UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2021

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 001-38730

LINDE PLC

(Exact name of registrant as specified in its charter)

Ireland	**98-1448883**
(State or other jurisdiction of incorporation)	(I.R.S. Employer Identification No.)
10 Riverview Dr., Danbury, CT United States 06810	The Priestley Centre 10 Priestley Road, Surrey Research Park, Guildford, Surrey GU2 7XY United Kingdom

(Address of principal executive offices) (Zip Code)

(203) 837-2000	+44 14 83 242200

(Registrant's telephone number, including area code)

N/A
(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Ordinary shares (€0.001 nominal value per share)	LIN	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

At June 30, 2021, 516,411,320 ordinary shares (€0.001 par value) of the Registrant were outstanding.

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Forward-looking Statements

This document contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are identified by terms and phrases such as: anticipate, believe, intend, estimate, expect, continue, should, could, may, plan, project, predict, will, potential, forecast, and similar expressions. They are based on management’s reasonable expectations and assumptions as of the date the statements are made but involve risks and uncertainties. These risks and uncertainties include, without limitation: the performance of stock markets generally; developments in worldwide and national economies and other international events and circumstances, including trade conflicts and tariffs; changes in foreign currencies and in interest rates; the cost and availability of electric power, natural gas and other raw materials; the ability to achieve price increases to offset cost increases; catastrophic events including natural disasters, epidemics, pandemics such as COVID-19, and acts of war and terrorism; the ability to attract, hire, and retain qualified personnel; the impact of changes in financial accounting standards; the impact of changes in pension plan liabilities; the impact of tax, environmental, healthcare and other legislation and government regulation in jurisdictions in which the company operates; the cost and outcomes of investigations, litigation and regulatory proceedings; the impact of potential unusual or non-recurring items; continued timely development and market acceptance of new products and applications; the impact of competitive products and pricing; future financial and operating performance of major customers and industries served; the impact of information technology system failures, network disruptions and breaches in data security; and the effectiveness and speed of integrating new acquisitions into the business. These risks and uncertainties may cause actual future results or circumstances to differ materially from accounting principles generally accepted in the United States of America, International Financial Reporting Standards or adjusted projections, estimates or other forward-looking statements.

Linde plc assumes no obligation to update or provide revisions to any forward-looking statement in response to changing circumstances. The above listed risks and uncertainties are further described in Item 1A. Risk Factors in Linde plc’s Form 10-K for the fiscal year ended December 31, 2020 filed with the SEC on March 1, 2021, which should be reviewed carefully. Please consider Linde plc’s forward-looking statements in light of those risks.

LINDE PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Millions of dollars, except per share data)
(UNAUDITED)

	Quarter Ended June 30,	
	2021	2020
Sales	$ 7,584	$ 6,377
Cost of sales, exclusive of depreciation and amortization	4,194	3,619
Selling, general and administrative	822	760
Depreciation and amortization	1,171	1,124
Research and development	34	34
Cost reduction programs and other charges	204	249
Other income (expense) - net	(17)	—
Operating Profit	1,142	591
Interest expense - net	18	18
Net pension and OPEB cost (benefit), excluding service cost	(49)	(45)
Income From Continuing Operations Before Income Taxes and Equity Investments	1,173	618
Income taxes on continuing operations	334	164
Income From Continuing Operations Before Equity Investments	839	454
Income from equity investments	37	29
Income From Continuing Operations (Including Noncontrolling Interests)	876	483
Income from discontinued operations, net of tax	1	—
Net Income (Including Noncontrolling Interests)	877	483
Less: noncontrolling interests from continuing operations	(36)	(25)
Less: noncontrolling interest from discontinued operations	—	—
Net Income – Linde plc	$ 841	$ 458
Net Income – Linde plc		
Income from continuing operations	$ 840	$ 458
Income from discontinued operations	$ 1	$ —
Per Share Data – Linde plc Shareholders		
Basic earnings per share from continuing operations	$ 1.62	$ 0.87
Basic earnings per share from discontinued operations	—	—
Basic earnings per share	$ 1.62	$ 0.87
Diluted earnings per share from continuing operations	$ 1.60	$ 0.87
Diluted earnings per share from discontinued operations	—	—
Diluted earnings per share	$ 1.60	$ 0.87
Weighted Average Shares Outstanding (000’s):		
Basic shares outstanding	518,950	525,510
Diluted shares outstanding	523,723	529,054

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(Millions of dollars, except per share data)
(UNAUDITED)

	Six Months Ended June 30,	
	2021	2020
Sales	$ 14,827	$ 13,116
Cost of sales, exclusive of depreciation and amortization	8,248	7,462
Selling, general and administrative	1,609	1,621
Depreciation and amortization	2,337	2,266
Research and development	69	78
Cost reduction programs and other charges	196	380
Other income (expense) - net	(13)	15
Operating Profit	2,355	1,324
Interest expense - net	38	42
Net pension and OPEB cost (benefit), excluding service cost	(98)	(90)
Income From Continuing Operations Before Income Taxes and Equity Investments	2,415	1,372
Income taxes on continuing operations	602	329
Income From Continuing Operations Before Equity Investments	1,813	1,043
Income from equity investments	80	46
Income From Continuing Operations (Including Noncontrolling Interests)	1,893	1,089
Income from discontinued operations, net of tax	2	2
Net Income (Including Noncontrolling Interests)	1,895	1,091
Less: noncontrolling interests from continuing operations	(74)	(60)
Less: noncontrolling interest from discontinued operations	—	—
Net Income – Linde plc	$ 1,821	$ 1,031
Net Income – Linde plc		
Income from continuing operations	$ 1,819	$ 1,029
Income from discontinued operations	$ 2	$ 2
Per Share Data – Linde plc Shareholders		
Basic earnings per share from continuing operations	$ 3.49	$ 1.95
Basic earnings per share from discontinued operations	—	—
Basic earnings per share	$ 3.49	$ 1.95
Diluted earnings per share from continuing operations	$ 3.46	$ 1.93
Diluted earnings per share from discontinued operations	—	—
Diluted earnings per share	$ 3.46	$ 1.93
Weighted Average Shares Outstanding (000's):		
Basic shares outstanding	520,691	528,385
Diluted shares outstanding	525,380	532,112

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Millions of dollars)
(UNAUDITED)

	Quarter Ended June 30,	
	2021	2020
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	$ 877	$ 483
OTHER COMPREHENSIVE INCOME (LOSS)		
Translation adjustments:		
Foreign currency translation adjustments	412	745
Reclassification to net income	—	—
Income taxes	(2)	(1)
Translation adjustments	410	744
Funded status - retirement obligations (Note 8):		
Retirement program remeasurements	(19)	(7)
Reclassifications to net income	44	21
Income taxes	(2)	(9)
Funded status - retirement obligations	23	5
Derivative instruments (Note 5):		
Current unrealized gain (loss)	19	20
Reclassifications to net income	(3)	26
Income taxes	(3)	(10)
Derivative instruments	13	36
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)	446	785
COMPREHENSIVE INCOME (LOSS) (INCLUDING NONCONTROLLING INTERESTS)	1,323	1,268
Less: noncontrolling interests	(45)	(43)
COMPREHENSIVE INCOME (LOSS) - LINDE PLC	$ 1,278	$ 1,225

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Millions of dollars)
(UNAUDITED)

	Six Months Ended June 30,	
	2021	2020
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	$ 1,895	$ 1,091
OTHER COMPREHENSIVE INCOME (LOSS)		
Translation adjustments:		
Foreign currency translation adjustments	(245)	(1,995)
Reclassification to net income (Note 13)	(52)	—
Income taxes	(8)	24
Translation adjustments	(305)	(1,971)
Funded status - retirement obligations (Note 8):		
Retirement program remeasurements	1	51
Reclassifications to net income	87	43
Income taxes	(25)	(24)
Funded status - retirement obligations	63	70
Derivative instruments (Note 5):		
Current period unrealized gain (loss)	40	(45)
Reclassifications to net income	(5)	50
Income taxes	(8)	1
Derivative instruments	27	6
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)	(215)	(1,895)
COMPREHENSIVE INCOME (LOSS) (INCLUDING NONCONTROLLING INTERESTS)	1,680	(804)
Less: noncontrolling interests	(77)	28
COMPREHENSIVE INCOME (LOSS) - LINDE PLC	$ 1,603	$ (776)

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Millions of dollars)
(UNAUDITED)

	June 30, 2021	December 31, 2020
Assets		
Cash and cash equivalents	$ 3,137	$ 3,754
Accounts receivable - net	4,342	4,167
Contract assets	173	162
Inventories	1,692	1,729
Prepaid and other current assets	1,102	1,112
Total Current Assets	10,446	10,924
Property, plant and equipment - net	26,917	28,711
Goodwill	27,621	28,201
Other intangible assets - net	14,493	16,184
Other long-term assets	4,868	4,209
Total Assets	$ 84,345	$ 88,229
Liabilities and equity		
Accounts payable	$ 3,143	$ 3,095
Short-term debt	3,681	3,251
Current portion of long-term debt	1,827	751
Contract liabilities	1,787	1,769
Other current liabilities	4,238	4,874
Total Current Liabilities	14,676	13,740
Long-term debt	9,984	12,152
Other long-term liabilities	12,457	12,755
Total Liabilities	37,117	38,647
Redeemable noncontrolling interests	13	13
Linde plc Shareholders’ Equity:		
Ordinary shares,€0.001 par value, authorized 1,750,000,000 shares, 2021 issued: 552,012,862 ordinary shares; 2020 issued: 552,012,862 ordinary shares	1	1
Additional paid-in capital	40,200	40,202
Retained earnings	17,820	17,178
Accumulated other comprehensive income (loss) (Note 11)	(4,908)	(4,690)
Less: Treasury shares, at cost (2021 – 35,601,542 shares and 2020 – 28,718,333 shares)	(7,336)	(5,374)
Total Linde plc Shareholders’ Equity	45,777	47,317
Noncontrolling interests	1,438	2,252
Total Equity	47,215	49,569
Total Liabilities and Equity	$ 84,345	$ 88,229

The accompanying notes are an integral part of these financial statements.

LINDE PLC AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Millions of dollars)
(UNAUDITED)

	Six Months Ended June 30, 2021	Six Months Ended June 30, 2020
Increase (Decrease) in Cash and Cash Equivalents		
Operations		
Net income - Linde plc	$ 1,821	$ 1,031
Less: Income from discontinued operations, net of tax and noncontrolling interests	(2)	(2)
Add: Noncontrolling interests from continuing operations	74	60
Income from continuing operations (including noncontrolling interests)	1,893	1,089
Adjustments to reconcile net income to net cash provided by operating activities:		
Cost reduction programs and other charges, net of payments	95	239
Depreciation and amortization	2,337	2,266
Deferred income taxes	(78)	(261)
Share-based compensation	63	75
Working capital:		
Accounts receivable	(388)	(118)
Inventory	(42)	(82)
Prepaid and other current assets	(20)	(48)
Payables and accruals	39	(27)
Contract assets and liabilities, net	51	71
Pension contributions	(28)	(41)
Long-term assets, liabilities and other	14	(52)
Net cash provided by operating activities	3,936	3,111
Investing		
Capital expenditures	(1,506)	(1,586)
Acquisitions, net of cash acquired	(31)	(41)
Divestitures and asset sales, net of cash divested	77	380
Net cash provided by (used for) investing activities	(1,460)	(1,247)
Financing		
Short-term debt borrowings (repayments) - net	1,081	1,945
Long-term debt borrowings	51	1,656
Long-term debt repayments	(818)	(78)
Issuances of ordinary shares	32	25
Purchases of ordinary shares	(2,082)	(1,828)
Cash dividends - Linde plc shareholders	(1,102)	(1,017)
Noncontrolling interest transactions and other	(277)	(148)
Net cash provided by (used for) financing activities	(3,115)	555
Effect of exchange rate changes on cash and cash equivalents	22	(178)
Change in cash and cash equivalents	(617)	2,241
Cash and cash equivalents, beginning-of-period	3,754	2,700
Cash and cash equivalents, end-of-period	$ 3,137	$ 4,941

The accompanying notes are an integral part of these financial statements.

INDEX TO NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Notes to Condensed Consolidated Financial Statements - Linde plc and Subsidiaries (Unaudited)

1. Summary of Significant Accounting Policies

Presentation of Condensed Consolidated Financial Statements - In the opinion of Linde management, the accompanying condensed consolidated financial statements include all adjustments necessary for a fair presentation of the results for the interim periods presented and such adjustments are of a normal recurring nature. The accompanying condensed consolidated financial statements should be read in conjunction with the notes to the consolidated financial statements of Linde plc and subsidiaries in Linde's 2020 Annual Report on Form 10-K. There have been no material changes to the company's significant accounting policies during 2021.

Accounting Standards Implemented in 2021

- **Income Taxes - Simplifying the Accounting for Income Taxes** - In December 2019, the FASB issued guidance which simplifies the accounting for income taxes by removing several exceptions in the current standard and adds guidance to reduce complexity in certain areas, such as requiring that an entity reflect the effect of an enacted change in tax laws or rates in the annual effective tax rate computation in the interim period that includes the enactment date, evaluating whether a step-up in tax basis of goodwill relates to a business combination or a separate transaction and allocating taxes to members of a consolidated group. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. The adoption of this standard did not materially impact the company's consolidated financial statements.
- **Reference Rate Reform** - In March 2020 with amendments in 2021, the FASB issued guidance related to reference rate reform which provides practical expedients and exceptions for applying GAAP to contract modifications, hedging relationships and other transactions that the reference London Interbank Offered Rate ("LIBOR") and other interbank offered rates. This update is applicable to our contracts and hedging relationships that reference LIBOR and other interbank offered rates. The amendments may be applied to impacted contracts and hedges prospectively through December 31, 2022. The application of this guidance did not materially impact the company's consolidated financial statements.

Reclassifications – Certain prior periods' amounts have been reclassified to conform to the current year's presentation.

2. Cost Reduction Programs and Other Charges

2021 Charges

Cost reduction programs and other charges were $204 million and $196 million for the quarter and six months ended June 30, 2021, respectively ($198 million and $170 million, after tax). The following table summarizes the activities related to the company's cost reduction charges for the quarter and six months ended June 30, 2021:

	Quarter Ended June 30, 2021				
(millions of dollars)	Severance costs	Other cost reduction charges	**Total cost reduction program related charges**	Merger-related and other charges	**Total**
Americas	$ —	$ —	$ —	$ —	$ —
EMEA	169	14	183	—	183
APAC	5	—	5	—	5
Engineering	—	6	6	—	6
Other	8	2	10	—	10
Total	$ 182	$ 22	$ 204	$ —	$ 204

(millions of dollars)	Six Months Ended June 30, 2021				
	Severance costs	Other cost reduction charges	**Total cost reduction program related charges**	Merger-related and other charges	Total
Americas	$ 3	$ 2	$ 5	$ —	$ 5
EMEA	182	21	203	—	203
APAC	7	2	9	(53)	(44)
Engineering	7	6	13	—	13
Other	9	9	18	1	19
Total	$ 208	$ 40	$ 248	$ (52)	$ 196

Cost Reduction Programs

Total cost reduction program related charges were $204 million for the quarter and $248 million for the six months ended June 30, 2021 ($150 million and $184 million, after tax).

Severance costs

Severance costs were $182 million and $208 million for the quarter and six months ended June 30, 2021. As of June 30, 2021, approximately half of the actions have been taken, with remaining actions planned to be completed by the first quarter of 2022.

Other cost reduction charges

Other cost reduction charges of $22 million and $40 million for the quarter and six months ended June 30, 2021, respectively, are primarily charges related to the execution of the company's synergistic actions including location consolidations and business rationalization projects, process harmonization, and associated non-recurring costs.

Merger-related Costs and Other Charges

Merger-related costs and other charges were flat during the quarter ended June 30, 2021 and a benefit of $52 million for the six months ended June 30, 2021 (charge of $48 million and benefit of $14 million, after tax). The pre-tax benefit was primarily due to a $52 million gain triggered by a joint venture deconsolidation in the APAC segment in the first quarter (see Note 13).

In addition, the quarter and six months ended June 30, 2021 include net income tax charges of $48 million and $38 million, respectively, primarily related to (i) $81 million of expense due to the revaluation of a net deferred tax liability resulting from a tax rate increase in the United Kingdom enacted in the current quarter, and (ii) a tax settlement benefit of $33 million.

Cash Requirements

The total cash requirements of the cost reduction program and other charges during the six months ended June 30, 2021 are estimated to be approximately $223 million and are expected to be paid through 2023. Total cost reduction programs and other charges, net of payments in the condensed consolidated statements of cash flows for the six months ended June 30, 2021 also reflects the impact of cash payments of liabilities, including merger-related tax liabilities, accrued as of December 31, 2020.

The following table summarizes the activities related to the company's cost reduction related charges for the six months ended June 30, 2021:

(millions of dollars)	Severance costs	Other cost reduction charges	**Total cost reduction program related charges**	Merger-related and other charges	Total
Balance, December 31, 2020	$ 283	$ 22	$ 305	$ 64	$ 369
2021 Cost Reduction Programs and Other Charges	208	40	248	(52)	196
Less: Cash payments	(85)	(5)	(90)	(6)	(96)
Less: Non-cash charges / benefits	—	(19)	(19)	54	35
Foreign currency translation and other	(5)	—	(5)	(3)	(8)
Balance, June 30, 2021	$ 401	$ 38	$ 439	$ 57	$ 496

2020 Charges

Cost reduction programs and other charges were $249 million and $380 million for the quarter and six months ended June 30, 2020 ($187 million and $282 million, after tax).

Total cost reduction program related charges were $213 million and $291 million ($151 million and $207 million, respectively, after tax). for the quarter and six months ended June 30, 2020, respectively, which consisted primarily of severance charges of $192 million and $250 million, largely in the EMEA and Engineering segments. Merger-related and other charges were $36 million and $89 million for the quarter and six months ended June 30, 2020 ($36 million and $75 million, after tax).

Classification in the condensed consolidated financial statements

The costs are shown within operating profit in a separate line item on the consolidated statements of income. On the condensed consolidated statements of cash flows, the impact of these costs, net of cash payments, is shown as an adjustment to reconcile net income to net cash provided by operating activities. In Note 10 Segments, Linde excluded these costs from its management definition of segment operating profit; a reconciliation of segment operating profit to consolidated operating profit is shown within the segment operating profit table.

3. Supplemental Information

Receivables

Linde applies loss rates that are lifetime expected credit losses at initial recognition of the receivables. These expected loss rates are based on an analysis of the actual historical default rates for each business, taking regional circumstances into account. If necessary, these historical default rates are adjusted to reflect the impact of current changes in the macroeconomic environment using forward-looking information. The loss rates are also evaluated based on the expectations of the responsible management team regarding the collectability of the receivables. Gross trade receivables aged less than one year were $4,326 million and $4,169 million at June 30, 2021 and December 31, 2020 respectively and gross receivables aged greater than one year were $316 million and $358 million at June 30, 2021 and December 31, 2020 respectively. Other receivables were $130 million and $111 million at June 30, 2021 and December 31, 2020, respectively. Receivables aged greater than one year are generally fully reserved unless specific circumstances warrant exceptions, such as those backed by federal governments.

Accounts receivable net of reserves were $4,342 million at June 30, 2021 and $4,167 million at December 31, 2020. Allowances for expected credit losses were $430 million at June 30, 2021 and $471 million at December 31, 2020. Provisions for expected credit losses were $71 million and $95 million for the six months ended June 30, 2021 and 2020, respectively. The allowance activity in the six months ended June 30, 2021 and 2020 related to write-offs of uncollectible amounts, net of recoveries and currency movements is not material.

