

Making our world more productive



Linde ESG Data 2019

A Summary for Investors
February 2021

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Our 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

Accountability

Inclusion

Community



Sustainable Development

Best-in-class safety performance

4x better than U.S. Occupational Health and Safety Administration industrial average for lost workday case rate

Operate world's
**first commercial
hydrogen storage
cavern**

Leading
**H₂ electrolysis
operating experience**
40 MW, 80 units

Several applications enabled
**2.7x more
GHG emissions
to be avoided**
than were emitted in all of the company's operations

300,000
children and students in our communities benefitted from employee community engagement projects

Built the
**world's first
hydrogen station**
for fuel cell-powered passenger trains

An industry leader in
diversity & inclusion

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 years 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 2019 data year. Some pro forma values were also audited for the 2018 data year. The audit assurance letters can be found in Linde's [Reporting Center](#).

Linde's Business Model

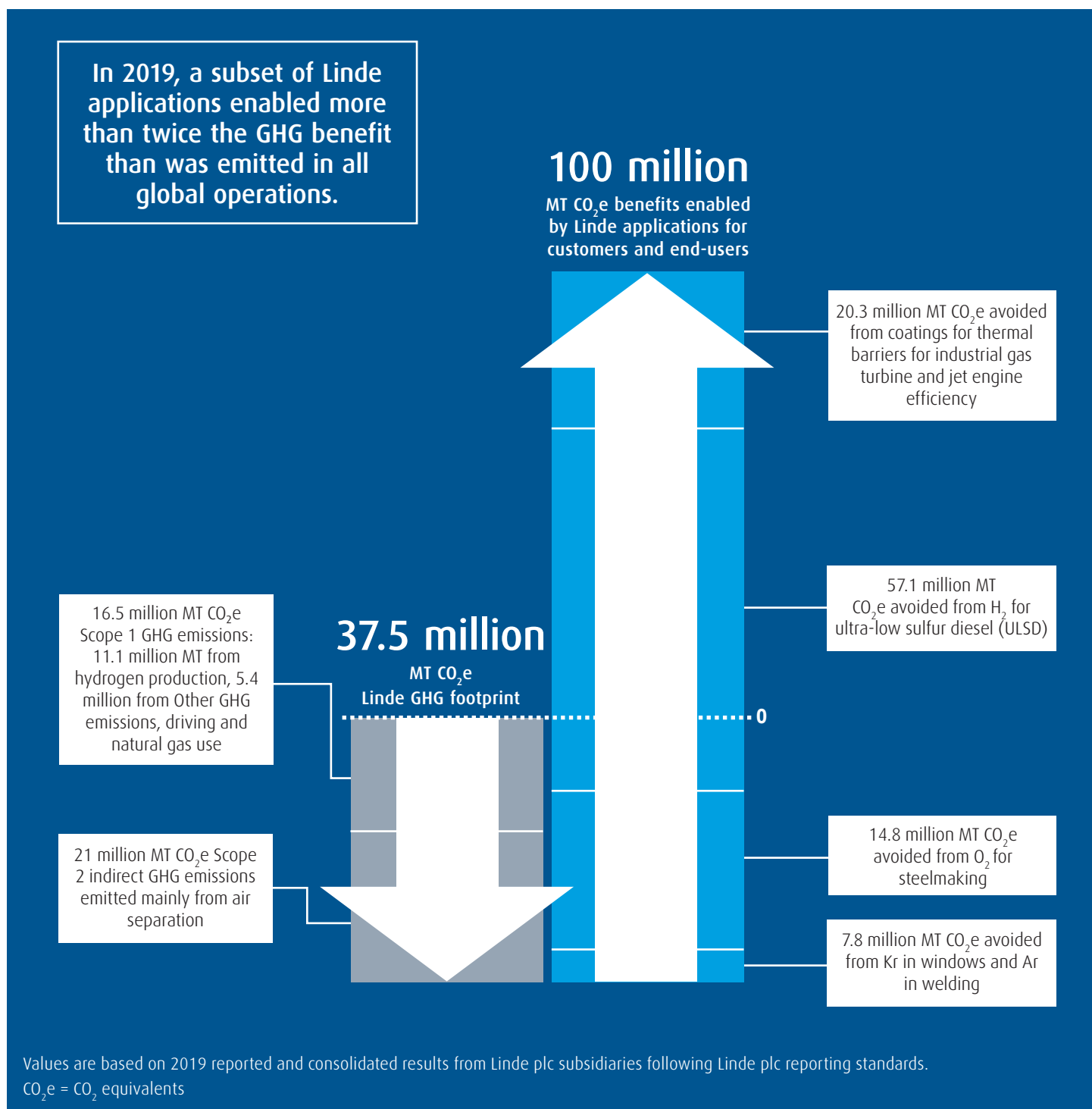
Linde's business model is to transform air and other process gases into applications that, in many cases, help customers become more energy- and resource-efficient or provide social benefits.

