MT CO2e/\$ billion	4.7 (-8.2%)	4.5 (-16.1%)	3.9 (-26.2%)	3.6 (-33%)
GHG Intensity (over revenue)	MT CO2e/thousand \$ million	1.37	1.41	1.30	1.16
Total Scope 1 + Scope 2 emissions ¹	Million MT CO2e	38.711	38.546	39.894	39.794
Scope 1 (direct) GHG emissions	Million MT CO2e	16.461	16.247	16.321	16.813
Scope 1 emissions covered by emissions-limiting regulations	Million MT CO2e	1.5	1.5	1.6	1.5
Scope 2 (indirect) GHG emissions (market-based)	Million MT CO2e	22.250	22.299	23.573	21.981
Scope 3 GHG emissions ²	Million MT CO2e	15.412	14.403	21.261	25.859
Fuel- and energy-related activities	Million MT CO2e	5.590	5.290	7.430	6.990
Purchased goods and services	Million MT CO2e	1.540	1.640	4.250	3.774
Capital goods	Million MT CO2e	0.965	0.931	0.810	1.036
Investments	Million MT CO2e	4.460	3.930	5.450	2.630
Business Travel	Million MT CO2e			0.021	0.016
Downstream leased assets	Million MT CO2e	2.280	2.050	2.520	2.655
Downstream distribution (contractor driving)	Million MT CO2e	0.577	0.562	0.780	0.010
Energy Use					
Energy consumption	Million MWh	69.137	69.277	72.943	71.671
Fuel consumption ³	Million MWh	21.246	21.298	21.012	19.707
Steam consumption	Million MWh	6.012	6.357	9.152	10.027
Electricity consumption	Million MWh	41.879	41.622	42.779	41.937
Actively sourced renewable energy	Million MWh	2.431	2.493	2.780	3.316
Low carbon ⁴ electricity	Million MWh	14.3	15.3	17.0	18.0
Portion of electricity originating from the grid	%	>99	>99	>99	>99
Renewable energy portion of electricity (active only)	%	6	6	6.5	7.9
Low carbon portion of electricity (active + grid)	%	35	39	40	43

¹ Calculated using the financial control approach.

² Linde reports Scope 3 emissions from its 7 most relevant categories. See the SDR for more information on our Scope 3 reporting.

³ This figure includes non-renewable fuels only. Linde did not consume any renewable fuel.

⁴ Low carbon includes both active (generated or purchased through a PPA) and passive (grid supplied) sourcing. Low carbon includes all forms of renewable electricity as well as nuclear.

Environment

Metric	Unit	2019	2020	2021	2022
Water					
Water ⁵ withdrawn	Million m3	801.9	833.2	971.6	1053.9
Portion withdrawn in regions with high or extremely high baseline water stress	%		4	3	4
Fresh water withdrawn	Million m3	456.0	427.9	457.2	453.8
Water consumed	Million m3	82.9	73.7	80.4	88.3
Portion consumed in regions with high or extremely high baseline water stress	%		23	20	21
Fresh water consumed	Million m3	101.2	93.1	99.5	103.9
Fresh water consumption intensity (over revenue)	Million m3/\$ billion	0.0036	0.0034	0.0032	0.0031
Sites in regions with high or extremely high water stress that have implemented Water Management Plans (WMPs)	% of applicable sites	22 (73%)	67 (20%)	67 (36%)	64 (48%)
Water incidents of non-compliance	# of incidents	0	0	0	0
Waste					
Non-hazardous waste generated	MT	63,700	59,628	47,769	55,000
Non-hazardous waste disposed	MT	28,700	24,698	15,939	21,200
Non-hazardous waste disposal intensity (over revenue)	MT/\$ million	1.01	1.13	0.52	0.64
Non-hazardous waste recycled	MT	35,000	34,929	31,830	33,900
Hazardous waste ⁶ generated	MT	34,100	29,800	25,500	26,610
Hazardous waste disposed	MT	27,300	24,900	21,500	18,510
Hazardous waste disposal intensity (over revenue)	MT/\$ million	0.97	0.91	0.70	0.55
Hazardous waste recycled (marketable only)	MT	6,800	4,900	4,000	4,050
Zero waste sites	#	210	286	360	371
Air Emissions (non-GHG)					
NOx emissions	MT	10,596	12,030	12,236	11,521
NOx emissions intensity (over revenue)	MT/\$ million	0.375	0.442	0.391	0.345
SOx emissions	MT	730	790	714	779
SOx emissions intensity (over revenue)	MT/\$ million	0.026	0.029	0.023	0.023
VOC emissions	MT	1,158	1,141	948	931
VOC emissions intensity (over revenue)	MT/\$ million	0.046	0.039	0.031	0.028
Other					
Sustainable productivity savings	\$ million	84.5	133.0	187.0	215.0
Environmental fines ⁸	\$ million	0.14	0	0.05	0
Sites externally verified to be in conformance with ISO 14001	% sites by revenue	87	87	87	87
Conformance to Linde global health, safety, environment and security requirements and management system, in alignment with Responsible Care® and international standards ISO 14001, OHSAS 18001/ ISO 45000, FSSC 22000 and ISO 9001	% sites	100	100	100	100