Inventories

The following is a summary of Linde's consolidated inventories:

(Millions of dollars)	June 30, 2021	December 31, 2020
Inventories		
Raw materials and supplies	$ 369	$ 411
Work in process	358	337
Finished goods	965	981
Total inventories	$ 1,692	$ 1,729

4. Debt

The following is a summary of Linde's outstanding debt at June 30, 2021 and December 31, 2020:

(Millions of dollars)	June 30, 2021	December 31, 2020
SHORT-TERM		
Commercial paper	$ 2,808	$ 2,527
Other borrowings (primarily non U.S.)	873	724
Total short-term debt	3,681	3,251
LONG-TERM (a)		
(U.S. dollar denominated unless otherwise noted)		
3.875% Euro denominated notes due 2021 (c)	—	748
0.250% Euro denominated notes due 2022 (b)	1,188	1,226
2.45% Notes due 2022	600	599
2.20% Notes due 2022	499	499
2.70% Notes due 2023	499	499
2.00% Euro denominated notes due 2023 (b)	800	832
5.875% GBP denominated notes due 2023 (b)	452	460
1.20% Euro denominated notes due 2024	651	671
1.875% Euro denominated notes due 2024 (b)	374	389
2.65% Notes due 2025	399	398
1.625% Euro denominated notes due 2025	589	607
3.20% Notes due 2026	725	725
3.434% Notes due 2026	197	196
1.652% Euro denominated notes due 2027	98	100
0.250% Euro denominated notes due 2027	887	914
1.00% Euro denominated notes due 2028 (b)	925	966
1.10% Notes due 2030	696	696
1.90% Euro denominated notes due 2030	124	127
0.550% Euro denominated notes due 2032	881	909
3.55% Notes due 2042	664	664
2.00% Notes due 2050	296	296
Non U.S. borrowings	257	372
Other	10	10
	11,811	12,903
Less: current portion of long-term debt	(1,827)	(751)
Total long-term debt	9,984	12,152
Total debt	$ 15,492	$ 16,154

(a) Amounts are net of unamortized discounts, premiums and/or debt issuance costs as applicable.
(b) June 30, 2021 and December 31, 2020 included a cumulative $58 million and $79 million adjustment to carrying value, respectively, related to hedge accounting of interest rate swaps. Refer to Note 5.
(c) In June 2021, the company repaid €600 million of 3.875% note that became due.

The company maintains a $5 billion unsecured revolving credit agreement with a syndicate of banking institutions that expires March 26, 2024. There are no financial maintenance covenants contained within the credit agreement. No borrowings were outstanding under the credit agreement as of June 30, 2021.

5. Financial Instruments

In its normal operations, Linde is exposed to market risks relating to fluctuations in interest rates, foreign currency exchange rates, energy and commodity costs. The objective of financial risk management at Linde is to minimize the negative impact of such fluctuations on the company's earnings and cash flows. To manage these risks, among other strategies, Linde routinely enters into various derivative financial instruments ("derivatives") including interest-rate swap and treasury rate lock agreements, currency-swap agreements, forward contracts, currency options, and commodity-swap agreements. These instruments are not entered into for trading purposes and Linde only uses commonly traded and non-leveraged instruments.

There are three types of derivatives that the company enters into: (i) those relating to fair-value exposures, (ii) those relating to cash-flow exposures, and (iii) those relating to foreign currency net investment exposures. Fair-value exposures relate to recognized assets or liabilities, and firm commitments; cash-flow exposures relate to the variability of future cash flows associated with recognized assets or liabilities, or forecasted transactions; and net investment exposures relate to the impact of foreign currency exchange rate changes on the carrying value of net assets denominated in foreign currencies.

When a derivative is executed and hedge accounting is appropriate, it is designated as either a fair-value hedge, cash-flow hedge, or a net investment hedge. Currently, Linde designates all interest-rate and treasury-rate locks as hedges for accounting purposes; however, cross-currency contracts are generally not designated as hedges for accounting purposes. Certain currency contracts related to forecasted transactions are designated as hedges for accounting purposes. Whether designated as hedges for accounting purposes or not, all derivatives are linked to an appropriate underlying exposure. On an ongoing basis, the company assesses the hedge effectiveness of all derivatives designated as hedges for accounting purposes to determine if they continue to be highly effective in offsetting changes in fair values or cash flows of the underlying hedged items. If it is determined that the hedge is not highly effective through the use of a qualitative assessment, then hedge accounting will be discontinued prospectively.

Counterparties to Linde's derivatives are major banking institutions with credit ratings of investment grade or better. The company has Credit Support Annexes ("CSAs") in place with its principal counterparties to minimize potential default risk and to mitigate counterparty risk. Under the CSAs, the fair values of derivatives for the purpose of interest rate and currency management are collateralized with cash on a regular basis. As of June 30, 2021, the impact of such collateral posting arrangements on the fair value of derivatives was insignificant. Management believes the risk of incurring losses on derivative contracts related to credit risk is remote and any losses would be immaterial.

The following table is a summary of the notional amount and fair value of derivatives outstanding at June 30, 2021 and December 31, 2020 for consolidated subsidiaries:

			Fair Value			
	Notional Amounts		Assets (a)		Liabilities (a)	
(Millions of dollars)	June 30, 2021	December 31, 2020	June 30, 2021	December 31, 2020	June 30, 2021	December 31, 2020
Derivatives Not Designated as Hedging Instruments:						
Currency contracts:						
Balance sheet items	$ 4,972	$ 6,470	$ 32	$ 72	$ 24	$ 48
Forecasted transactions	523	823	6	16	6	12
Cross-currency swaps	174	260	25	24	5	7
Commodity contracts	N/A	N/A	5	1	—	—
Total	$ 5,669	$ 7,553	$ 68	$ 113	$ 35	$ 67
Derivatives Designated as Hedging Instruments:						
Currency contracts:						
Forecasted transactions	264	355	4	20	4	14
Commodity contracts	N/A	N/A	36	3	—	—
Interest rate swaps	1,304	1,923	34	64	—	—
Total Hedges	$ 1,568	$ 2,278	$ 74	$ 87	$ 4	$ 14
Total Derivatives	$ 7,237	$ 9,831	$ 142	$ 200	$ 39	$ 81

(a) June 30, 2021 and December 31, 2020 included current assets of $79 million and $110 million which are recorded in prepaid and other current assets; long-term assets of $63 million and $90 million which are recorded in other long-term assets; current liabilities of $32 million and $70 million which are recorded in other current liabilities; and long-term liabilities of $7 million and $11 million which are recorded in other long-term liabilities.

Balance Sheet Items

Foreign currency contracts related to balance sheet items consist of forward contracts entered into to manage the exposure to fluctuations in foreign-currency exchange rates on recorded balance sheet assets and liabilities denominated in currencies other than the functional currency of the related operating unit. Certain forward currency contracts are entered into to protect underlying monetary assets and liabilities denominated in foreign currencies from foreign exchange risk and are not designated as hedging instruments. For balance sheet items that are not designated as hedging instruments, the fair value adjustments on these contracts are offset by the fair value adjustments recorded on the underlying monetary assets and liabilities.

Forecasted Transactions

Foreign currency contracts related to forecasted transactions consist of forward contracts entered into to manage the exposure to fluctuations in foreign-currency exchange rates on (1) forecasted purchases of capital-related equipment and services, (2) forecasted sales, or (3) other forecasted cash flows denominated in currencies other than the functional currency of the related operating units. For forecasted transactions that are designated as cash flow hedges, fair value adjustments are recorded to accumulated other comprehensive income ("AOCI") with deferred amounts reclassified to earnings over the same time period as the income statement impact of the associated forecasted transaction. For forecasted transactions that do not qualify for cash flow hedging relationships, fair value adjustments are recorded directly to earnings.

Cross-Currency Swaps

Cross-currency interest rate swaps are entered into to limit the foreign currency risk of future principal and interest cash flows associated with intercompany loans, and to a more limited extent bonds, denominated in non-functional currencies. The fair value adjustments on the cross-currency swaps are recorded to earnings, where they are offset by fair value adjustments on the underlying intercompany loan or bond.

Commodity Contracts

Commodity contracts are entered into to manage the exposure to fluctuations in commodity prices, which arise in the normal course of business from its procurement transactions. To reduce the extent of this risk, Linde enters into a limited number of electricity, natural gas, and propane gas derivatives. For forecasted transactions that are designated as cash flow hedges, fair value adjustments are recorded to accumulated other comprehensive income ("AOCI") with deferred amounts reclassified to earnings over the same time period as the income statement impact of the associated purchase.

Net Investment Hedge

As of June 30, 2021, Linde has €2.7 billion ($3.2 billion) intercompany Euro-denominated credit facility loans and intercompany loans which are designated as hedges of the net investment positions in foreign operations. Since hedge inception, the deferred loss recorded within the cumulative translation adjustment component of AOCI in the condensed consolidated balance sheets and the consolidated statements of comprehensive income is $153 million (deferred loss of $16 million recorded during the quarter and a deferred gain of $58 million recorded for the six months ended June 30, 2021).

As of June 30, 2021, exchange rate movements relating to previously designated hedges that remain in AOCI is a gain of $73 million. These movements will remain in AOCI, until appropriate, such as upon sale or liquidation of the related foreign operations at which time amounts will be reclassified to the consolidated statement of income.

Interest Rate Swaps

Linde uses interest rate swaps to hedge the exposure to changes in the fair value of financial assets and financial liabilities as a result of interest rate changes. These interest rate swaps effectively convert fixed-rate interest exposures to variable rates; fair value adjustments are recognized in earnings along with an equally offsetting charge/benefit to earnings for the changes in the fair value of the underlying financial asset or financial liability. The notional value of outstanding interest rate swaps of Linde with maturity dates from 2022 through 2028 was $1,304 million at June 30, 2021 and $1,923 million at December 31, 2020 (See Note 4).

Terminated Treasury Rate Locks

The unrecognized aggregated losses related to terminated treasury rate lock contracts on the underlying $500 million 2.20% fixed-rate notes that mature in 2022 at June 30, 2021 and December 31, 2020 were immaterial in both periods. The unrecognized gains / (losses) for the treasury rate locks are shown in AOCI and are being recognized on a straight line basis to interest expense – net over the term of the underlying debt agreements.

Derivatives' Impact on Consolidated Statements of Income

The following table summarizes the impact of the company’s derivatives on the consolidated statements of income:

	Amount of Pre-Tax Gain (Loss) Recognized in Earnings *			
	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2021	2020	2021	2020
Derivatives Not Designated as Hedging Instruments				
Currency contracts:				
Balance sheet items				
Debt-related	$ 10	$ 37	$ 29	$ 32
Other balance sheet items	3	(29)	7	(70)
Total	$ 13	$ 8	$ 36	$ (38)

* The gains (losses) on balance sheet items are offset by gains (losses) recorded on the underlying hedged assets and liabilities. Accordingly, the gains (losses) for the derivatives and the underlying hedged assets and liabilities related to debt items are recorded in the consolidated statements of income as interest expense-net. Other balance sheet items and anticipated net income gains (losses) are generally recorded in the consolidated statements of income as other income (expenses)-net.

The amounts of gain or loss recognized in AOCI and reclassified to the consolidated statement of income was immaterial for the quarter and six months ended June 30, 2021 and 2020, respectively. Net losses expected to be reclassified to earnings during the next twelve months are also not material.

6. Fair Value Disclosures

The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows:

Level 1 – quoted prices in active markets for identical assets or liabilities

Level 2 – quoted prices for similar assets and liabilities in active markets or inputs that are observable

Level 3 – inputs that are unobservable (for example cash flow modeling inputs based on assumptions)

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table summarizes assets and liabilities measured at fair value on a recurring basis:

	Fair Value Measurements Using					
	Level 1		Level 2		Level 3	
(Millions of dollars)	June 30, 2021	December 31, 2020	June 30, 2021	December 31, 2020	June 30, 2021	December 31, 2020
Assets						
Derivative assets	$ —	$ —	$ 142	$ 200	$ —	$ —
Investments and securities*	19	21	—	—	46	47
Total	$ 19	$ 21	$ 142	$ 200	46	$ 47
Liabilities						
Derivative liabilities	$ —	$ —	$ 39	$ 81	$ —	$ —

* Investments and securities are recorded in prepaid and other current assets and other long-term assets in the company's condensed consolidated balance sheets.

Level 1 investments and securities are marketable securities traded on an exchange. Level 2 investments are based on market prices obtained from independent brokers or determined using quantitative models that use as their basis readily observable market parameters that are actively quoted and can be validated through external sources, including third-party pricing services, brokers and market transactions. Level 3 investments and securities consist of a venture fund within the Americas. For the valuation, Linde uses the net asset value received as part of the fund's quarterly reporting, which for the most part is not based on quoted prices in active markets. In order to reflect current market conditions, Linde proportionally adjusts these by observable market data (stock exchange prices) or current transaction prices.

Changes in level 3 investments and securities were immaterial.

The fair value of cash and cash equivalents, short-term debt, accounts receivable-net, and accounts payable approximate carrying value because of the short-term maturities of these instruments.

The fair value of long-term debt is estimated based on the quoted market prices for the same or similar issues. Long-term debt is categorized within either Level 1 or Level 2 of the fair value hierarchy depending on the trading volume of the issues and whether or not they are actively quoted in the market as opposed to traded through over-the-counter transactions. At June 30, 2021, the estimated fair value of Linde’s long-term debt portfolio was $12,160 million versus a carrying value of $11,811 million. At December 31, 2020, the estimated fair value of Linde’s long-term debt portfolio was $13,611 million versus a carrying value of $12,903 million. Differences between the carrying value and the fair value are attributable to fluctuations in interest rates subsequent to when the debt was issued and relative to stated coupon rates.

7. Earnings Per Share – Linde plc Shareholders

Basic and diluted earnings per share is computed by dividing Income from continuing operations, Income from discontinued operations and Net income – Linde plc for the period by the weighted average number of either basic or diluted shares outstanding, as follows:

	Quarter Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Numerator (Millions of dollars)				
Income from continuing operations	$ 840	$ 458	$ 1,819	$ 1,029
Income from discontinued operations	1	—	2	2
Net Income – Linde plc	$ 841	$ 458	$ 1,821	$ 1,031
Denominator (Thousands of shares)				
Weighted average shares outstanding	518,552	525,238	520,314	528,118
Shares earned and issuable under compensation plans	398	272	377	267
Weighted average shares used in basic earnings per share	518,950	525,510	520,691	528,385
Effect of dilutive securities				
Stock options and awards	4,773	3,544	4,689	3,727
Weighted average shares used in diluted earnings per share	523,723	529,054	525,380	532,112
Basic earnings per share from continuing operations	$ 1.62	$ 0.87	$ 3.49	$ 1.95
Basic earnings per share from discontinued operations	—	—	—	—
Basic Earnings Per Share	$ 1.62	$ 0.87	$ 3.49	$ 1.95
Diluted earnings per share from continuing operations	$ 1.60	$ 0.87	$ 3.46	$ 1.93
Diluted earnings per share from discontinued operations	—	—	—	—
Diluted Earnings Per Share	$ 1.60	$ 0.87	$ 3.46	$ 1.93

There were no antidilutive shares for any period presented.

8. Retirement Programs

The components of net pension and postretirement benefits other than pensions ("OPEB") costs for the quarter and six months ended June 30, 2021 and 2020 are shown below:

	Quarter Ended June 30,				Six Months Ended June 30,			
	Pensions		OPEB		Pensions		OPEB	
(Millions of dollars)	2021	2020	2021	2020	2021	2020	2021	2020
Amount recognized in Operating Profit								
Service cost	$ 38	$ 36	$ 1	$ —	$ 78	$ 73	$ 1	$ 1
Amount recognized in Net pension and OPEB cost (benefit), excluding service cost								
Interest cost	38	50	—	2	76	102	1	3
Expected return on plan assets	(131)	(118)	—	—	(262)	(238)	—	—
Net amortization and deferral	45	22	(1)	(1)	89	45	(2)	(2)
	(48)	(46)	(1)	1	(97)	(91)	(1)	1
Net periodic benefit cost (benefit)	$ (10)	$ (10)	$ —	$ 1	$ (19)	$ (18)	$ —	$ 2

Linde estimates that 2021 required contributions to its pension plans will be in the range of $50 million to $60 million, of which $28 million have been made through June 30, 2021.

9. Commitments and Contingencies

Contingent Liabilities

Linde is subject to various lawsuits and government investigations that arise from time to time in the ordinary course of business. These actions are based upon alleged environmental, tax, antitrust and personal injury claims, among others. Linde has strong defenses in these cases and intends to defend itself vigorously. It is possible that the company may incur losses in connection with some of these actions in excess of accrued liabilities. Management does not anticipate that in the aggregate such losses would have a material adverse effect on the company's consolidated financial position or liquidity; however, it is possible that the final outcomes could have a significant impact on the company's reported results of operations in any given period (see Note 17 to the consolidated financial statements of Linde's 2020 Annual Report on Form 10-K).

Significant matters are:

- During 2009, the Brazilian government published Law 11941/2009 instituting a new voluntary amnesty program ("Refis Program") which allowed Brazilian companies to settle certain federal tax disputes at reduced amounts. During 2009, the company decided that it was economically beneficial to settle many of its outstanding federal tax disputes and such disputes were enrolled in the Refis Program, subject to final calculation and review by the Brazilian federal government. The company recorded estimated liabilities based on the terms of the Refis Program. Since 2009, Linde has been unable to reach final agreement on the calculations and initiated litigation against the government in an attempt to resolve certain items. Open issues relate to the following matters: (i) application of cash deposits and net operating loss carryforwards to satisfy obligations and (ii) the amount of tax reductions available under the Refis Program. It is difficult to estimate the timing of resolution of legal matters in Brazil.
- At June 30, 2021 the most significant non-income and income tax claims in Brazil, after enrollment in the Refis Program, relate to state VAT tax matters and a federal income tax matter where the taxing authorities are challenging the tax rate that should be applied to income generated by a subsidiary company. The total estimated exposure relating to such claims, including interest and penalties, as appropriate, is approximately $220 million. Linde has not recorded any liabilities related to such claims based on management judgments, after considering judgments and opinions of outside counsel. Because litigation in Brazil historically takes many years to resolve, it is very difficult to estimate the timing of resolution of these matters; however, it is possible that certain of these matters may be resolved within the near term. The company is vigorously defending against the proceedings.
- On September 1, 2010, CADE (Brazilian Administrative Council for Economic Defense) announced alleged anticompetitive activity on the part of five industrial gas companies in Brazil and imposed fines. Originally, CADE imposed a civil fine of R$2.2 billion Brazilian reais ($440 million) on White Martins, the Brazil-based subsidiary of Praxair, Inc. The fine was reduced to R$1.7 billion Brazilian reais ($340 million) due to a calculation error made by CADE. The fine against White Martins was overturned by the Ninth Federal Court of Brasilia. CADE appealed this

decision, and the Federal Court of Appeals rejected CADE's appeal and confirmed the decision of the Ninth Federal Court of Brasilia. CADE has filed an appeal with the Superior Court of Justice and a decision is pending.

Similarly, on September 1, 2010, CADE imposed a civil fine of R$237 million Brazilian reais ($47 million) on Linde Gases Ltda., the former Brazil-based subsidiary of Linde AG, which was divested to MG Industries GmbH on March 1, 2019 and with respect to which Linde provided a contractual indemnity. The fine was reduced to R$188 million Brazilian reais ($38 million) due to a calculation error made by CADE. The fine against Linde Gases Ltda. was overturned by the Seventh Federal Court in Brasilia. CADE appealed this decision, and the Federal Court of Appeals rejected CADE's appeal and confirmed the decision of the Seventh Federal Court of Brasilia. CADE filed an appeal with the Superior Court of Justice, and a final decision is pending.