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 65 percent 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 refining, metals, and manufacturing), which provide protection from market swings.

Many of Linde's applications bring environmental, economic and social benefits to our 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 respiratory 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 2.7x Carbon Productivity

Linde is a company in the business of resource transformation in a world that is dealing with climate change. Below are our 2019 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 greenhouse gas (GHG) emissions of all Linde operations. In 2019, total GHG emissions were 37.5 million MT CO₂e, versus 100 million MT CO₂e avoided by our customers or end-users, from several applications shown below - 2.7x the GHG benefit created than depleted.



Creating Economic, Environmental and Social Value

Linde's business model creates additional enduring value that amplifies our mission of *making our world more productive*. The table on the facing page shows a range of Linde's inputs and activities, and the output and outcomes of these. For example, Linde values the safety of its employees and contractors and invests more than 5 million hours on safety training each year. One outcome of this effort is that Linde's safety record is several times better than industry benchmarks, which gives us confidence that our employees and contractors return home safely at the end of their day.






Linde's products contribute positively to the health and wellbeing of our customers. Homecare and hospital patients worldwide benefit from our medical gases, devices, services and therapies, especially in respiratory care. For example, during the COVID-19 pandemic, Linde medical oxygen was crucial to healthcare responders and their patients in many of our countries. In the United States, Lincare is a leading provider of home respiratory-therapy products and services.

Linde gases also play an important role in tackling the global challenge of access to clean water. An ever-growing population and industrial activity, along with stringent environmental regulations, put additional pressure on wastewater treatment plants across the globe to treat increasing volumes of wastewater – adding pure oxygen effectively increases plant capacity. As access to drinking water becomes scarcer, the market for desalination has expanded, particularly in drought-susceptible areas. Carbon dioxide can be used in the re-mineralization step, as a safer alternative to mineral acids. In Australia, for example, Linde CO2 helps desalinate water to meet the needs of 15 percent of the population of Sydney. In 2019, Linde gases enabled 290 million people to have access to safe drinking water, including 137 million people in APAC.

The long-term impact of these activities is difficult to measure or attribute directly to one company. However, we can demonstrate how they contribute to the 17 global UN Sustainable Development Goals (UN SDGs) introduced by the UN to eradicate poverty, protect the planet and guarantee prosperity for all by 2030. The "Impact" column of the table on the next page shows the six SDGs most relevant to Linde, which are referenced in Linde's 2028 Sustainable Development Targets.

An example of how Linde's activity contributes towards the SDGs is for SDG 12: Responsible Production and Consumption. Target 12.2 is "By 2030, achieve the sustainable management and efficient use of natural resources." Linde's broad range of resource intensity targets addresses this issue. Linde also takes direct action on Target 12.6: "Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle."

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 electricity by 2028.