⁵Includes fresh water + industrial/recycled water. Does not include brackish water.

⁶Hazardous waste values include waste defined as hazardous by regulatory authorities in each country we operate.

⁸Linde reports significant fines (those costing more than \$10,000) in the year the violation occurred (not the year the fine was paid).

Safety and Health

Metric	Unit	2019	2020	2021	2022
Operational Safety					
Lost workday case rate (LWCR), employees and contractors	# of incidents per 200,000 hours worked	0.23	0.21	0.22	0.19
Total recordable case rate (TRCR), employees and contractors	# of incidents per 200,000 hours worked	0.57	0.51	0.54	0.49
Fatalities, employees and contractors	#	4	1	4	1
Vehicle Safety					
Commercial vehicle incident rate (CVIR), employees and contractors	# of incidents per million km driven	2.17	1.7	2.08	2.24
Process Safety					
Tier 1 process safety events	# of events per 200,000 hours worked	0.037	0.035	0.039	0.026
Product Safety					
Products that undergo a hazard assessment	%	100	100	100	100

Our People

Metric	Unit	2019	2020	2021	2022
Employment					
Total employees	#	79,886	74,207	72,327	65,010
Voluntary turnover	%	6.3	5.4	6.7	8.4
Diversity and Inclusion					
Women at executive levels	%	16	17	18	19
Women at management level and above	%	19	20	23	23
Women in workforce (salaried employees)	%	27	27	27	28

Community

Metric	Unit	2019	2020	2021	2022
Corporate Foundation and other giving	\$ million	8.0	9.4	9.7	10.4
Environmental- and climate-related philanthropic spend	\$ million	0.65	0.68	0.88	1.20
Diversity- related philanthropic spend	\$ million	0.76	0.94	0.97	0.73
Business involvement in community engagement	% of major sites	100	100	100	100
Community engagement projects completed	#	367	317	389	489

Governance

Metric	Unit	2019	2020	2021	2022
Board of Directors					
Women on the board	# (%)	3 (25)	3 (25)	2 (20%)	2 (20%)
Number of meetings	#	5	5	5	5
Board attendance	% of all meetings	100	97	100	100
Related party transactions	% of revenue	0.065	0	0	0
Members of Audit Committee that are independent	%	100	100	100	100
Political Involvement					
Direct Political Contributions	\$	0	0	0	0
Total contribution and other spending ⁹	\$ million	1.5	3.8	3.3	6.5
Compensation					
Incentives for non-financial performance (payout factor)	%	160	160	185	180
Performance period covered by executive compensation plan	# years	3	3	3	3
Time vesting period for CEO	# years	3	3	3	3
Taxation					
Effective tax rate ¹⁰	%	26.3	25.0	24.7	25.9
Audit					
Audit and audit-related fees paid to auditor	\$	18,750,000	24,378,000	20,000,000	18,910,000
Non-audit fees paid to auditor	\$	1,440,000	832,000	140,000	100,000

⁹Including contributions to from Linde to trade associations, tax-exempt organizations and to lobbying firms; and from the U.S. employee political action committee (PAC)

¹⁰The tax rate for 2018 is pro forma and includes both Linde GmbH and Praxair.