Linde has strong defenses and is confident that it will prevail on appeal and have the fines overturned. Linde strongly believes that the allegations of anticompetitive activity against our current and former Brazilian subsidiaries are not supported by valid and sufficient evidence. Linde believes that this decision will not stand up to judicial review and deems the possibility of cash outflows to be extremely unlikely. As a result, no reserves have been recorded as management does not believe that a loss from this case is probable.

- On and after April 23, 2019 former shareholders of Linde AG filed appraisal proceedings at the District Court (*Landgericht*) Munich I (Germany), seeking an increase of the cash consideration paid in connection with the previously completed cash merger squeeze-out of all of Linde AG's minority shareholders for €189.46 per share. Any such increase would apply to all 14,763,113 Linde AG shares that were outstanding on April 8, 2019, when the cash merger squeeze-out was completed. The period for plaintiffs to file claims expired on July 9, 2019. The company believes the consideration paid was fair and that the claims lack merit, and no reserve has been established. We cannot estimate the timing of resolution.

10. Segments

For a description of Linde plc's operating segments, refer to Note 18 to the consolidated financial statements on Linde plc's 2020 Annual Report on Form 10-K.

The table below presents sales and operating profit information about reportable segments and Other for the quarters and six months ended June 30, 2021 and 2020.

	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2021	2020	2021	2020
SALES[(a)]				
Americas	$ 3,020	$ 2,417	$ 5,860	$ 5,094
EMEA	1,875	1,448	3,674	3,081
APAC	1,544	1,295	2,980	2,631
Engineering	646	810	1,320	1,418
Other	499	407	993	892
Total sales	$ 7,584	$ 6,377	$ 14,827	$ 13,116

	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2021	2020	2021	2020
SEGMENT OPERATING PROFIT				
Americas	$ 871	$ 622	$ 1,666	$ 1,283
EMEA	487	303	938	658
APAC	389	294	740	575
Engineering	108	138	217	229
Other	(18)	(40)	(36)	(76)
Segment operating profit	1,837	1,317	3,525	2,669
Cost reduction programs and other charges (Note 2)	(204)	(249)	(196)	(380)
Purchase accounting impacts - Linde AG	(491)	(477)	(974)	(965)
Total operating profit	$ 1,142	$ 591	$ 2,355	$ 1,324

(a) Sales reflect external sales only. Intersegment sales, primarily from Engineering to the industrial gases segments, were not material.

11. Equity

Equity

A summary of the changes in total equity for the quarter and six months ended June 30, 2021 and 2020 is provided below:

	Quarter Ended June 30,					
(Millions of dollars)	2021			2020		
Activity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity
Balance, beginning of period	$ 46,210	$ 1,410	$ 47,620	$ 44,776	$ 2,375	$ 47,151
Net income (a)	841	36	877	458	25	483
Other comprehensive income (loss)	437	9	446	767	18	785
Noncontrolling interests:						
Additions (reductions)	—	7	7	—	13	13
Dividends and other capital changes	—	(24)	(24)	—	(44)	(44)
Dividends to Linde plc ordinary share holders ($1.060 per share in 2021 and $0.963 per share in 2020)	(549)	—	(549)	(506)	—	(506)
Issuances of ordinary shares:						
For employee savings and incentive plans	(9)	—	(9)	10	—	10
Purchases of ordinary shares	(1,187)	—	(1,187)	—	—	—
Share-based compensation	34	—	34	32	—	32
Balance, end of period	$ 45,777	$ 1,438	$ 47,215	$ 45,537	$ 2,387	$ 47,924

	Six Months Ended June 30,					
(Millions of dollars)	2021			2020		
Activity	Linde plc Shareholders' Equity	Noncontrolling Interests	Total Equity	Linde plc Shareholders' Equity	Noncontrolling Interests (a)	Total Equity
Balance, beginning of period	$ 47,317	$ 2,252	$ 49,569	$ 49,074	$ 2,448	$ 51,522
Net income (a)	1,821	74	1,895	1,031	60	1,091
Other comprehensive income (loss)	(218)	3	(215)	(1,807)	(88)	(1,895)
Noncontrolling interests:						
Additions (reductions) (b)	—	(846)	(846)	—	15	15
Dividends and other capital changes	—	(45)	(45)	—	(48)	(48)
Dividends to Linde plc ordinary share holders ($2.120 per share in 2021 and $1.926 per share in 2020)	(1,102)	—	(1,102)	(1,017)	—	(1,017)
Issuances of ordinary shares:						
For employee savings and incentive plans	(11)	—	(11)	(8)	—	(8)
Purchases of ordinary shares	(2,093)	—	(2,093)	(1,811)	—	(1,811)
Share-based compensation	63	—	63	75	—	75
Balance, end of period	$ 45,777	$ 1,438	$ 47,215	$ 45,537	$ 2,387	$ 47,924

(a) Net income for noncontrolling interests excludes net income related to redeemable noncontrolling interests which is not significant for quarters and the six months ended June 30, 2021 and 2020 and which is not part of total equity.

(b) Additions (reductions) for noncontrolling interests as of the six month period ended June 30, 2021, includes the impact from the deconsolidation of a joint venture with operations in APAC (see Note 13).

The components of AOCI are as follows:

(Millions of dollars)	June 30, 2021		December 31, 2020	
Cumulative translation adjustment - net of taxes:				
Americas	$	(3,729)	$	(3,788)
EMEA		912		1,020
APAC		330		616
Engineering		215		354
Other		(854)		(1,020)
		(3,126)		(2,818)
Derivatives - net of taxes		31		4
Pension / OPEB (net of $535 million and $560 million tax benefit in June 30, 2021 and December 31, 2020, respectively)		(1,813)		(1,876)
	$	(4,908)	$	(4,690)

12. Revenue Recognition

Revenue is accounted for in accordance with ASC 606. Revenue is recognized as control of goods or services are transferred to customers in an amount that reflects the consideration to which an entity expects to be entitled to receive in exchange for the goods or services.

Contracts with Customers

Linde serves a diverse group of industries including healthcare, petroleum refining, energy, manufacturing, food, beverage carbonation, fiber-optics, steel making, aerospace, chemicals and water treatment.

Industrial Gases

Within each of the company's geographic segments for industrial gases, there are three basic distribution methods: (i) on-site or tonnage; (ii) merchant or bulk liquid; and (iii) packaged or cylinder gases. The distribution method used by Linde to supply a customer is determined by many factors, including the customer's volume requirements and location. The distribution method generally determines the contract terms with the customer and, accordingly, the revenue recognition accounting practices. Linde's primary products in its industrial gases business are atmospheric gases (oxygen, nitrogen, argon, rare gases) and process gases (carbon dioxide, helium, hydrogen, electronic gases, specialty gases, acetylene). These products are generally sold through one of the three distribution methods.

Following is a description of each of the three industrial gases distribution methods and the respective revenue recognition policies:

On-site. Customers that require the largest volumes of product and that have a relatively constant demand pattern are supplied by cryogenic and process gas on-site plants. Linde constructs plants on or adjacent to these customers' sites and supplies the product directly to customers by pipeline. Where there are large concentrations of customers, a single pipeline may be connected to several plants and customers. On-site product supply contracts generally are total requirement contracts with terms typically ranging from 10-20 years and contain minimum purchase requirements and price escalation provisions. Many of the cryogenic on-site plants also produce liquid products for the merchant market. Therefore, plants are typically not dedicated to a single customer. Additionally, Linde is responsible for the design, construction, operations and maintenance of the plants and our customers typically have no involvement in these activities. Advanced air separation processes also allow on-site delivery to customers with smaller volume requirements.

The company's performance obligations related to on-site customers are satisfied over time as customers receive and obtain control of the product. Linde has elected to apply the practical expedient for measuring progress towards the completion of a performance obligation and recognizes revenue as the company has the right to invoice each customer, which generally corresponds with product delivery. Accordingly, revenue is recognized when product is delivered to the customer and the company has the right to invoice the customer in accordance with the contract terms. Consideration in these contracts is generally based on pricing which fluctuates with various price indices. Variable components of consideration exist within on-site contracts but are considered constrained.

Merchant. Merchant deliveries generally are made from Linde's plants by tanker trucks to storage containers at the customer's site. Due to the relatively high distribution cost, merchant oxygen and nitrogen generally have a relatively small distribution radius from the plants at which they are produced. Merchant argon, hydrogen and helium can be shipped much longer distances. The customer agreements used in the merchant business are usually three-to seven-year supply agreements based on the requirements of the customer. These contracts generally do not contain minimum purchase requirements or volume commitments.

The company's performance obligations related to merchant customers are generally satisfied at a point in time as the customers receive and obtain control of the product. Revenue is recognized when product is delivered to the customer and the company has the right to invoice the customer in accordance with the contract terms. Any variable components of consideration within merchant contracts are constrained however this consideration is not significant.

Packaged Gases. Customers requiring small volumes are supplied products in containers called cylinders, under medium to high pressure. Linde distributes merchant gases from its production plants to company-owned cylinder filling plants where cylinders are then filled for distribution to customers. Cylinders may be delivered to the customer's site or picked up by the customer at a packaging facility or retail store. Linde invoices the customer for the industrial gases and the use of the cylinder container(s). The company also sells hardgoods and welding equipment purchased from independent manufacturers. Packaged gases are generally sold under one to three-year supply contracts and purchase orders and do not contain minimum purchase requirements or volume commitments.

The company's performance obligations related to packaged gases are satisfied at a point in time. Accordingly, revenue is recognized when product is delivered to the customer or when the customer picks up product from a packaged gas facility or retail store, and the company has the right to payment from the customer in accordance with the contract terms. Any variable consideration is constrained and will be recognized when the uncertainty related to the consideration is resolved.

Linde Engineering

The company designs and manufactures equipment for air separation and other industrial gas applications manufactured specifically for end customers. Sale of equipment contracts are generally comprised of a single performance obligation. Revenue from sale of equipment is generally recognized over time as Linde has an enforceable right to payment for performance completed to date and performance does not create an asset with alternative use. For contracts recognized over time, revenue is recognized primarily using a cost incurred input method. Costs incurred to date relative to total estimated costs at completion are used to measure progress toward satisfying performance obligations. Costs incurred include material, labor, and overhead costs and represent work contributing and proportionate to the transfer of control to the customer. Contract modifications are typically accounted for as part of the existing contract and are recognized as a cumulative adjustment for the inception-to-date effect of such change.

Contract Assets and Liabilities

Contract assets and liabilities result from differences in timing of revenue recognition and customer invoicing. Contract assets primarily relate to sale of equipment contracts for which revenue is recognized over time. The balance represents unbilled revenue which occurs when revenue recognized under the measure of progress exceeds amounts invoiced to customers. Customer invoices may be based on the passage of time, the achievement of certain contractual milestones or a combination of both criteria. Contract liabilities include advance payments or right to consideration prior to performance under the contract. Contract liabilities are recognized as revenue as performance obligations are satisfied under contract terms. Linde has contract assets of $173 million and $162 million at June 30, 2021 and December 31, 2020, respectively. Total contract liabilities are $2,477 million at June 30, 2021 (current of $1,787 million and $690 million within other long-term liabilities in the condensed consolidated balance sheets). Total contract liabilities were $2,301 million at December 31, 2020 (current contract liabilities of $1,769 million and $532 million in other long-term liabilities in the condensed consolidated balance sheets). Revenue recognized for the six months ended June 30, 2021 that was included in the contract liability at December 31, 2020 was $791 million. Contract assets and liabilities primarily relate to the Linde Engineering business.

Payment Terms and Other

Linde generally receives payment after performance obligations are satisfied, and customer prepayments are not typical for the industrial gases business. Payment terms vary based on the country where sales originate and local customary payment practices. Linde does not offer extended financing outside of customary payment terms. Amounts billed for sales and use taxes, value-added taxes, and certain excise and other specific transactional taxes imposed on revenue producing transactions are presented on a net basis and are not included in sales within the consolidated statement of income. Additionally, sales returns and allowances are not a normal practice in the industry and are not significant.

Disaggregated Revenue Information

As described above and in Note 18 to Linde's 2020 Form 10-K, the company manages its industrial gases business on a geographic basis, while the Engineering and Other businesses are generally managed on a global basis. Furthermore, the company believes that reporting sales by distribution method by reportable geographic segment best illustrates the nature, timing, type of customer, and contract terms for its revenues, including terms and pricing.

The following tables show sales by distribution method at the consolidated level and for each reportable segment and Other for the quarter and six months ended June 30, 2021 and June 30, 2020.

(Millions of dollars)	Quarter Ended June 30, 2021						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other**	**Total**	**%**
Merchant	$ 821	$ 556	$ 551	$ —	$ 43	$ 1,971	26 %
On-Site	774	396	582	—	—	1,752	23 %
Packaged Gas	1,369	912	392	—	6	2,679	35 %
Other	56	11	19	646	450	1,182	16 %
Total	$ 3,020	$ 1,875	$ 1,544	$ 646	$ 499	$ 7,584	100 %

(Millions of dollars)	Quarter Ended June 30, 2020						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other**	**Total**	**%**
Merchant	$ 634	$ 415	$ 459	$ —	$ 29	$ 1,537	24 %
On-Site	559	304	466	—	—	1,329	21 %
Packaged Gas	1,210	719	362	—	6	2,297	36 %
Other	14	10	8	810	372	1,214	19 %
Total	$ 2,417	$ 1,448	$ 1,295	$ 810	$ 407	$ 6,377	100 %

(Millions of dollars)	Six Months Ended June 30, 2021						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other (a)**	**Total**	**%**
Merchant	$ 1,592	$ 1,087	$ 1,035	$ —	$ 95	$ 3,809	26 %
On-Site	1,463	788	1,134	—	—	3,385	23 %
Packaged Gas	2,701	1,772	753	—	12	5,238	35 %
Other	104	27	58	1,320	886	2,395	16 %
Total	$ 5,860	$ 3,674	$ 2,980	$ 1,320	$ 993	$ 14,827	100 %

(Millions of dollars)	Six Months Ended June 30, 2020						
Sales	**Americas**	**EMEA**	**APAC**	**Engineering**	**Other (a)**	**Total**	**%**
Merchant	$ 1,360	$ 885	$ 918	$ —	$ 76	$ 3,239	25 %
On-Site	1,209	647	958	—	—	2,814	21 %
Packaged Gas	2,485	1,530	722	—	11	4,748	36 %
Other	40	19	33	1,418	805	2,315	18 %
Total	$ 5,094	$ 3,081	$ 2,631	$ 1,418	$ 892	$ 13,116	100 %

Remaining Performance Obligations

As described above, Linde's contracts with on-site customers are under long-term supply arrangements which generally require the customer to purchase their requirements from Linde and also have minimum purchase requirements. The company estimates the consideration related to minimum purchase requirements is approximately $46 billion. This amount excludes all sales above minimum purchase requirements, which can be significant depending on customer needs. In the future, actual amounts will be different due to impacts from several factors, many of which are beyond the company’s control including, but not limited to, timing of newly signed, terminated and renewed contracts, inflationary price escalations, currency exchange rates, and pass-through costs related to natural gas and electricity. The actual duration of long-term supply contracts ranges up to twenty years. The company estimates that approximately half of the revenue related to minimum purchase requirements will be earned in the next five years and the remaining thereafter.

13. Divestitures

Effective January 1, 2021, Linde deconsolidated a joint venture with operations in APAC, due to the expiration of certain contractual rights that the parties mutually agreed not to renew. From the effective date, the joint venture is reflected as an equity investment on Linde's consolidated balance sheet with the corresponding results reflected in income from equity investments on the consolidated statement of income.

The fair value of the joint venture at January 1, 2021 was determined using a discounted cash flow model and approximated the carrying amount of its net assets. The net carrying value of $852 million was mainly comprised of assets of approximately $1.9 billion (primarily Other intangibles and Property plant and equipment - net), net of liabilities of approximately $1.0 billion. Upon deconsolidation an equity investment was recorded representing Linde's share of the joint venture's net assets. The deconsolidation resulted in a gain of $52 million recorded within cost reduction programs and other charges (see Note 2) related to the release of the CTA balance recorded within AOCI. The company did not receive any consideration, cash or otherwise, as part of the deconsolidation.

The joint venture contributed sales of approximately $600 million in 2020. Future earnings per share will not be affected as the ownership percent remains the same.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations ("MD&A")

Non-GAAP Measures

Throughout MD&A, the company provides adjusted operating results from continuing operations exclusive of certain items such as cost reduction programs and other charges, net gains on sale of businesses, purchase accounting impacts of the Linde AG merger and pension settlement charges. Adjusted amounts are non-GAAP measures which are intended to supplement investors’ understanding of the company’s financial information by providing measures which investors, financial analysts and management find useful in evaluating the company’s operating performance. Items which the company does not believe to be indicative of on-going business performance are excluded from these calculations so that investors can better evaluate and analyze historical and future business trends on a consistent basis. In addition, operating results from continuing operations, excluding these items, is important to management's development of annual and long-term employee incentive compensation plans. Definitions of these non-GAAP measures may not be comparable to similar definitions used by other companies and are not a substitute for similar GAAP measures.

The non-GAAP measures and reconciliations are separately included in a later section in the MD&A titled "Non-GAAP Measures and Reconciliations."

Consolidated Results

The following table provides summary information for the quarters and six months ended June 30, 2021 and 2020. The reported amounts are GAAP amounts from the Consolidated Statements of Income. The adjusted amounts are intended to supplement investors' understanding of the company's financial information and are not a substitute for GAAP measures:

	Quarter Ended June 30,					Six Months Ended June 30,				
(Millions of dollars, except per share data)	2021		2020		Variance	2021		2020		Variance
Sales	$	7,584	$	6,377	19 %	$	14,827	$	13,116	13 %
Cost of sales, exclusive of depreciation and amortization	$	4,194	$	3,619	16 %	$	8,248	$	7,462	11 %
As a percent of sales		55.3 %		56.8 %			55.6 %		56.9 %	
Selling, general and administrative	$	822	$	760	8 %	$	1,609	$	1,621	(1)%
As a percent of sales		10.8 %		11.9 %			10.9 %		12.4 %	
Depreciation and amortization	$	1,171	$	1,124	4 %	$	2,337	$	2,266	3 %
Cost reduction programs and other charges (b)	$	204	$	249	(18)%	$	196	$	380	(48)%
Other income (expense) - net	$	(17)	$	—	(100%)	$	(13)	$	15	(187)%
Operating profit	$	1,142	$	591	93 %	$	2,355	$	1,324	78 %
Operating margin		15.1 %		9.3 %			15.9 %		10.1 %	
Interest expense - net	$	18	$	18	— %	$	38	$	42	(10)%
Net pension and OPEB cost (benefit), excluding service cost	$	(49)	$	(45)	9 %	$	(98)	$	(90)	9 %
Effective tax rate		28.5 %		26.5 %			24.9 %		24.0 %	
Income from equity investments	$	37	$	29	28 %	$	80	$	46	74 %
Noncontrolling interests from continuing operations	$	(36)	$	(25)	44 %	$	(74)	$	(60)	23 %
Income from continuing operations	$	840	$	458	83 %	$	1,819	$	1,029	77 %
Diluted earnings per share from continuing operations	$	1.60	$	0.87	84 %	$	3.46	$	1.93	79 %
Diluted shares outstanding		523,723		529,054	(1)%		525,380		532,112	(1)%
Number of employees		71,736		76,662	(6)%		71,736		76,662	(6)%
Adjusted Amounts (a)										
Operating profit	$	1,837	$	1,317	39 %	$	3,525	$	2,669	32 %
Operating margin		24.2 %		20.7 %			23.8 %		20.3 %	
Effective tax rate		24.6 %		24.3 %			24.3 %		24.1 %	
Income from continuing operations	$	1,415	$	1,005	41 %	$	2,727	$	2,014	35 %
Diluted earnings per share from continuing operations	$	2.70	$	1.90	42 %	$	5.19	$	3.78	37 %
Other Financial Data (a)										
EBITDA from continuing operations	$	2,350	$	1,744	35 %	$	4,772	$	3,636	31 %
As percent of sales		31.0 %		27.3 %			32.2 %		27.7 %	
Adjusted EBITDA from continuing operations	$	2,585	$	2,016	28 %	$	5,023	$	4,065	24 %
As percent of sales		34.1 %		31.6 %			33.9 %		31.0 %	

(a) Adjusted Amounts and Other Financial Data are non-GAAP performance measures. A reconciliation of reported amounts to adjusted amounts can be found in the "Non-GAAP Measures and Reconciliations" sections of this MD&A.
(b) See Note 2 to the condensed consolidated financial statements.