INPUT AND ACTIVITIES →	OUTPUT AND OUTCOMES →	IMPACT
Employees		
80,000 employees in 95 countries	<ul style="list-style-type: none"> Personnel expenses in 2019 totaled \$5.8 billion, including salaries, benefits, Social Security contributions and pensions, and share-based compensation 	
Committed to Diversity and Inclusion	<ul style="list-style-type: none"> 27% female employees worldwide Continued to develop a diverse pipeline of senior leaders Consistently listed on major Diversity and Inclusion indices 	3 GOOD HEALTH AND WELL-BEING 
>5 million hours safety training delivered per year for employees and contractors	<ul style="list-style-type: none"> Lost Workday Case Rate 4X better than U.S. Occupational Health and Safety Administration all industries industrial average 	
Customers and Investors		
Shareholder focus	<ul style="list-style-type: none"> 27 consecutive years of dividend growth 	
Capital intensive operations	<ul style="list-style-type: none"> Return on capital: 11.6% Industry-leading backlog of \$10 billion 	8 DECENT WORK AND ECONOMIC GROWTH 
Local business model	<ul style="list-style-type: none"> Linde manufactures and distributes nearly all its products and manages 2+ million industrial customers on a regional basis 	
Innovation		
Technology Innovation	<ul style="list-style-type: none"> First-ever commercial scale trial for low-carbon steel heating with hydrogen, which enables substantial reductions in carbon emissions. 53% of revenue from applications that bring environmental and social benefits Building of the world's first hydrogen station for fuel-cell powered passenger trains Leading electrolysis expertise: 40 megawatts, 80 units 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 
Natural Resources		
Resource productivity	<ul style="list-style-type: none"> Delivered productivity fully in line with business strategic objectives (total productivity savings >\$750 million) \$84.5 million realized from sustainable productivity, including avoiding 100 million gallons of water and 505,000 MT CO₂e 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 
37.5 million MT CO ₂ e direct and indirect GHG* emissions	<ul style="list-style-type: none"> 15.5 TWh low-carbon energy sourced (35% of all energy) 100 million MT CO₂e avoided by customers from five of Linde's key technologies 	7 AFFORDABLE AND CLEAN ENERGY 
162 million m ³ water consumed	<ul style="list-style-type: none"> Gases for water treatment and desalination enabled an estimated 290 million people to have access to safe drinking water 	
Society		
Commitment to Ethics and Integrity	<ul style="list-style-type: none"> Maintained strong compliance culture; new Code of Business Integrity implemented across combined company 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 
\$8 million in funding for social projects and initiatives	<ul style="list-style-type: none"> More than 1,300 organizations supported globally 	
61,000 employee volunteer hours contributed	<ul style="list-style-type: none"> 300,000 children and students benefitted from employee community engagement projects 	8 DECENT WORK AND ECONOMIC GROWTH 
Healthcare business	<ul style="list-style-type: none"> Crucial support to hospitals and healthcare facilities during the COVID-19 pandemic in Linde countries of operation In the U.S., Lincare is the largest provider of respiratory care in the home 	

*GHG: Greenhouse gas

** UN SDG: UN Sustainable Development Goals

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.

Priority Factors	Linde SD 2028 Targets	2018	2019	Target	Status
Climate Change	Invest in decarbonization initiatives, cumulative \$ million	14	66	1,000	↗
	Direct >33% of R&D budget to decarbonization, cumulative %	23	25	>33	↗
	Contribute >50% revenue from sustainability portfolio, annual %	n/a	53	50	↑
	Enable >2x GHG benefits, annual	2.5x	2.7x	>2.0x	↑
	35% Improvement in GHG intensity vs. EBITDA, cumulative	(5.0)	-8.2% (4.6)	-35% (3.2)	↗
	4% HyCo GHG intensity improvement, cumulative %	0	-3.4	-4.0	↗
	7% ASU energy intensity improvement, cumulative %	0	-0.6	-7.0	↗
	10% Fleet GHG intensity improvement, cumulative %	0	-0.9	-10.0	↗
	10% Absolute reduction in other GHG emissions, cumulative %	0	0	-10.0	↗
	>2x Low-carbon power sourcing, primarily from active renewable electricity, cumulative TWh	15.2	15.5	>30.0	↗
Safety, Health & the Environment	\$1.3 billion in sustainable productivity, cumulative \$ million	92	176.5	1,300	↗
	Water Management Plans (WMPs) at high-water-use sites in areas of high-water stress (# sites, % WMPs implemented)	n/a	22 (73%)	100%	↗
	Achieve Zero Waste to Landfill at 450 Sites	217	210	450	↗
	Annually achieve operational safety better than industry levels for Lost Workday Case Rate (LWCR)	0.32	0.23	1.00	↑
	Annually achieve annual operational safety better than industry levels for Total Recordable Case Rate (TRCR)	0.74	0.57	3.10	↑
	Annually achieve Commercial Vehicle Incident Rate (CVIR) of <2.5 per million kilometers driven	2.05	2.17	<2.50	↑
	Zero global sales of coating slurries that contain hexavalent chrome by 2029 (Surface Coatings)	On track, see reporting section following			↗
Ethics & Integrity	100% employee certification to Linde Code of Business Integrity (CBI), annual % employees certifying	100	100	100	↑
People & Community	Achieve 30% representation of women globally by 2030 (% all employees)	n/a	27	30	↗
	550 employee community engagement projects completed	410	367	550	↗
	Community impact assessments in engineering project development at all new sites (U.S. only). (% complete)	n/a	n/a	100	n/a
	Increase environmental/climate-related philanthropic spend by 50% (annual \$ '000, % total)	\$555k	\$654k (18%)	\$832k (50%)	↗
Legend	↑ achieved; ↗ on track; ↘ behind target				