Reported

In the second quarter of 2021, Linde's sales were $7,584 million, 19% above prior year, primarily driven by 3% price attainment and 15% higher volumes. Currency translation increased sales by 6% in the second quarter of 2021 as compared to 2020.

Reported operating profit for the second quarter of 2021 of $1,142 million, or 15.1% of sales, was 93% above prior year. The reported year-over-year increase was primarily due to higher price and volumes and lower cost reduction programs and other charges. The reported effective tax rate ("ETR") was 28.5% in the second quarter 2021 versus 26.5% in the second quarter 2020. Diluted earnings per share from continuing operations ("EPS") was $1.60, or 84% above EPS of $0.87 in the second quarter of 2020 primarily due to higher income from continuing operations and lower diluted shares outstanding.

Adjusted
In the second quarter of 2021, adjusted operating profit of $1,837 million, or 24.2% of sales, was 39% higher as compared to 2020 driven by higher price and volumes and continued productivity initiatives across all segments. The adjusted ETR was 24.6% in the second quarter 2021 versus 24.3% in the 2020 quarter. On an adjusted basis, EPS was $2.70, 42% above the 2020 adjusted EPS of $1.90, driven by higher adjusted income from continuing operations and lower diluted shares outstanding.

Outlook

Linde provides quarterly updates on operating results, material trends that may affect financial performance, and financial guidance via quarterly earnings releases and investor teleconferences. These updates are available on the company's website, www.linde.com, but are not incorporated herein.

Results of operations

The changes in consolidated sales compared to the prior year are attributable to the following:

	Quarter Ended June 30, 2021 vs. 2020	Six Months Ended June 30, 2021 vs. 2020
	% Change	% Change
Factors Contributing to Changes - Sales		
Volume	15 %	9 %
Price/Mix	3 %	2 %
Cost pass-through	2 %	2 %
Currency	6 %	5 %
Acquisitions/divestitures	(3)%	(3)%
Engineering	(4)%	(2)%
	19 %	13 %

Sales
Sales increased $1,207 million, or 19%, for the second quarter of 2021 and increased $1,711 million, or 13% for the six months ended June 30, 2021 versus the respective 2020 periods. Volume growth across all end markets and project start-ups increased sales by 15% in the quarter and 9% year-to-date. Higher pricing across all geographic segments contributed 3% to sales in the quarter and 2% in the year-to-date period. Currency translation increased sales by 6% in the quarter and 5% in the year-to-date period, largely in EMEA and APAC, driven by the strengthening of the Euro, Australian dollar, Chinese yuan and British pound against the U.S. dollar. Cost pass-through increased sales by 2% in both periods with minimal impact on operating profit. The deconsolidation of a joint venture with operations in APAC decreased sales by 3% in the quarter and year-to-date periods (see Note 13 to the condensed consolidated financial statements).

Cost of sales, exclusive of depreciation and amortization
Cost of sales, exclusive of depreciation and amortization increased $575 million, or 16%, for the second quarter of 2021 and increased $786 million, or 11% for the six months ended June 30, 2021 primarily due to higher volumes and currency impacts, partially offset by productivity initiatives. Cost of sales, exclusive of depreciation and amortization was 55.3% and 55.6% of sales, respectively, for the second quarter and six months ended June 30, 2021 versus 56.8% and 56.9% of sales for the respective 2020 periods. The decrease as a percentage of sales in the quarter and for the six months ended June 30, 2021 was due primarily to productivity initiatives.

Selling, general and administrative expenses
Selling, general and administrative expense ("SG&A") increased $62 million, or 8%, for the second quarter of 2021 and decreased $12 million, or 1%, for the six months ended June 30, 2021. SG&A was 10.8% of second quarter sales and 10.9% sales for the six months ended June 30, 2021 versus 11.9% and 12.4% for the respective 2020 periods. Currency impacts increased SG&A by approximately $36 million in the quarter and increased SG&A by approximately $61 million for the six months ended June 30, 2021. Excluding currency impacts, underlying SG&A increased in the second quarter of 2021 driven by higher incentive compensation and decreased for the six months ended June 30, 2021 due to continued productivity initiatives.

Depreciation and amortization
Reported depreciation and amortization expense increased $47 million, or 4%, for the second quarter of 2021 and increased $71 million, or 3%, for the six months ended June 30, 2021 primarily due to currency translation impacts.

On an adjusted basis depreciation and amortization increased $36 million, or 5%, for the second quarter of 2021 and increased $58 million, or 4% for the year-to-date period, primarily due to currency translation impacts which increased depreciation and amortization by $34 million and $54 million, respectively. Excluding currency impacts, underlying depreciation was relatively flat as the impact of new project start ups was largely offset by the deconsolidation of a joint venture with operations in APAC (see Note 13 to the condensed consolidated financial statements).

Cost reduction programs and other charges

Cost reduction programs and other charges were $204 million and $249 million for the second quarter 2021 and 2020, respectively, primarily related to merger and synergy-related costs (see Note 2 to the condensed consolidated financial statements).

Cost reduction programs and other charges were $196 million and $380 million, respectively, for the six months ended June 30, 2021 and 2020.

On an adjusted basis, these costs have been excluded in both periods.

Operating profit

On a reported basis, operating profit increased $551 million, or 93%, for the second quarter of 2021 and increased $1,031 million, or 78% for the six months ended June 30, 2021. The increase was primarily due to higher volumes and price, partially offset by the deconsolidation of a joint venture with operations in APAC. Cost reduction programs and other charges were $204 million for the second quarter of 2021, versus $249 million for the respective 2020 period. In the year-to-date periods cost reduction programs and other charges were $196 million and $380 million, respectively, for the six months ended June 30, 2021 and 2020.

On an adjusted basis, which excludes the impacts of purchase accounting and cost reduction programs and other charges, operating profit increased $520 million, or 39% in the 2021 quarter and increased $856 million, or 32%, for the six months ended June 30, 2021. Operating profit growth was driven by higher volume and price and the benefit of cost reduction programs and productivity initiatives, partially offset by the deconsolidation of a joint venture with operations in APAC. A discussion of operating profit by segment is included in the segment discussion that follows.

Interest expense - net

Reported interest expense - net was flat for the second quarter of 2021 and decreased $4 million for the six months ended June 30, 2021. On an adjusted basis interest expense decreased $7 million for the second quarter of 2021 and decreased $15 million for the six months ended June 30, 2021 versus the respective 2020 periods. The decrease in both periods was driven by a lower effective borrowing rate. The year-to-date period decrease was also driven by the impact of favorable foreign currency revaluation on an unhedged intercompany loan.

Net pension and OPEB cost (benefit), excluding service cost

Reported net pension and OPEB cost (benefit), excluding service cost was a benefit of $49 million and $98 million for the quarter and six months ended June 30, 2021, respectively, versus a benefit of $45 million and $90 million for the respective 2020 periods. The increase in benefit for both the quarter and year-to-date periods largely relates to a higher expected return on assets and lower interest costs partially offset by higher amortization of deferred losses.

Effective tax rate

The reported effective tax rate ("ETR") for the quarter and six months ended June 30, 2021 was 28.5% and 24.9%, respectively, versus 26.5% and 24.0% for the respective 2020 periods. The 2021 periods include net tax charges of $38 million primarily related to $81 million of expense due to a tax rate increase in the United Kingdom partially offset by a tax settlement benefit of $33 million (see Note 2 to the condensed consolidated financial statements).

On an adjusted basis, the ETR for the quarter and six months ended June 30, 2021 was 24.6% and 24.3%, respectively, versus 24.3% and 24.1% for the respective 2020 periods.

Income from equity investments

Reported income from equity investments for the second quarter of 2021 and six months ended June 30, 2021 was $37 million and $80 million, respectively, versus $29 million and $46 million for the respective 2020 periods. On an adjusted basis, income from equity investments for the second quarter and six months ended June 30, 2021 was $56 million and $118 million, respectively, versus $43 million and $74 million, in the prior respective periods. The increase in both the reported and adjusted income from equity investments for the quarter and year-to-date periods was driven by the deconsolidation of a joint venture with operations in APAC which is reflected in equity income effective January 1, 2021 (See Note 13 to the condensed consolidated financial statements). The year-to-date 2020 period also includes the impact of unfavorable foreign currency revaluation on an unhedged loan of an investment in EMEA.

Noncontrolling interests from continuing operations

At June 30, 2021, noncontrolling interests from continuing operations consisted primarily of non-controlling shareholders' investments in APAC (primarily China) and surface technologies.

Reported noncontrolling interests from continuing operations increased $11 million for the second quarter of 2021 and increased $14 million for the six months ended June 30, 2021 versus the respective 2020 periods primarily driven by higher income from continuing operations, partially offset by the deconsolidation of a joint venture with operations in APAC (See Note 13 to the condensed consolidated financial statements) and the buyout of minority shareholders in the Republic of South Africa.

Adjusted noncontrolling interests from continuing operations decreased $1 million for the second quarter of 2021 and decreased $8 million for the six months ended June 30, 2021 versus the respective 2020 periods primarily driven by the deconsolidation of a joint venture with operations in APAC (See Note 13 to the condensed consolidated financial statements) and the buyout of minority shareholders in the Republic of South Africa, which more than offset the increase from higher income from continuing operations.

Income from continuing operations

Reported income from continuing operations increased $382 million, or 83%, for the second quarter of 2021 primarily due to higher operating profit and increased $790 million, or 77%, for the six months ended June 30, 2021 versus the respective 2020 periods, primarily due to higher overall operating profit.

On an adjusted basis, which excludes the impacts of purchase accounting and other non-GAAP adjustments, income from continuing operations increased $410 million, or 41%, for the quarter and increased $713 million, or 35% for the six months ended June 30, 2021 versus the respective 2020 periods. The increase in the quarter and year-to-date periods was driven by higher overall adjusted operating profit.

Diluted earnings per share from continuing operations

Reported diluted earnings per share from continuing operations increased $0.73, or 84%, for the second quarter of 2021 and increased $1.53, or 79% for the six months ended June 30, 2021 versus the comparable 2020 periods.

On an adjusted basis, diluted EPS for the second quarter of 2021 increased $0.80, or 42%, and increased $1.41, or 37% for the six months ended June 30, 2021 versus the respective 2020 periods, primarily due to higher income from continuing operations and lower diluted shares outstanding.

Employees

The number of employees at June 30, 2021 was 71,736, a decrease of 4,926 employees from June 30, 2020 primarily driven by cost reduction actions and divestitures.

Other Financial Data

EBITDA was $2,350 million for the second quarter of 2021 as compared to $1,744 million in the respective 2020 period. EBITDA increased to $4,772 million for the six months ended June 30, 2021 from $3,636 million in the respective 2020 period. Adjusted EBITDA from continuing operations increased to $2,585 million for the second quarter 2021 from $2,016 million in the respective 2020 period. Adjusted EBITDA from continuing operations increased to $5,023 million from $4,065 million for the six months ended June 30, 2021 as compared to the respective 2020 period primarily due to higher income from continuing operations plus depreciation and amortization versus the prior period.

See the "Non-GAAP Measures and Reconciliations" for adjusted amounts sections below for definitions and reconciliations of these adjusted non-GAAP measures to reported GAAP amounts.

Other Comprehensive Income (Loss)

Other comprehensive income for the second quarter of 2021 and loss for the six months ended June 30, 2021 of $446 million and $215 million, respectively, resulted primarily from positive currency translation adjustments of $410 million during the quarter and negative currency translation adjustments of $305 million during the year-to-date period. The translation adjustments reflect the impact of translating local currency foreign subsidiary financial statements to U.S. dollars, and are largely driven by the movement of the U.S. dollar against major currencies including the Euro, British pound and the Chinese yuan. See the "Currency" section of the MD&A for exchange rates used for translation purposes and Note 11 to the condensed consolidated financial statements for a summary of the currency translation adjustment component of accumulated other comprehensive income by segment.

Segment Discussion

The following summary of sales and operating profit by segment provides a basis for the discussion that follows. Linde plc evaluates the performance of its reportable segments based on operating profit, excluding items not indicative of ongoing business trends. The reported amounts are GAAP amounts from the Condensed Consolidated Statements of Income.

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2021	2020	Variance	2021	2020	Variance
SALES						
Americas	$ 3,020	$ 2,417	25 %	$ 5,860	$ 5,094	15 %
EMEA	1,875	1,448	29 %	3,674	3,081	19 %
APAC	1,544	1,295	19 %	2,980	2,631	13 %
Engineering	646	810	(20)%	1,320	1,418	(7)%
Other	499	407	23 %	993	892	11 %
Total sales	$ 7,584	$ 6,377	19 %	$ 14,827	$ 13,116	13 %
SEGMENT OPERATING PROFIT						
Americas	$ 871	$ 622	40 %	$ 1,666	$ 1,283	30 %
EMEA	487	303	61 %	938	658	43 %
APAC	389	294	32 %	740	575	29 %
Engineering	108	138	(22)%	217	229	(5)%
Other	(18)	(40)	55 %	(36)	(76)	53 %
Segment operating profit	$ 1,837	$ 1,317	39 %	$ 3,525	$ 2,669	32 %
Reconciliation to reported operating profit:						
Cost reduction programs and other charges (Note 2)	(204)	(249)		(196)	(380)	
Purchase accounting impacts - Linde AG	(491)	(477)		(974)	(965)	
Total operating profit	$ 1,142	$ 591		$ 2,355	$ 1,324	

Americas

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2021	2020	Variance	2021	2020	Variance
Sales	$ 3,020	$ 2,417	25 %	$ 5,860	$ 5,094	15 %
Operating profit	$ 871	$ 622	40 %	$ 1,666	$ 1,283	30 %
As a percent of sales	28.8 %	25.7 %		28.4 %	25.2 %	

	Quarter Ended June 30, 2021 vs. 2020	Six Months Ended June 30, 2021 vs. 2020
	% Change	% Change
	Sales	Sales
Factors Contributing to Changes - Sales		
Volume	18 %	10 %
Price/Mix	3 %	3 %
Cost pass-through	2 %	2 %
Currency	2 %	— %
Acquisitions/divestitures	— %	— %
	25 %	15 %

The Americas segment includes Linde's industrial gases operations in approximately 20 countries including the United States, Canada, Mexico and Brazil.

Sales
Sales for the Americas segment increased $603 million, or 25%, for the second quarter and increased $766 million, or 15%, for the six months ended June 30, 2021 versus the respective 2020 periods. Higher pricing contributed 3% to sales in the quarter and year-to-date period. Higher volumes increased sales by 18% for the second quarter and increased 10% for the six months ended June 30, 2021, led by higher demand across all end markets, with cyclical end markets being the strongest. Currency translation increased sales by 2% in the quarter and was flat for the year-to-date period primarily driven by the strengthening of the Canadian dollar and Mexican peso against the U.S. Dollar. Cost pass-through increased sales by 2% for the second quarter and year-to-date periods with minimal impact on operating profit.

Operating profit
Operating profit in the Americas segment increased $249 million, or 40%, in the second quarter and increased $383 million, or 30%, for the six months ended June 30, 2021 versus the respective 2020 periods. For the quarter and year-to-date periods, operating profit increased due primarily to higher pricing and volumes and continued productivity initiatives.

EMEA

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2021	2020	Variance	2021	2020	Variance
Sales	$ 1,875	$ 1,448	29 %	$ 3,674	$ 3,081	19 %
Operating profit	$ 487	$ 303	61 %	$ 938	$ 658	43 %
As a percent of sales	26.0 %	20.9 %		25.5 %	21.4 %	

	Quarter Ended June 30, 2021 vs. 2020	Six Months Ended June 30, 2021 vs. 2020
	% Change	% Change
	Sales	Sales
Factors Contributing to Changes - Sales		
Volume	12 %	6 %
Price/Mix	4 %	3 %
Cost pass-through	4 %	3 %
Currency	10 %	9 %
Acquisitions/divestitures	(1)%	(2)%
	29 %	19 %

The EMEA segment includes Linde's industrial gases operations in approximately 45 European, Middle Eastern and African countries including Germany, France, Sweden, the Republic of South Africa, and the United Kingdom.

Sales
EMEA segment sales increased by $427 million, or 29%, in the second quarter and increased by $593 million, or 19%, for the six months ended June 30, 2021 as compared to the respective 2020 periods. Volumes increased 12% in the quarter and 6% in the year-to-date period driven by increased demand across all end markets, led by the cyclical end markets. Currency translation increased sales by 10% in the quarter and 9% in the year-to-date period due to the strengthening of the Euro, British pound and Swedish krona against the U.S. Dollar. Higher price increased sales by 4% in the quarter and 3% in the year-to-date period. Sales decreased 1% in the quarter and 2% in the year-to-date periods related to the divestiture of a non-core business in Scandinavia. Cost pass-through contributed 4% to sales in the quarter and increased sales by 3% in the year-to-date periods with minimal impact on operating profit.

Operating profit
Operating profit for the EMEA segment increased by $184 million, or 61%, in the second quarter and increased $280 million, or 43%, for the six months ended June 30, 2021 as compared to the respective 2020 periods, driven largely by higher price and volumes and continued productivity initiatives.

APAC

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2021	2020	Variance	2021	2020	Variance
Sales	$ 1,544	$ 1,295	19 %	$ 2,980	$ 2,631	13 %
Operating profit	$ 389	$ 294	32 %	$ 740	$ 575	29 %
As a percent of sales	25.2 %	22.7 %		24.8 %	21.9 %	

	Quarter Ended June 30, 2021 vs. 2020	Six Months Ended June 30, 2021 vs. 2020
	% Change	% Change
	Sales	Reported
Factors Contributing to Changes - Sales		
Volume/Equipment	19 %	14 %
Price/Mix	2 %	2 %
Cost pass-through	2 %	2 %
Currency	8 %	7 %
Acquisitions/divestitures	(12)%	(12)%
	19 %	13 %

The APAC segment includes Linde's industrial gases operations in approximately 20 Asian and South Pacific countries and regions including China, Australia, India and South Korea.

Sales

Sales for the APAC segment increased $249 million, or 19%, for the second quarter and increased $349 million, or 13% for the six months ended June 30, 2021 versus the respective 2020 periods. Volumes increased 19% in the quarter and 14% in the year-to-date period driven by increased demand across all end markets, led by the cyclical end markets, and electronics and project start-ups. Higher price contributed 2% to sales in both the quarter and year-to-date periods. Currency translation increased sales by 8% in quarter and increased sales by 7% in the year-to-date periods driven primarily by the strengthening of the Chinese yuan, Australian dollar and Korean won against the U.S. Dollar in the quarter. Sales decreased $153 million, or 12%, in the second quarter of 2021 and decreased $296 million, or 12%, for the six months ended June 30, 2021 due to the deconsolidation of a joint venture with operations in Taiwan (See Note 13 to the condensed consolidated financial statements).

Operating profit

Operating profit in the APAC segment increased $95 million, or 32%, in the second quarter and increased $165 million, or 29%, for the six months ended June 30, 2021 versus the respective 2020 periods. Higher volumes and price, continued productivity initiatives in both periods were partially offset by a $28 million and $56 million reduction due to the deconsolidation of the joint venture in the second quarter and year-to-date periods, respectively.

Engineering

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2021	2020	Variance	2021	2020	Variance
Sales	$ 646	$ 810	(20)%	$ 1,320	$ 1,418	(7)%
Operating profit	$ 108	$ 138	(22)%	$ 217	$ 229	(5)%
As a percent of sales	16.7 %	17.0 %		16.4 %	16.1 %	

	Quarter Ended June 30, 2021 vs. 2020	Six Months Ended June 30, 2021 vs. 2020
	% Change	% Change
	Sales	Sales
Factors Contributing to Changes - Sales		
Volume	(29)%	(15)%
Currency	9 %	8 %
	(20)%	(7)%

Sales

Engineering segment sales decreased $164 million, or 20%, in the second quarter 2021 and decreased $98 million, or 7%, for the six months ended June 30, 2021 as compared to the respective 2020 periods driven primarily by project timing, partially offset by currency impacts which increased sales by 9% in the quarter and 8% in the year-to-date period.

Operating profit

Engineering segment operating profit decreased $30 million, or 22%, in the second quarter 2021 and decreased $12 million, or 5%, for the six months ended June 30, 2021 as compared to the respective 2020 periods driven primarily by sales and project timing.

Other

	Quarter Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2021	2020	Variance	2021	2020	Variance
Sales	$ 499	$ 407	23 %	$ 993	$ 892	11 %
Operating profit (loss)	$ (18)	$ (40)	55 %	$ (36)	$ (76)	53 %
As a percent of sales	(3.6)%	(9.8)%		(3.6)%	(8.5)%	

	Quarter Ended June 30, 2021 vs. 2020	Six Months Ended June 30, 2021 vs. 2020
	% Change	% Change
	Sales	Sales
Factors Contributing to Changes - Sales		
Volume/price	16 %	5 %
Cost pass-through	1 %	1 %
Currency	6 %	5 %
Acquisitions/divestitures	— %	— %
	23 %	11 %

Other consists of corporate costs and a few smaller businesses including: Surface Technologies, GIST, global helium wholesale, and Electronic Materials; which individually do not meet the quantitative thresholds for separate presentation.

Sales
Sales for Other increased $92 million, or 23%, for the second quarter 2021 and increased $101 million, or 11%, for the six months ended June 30, 2021 versus the respective 2020 periods. Currency translation increased sales by 6% in the quarter and 5% for the year-to-date period. Higher volumes and price increased sales by 16% in the quarter and 5% in the year-to-date period across all businesses. Cost pass-through increased sales by 1% in both periods.

Operating profit
Operating profit in Other increased $22 million, or 55% in the second quarter 2021 and increased $40 million, or 53%, for the six months ended June 30, 2021 versus the respective 2020 periods, due primarily to volume growth, higher price and continued and productivity initiatives.

Currency

The results of Linde's non-U.S. operations are translated to the company’s reporting currency, the U.S. dollar, from the functional currencies. For most operations, Linde uses the local currency as its functional currency. There is inherent variability and unpredictability in the relationship of these functional currencies to the U.S. dollar and such currency movements may materially impact Linde's results of operations in any given period.

To help understand the reported results, the following is a summary of the significant currencies underlying Linde's consolidated results and the exchange rates used to translate the financial statements (rates of exchange expressed in units of local currency per U.S. dollar):

		Exchange Rate for Income Statement		Exchange Rate for Balance Sheet	
		Year-To-Date Average		June 30,	December 31,
Currency	Percentage of YTD 2021 Consolidated Sales	2021	2020	2021	2020
Euro	21 %	0.83	0.91	0.84	0.82
Chinese yuan	9 %	6.47	7.03	6.46	6.53
British pound	6 %	0.72	0.79	0.72	0.73
Australian dollar	4 %	1.30	1.52	1.33	1.30
Brazilian real	4 %	5.38	4.86	5.00	5.20
Canadian dollar	3 %	1.25	1.36	1.24	1.27
Korean won	2 %	1,117	1,206	1,126	1,087
Mexican peso	2 %	20.18	21.43	19.94	19.91
Indian rupee	2 %	73.32	74.09	74.33	73.07
South African rand	2 %	14.53	16.53	14.29	14.69
Swedish krona	1 %	8.41	9.68	8.55	8.23
Thailand bhat	1 %	30.80	31.61	32.03	29.96

Liquidity, Capital Resources and Other Financial Data

The following selected cash flow information provides a basis for the discussion that follows:

(Millions of dollars)	Six months ended June 30, 2021	Six months ended June 30, 2020
NET CASH PROVIDED BY (USED FOR):		
OPERATING ACTIVITIES		
Net income (including noncontrolling interests)	$ 1,893	$ 1,089
Non-cash charges (credits):		
Add: Depreciation and amortization	2,337	2,266
Add: Deferred income taxes	(78)	(261)
Add: Share-based compensation	63	75
Add: Cost reduction programs and other charges, net of payments (a)	95	239
Net income adjusted for non-cash charges	4,310	3,408
Less: Working capital	(360)	(204)
Less: Pension contributions	(28)	(41)
Other	14	(52)
Net cash provided by operating activities	$ 3,936	$ 3,111
INVESTING ACTIVITIES		
Capital expenditures	(1,506)	(1,586)
Acquisitions, net of cash acquired	(31)	(41)
Divestitures and asset sales	77	380
Net cash provided by (used for) investing activities	$ (1,460)	$ (1,247)
FINANCING ACTIVITIES		
Debt increase (decrease) - net	314	3,523
Issuances (purchases) of common stock - net	(2,050)	(1,803)
Cash dividends - Linde plc shareholders	(1,102)	(1,017)
Excess tax benefit on share-based compensation	—	—
Noncontrolling interest transactions and other	(277)	(148)
Net cash provided by (used for) financing activities	$ (3,115)	$ 555
Effect of exchange rate changes on cash and cash equivalents	$ 22	$ (178)
Cash and cash equivalents, end-of-period	$ 3,137	$ 4,941

(a) See Note 2 to the condensed consolidated financial statements.

Cash Flow from Operations

Cash provided by operations of $3,936 million for the six months ended June 30, 2021 increased $825 million, or 27%, versus 2020. The increase was driven by higher net income adjusted for non-cash charges partially offset by higher working capital requirements, primarily due to higher cash taxes. Cost reduction programs and other charges were $196 million and $380 million, respectively, for the six months ended June 30, 2021 and 2020. Related cash outflows were $101 million and $141 million for the same respective periods.

Linde estimates that total 2021 required contributions to its pension plans will be in the range of $50 million to $60 million, of which $28 million has been made through June 30, 2021. At a minimum, Linde contributes to its pension plans to comply with local regulatory requirements (e.g., ERISA in the United States). Discretionary contributions in excess of the local minimum requirements are made based on many factors, including long-term projections of the plans' funded status, the economic environment, potential risk of overfunding, pension insurance costs and alternative uses of the cash. Changes to these factors can impact the amount and timing of discretionary contributions from year to year.

Investing

Net cash used for investing of $1,460 million for the six months ended June 30, 2021 increased $213 million versus 2020, primarily driven by the proceeds from divestitures in 2020, partially offset by lower capital expenditures and acquisitions.

Capital expenditures for the six months ended June 30, 2021 were $1,506 million, $80 million lower than the prior year.

At June 30, 2021, Linde's sale of gas backlog of large projects under construction was approximately $3.4 billion. This represents the total estimated capital cost of large plants under construction.

Acquisitions for the six months ended June 30, 2021 were $31 million and related primarily to acquisitions in the Americas and EMEA. Acquisitions for the six months ended June 30, 2020 were $41 million and related to acquisitions in the Americas.

Divestitures and asset sales for the six months ended June 30, 2021 and 2020 were $77 million and $380 million, respectively. The 2020 period includes net proceeds from merger-related divestitures of $98 million from the sale of selected assets of Linde China and proceeds of approximately $130 million related to the divestiture of a non-core business in Scandinavia.

Financing

Cash used for financing activities was $3,115 million for the six months ended June 30, 2021 as compared to cash provided by financing activities of $555 million for the six months ended June 30, 2020. Cash provided by debt was $314 million versus cash provided by debt of $3,523 million in 2020 primarily due to bond issuances in 2020 of $1,656 million, bond repayments in 2021 of $818 million and lower short-term debt borrowings net of repayments. Net purchases of ordinary shares were $2,050 million in 2021 versus $1,803 million in 2020. Cash dividends of $1,102 million increased $85 million from 2020 driven primarily by a 10% increase in quarterly dividends per share from 96.3 cents per share to 106 cents per share. Cash used for Noncontrolling interest transactions and other was $277 million for the six months ended June 30, 2021 versus cash used of $148 million for the respective 2020 period primarily due to the settlement of the buyout of minority interests in the Republic of South Africa in January of 2021.

The company continues to believe it has sufficient operating flexibility, cash, and funding sources to meet its business needs around the world. The company had $3.1 billion of cash as of June 30, 2021, and has a $5 billion unsecured and undrawn revolving credit agreement with no associated financial covenants. No borrowings were outstanding under the credit agreement as of June 30, 2021. The company does not anticipate any limitations on its ability to access the debt capital markets and/or other external funding sources and remains committed to its strong ratings from Moody’s and Standard & Poor’s.

On January 25, 2021, the company's board of directors approved the repurchase of $5.0 billion of its ordinary shares ("2021 program") which could take place from time to time on the open market (and could include the use of 10b5-1 trading plans), subject to market and business conditions. The 2021 program has a maximum repurchase amount of 15% of outstanding shares, began on February 1, 2021 and expires on July 31, 2023.

Legal Proceedings

See Note 9 to the condensed consolidated financial statements.

NON-GAAP MEASURES AND RECONCILIATIONS
(Millions of dollars, except per share data)
(UNAUDITED)

The following non-GAAP measures are intended to supplement investors' understanding of the company's financial information by providing measures which investors, financial analysts and management use to help evaluate the company's operating performance and liquidity. Items which the company does not believe to be indicative of on-going business trends are excluded from these calculations so that investors can better evaluate and analyze historical and future business trends on a consistent basis. Definitions of these non-GAAP measures may not be comparable to similar definitions used by other companies and are not a substitute for similar GAAP measures.

	Quarter Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Adjusted Operating Profit and Operating Margin				
Reported operating profit	$ 1,142	$ 591	$ 2,355	$ 1,324
Add: Cost reduction programs and other charges	204	249	196	380
Add: Purchase accounting impacts - Linde AG (c)	491	477	974	965
Total adjustments	695	726	1,170	1,345
Adjusted operating profit	$ 1,837	$ 1,317	$ 3,525	$ 2,669
Reported percentage change	93 %		78 %	
Adjusted percentage change	39 %		32 %	
Reported sales	$ 7,584	$ 6,377	$ 14,827	$ 13,116
Reported operating margin	15.1 %	9.3 %	15.9 %	10.1 %
Adjusted operating margin	24.2 %	20.7 %	23.8 %	20.3 %
Adjusted Depreciation and amortization				
Reported depreciation and amortization	$ 1,171	$ 1,124	$ 2,337	$ 2,266
Less: Purchase accounting impacts - Linde AG (c)	(479)	(468)	(957)	(944)
Adjusted depreciation and amortization	$ 692	$ 656	$ 1,380	$ 1,322
Adjusted Other Income (Expense) - net				
Reported Other Income (Expense) - net	$ (17)	$ —	$ (13)	$ 15
Less: Purchase accounting impacts - Linde AG (c)	(12)	(9)	(17)	(21)
Adjusted Other Income (Expense) - net	$ (5)	$ 9	$ 4	$ 36
Adjusted Net Pension and OPEB Cost (Benefit), Excluding Service Cost				
Reported net pension and OPEB cost (benefit), excluding service cost	$ (49)	$ (45)	$ (98)	$ (90)
Add: Pension settlement charges	—	—	—	—
Adjusted Net Pension and OPEB cost (benefit), excluding service costs	$ (49)	$ (45)	$ (98)	$ (90)
Adjusted Interest Expense - Net				
Reported interest expense - net	$ 18	$ 18	$ 38	$ 42
Add: Purchase accounting impacts - Linde AG (c)	15	22	33	44
Adjusted interest expense - net	$ 33	$ 40	$ 71	$ 86

Adjusted Income Taxes (a)				
Reported income taxes	$ 334	$ 164	$ 602	$ 329
Add: Purchase accounting impacts - Linde AG (c)	116	95	234	217
Add: Cost reduction programs and other charges	6	62	26	98
Total adjustments	122	157	260	315
Adjusted income taxes	$ 456	$ 321	$ 862	$ 644
Adjusted Effective Tax Rate (a)				
Reported income before income taxes and equity investments	$ 1,173	$ 618	$ 2,415	$ 1,372
Add: Purchase accounting impacts - Linde AG (c)	476	455	941	921
Add: Cost reduction programs and other charges	204	249	196	380
Total adjustments	680	704	1,137	1,301
Adjusted income before income taxes and equity investments	$ 1,853	$ 1,322	$ 3,552	$ 2,673
Reported Income taxes	$ 334	$ 164	$ 602	$ 329
Reported effective tax rate	28.5 %	26.5 %	24.9 %	24.0 %
Adjusted income taxes	$ 456	$ 321	$ 862	$ 644
Adjusted effective tax rate	24.6 %	24.3 %	24.3 %	24.1 %
Income from Equity Investments				
Reported income from equity investments	$ 37	$ 29	$ 80	$ 46
Add: Purchase accounting impacts - Linde AG (c)	19	14	$ 38	$ 28
Adjusted income from equity investments	$ 56	$ 43	$ 118	$ 74
Adjusted Noncontrolling Interests from Continuing Operations				
Reported noncontrolling interests from continuing operations	$ (36)	$ (25)	$ (74)	$ (60)
Add: Purchase accounting impacts - Linde AG (c)	(2)	(14)	(7)	(29)
Adjusted noncontrolling interests from continuing operations	$ (38)	$ (39)	$ (81)	$ (89)
Adjusted Income from Continuing Operations (b)				
Reported income from continuing operations	$ 840	$ 458	$ 1,819	$ 1,029
Add: Cost reduction programs and other charges	198	187	170	282
Add: Purchase accounting impacts - Linde AG (c)	377	360	738	703
Total adjustments	575	547	908	985
Adjusted income from continuing operations	$ 1,415	$ 1,005	$ 2,727	$ 2,014
Adjusted Diluted EPS from Continuing Operations (b)				
Reported diluted EPS from continuing operations	$ 1.60	$ 0.87	$ 3.46	$ 1.93
Add: Cost reduction programs and other charges	0.38	0.35	0.32	0.53
Add: Purchase accounting impacts - Linde AG (c)	0.72	0.68	1.41	1.32
Total adjustments	1.10	1.03	1.73	1.85
Adjusted diluted EPS from continuing operations	$ 2.70	$ 1.90	$ 5.19	$ 3.78
Reported percentage change	84 %		79 %	
Adjusted percentage change	42 %		37 %	

Adjusted EBITDA and % of Sales				
Income from continuing operations	$ 840	$ 458	$ 1,819	$ 1,029
Add: Noncontrolling interests related to continuing operations	36	25	74	60
Add: Net pension and OPEB cost (benefit), excluding service cost	(49)	(45)	(98)	(90)
Add: Interest expense	18	18	38	42
Add: Income taxes	334	164	602	329
Add: Depreciation and amortization	1,171	1,124	2,337	2,266
EBITDA from continuing operations	$ 2,350	$ 1,744	$ 4,772	$ 3,636
Add: Cost reduction programs and other charges	204	249	196	380
Add: Purchase accounting impacts - Linde AG (c)	31	23	55	49
Total adjustments	235	272	251	429
Adjusted EBITDA from continuing operations	$ 2,585	$ 2,016	$ 5,023	$ 4,065
Reported sales	$ 7,584	$ 6,377	$ 14,827	$ 13,116
% of sales				
EBITDA from continuing operations	31.0 %	27.3 %	32.2 %	27.7 %
Adjusted EBITDA from continuing operations	34.1 %	31.6 %	33.9 %	31.0 %

(a) The income tax expense (benefit) on the non-GAAP pre-tax adjustments was determined using the applicable tax rates for the jurisdictions that were utilized in calculating the GAAP income tax expense (benefit) and included both current and deferred income tax amounts.

(b) Net of income taxes which are shown separately in “Adjusted Income Taxes and Adjusted Effective Tax Rate”.

(c) The company believes that its non-GAAP measures excluding Purchase accounting impacts - Linde AG are useful to investors because: (i) the business combination was a merger of equals in an all-stock merger transaction, with no cash consideration, (ii) the company is managed on a geographic basis and the results of certain geographies are more heavily impacted by purchase accounting than others, causing results that are not comparable at the reportable segment level, therefore, the impacts of purchase accounting adjustments to each segment vary and are not comparable within the company and when compared to other companies in similar regions, (iii) business management is evaluated and variable compensation is determined based on results excluding purchase accounting impacts, and; (iv) it is important to investors and analysts to understand the purchase accounting impacts to the financial statements.

A summary of each of the adjustments made for Purchase accounting impacts - Linde AG are as follows:
Adjusted Operating Profit and Margin: The purchase accounting adjustments for the periods presented relate primarily to depreciation and amortization related to the fair value step up of fixed assets and intangible assets (primarily customer related) acquired in the merger and the allocation of fair value step-up for ongoing Linde AG asset disposals (reflected in Other Income/(Expense)).
Adjusted Interest Expense - Net: Relates to the amortization of the fair value of debt acquired in the merger.
Adjusted Income Taxes and Effective Tax Rate: Relates to the current and deferred income tax impact on the adjustments discussed above. The income tax expense (benefit) on the non-GAAP pre-tax adjustments was determined using the applicable tax rates for the jurisdictions that were utilized in calculating the GAAP income tax expense (benefit) and included both current and deferred income tax amounts.
Adjusted Income from Equity Investments: Represents the amortization of increased fair value on equity investments related to depreciable and amortizable assets.
Adjusted Noncontrolling Interests from Continuing Operations: Represents the noncontrolling interests’ ownership portion of the adjustments described above determined on an entity by entity basis.

Net Debt and Adjusted Net Debt

Net debt is a financial liquidity measure used by investors, financial analysts and management to evaluate the ability of a company to repay its debt. Purchase accounting impacts have been excluded as they are non-cash and do not have an impact on liquidity.

	June 30, 2021	December 31, 2020
(Millions of dollars)		
Debt	$ 15,492	$ 16,154
Less: cash and cash equivalents	(3,137)	(3,754)
Net debt	12,355	12,400
Less: purchase accounting impacts - Linde AG	(84)	(121)
Adjusted net debt	$ 12,271	$ 12,279

Supplemental Guarantee Information

On June 6, 2020, the company filed a Form S-3 Registration Statement with the SEC ("the Registration Statement").