For detailed information on Linde's target performance, visit the "Performance Towards Targets" section of Linde's [2019 Sustainable Development Report](#).

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:

[2019 Sustainable Development Report](#)

[2020 CDP GHG Response](#)

[2020 CDP Water Response](#)

Reporting Frameworks

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

[2019 SASB Index](#)

[2019 TCFD Index](#)

Policies and Position Statements

[Code of Business Integrity](#)

[Corporate Governance Guidelines](#)

[Global Health, Safety & Environmental Policy](#)

[Political Involvement Policy \(US\)](#)

[Supplier Code of Conduct](#)

[Conflict Minerals Policy](#)

[Modern Slavery Policy Statement \(UK\)](#)

[Linde's Global Diversity & Inclusion Guidelines](#)

Climate Change

Metric	Unit	2018	2019
Innovation			
Investment in decarbonization activities	\$ million	14	66
R&D budget for decarbonization	% of total R&D budget	23	25
Revenue from Sustainability Portfolio	\$ billion		13.5
% Revenue from Sustainability Portfolio	% of total revenue		53
GHG benefits enabled by select Linde applications	Million MT CO2e	94	100
GHG Emissions			
GHG Intensity (over EBITDA)	Million MT CO2e/\$ billion	5.0	4.6 (-8.2%)
GHG Intensity (over revenue)	Million MT CO2e/\$ billion	1.4	1.3
Total Scope 1 + Scope 2 emissions ¹	Million MT CO2e	38.0	37.5
Scope 1 (direct) GHG emissions	Million MT CO2e	16.9	16.5
Scope 1 emissions covered by emissions-limiting regulations	Million MT CO2e		1.5
Scope 2 (indirect) GHG emissions	Million MT CO2e	21.1	21.0
Scope 3 GHG emissions ²	Million MT CO2e	13.4	13.7
Fuel- and energy-related activities	Million MT CO2e	5.0	5.3
Purchased goods and services	Million MT CO2e	1.5	1.5
Capital goods	Million MT CO2e	1.0	1.0
Investments	Million MT CO2e	3.1	3.1
Downstream leased assets	Million MT CO2e	2.2	2.3
Downstream distribution (contractor driving)	Million MT CO2e	0.7	0.6
Energy Use			
Energy consumption	Million MWh	64.8	65.4
Fuel consumption ³	Million MWh	21.0	21.2
Steam consumption	Million MWh	2.2	2.2
Electricity consumption	Million MWh	41.5	41.9
Actively sourced renewable energy	Million MWh	2.5	2.4
Low carbon ⁴ electricity	Million MWh	15.2	15.5
Portion of electricity originating from the grid	%	>99	>99
Renewable energy portion of electricity (active only)	%	6	6
Low carbon portion of electricity (active + grid)	%	35	35

¹ Calculated using the financial control approach.