Linde plc may offer debt securities, preferred shares, depositary shares and ordinary shares under the Registration Statement, and debt securities exchangeable for or convertible into preferred shares, ordinary shares or other debt securities. Debt securities of Linde plc may be guaranteed by Linde Inc (previously Praxair) and/or Linde GmbH (previously Linde AG). Linde plc may provide guarantees of debt securities offered by its wholly owned subsidiaries Linde Inc. or Linde Finance under the Registration Statement.

Linde Inc. (previously Praxair, Inc.) is a wholly owned subsidiary of Linde plc. Linde Inc. may offer debt securities under the Registration Statement. Debt securities of Linde Inc. will be guaranteed by Linde plc, and such guarantees by Linde plc may be guaranteed by Linde GmbH. Linde Inc. may also provide (i) guarantees of debt securities offered by Linde plc under the Registration Statement and (ii) guarantees of the guarantees provided by Linde plc of debt securities of Linde Finance offered under the Registration Statement.

Linde Finance B.V. is a wholly owned subsidiary of Linde plc. Linde Finance may offer debt securities under the Registration Statement. Linde plc will guarantee debt securities of Linde Finance offered under the Registration Statement. Linde GmbH and Linde Inc. may guarantee Linde plc’s obligations under its downstream guarantee.

Linde GmbH is a wholly owned subsidiary of Linde plc. Linde GmbH may provide (i) guarantees of debt securities offered by Linde plc under the Registration Statement and (ii) upstream guarantees of downstream guarantees provided by Linde plc of debt securities of Linde Inc. or Linde Finance offered under the Registration Statement.

In September 2019, Linde plc provided downstream guarantees of all of the pre-business combination Linde Inc. and Linde Finance notes, and Linde GmbH and Linde Inc., respectively, provided upstream guarantees of Linde plc’s downstream guarantees.

For further information about the guarantees of the debt securities registered under the Registration Statement (including the ranking of such guarantees, limitations on enforceability of such guarantees and the circumstances under which such guarantees may be released), see “Description of Debt Securities – Guarantees” and “Description of Debt Securities – Ranking” in the Registration Statement, which subsections are incorporated herein by reference.

The following tables present summarized financial information for Linde plc, Linde Inc., Linde GmbH and Linde Finance on a combined basis, after eliminating intercompany transactions and balances between them and excluding investments in and equity in earnings from non-guarantor subsidiaries.

(Millions of dollars)		
Statement of Income Data	Six Months Ended June 30, 2021	Twelve Months Ended December 31, 2020
Sales	$ 3,560	$ 6,876
Operating profit	226	786
Net income	59	690
Transactions with non-guarantor subsidiaries	868	2,222
Balance Sheet Data (at period end)		
Current assets (a)	$ 5,375	$ 4,174
Long-term assets (b)	16,752	17,978
Current liabilities (c)	10,182	8,337
Long-term liabilities (d)	39,953	39,208
(a) From current assets above, amount due from non-guarantor subsidiaries	$ 3,879	$ 1,984
(b) From long-term assets above, amount due from non-guarantor subsidiaries	3,590	4,565
(c) From current liabilities above, amount due to non-guarantor subsidiaries	1,181	1,054
(d) From long-term liabilities above, amount due to non-guarantor subsidiaries	25,879	23,394

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Refer to Item 7A. to Part II of Linde's 2020 Annual Report on Form 10-K for discussion.

Item 4. Controls and Procedures

(a) Based on an evaluation of the effectiveness of Linde's disclosure controls and procedures, which was made under the supervision and with the participation of management, including Linde's principal executive officer and principal financial officer, the principal executive officer and principal financial officer have each concluded that, as of the end of the quarterly period covered by this report, such disclosure controls and procedures are effective in ensuring that information required to be disclosed by Linde in reports that it files under the Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms, and accumulated and communicated to management including Linde's principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

(b) There were no changes in Linde's internal control over financial reporting that occurred during the quarterly period covered by this report that have materially affected, or are reasonably likely to materially affect, Linde's internal control over financial reporting.

Item 1. Legal Proceedings

See Note 9 to the condensed consolidated financial statements for a description of current legal proceedings.

Item 1A. Risk Factors

Through the quarterly period covered by this report, there have been no material changes to the risk factors disclosed in Item 1A to Part I of Linde's Annual Report on Form 10-K for the year ended December 31, 2020.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Purchases of Equity Securities- Certain information regarding purchases made by or on behalf of the company or any affiliated purchaser (as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934, as amended) of its ordinary shares during the quarter ended June 30, 2021 is provided below:

Period	Total Number of Shares Purchased *(Thousands)*	Average Price Paid Per Share	Total Numbers of Shares Purchased as Part of Publicly Announced Program (1) *(Thousands)*	Approximate Dollar Value of Shares that May Yet be Purchased Under the Program (1) *(Millions)*
April 2021	840	$ 286.64	840	$ 3,991
May 2021	1,480	$ 297.71	1,480	$ 3,551
June 2021	1,732	$ 292.03	1,732	$ 3,045
Second Quarter 2021	4,052	$ 292.99	4,052	$ 3,045

(1) On January 25, 2021 the company's board of directors approved the repurchase of $5.0 billion of its ordinary shares ("2021 program") which could take place from time to time on the open market (and could include the use of 10b5-1 trading plans), subject to market and business conditions.The 2021 program has a maximum repurchase amount of 15% of outstanding shares, began on February 1, 2021 and expires on July 31, 2023.

As of June 30, 2021, the company repurchased $1.96 billion of its ordinary shares pursuant to the 2021 program.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

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Item 6. Exhibits

(a) Exhibits

*10.01	2021 Linde plc Long Term Incentive Plan
31.01	Rule 13a-14(a) Certification
31.02	Rule 13a-14(a) Certification
32.01	Section 1350 Certification (such certifications are furnished for the information of the Commission and shall not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act).
32.02	Section 1350 Certification (such certifications are furnished for the information of the Commission and shall not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act).
101.INS	XBRL Instance Document: The XBRL Instance Document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase

*Indicates a management contract or compensatory plan or arrangement.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

	Linde plc
	(Registrant)
Date: July 30, 2021	By: /s/ Kelcey E. Hoyt
	Kelcey E. Hoyt Chief Accounting Officer

2021 Linde plc Long Term Incentive Plan
Effective as of July 26, 2021

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2021 Linde plc Long Term Incentive Plan
(Effective as of July 26, 2021)

A. Establishment, Purpose, and Duration

a. **Establishment**. Linde plc, an Irish public limited company (hereinafter referred to as the "**Company**"), hereby adopts its 2021 Linde plc Long Term Incentive Plan (hereinafter referred to as the "**Plan**"), as set forth in this document.

This Plan permits the grant of Nonqualified Stock Options, Incentive Stock Options, Stock Appreciation Rights ("SARs"), Restricted Stock, Restricted Stock Units, Performance Units, and Other Stock-Based Awards. This Plan was adopted by the Board on April 26, 2021 and shall become effective upon shareholder approval on July 26, 2021 (the "**Effective Date**") and shall remain in effect as provided in Section 1.3 hereof. As of the Effective Date, no new awards shall be granted or awarded under the Amended and Restated 2009 Praxair, Inc. Long Term Incentive Plan (the "**Legacy Plan**") and any authorized Shares that remain available for grant under new awards thereunder shall be cancelled. Any awards granted under the Legacy Plan (whether vested or unvested) prior to the Effective Date shall remain outstanding under such plan in accordance with their terms and this Plan shall not affect the terms or conditions of any such award.

a. **Purpose of this Plan**. The purpose of this Plan is to provide a means whereby Employees develop personal involvement in the financial success of the Company, and to encourage them to devote their best efforts to the business of the Company, thereby advancing the interests of the Company and its shareholders. A further purpose of this Plan is to provide a means through which the Company may attract and retain able Employees and to provide a means whereby those individuals can acquire and maintain stock ownership, thereby strengthening their concern for the welfare of the Company. This Plan also provides a means of compensating Directors in the form of equity as a complement to other elements of the Directors' overall compensation program and to align their interests with those of the Company's shareholders.

b. **Duration of this Plan**. Unless sooner terminated as provided herein, this Plan shall terminate July 25, 2031. After this Plan is terminated, no Awards may be granted but Awards previously granted shall remain outstanding in accordance with their applicable terms and conditions and this Plan's terms and conditions.

B. Definitions

Whenever used in this Plan, the following terms shall have the meanings set forth below, and when the meaning is intended, the initial letter of the word shall be capitalized.

a. **"Acquisition Awards"** has the meaning set forth in Section 4.2.

b. **"Administrator"** has the meaning set forth in Section 3.5.

c. **"Award"** means, individually or collectively, a grant under this Plan of Nonqualified Stock Options, Incentive Stock Options, SARs, Restricted Stock, Restricted Stock Units, Performance Units, or Other Stock-Based Awards, in each case subject to the terms of this Plan.

d. **"Award Agreement"** means either (a) a written agreement entered into by the Company and a Participant setting forth the terms and provisions applicable to an Award granted under this Plan, or (b) a written or electronic statement issued by the Company to a Participant describing the terms and provisions of such Award, including any amendment or modification thereof. The Committee may provide for the use of electronic, Internet or other non-paper Award Agreements, and the use of electronic, Internet or other non-paper means for the acceptance thereof and actions thereunder by a Participant.

e. **“Beneficial Owner”** or **“Beneficial Ownership”** shall have the meaning ascribed to such term in Rule 13d-3 of the General Rules and Regulations under the Exchange Act.

f. **“Board”** means the Board of Directors of the Company.

g. **“Change in Control”** means the occurrence of any one of the following events with respect to the Company:

   i. individuals who, on January 1, 2021, constitute the Board (the “**Incumbent Directors**”) cease, for any reason, to constitute at least a majority of the Board, provided that any person becoming a director subsequent to January 1, 2021, whose election or nomination for election was approved by a vote of at least two-thirds of the Incumbent Directors then on the Board (either by a specific vote or by approval of the Company proxy statement in which such person is named as a nominee for director, without objection to such nomination) shall be an Incumbent Director; provided, however, that no individual elected or nominated as a director of the Company initially as a result of an actual or threatened election contest with respect to directors or any other actual or threatened solicitation of proxies or consents by or on behalf of any person other than the Board shall be deemed an Incumbent Director;

   ii. any “person” (as such term is defined in Section 3(a)(9) of the Exchange Act and as used in Sections 13(d)(3) and 14(d)(2) of the Exchange Act) is or becomes a Beneficial Owner, directly or indirectly, of securities of the Company representing 20% or more of the combined voting power of the Company’s then outstanding securities eligible to vote for the election of the Board (the “Linde Voting Securities”); provided, however, that the event described in this Subsection 2.7(b) shall not be deemed to be a Change in Control by virtue of any of the following acquisitions: (A) by the Company or any of its subsidiaries; (B) by any employee benefit plan sponsored or maintained by the Company or any of its subsidiaries; (C) by any underwriter temporarily holding securities pursuant to an offering of such securities; or (D) pursuant to a Non-Qualifying Transaction (as defined in Subsection 2.7(c));

   iii. the consummation of a merger, consolidation, statutory share exchange or similar form of corporate transaction involving the Company or any of its subsidiaries that requires the approval of the Company’s shareholders, whether for such transaction or the issuance of securities in the transaction (a “**Business Combination**”), unless immediately following such Business Combination: (A) more than 50% of the total voting power of (x) the corporation resulting from such Business Combination (the “Surviving Corporation”), or (y) if applicable, the ultimate parent corporation that directly or indirectly has Beneficial Ownership of 100% of the voting securities eligible to elect directors of the Surviving Corporation (the “Parent Corporation”), is represented by Linde Voting Securities that were outstanding immediately prior to such Business Combination (or, if applicable, shares into which such Linde Voting Securities were converted pursuant to such Business Combination), and such voting power among the holders thereof is in substantially the same proportion as the voting power of such Linde Voting Securities among the holders thereof immediately prior to the Business Combination, (B) no person (other than any employee benefit plan sponsored or maintained by the Surviving Corporation or the Parent Corporation), is or becomes the Beneficial Owner, directly or indirectly, of 20% or more of the total voting power of the outstanding voting securities eligible to elect directors of the Parent Corporation (or, if there is no Parent Corporation, the Surviving Corporation) and (C) at least a majority of the members of the board of directors of the Parent Corporation (or, if there is no Parent Corporation, the Surviving Corporation) were Incumbent Directors at the time of the Board's approval of the execution of the initial agreement providing for such Business Combination (any Business Combination which satisfies all of the criteria specified in (A), (B) and (C) above shall be deemed to be a "Non-Qualifying Transaction"); or

iv. the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or a sale or disposition of all or substantially all of the Company's assets.

Notwithstanding the foregoing, to the extent an Award is subject to Code Section 409A, the Committee shall have the discretion to define Change in Control for such Award in a manner which complies with such Code Section.

a. **"Code"** means the U.S. Internal Revenue Code of 1986, as amended from time to time. For purposes of this Plan, references to sections of the Code shall be deemed to include references to any applicable regulations thereunder and any successor or similar provision.
b. **"Committee"** means, with respect to Awards granted to (a) Employees, the Compensation Committee of the Board, and (b) Directors, the Nominations and Governance Committee of the Board, and in each case, any other committee designated by the Board to administer this Plan with respect to Employee or Director Awards. The Committee shall consist of not less than two directors. However, if a member of the Committee is not a "non-employee director" within the meaning of Rule 16b-3 under the Exchange Act, the Committee may, from time to time, delegate some or all of its functions under the Plan to a committee or subcommittee composed of members that meet the relevant requirements. The term "Committee" includes any such committee or subcommittee, to the extent of the Compensation Committee's delegation, or the Nominations and Governance Committee's delegation, as the case may be. If the Committee does not exist or cannot function for any reason, the Board may take any action under the Plan that would otherwise be the responsibility of the Committee, other than any actions required to be carried out by a committee of at least two "non-employee directors".
c. **"Company"** means Linde plc, an Irish public limited company, and any successor thereto as provided in Article 19 herein.
d. **"Director"** means any director of the Company who is not an Employee.
e. **"Effective Date"** has the meaning set forth in Section 1.1.
f. **"Employee"** means any individual performing services for the Company or a Subsidiary and designated as an employee of the Company or its Subsidiaries on the payroll records thereof. An Employee shall not include any individual during

any period he or she is classified or treated by the Company or its Subsidiary as an independent contractor, a consultant, or any employee of an employment, consulting, or temporary agency or any other entity other than the Company or its Subsidiary, without regard to whether such individual is subsequently determined to have been, or is subsequently retroactively reclassified as a common-law employee of the Company or its Subsidiary during such period.

g. **“Exchange Act”** means the Securities Exchange Act of 1934, as amended from time to time, or any successor act thereto.
h. **“Fair Market Value”** or **“FMV”** means, in respect of any date on or as of which a determination thereof is being or to be made, the closing market price of a Share reported on the New York Stock Exchange Composite Transactions tape on such date, or, if no Shares were traded on such date, on the next preceding day on which sales of Shares were reported on the New York Stock Exchange Composite Transactions tape.
i. **“Grant Date”** means the date an Award is granted to a Participant pursuant to the Plan.
j. **“Grant Price”** means the price established at the time of grant of a SAR pursuant to Article 7, used to determine whether there is any payment due upon exercise of the SAR.
k. **“Incentive Stock Option”** or **“ISO”** means an Option to purchase Shares granted under Article 6 to an Employee that is designated as an Incentive Stock Option and that is intended to meet the requirements of Code Section 422, or any successor provision.
l. **“Insider”** shall mean an individual who is, on the relevant date, an executive officer of the Company or a more than ten percent (10%) Beneficial Owner of any class of the Company’s equity securities that is registered pursuant to Section 12 of the Exchange Act, as determined by the Board in accordance with Section 16 of the Exchange Act.
m. **“Market Price”** means, in respect of any date on or as of which a determination thereof is being or to be made, the average of the high and low prices of a Share reported on the New York Stock Exchange Composite Transactions tape on such date, or, if no Shares were traded on such date, on the next preceding day on which sales of Shares were reported on the New York Stock Exchange Composite Transactions tape.
n. **“Nonqualified Stock Option”** or **“NQSO”** means an Option that is not intended to meet the requirements of Code Section 422, or that otherwise does not meet such requirements.
o. “**Officer**” means an Employee who is either (a) an “executive officer” (within the meaning of Rule 3b-7 of the Exchange Act), or (b) an “officer” elected by the Board and holding a position with a Linde Global Grade of 30 or higher (or the future equivalent thereof).
p. **“Option”** means an Incentive Stock Option or a Nonqualified Stock Option, as described in Article 6.
q. **“Option Price”** means the price at which a Share may be purchased by a Participant pursuant to an Option.
r. **“Other Stock-Based Award”** means an equity-based or equity-related Award not otherwise described by the terms of this Plan, granted pursuant to Article 10.
s. **“Participant”** means any Employee or a Director to whom an Award is granted.

t. **“Performance Goal”** means, with respect to any applicable Award to an Employee, the one or more targets, goals or levels of attainment required to be achieved in terms of the specified Performance Measures during the specified Performance Period, as set forth in the related Award Agreement.

u. **“Performance Measure”** means with respect to any Award granted under Article 12 below, any performance measure or measures as determined by the Committee in its discretion and set forth in the applicable Award Agreement for purposes of determining the applicable Performance Goal.

v. **“Performance Period”** means the period of time during which the Performance Goals must be met in order to determine the degree of payout and/or vesting with respect to an Award granted to an Employee.

w. **“Performance Unit”** means an Award to an Employee under Article 9 herein and subject to the terms of this Plan, denominated in Units, the value of which at the time it is payable is determined as a function of the extent to which corresponding Performance Goal(s) has been achieved during the applicable Performance Period.

x. **“Plan”** means this 2021 Linde plc Long Term Incentive Plan.

y. **“Restricted Stock**” means Shares issued pursuant to a Restricted Stock Grant under Article 8, so long as the Shares remain subject to the restrictions and conditions specified in the Award Agreement pursuant to which such Restricted Stock Grant is made.

z. **“Restricted Stock Grant”** means an Award of Restricted Stock or Restricted Stock Units made pursuant to the provisions of Article 8.

aa. **“Restricted Stock Unit”** means a Unit issued pursuant to a Restricted Stock Grant under Article 8 so long as the Units remain subject to the restrictions and conditions specified in the Award Agreement.

ab. **“Restriction Period”** means the period when Restricted Stock or Restricted Stock Units are subject to a substantial risk of forfeiture (based on the passage of time, the achievement of Performance Goals, or upon the occurrence of other events as determined by the Committee, in its discretion), as provided in Article 8.

ac. **“Share”** means an ordinary share of EUR0.001 in the capital of the Company or any security issued by the Company in substitution or exchange therefor or in lieu thereof.

ad. **“Share Equivalent”** means a Unit (or fraction thereof, if authorized by the Committee) substantially equivalent to a hypothetical Share, credited to the Participant and having a value at any time equal to the FMV of a Share (or fraction thereof) at such time.

ae. **“Stock Appreciation Right”** or “**SAR**” means an Award, designated as a SAR, pursuant to the terms of Article 7 herein.

af. **“Subsidiary”** means any corporation or other entity, whether domestic or foreign, in which the Company has or obtains, directly or indirectly, a proprietary interest of fifty percent (50%) or greater by reason of stock ownership or otherwise; provided, however, that (a) for purposes of determining whether any Employee can be a Participant with respect to any Award of Incentive Stock Option, the term “Subsidiary” has the meaning given to such term in Code Section 424, as interpreted by the regulations thereunder and applicable law; and (b) for purposes of determining whether any individual may be a Participant with respect to any Award of Options or SARs that are intended to be exempt from Code Section

409A, the term “Subsidiary” means any corporation or other entity to which the Company is an “eligible issuer of service recipient stock” within the meaning of Code Section 409A.

ag. **“Unit”** means a bookkeeping entry used by the Company to record and account for the grant or settlement of an Award until such time as the Award is paid, canceled, forfeited or terminated, as the case may be, which, except as otherwise specified by the Committee, shall be equal to one Share Equivalent.

C. Administration

a. **General**. The Committee shall be responsible for administering this Plan, subject to this Article 3 and the other provisions of this Plan. The Committee may employ attorneys, consultants, accountants, agents, and other individuals, any of whom may be an Employee, and the Committee, the Company, and its officers and Directors shall be entitled to rely upon the advice, opinions, or valuations of any such individuals. All actions taken and all interpretations and determinations made by the Committee shall be final and binding upon the Participants, the Company, and all other interested individuals.

b. **Authority of the Committee**. The Committee shall have sole and absolute discretionary power to interpret the terms and the intent of this Plan and any Award Agreement or other agreement or document ancillary to, or in connection with, this Plan, to determine eligibility for Awards and to adopt such rules, regulations, forms, instruments, and guidelines for administering this Plan as the Committee may deem necessary or proper and references herein to the Committee’s discretion shall refer to such sole and absolute discretion. Such authority shall include, but not be limited to, (a) selecting Participants, (b) establishing all Award terms and conditions, including the terms and conditions set forth in Award Agreements, (c) granting Awards as an alternative to or as the form of payment for grants or rights earned or due under compensation plans or arrangements of the Company, (d) construing any ambiguous provision of the Plan or any Award Agreement, (e) determining whether, to what extent and under what circumstances and method or methods (1) Awards may be (A) settled in cash, Shares, other securities, other Awards or other property, (B) exercised or (C) canceled, forfeited or suspended, (2) Shares, other securities, other Awards or other property, and other amounts payable with respect to an Award may be deferred either automatically or at the election of the Participant thereof or of the Committee, and (3) Awards may be settled by the Company or any of its designees, and (f) subject to Article 17 adopting modifications and amendments to this Plan or any Award Agreement, including, without limitation, any that are necessary to comply with the laws, rules or regulations of the countries and other jurisdictions in which the Company and/or its Subsidiaries operate or to accelerate the time or times at which the Award becomes vested, unrestricted or may be exercised. Such provisions shall be determined in the discretion of the Committee, shall be included in the Award Agreement entered into with each Participant, need not be uniform among all such Awards, and may reflect distinctions based on the reasons for termination.

c. **Delegation**. The Committee may delegate to one or more of its members or to one or more officers of the Company, and/or its Subsidiaries or to one or more agents or advisors, such administrative duties or powers as it may deem advisable, and the Committee or any individuals to whom it has delegated duties or powers as aforesaid may employ one or more individuals to render advice with respect to any responsibility the Committee or such individuals may have under this Plan. The Committee may, by resolution, authorize the Chief Executive Officer of the Company (the "CEO") or any other officer of the Company, to do one or both of the following on the same basis as can the Committee: (a) designate Employees to be recipients of Awards and (b) determine the size of any such Awards; provided, however, (i) the Committee shall not delegate such responsibilities for any Awards to be granted to an Employee who is considered an Insider; (ii) the resolution providing such authorization sets forth the total number of Awards the CEO or officer may grant; and (iii) the CEO or officer, as applicable, shall report periodically to the Committee regarding the nature and scope of the Awards granted pursuant to the authority delegated.

d. **Non-Uniform Determinations**. The Board's and the Committee's determinations under the Plan and Award Agreements need not be uniform and any such determinations may be made by it selectively among persons who receive, or are eligible to receive, Awards under the Plan (whether or not such persons are similarly situated). Without limiting the generality of the foregoing, the Board and the Committee will be entitled, among other things, to make non-uniform and selective determinations under Award Agreements, and to enter into non-uniform and selective Award Agreements, as to (a) the persons to receive Awards, (b) the terms and provisions of Awards and (c) whether an Award holder's employment or other service has been terminated for purposes of the Plan.

e. **Indemnification**. No member of the Committee or any person to whom administrative duties or powers have been delegated in accordance with Section 3.3 (each, an "**Administrator**") will have any liability to any person (including any Participant) for any action taken or omitted or any determination made in good faith with respect to the Plan or any Award. Each Administrator will be indemnified and held harmless by the Company against and from any loss, cost, liability or expense (including attorneys' fees) that may be imposed upon or incurred by such Administrator in connection with or resulting from any action, suit or proceeding to which such Administrator may be a party or in which such Administrator may be involved by reason of any action taken or omitted to be taken under the Plan or any Award Agreement and against and from any and all amounts paid by such Administrator, with the Company's approval, in settlement thereof, or paid by such Administrator in satisfaction of any judgment in any such action, suit or proceeding against such Administrator, provided that the Company will have the right, at its own expense, to assume and defend any such action, suit or proceeding and, once the Company gives notice of its intent to assume the defense, the Company will have sole control over such defense with counsel of the Company's choice. To the extent any taxable expense reimbursement under this paragraph is subject to Section 409A of the Code, (a) the amount thereof eligible in one taxable year shall not affect the amount eligible in any other taxable year; (b) in no event shall any expenses be reimbursed after the last day of the taxable year following the taxable year in which the Administrator incurred such expenses; and (c) in no event shall any right to reimbursement be subject to liquidation or exchange for another benefit. The foregoing right of indemnification will not be available to an Administrator to the extent that a court of competent jurisdiction in a final judgment or other final adjudication, in either case, not subject to further appeal, determines that the acts or omissions of such Administrator giving rise to the indemnification claim resulted from such Administrator's bad faith, fraud or willful misconduct. The foregoing right of indemnification will not be exclusive of any other rights of indemnification to which an Administrator may be entitled under the Company's articles of association or constitution, as a matter of law, or otherwise, or any other power that the Company may have to indemnify such persons or hold them harmless.

D. Shares Subject to this Plan and Maximum Awards

a. **Number of Shares Available for Awards**. Subject to adjustment as provided in Section 4.5, the maximum number of Shares which may be issued pursuant to Awards under this Plan on or after the Effective Date shall be **9,000,000** Shares (the "**Share Authorization**"). The Shares available for issuance under this Plan may be authorized and unissued Shares or treasury Shares. The maximum number of Shares of the Share Authorization that may be issued pursuant to ISOs under this Plan shall be **9,000,000** Shares. The maximum number of Shares of the Share Authorization that may be issued under this Plan pursuant to Awards other than Options or SARs shall be **3,000,000** Shares. For the avoidance of doubt, as of the Effective Date, no new awards shall be granted or awarded under the Legacy Plan and any authorized Shares that remain available for grant under new awards under the Legacy Plan shall be cancelled. Any awards granted under the Legacy Plan (whether vested or unvested) prior to the Effective Date shall remain outstanding under such plan in accordance with their terms and this Plan shall not affect the terms or conditions of any such award.

b. **Share Usage.** Shares subject to an Award that expires according to its terms or is forfeited, terminated, canceled or surrendered, in each case, without having been exercised or settled, or can be paid only in cash, will be available again for grant under the Plan, without reducing the number of Shares that are available for Awards under the Plan. In no event shall (a) any Shares subject to an Option that is cancelled upon the exercise of a tandem SAR, (b) any Shares subject to an Award that are surrendered in payment of the exercise price of an Option or in payment of the taxes associated with an Award, (c) any Shares subject to a SAR that are not issued in connection with the stock settlement of the SAR upon exercise thereof, or (d) any Shares repurchased by the Company using Option proceeds, become available for grant under the Plan pursuant to this Section 4.2. Shares subject to awards that are assumed, converted or substituted under the Plan as a result of the Company's acquisition of another company (including by way of merger, combination or similar transaction) ("**Acquisition Awards**") will not count against the Share Authorization. Available shares under a shareholder approved plan of an acquired company (as appropriately adjusted to reflect the transaction) may be used for Awards under the Plan and do not reduce the Share Authorization, subject to applicable stock exchange requirements.

c. **Annual Award Limits.** The following limits (each an "Annual Award Limit" and, collectively, "Annual Award Limits"), as adjusted pursuant to Section 4.5, shall apply to grants of Awards to Employees under this Plan:

    i. **Options and SARS**: The maximum aggregate number of Shares subject to Options, SARs or any combination thereof granted in any one calendar year to any one Participant shall be 2,000,000 (with tandem Options and SARs being counted only once with respect to this limit).

ii. **Other Awards**: The maximum aggregate number of Shares subject to Awards of Restricted Stock, Restricted Stock Units, Performance Units or Other Stock-Based Compensation granted in any one calendar year to any one Participant shall be 300,000 Shares or, in the event such Award is payable in cash, the equivalent cash value thereof on the first day of the performance period to which such Award relates, as determined by the Committee.

d. **Director Awards.** In order to retain and compensate Directors for their services, and to strengthen the alignment of their interests with those of the shareholders of the Company, the Plan permits the grant of Awards to Directors.

e. **Adjustments in Authorized Shares**. In the event of any corporate event or transaction such as a merger, consolidation, reorganization, recapitalization, separation, partial or complete liquidation, share dividend (bonus issue), other distribution of cash or property (other than normal cash dividends) to shareholders of the Company, share split, reverse share split, split up, spin-off, combination of Shares, exchange of Shares, dividend in kind, or other like change in capital structure affecting the number or type of outstanding Shares, the Committee, in order to prevent dilution or enlargement of Participants' rights under this Plan, shall substitute or adjust, as applicable, the number and kind of Shares that may be issued under this Plan or under particular forms of Awards, the number and kind of Shares subject to outstanding Awards (including, without limitation, the substitution of other securities, cash or property in lieu thereof), the Option Price or Grant Price applicable to outstanding Awards, the Annual Award Limits, and other value determinations applicable to outstanding Awards.

To further reflect any of the foregoing events, transactions or adjustments, the Committee, in its discretion, may also make adjustments in the terms of any Awards under this Plan and may modify any other terms of outstanding Awards, including modifications of Performance Goals and changes in the length of Performance Periods, as it deems necessary or appropriate. The determination of the Committee as to the foregoing adjustments, if any, shall be conclusive and binding on Participants under this Plan.

Subject to the provisions of Article 16 and notwithstanding anything else herein to the contrary, without affecting the number of Shares reserved or available hereunder, the Committee may authorize the issuance or assumption of benefits under this Plan in connection with any merger, consolidation, acquisition of property or stock, or reorganization upon such terms and conditions as it may deem appropriate (including, but not limited to, a conversion of equity awards into Awards under this Plan in a manner consistent with FASB ASC Topic 718).

A. Eligibility and Participation

Only Employees and Directors shall be eligible to participate in this Plan. Subject to the provisions of this Plan, the Committee may, from time to time, select those Employees or Directors to whom Awards shall be granted and shall determine, in its discretion, the nature of, any and all terms permissible by law, and the amount of each Award; provided, however, that no Award made to a Director shall be subject to or conditioned upon the attainment of any Performance Goal.

A. Stock Options

a. **Grant of Options**. Subject to the terms and provisions of this Plan, Options may be granted to Participants in such number, and upon such terms, and at any time and from time to time as shall be determined by the Committee, in its discretion.

Options may be granted in addition to, or in tandem with or independent of, SARs or any other Awards under the Plan.

b. **Award Agreement**. Each Option grant shall be evidenced by an Award Agreement that shall specify the Option Price, the term of the Option, the number of Shares to which the Option pertains, the conditions, including any Performance Goals, upon which an Option shall become vested and exercisable, and such other terms and conditions as the Committee shall determine which are not inconsistent with the terms of this Plan. The Award Agreement also shall specify whether the Option is intended to be an ISO or an NQSO. To the extent that an Award Agreement does not specify whether the Option is intended to be an ISO or an NQSO, such Option shall be an NQSO.

c. **Option Price**. The Option Price for each grant of an Option under this Plan shall be determined by the Committee in its discretion and shall be specified in the Award Agreement; provided, however, the Option Price (other than the Option Price of Acquisition Awards) must be at least equal to 100% of the FMV of the Shares as determined on the Grant Date.

d. **Term of Options**. Each Option granted to a Participant shall expire at such time as the Committee shall determine at the time of grant; provided, however, no Option shall be exercisable later than the day before the tenth (10th) anniversary of its Grant Date.

e. **Exercise of Options**. Options shall be exercisable at such times and be subject to such restrictions and conditions as the Committee shall in each instance approve, which terms and restrictions need not be the same for each grant or for each Participant. Except upon a Change in Control and in certain limited situations (including, but not limited to, the death or disability of the Participant): (a) Awards of Options subject solely to the continued service of the Participant shall become exercisable no earlier than three (3) years after the Grant Date, provided that such Option may partially vest after no less than one (1) year following such Grant Date; and (b) any other Award of Options shall become exercisable no earlier than one (1) year after the Grant Date.

f. **Payment**. Options shall be exercised by the delivery of a notice of exercise to the Company or an agent designated by the Company in a form specified or accepted by the Committee, or by complying with any alternative procedures which may be authorized by the Committee, setting forth the number of Shares with respect to which the Option is to be exercised, accompanied by full payment for the Shares.

A condition of the issuance of the Shares as to which an Option shall be exercised shall be the payment of the Option Price. The Option Price of any Option shall be payable to the Company in full either: (a) in cash or its equivalent; (b) by tendering (either by actual delivery or attestation) previously acquired Shares having an aggregate Market Price at the time of exercise equal to the Option Price (provided that the Shares that are tendered may be subject to a minimum holding period, as determined by the Committee in its discretion, prior to their tender to satisfy the Option Price if acquired under this Plan or any other compensation plan maintained by the Company or have been purchased on the open market); (c) by having the Company withhold Shares that otherwise would be delivered to the exerciser pursuant to the exercise of the Option having a value equaling the aggregate Option Price due; (d) by a cashless (broker-assisted) exercise; (e) by a combination of (a), (b), (c) and/or (d); or (f) any other method approved or accepted by the Committee in its discretion.

Subject to any governing rules or regulations, as soon as practicable after receipt of written notification of exercise and full payment (including satisfaction of any applicable tax withholding), the Company shall deliver to the Participant evidence of book entry Shares.

Unless otherwise determined by the Committee, all payments under all of the methods indicated above shall be paid in United States dollars.

a. **Notification of Disqualifying Disposition**. If any Participant shall make any disposition of Shares issued pursuant to the exercise of an ISO under the circumstances described in Code Section 421(b) (relating to certain disqualifying dispositions), such Participant shall notify the Company of such disposition within ten (10) days thereof.

B. Stock Appreciation Rights

a. **Grant of SARs**. Subject to the terms and conditions of this Plan, SARs may be granted to Participants at any time and from time to time as shall be determined by the Committee, in its discretion. Subject to the terms and conditions of this Plan, the Committee shall have discretion in determining the number of SARs granted to each Participant and, consistent with the provisions of this Plan, in determining the terms and conditions pertaining to such SARs. SARs may be granted under the Plan alone, in tandem with, in addition to or independent of, Options or any other Awards under the Plan.

b. **SAR Agreement**. Each SAR Award shall be evidenced by an Award Agreement that shall specify the Grant Price, the term of the SAR, the number of Shares to which the SAR pertains, the conditions, including any Performance Goals, upon which the SAR shall become vested and exercisable, and such other terms and conditions as the Committee shall determine, which are not inconsistent with the terms of this Plan.

c. **Term of SAR**. The term of a SAR granted under this Plan shall be determined by the Committee, in its discretion, and specified in the SAR Award Agreement; provided, however, no SAR shall be exercisable later than the tenth (10th) anniversary of its Grant Date.

d. **Grant Price**. The Grant Price for each Award of a SAR shall be determined by the Committee and shall be specified in the Award Agreement; provided, however, the Grant Price must be at least equal to 100% of the FMV of the Shares as determined on the Grant Date (other than the Grant Price of Acquisition Awards).

e. **Exercise of SARs**. SARs shall be exercisable at such times and be subject to such restrictions and conditions as the Committee shall in each instance approve, which terms and restrictions need not be the same for each grant or for each Participant. Except upon a Change in Control and in certain limited situations (including, but not limited to, the death or disability of the Participant): (a) Awards of SARs subject solely to the continued service of the Participant shall become exercisable no earlier than three (3) years after the Grant Date provided that such SAR may partially vest after no less than one (1) year following such Grant Date; and (b) any other Award of SARs shall become exercisable no earlier than one (1) year after the Grant Date. The Committee may provide that a SAR shall be automatically exercised on one or more specified dates.

f. **Payment of SARs**. Upon the exercise of a SAR, a Participant shall be entitled to receive payment from the Company in an amount determined by multiplying:

i. The excess of the FMV of a Share on the date of exercise over the Grant Price; by

ii. The number of Shares with respect to which the SAR is exercised.

At the discretion of the Committee, the payment upon exercise of a SAR may be in cash, Shares, or any combination thereof, or in any other manner approved by the Committee in its discretion. The Committee's determination regarding the form of SAR payout shall be set forth in the Award Agreement pertaining to the grant of the SAR.