² Linde reports Scope 3 emissions from its 6 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	2018	2019
Water			
Water ⁵ withdrawn	Million m3	651.7	612.4
Portion withdrawn in regions with high or extremely high baseline water stress	%	5.0	5.1
Fresh water withdrawn	Million m3	588.3	520.0
Water consumed	Million m3	166.4	143.0
Portion consumed in regions with high or extremely high baseline water stress	%	19.7	21.7
Fresh water consumed	Million m3	166.4	162.2
Fresh water consumption intensity (over revenue)	Million m3/\$ billion	5.9	5.7
Sites in regions with high or extremely high-water stress that have implemented Water Management Plans (WMPs)	% of applicable sites		73
Water incidents of non-compliance	# of incidents	0	0
Waste			
Non-hazardous waste generated	MT	77,400	63,700
Non-hazardous waste disposed	MT	32,100	28,700
Non-hazardous waste disposal intensity (over revenue)	MT/\$ million	1.1	1.0
Non-hazardous waste recycled	MT	45,300	35,000
Hazardous waste ⁶ generated	MT	30,000	34,100
Hazardous waste disposed	MT	27,800	27,300
Hazardous waste disposal intensity (over revenue)	MT/\$ million	1.0	1.0
Hazardous waste recycled (marketable only)	MT	2,200	6,800
Zero waste sites	#	217	210
Air Emissions (non-GHG)			
NOx emissions	MT	8,680	8,750
NOx emissions intensity (over revenue)	MT/\$ million	0.309	0.311
SOx emissions	MT	591	730
SOx emissions intensity (over revenue)	MT/\$ million	0.021	0.026
VOC emissions	MT	1,312	1,297
VOC emissions intensity (over revenue)	MT/\$ million	0.047	0.046
Other			
Sustainable productivity savings	\$ million	92.0	176.5
Environmental expenditures ⁷	\$ million	40.0	47.0
Environmental fines ⁸	\$ million	0	0.021
Sites externally verified to be in conformance with ISO 14001	% sites by revenue		87
Conformance to Linde global health, safety, environment and security requirements and management system aligned with industry and international standards such as Responsible Care® and ISO 14001, OHSAS 18001/ ISO 45001, FSSC 22000 and ISO 9001	% sites	100	100

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

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

⁷ Environmental expenditures = capital investment + operational expenditures

⁸ Linde 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	2018	2019
Operational Safety			
Lost workday case rate (LWCR), employees and contractors	# of incidents per 200,000 hours worked	0.32	0.23
Total recordable case rate (TRCR), employees and contractors	# of incidents per 200,000 hours worked	0.74	0.57
Fatalities, employees and contractors	#	7	4
Vehicle Safety			
Commercial vehicle incident rate (CVIR), employees and contractors	# of incidents per million km driven	2.05	2.17
Process Safety			
Tier 1 process safety events	# of events per 200,000 hours worked	0.03	0.037
Product Safety			
Products that undergo a hazard assessment	%	100	100

Our People

Metric	Unit	2018	2019
Employment			
Total employees	#	80,820	79,886
Voluntary turnover	Rate		0.93
Diversity and Inclusion			
Women at executive levels	%		16
Women at management level and above	%		19
Women in workforce (salaried employees)	%		27

Community

Metric	Unit	2018	2019
Corporate Foundation and other giving	\$ million	6.2	8.0
Environmental- and climate-related philanthropic spend	\$ million	0.55	0.65
Diversity- related philanthropic spend	\$ million	0.65	0.76
Business involvement in community engagement	% of major sites		100
Community engagement projects completed	#	410	367

Governance

Metric	Unit	2018	2019
Board of Directors			
Women on the board	# (%)	3 (25)	3 (25)
Number of meetings	#		5
Board attendance	% of all meetings		100
Related party transactions	% of revenue	0.019	0.065
Members of Audit Committee that are independent	%	100	100
Political Involvement			
Direct Political Contributions	\$	0.02	0.01
Total contribution and other spending ¹⁰	\$ million	1.6	1.5
Compensation			
Incentives for non-financial performance (payout factor)	%		160
Performance period covered by executive compensation plan	# years	5	3
Time vesting period for CEO	# years	3	3
Taxation			
Effective tax rate ¹¹	%	28.5	24.6
Audit			
Audit and audit-related fees paid to auditor	\$	16,217,000	18,750,000
Non-audit fees paid to auditor	\$	4,867,000	1,440,000

¹⁰ Including contributions from Linde to trade associations, tax-exempt organizations and to lobbying firms; and from the U.S. employee political action committee (PAC)

¹¹ The tax rate for 2018 is pro forma and includes both Linde GmbH and Praxair.