A. Restricted Stock Grants

a. **Grant of Restricted Stock or Restricted Stock Units**. Subject to the terms and provisions of this Plan, the Committee, at any time and from time to time, may grant Restricted Stock Grants to Participants in such amounts as the Committee shall determine. A Restricted Stock Grant is the issue of Shares or Units in the name of a Participant subject to such terms and conditions as the Committee shall deem appropriate, including, without limitation, restrictions on the sale, assignment, transfer or other disposition of such Shares or Units and the requirement that the Participant forfeit such Shares or Units back to the Company (a) upon termination of employment of an Employee or termination of service as a Director for specified reasons within a specified period of time; (b) if any specified Performance Goals are not achieved during a specified Performance Period; or (c) if such other conditions as the Committee may specify are not satisfied.

b. **Restricted Stock or Restricted Stock Unit Agreement**. Each Restricted Stock Grant shall be evidenced by an Award Agreement that shall specify the Restriction Period(s), the number of Shares of Restricted Stock and/or Restricted Stock Units granted, the conditions and restrictions imposed upon the Restricted Stock Grant, and such other provisions as the Committee shall determine which are not inconsistent with the terms of this Plan.

c. **Restriction Period**. Each Restricted Stock Grant shall provide that in order for a Participant to receive unrestricted Shares or payment in settlement of a Restricted Stock Unit, the Participant must remain an Employee or a Director, as the case may be, for a period of time specified by the Committee in the Award Agreement. The Committee may also establish one or more Performance Goals that are required to be achieved during one or more Performance Periods within the Restriction Period as a condition to the lapse of restrictions of Awards to Employees. Except upon a Change in Control and in certain limited situations (including, but not limited to, the death or disability of the Participant): (a) Awards of Restricted Stock and/or Restricted Stock Units subject solely to the continued service of the Participant shall have a Restriction Period of not less than three (3) years from the Grant Date; provided, however, that up to an aggregate of five percent (5%) of the **3,000,000** Share Authorization under Section 4.1 of this Plan applicable to Awards other than Options or SARs, as may be adjusted from time to time pursuant to the provisions of this Plan, may be granted to Participants with a vesting period of less than three (3) years; and (b) Awards to Employees of Restricted Stock and/or Restricted Stock Units subject to the achievement of one or more Performance Goals shall have a minimum Restriction Period of one (1) year. The Committee may provide for the lapse of restrictions in installments during the Restriction Period.

d. **Restrictions**. During the Restriction Period, the Participant may not sell, assign, transfer, pledge, hypothecate, encumber or otherwise dispose of or realize on the Shares or Units subject to the Restricted Stock Grant. Unless otherwise directed by the Committee, (i) all certificates representing Shares of Restricted Stock will be held in custody by the Company until all restrictions thereon have lapsed, together with a stock power or powers executed by the Participant in whose name such certificates are registered, endorsed in blank and covering such Shares, or (ii) all uncertificated Shares of Restricted Stock will be held at the Company's transfer agent in book entry form with appropriate restrictions relating to the transfer of such Shares of Restricted Stock. The Committee may, in its discretion, include such other restrictions and conditions as it may deem appropriate.

e. **Payment**. Subject to Section 12.4 below, if applicable, upon expiration of the Restriction Period and if all conditions have been satisfied and any applicable Performance Goals attained, the Shares of Restricted Stock will be made available to the Participant or the Restricted Stock Units will be vested in the account of the Participant, free of all restrictions, provided that the Committee may, in its discretion, require (a) the further deferral of any Restricted Stock Grant beyond the initially specified Restriction Period; (b) that the Restricted Stock or Restricted Stock Units be retained by the Company; and (c) that the Participant receive a cash payment in lieu of unrestricted Shares or Units.

f. **Rights as a Shareholder**. Unless otherwise determined by the Committee and set forth in a Participant's Award Agreement, the Participant shall have, with respect to shares of Restricted Stock, all of the rights of a shareholder of the Company, including the right to vote the shares and receive any dividends paid thereon. Any such dividends shall be reinvested on the dividend payment date in additional Shares of Restricted Stock under the Restricted Stock Grant and shall be subject to the restrictions and other terms and conditions set forth therein. A Participant shall not have, with respect to Restricted Stock Units, any voting or other rights of a shareholder of the Company; provided, however, that if determined by the Committee and set forth in the Participant's Award Agreement, the Participant shall have the right to receive Dividend Equivalents in accordance with the provisions of Article 13.

g. **Section 83(b) Election**. The Committee may provide in an Award Agreement that the Award of Restricted Stock is conditioned upon the Participant making or refraining from making an election with respect to the Award under Code Section 83(b). If a Participant makes an election pursuant to Code Section 83(b) concerning a Restricted Stock Award, the Participant shall be required to file promptly a copy of such election with the Company.

h. **Restricted Stock Grants Subject to Performance-Based Vesting**. Restricted Stock Grant that are subject to performance-based vesting shall also be subject to the terms and conditions of Article 12 below.

B. Performance Units

a. **Grant of Performance Units**. Subject to the terms and provisions of this Plan, the Committee, at any time and from time to time, may grant Performance Units to Employees in such amounts and upon such terms as the Committee shall determine. Each Performance Unit shall represent the prospective contingent right to receive payment based upon Company and/or Subsidiary performance over a specified Performance Period. Each Performance Unit shall have an initial value that is established by the Committee at the time of grant and need not be equivalent to the value of a Share Equivalent. At the time of grant, the Committee, in its discretion, shall establish the Performance Period, Performance Measures, Performance Goals and such other terms and conditions applicable to such Award. The number of Shares and/or the amount of cash or other consideration earned in settlement of a Performance Unit shall be determined at the end of the Performance Period.

b. **Earning of Performance Units**. Each Performance Unit Award Agreement shall provide that in order for an Employee to receive a payment in settlement of the Award, the Company must achieve certain Performance Goals over a designated Performance Period, with attainment of one or more Performance Goals determined using one or more specific Performance Measures. The Performance Goals and the Performance Period shall be established by the Committee in its discretion; provided, however, that except upon a Change in Control and in certain limited situations (including, but not limited to, the death or disability of the Participant), the Performance Period must have a minimum duration of one (1) year. The Committee shall establish one or more Performance Measures for each Performance Period for determining the portion of the Performance Unit Award, which will be earned or forfeited, based on the extent to which the Performance Goals are achieved or exceeded. Such Performance Goals may include minimum, maximum and target levels of performance, with the size of the payment payable in settlement of the Performance Unit Award based on the level attained.

c. **Form of Performance Unit Award.** Performance Unit Awards shall be made on such terms and conditions not inconsistent with the Plan, and in such form or forms, as the Committee may, from time to time, approve. Performance Units may be awarded alone, in addition to, or independent of other Awards under the Plan. Subject to the terms of the Plan, the Committee shall, in its discretion, determine the number of Units subject to each Performance Unit Award made to an Employee and may impose different terms and conditions on any particular Performance Unit Award made to any Employee. The Performance Goals, Performance Period or Periods, Performance Measures and other terms and conditions applicable to any Performance Unit Award shall be set forth in the relevant Award Agreement.

d. **Payment of Performance Units**. Subject to the terms of this Plan and the applicable Award Agreement, after the later of the date the applicable Performance Period has ended or the date on which any other terms and conditions applicable to such Performance Unit Award have been satisfied, the holder of Performance Units shall be entitled to receive payout of the value and number of Performance Units earned by the Employee over the Performance Period, to be determined as a function of the extent to which the corresponding Performance Goals have been achieved. Subject to Section 12.4 below, if applicable, such payment shall be as determined by the Committee and as evidenced in the Award Agreement. Subject to the terms of this Plan, the Committee, in its discretion, may pay earned Performance Units in the form of Shares, cash, any combination thereof, or any other form as designated by the Committee in its discretion, equal to the value of the earned Performance Units at the close of the applicable Performance Period, or at such other time as specified in the Award Agreement. Any Shares paid in settlement of such Performance Units may be granted subject to any restrictions deemed appropriate by the Committee. The determination of the Committee with respect to the form of payout of such Awards shall be set forth in the applicable Award Agreement.

C. Other Stock-Based Awards

a. **Other Stock-Based Awards**. The Committee may grant other types of equity-based or equity-related Awards not otherwise described by the terms of this Plan (including, subject to the limitations below, the grant or offer for sale of unrestricted Shares) in such amounts and subject to such terms and conditions, as the Committee shall determine. Such Awards may involve the transfer of actual Shares to Participants, or payment in cash or otherwise of amounts based on the value of Shares and may include, without limitation, Awards designed to comply with or take advantage of the applicable local laws of jurisdictions other than the United States. Notwithstanding any provision in this Plan to the contrary, Awards of unrestricted Shares shall only be made in lieu of salary and/or cash bonuses/variable compensation paid to Employees or cash fees paid to Directors.

b. **Value of Other Stock-Based Awards**. Each Other Stock-Based Award shall be expressed in terms of Shares or Units, as determined by the Committee. The Committee may, in its discretion, establish Performance Goals with respect to any Other Stock-Based Awards. If the Committee exercises its discretion to establish Performance Goals, the number and/or value of Other Stock-Based Awards that will be paid out to the Participant may depend on the extent to which the Performance Goals are met.

c. **Payment of Other Stock-Based Awards**. Payment, if any, with respect to an Other Stock-Based Award shall be made in accordance with the terms of the Award, in cash or Shares as the Committee determines.

d. **Other Stock-Based Awards Subject to Performance-Based Vesting**. Any Other Stock-Based Award that is subject to performance-based vesting shall also be subject to the terms and conditions of Article 12 below.

D. Transferability of Awards

No Award under the Plan, and no right or interest therein, shall be (a) assignable, alienable, pledgable or transferable by a Participant, except by will or the laws of descent and distribution, or (b) subject to any obligation, or the lien or claims of any creditor, of any Participant, or (c) subject to any lien, encumbrance or claim of any party made in respect of or through any Participant, however arising. During the lifetime of a Participant, Options and SARs are exercisable only by, Shares issued upon the exercise of Options and SARs or in settlement of other Awards will be issued only to, and other payments in settlement of any Award will be payable only to, the Participant or his or her legal representative. Notwithstanding the foregoing, the Committee may, in its discretion and on and subject to such terms and conditions as it shall deem appropriate, which terms and conditions shall be set forth in the related Award Agreement: (i) authorize a Participant to transfer all or a portion of any Nonqualified Stock Option or SAR, as the case may be, granted to such Participant, provided that in no event shall any transfer be made to any person or persons other than such Participant's spouse, children or grandchildren, or a trust or partnership for the exclusive benefit of one or more such persons, which transfer must be made as a gift and without any consideration; and (ii) provide for the transferability of a particular grant or Award pursuant to a domestic relations order. All other transfers and any retransfer by any permitted transferee are prohibited and any such purported transfer shall be null and void. Each Nonqualified Stock Option or SAR which becomes the subject of a permitted transfer (and the Participant to whom it was granted by the Company) shall continue to be subject to the same terms and conditions as were in effect immediately prior to such permitted transfer. The Participant shall remain responsible to the Company for the payment of all withholding taxes incurred as a result of any exercise of such Option or SAR. In no event shall any permitted transfer of an Option, SAR or other grant or Award create any right in any party in respect of any Option, SAR or other grant or Award, other than the rights of the qualified transferee in respect of such Option, SAR or other Award specified in the related Award Agreement.

A. Performance Measures

   a. **Performance Measures**. The Performance Goals upon which the payment or vesting of an Award granted pursuant to this Article 12 may be one or more of the Performance Measures determined by the Committee in its discretion.

Any Performance Measure or Measures may be used to measure the performance of the Company and/or its Subsidiary as a whole or any business unit of the Company and/or its Subsidiary or any combination thereof, as the Committee may deem appropriate, or any of the above Performance Measures as compared to the performance of a group of comparator companies, or published or special index that the Committee, in its discretion, deems appropriate, or the Committee may select Share price as a Performance Measure as compared to various stock market indices. The Committee also has the authority to provide in an Award Agreement for accelerated vesting of any Award based on the achievement of Performance Goals pursuant to the applicable Performance Measures.

Except as otherwise expressly provided in the Plan or an Award Agreement, all financial terms are used as defined under Generally Accepted Accounting Principles or such other objective accounting principles, as may be designated by the Committee.

   a. **Establishment of the Performance Period, Performance Goals and Formula.** Except as otherwise required under applicable law, rule or regulation or the applicable Award Agreement, a Participant’s Award that is granted pursuant to this Article 12 shall be determined based on the attainment of the applicable Performance Goals approved by the Committee for a Performance Period established by the Committee.
   b. **Evaluation of Performance**. The Committee may determine in its discretion whether any evaluation of performance should include or exclude the effect of (a) any transaction, occurrence or other event impacting an applicable Performance Goal or Performance Measure or (b) any unforeseen market conditions beyond the control of the Company and its Subsidiaries, Employees, officers and directors.
   c. **Adjustment of Performance-Based Awards**. Performance Goals and/or the Performance Measures applicable to Awards that are granted pursuant to this Article 12 may be adjusted upward or downward as determined by the Committee in its discretion. The Committee shall retain the discretion to adjust such Awards either on a formula or discretionary basis or any combination, as the Committee determines.

B. Dividend Equivalents

Any Participant selected by the Committee may be granted dividend equivalents based on the dividends declared on Shares or Share Equivalents that are subject to any Award (other than Options and SARs), to be credited as of dividend payment dates, during the period between the date the Award is granted and the date the Award is exercised, vests, settled or expires, as determined by the Committee (“Dividend Equivalents”). Except as otherwise provided in the Plan or the applicable Award Agreement, such Dividend Equivalents shall be converted to cash or additional Shares or Share Equivalents by such formula, at such time and subject to such limitations as may be determined by the Committee; provided, however, that in no event shall any Dividend Equivalents become payable earlier than the date on which the underlying Award becomes vested and payable.

A. Termination of Employment or Service as a Director

  a. **Stock Options and SARs**. Each Award Agreement shall set forth the extent to which the Participant shall have the right to exercise an Option or SAR following termination of, as the case may be, (a) an Employee's employment with the Company and/or its Subsidiaries or (b) a Director's service as a director of the Company. Such provisions shall be determined in the discretion of the Committee, shall be included in the Award Agreement entered into with each Participant, need not be uniform among all Options and SARs issued under this Plan, and may reflect distinctions based on the reasons for termination.

  b. **Restricted Stock Grant, Performance Units and Other Stock-Based Awards**. The Award Agreement for each Restricted Stock Grant, Performance Unit and Other Stock-Based Award shall set forth the extent to which such Award shall vest and/or may be forfeited upon termination of, as the case may be, (a) the Employee's employment with the Company and/or its Subsidiaries or (b) Director's service as a director of the Company. Such provisions shall be determined in the discretion of the Committee, shall be included in the Award Agreement entered into with each Participant, need not be uniform among all such Awards, and may reflect distinctions based on the reasons for termination.

B. Rights of Participants

  a. **Employment**. Nothing in this Plan or an Award Agreement shall interfere with or limit in any way the right of the Company and/or its Subsidiaries, to terminate any Employee's employment at any time or for any reason not prohibited by law, nor confer upon any Employee any right to continue his employment, or upon any Director a right to continue to serve as a Director, for any specified period of time.

Neither an Award nor any benefits arising under this Plan shall constitute an employment contract with the Company and/or its Subsidiaries for an Employee or a contract for service as a director with the Company for a Director and, accordingly, subject to Article 17, this Plan and the benefits hereunder may be terminated at any time in the discretion of the Committee without giving rise to any liability on the part of the Company and/or its Subsidiaries.

  a. **Participation**. No individual shall have the right to be selected to receive an Award under this Plan, or, having been so selected, to be selected to receive a future Award.

  b. **Rights as a Shareholder**. Except as otherwise provided herein, a Participant shall have none of the rights of a shareholder with respect to Shares covered by any Award until the Participant becomes the record holder of such Shares.

C. Change in Control

The Committee, in its discretion, may specify in the applicable Award Agreement the effect, if any, of a Change in Control on any Award held by a Participant, including the adjustment or other treatment of Performance Goals; provided, however, that any such provision included in an Award Agreement granted to a Participant who is at the time an Officer shall specify that if (i) a Change in Control occurs and (ii) within two (2) years thereafter (or such other period of time following the Change in Control specified in the applicable Award Agreement), such Officer's employment with the Company (or an applicable Subsidiary) or any successor thereto is terminated without "cause" (as defined in the applicable Award Agreement) or if the Officer terminates employment for "good reason" (as defined in the applicable Award Agreement), then such Award shall become partially or fully vested (including the lapsing of restrictions and conditions) and, as applicable, exercisable as of the date of such termination of employment.

Notwithstanding the foregoing, the Committee may, in its discretion, determine in connection with a Change in Control that any or all outstanding Awards granted under the Plan, whether or not exercisable, will be canceled and terminated and that in connection with such cancellation and termination, the holder of such Award may receive for each Share subject to such Awards a cash payment (or the delivery of shares of stock, other securities or a combination of cash, stock and securities equivalent to such cash payment) equal to the difference, if any, between the consideration received by shareholders of the Company in respect of a Share in connection with such transaction and the purchase price per share, if any, under the Award, multiplied by the number of Shares subject to such Award; provided that if such product is zero or less, the Award will be canceled and terminated without payment therefor.

A. Amendment, Modification, Suspension, and Termination

a. **Amendment, Modification, Suspension, and Termination**. Subject to Section 17.2, the Board may, at any time and from time to time, alter, amend, modify, suspend, or terminate this Plan and any Award Agreement in whole or in part without approval of the Company's shareholders, unless such approval is necessary to comply with applicable laws, including the Exchange Act and the Code, or the rules and regulations of any securities exchange on which the Shares are listed. In no event may the Board amend the Plan without the prior approval of the Company's shareholders to (a) increase the maximum number of Shares which may be issued pursuant to the Plan; (b) increase any limitation set forth in the Plan on the number of Shares which may be issued, or the aggregate value of Awards which may be made, in respect of any type of Award to any single Participant during any specified period; (c) change the class of individuals eligible to participate in the Plan; (d) reduce the minimum Option Price or the minimum SAR Grant Price as set forth in Sections 6.3 and 7.4; or (e) reduce the minimum vesting period, Restriction Period or Performance Period requirements applicable to Awards under the Plan. Furthermore, except as provided in Section 4.5 and Article 16, in no event may the terms of a previously granted Option or SAR be amended to reduce its Option Price or Grant Price, as applicable, or to cancel the Award (including following a Participant's voluntary surrender of an "underwater" Option or SAR) in exchange for cash or an Option, SAR, or other Award with an Option Price, Grant Price or other exercise price that is less than the Option Price or Grant Price, as applicable, of the original Option or SAR, without obtaining approval of the Company's shareholders.

b. **Awards Previously Granted**. Notwithstanding any other provision of this Plan to the contrary (other than Section 17.3), no termination, amendment, suspension, or modification of this Plan or an Award Agreement shall adversely affect in any material way any Award previously granted under this Plan, without the written consent of the Participant holding such Award.

c. **Amendment to Conform to Law**. Notwithstanding any other provision of this Plan to the contrary, the Board may amend the Plan or an Award Agreement, to take effect retroactively or otherwise, as deemed necessary or advisable for the purpose of conforming the Plan or an Award Agreement to any present or future law relating to plans of this or similar nature and to the administrative regulations and rulings promulgated thereunder. By accepting an Award under this Plan, a Participant agrees to any amendment made pursuant to this Section 17.3 to any Award granted under the Plan without further consideration or action.

B. Tax Withholding; No Liability with Respect to Tax Qualification or Adverse Tax Treatment

All Awards under the Plan will be made subject to any applicable withholding for taxes of any kind. The Company shall have the right to deduct from any amount payable under the Plan, including delivery of Shares to be made under the Plan, all federal, state, city, local or foreign taxes of any kind required by law to be withheld with respect to such payment and to take such other actions as may be necessary in the opinion of the Company to satisfy all obligations for the payment of such taxes. The Company shall have the right to require a Participant to pay cash to satisfy withholding taxes as a condition to the payment of any amount (whether in cash or Shares) under the Plan.

Notwithstanding anything to the contrary contained herein, in no event shall the Company be liable to a Participant on account of an Award's failure to (a) qualify for favorable United States or foreign tax treatment or (b) avoid adverse tax treatment under United States or foreign law, including, without limitation, Section 409A of the Code.

A. Successors

All obligations of the Company under this Plan with respect to Awards granted hereunder shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

A. General Provisions

a. **Forfeiture Events and Clawback**. The Committee may specify in an Award Agreement that the Participant's rights, payments, and benefits with respect to an Award shall be subject to reduction, cancellation, forfeiture, or recoupment upon the occurrence of certain specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. Such events may include, but shall not be limited to, any Participant's fraud resulting in the restatement of the Company's published earnings, termination of an Employee's employment or a Director's service as a director for cause, termination of the Participant's provision of services to the Company and/or its Subsidiary, violation of material Company and/or Subsidiary policies, breach of noncompetition, confidentiality, or other restrictive covenants that may apply to the Participant, or other conduct by the Participant that is detrimental to the business or reputation of the Company and/or its Subsidiaries. In addition, Awards shall be subject to the clawback or recapture policy, if any, that the Company may adopt from time to time to the extent provided in such policy and, in accordance with such policy, may be subject to the requirement that the Awards be repaid to the Company after they have been distributed or paid to the Participant.

b. **Legend; Restrictions on Share Transferability; Stock Ownership Policy**. The certificates or book entry for Shares may include any legend or notation, which the Committee deems appropriate to reflect any restrictions on transfer of such Shares. The Committee may impose such restrictions on any Shares acquired pursuant to an Award as it may deem advisable, including, without limitation, minimum holding period requirements, restrictions under applicable federal securities laws, under the requirements of any stock exchange or market upon which such Shares are then listed and/or traded, or under any blue sky or state or other securities laws applicable to such Shares. In addition, as applicable, each Participant shall at all times be subject to compliance with the Company's executive stock ownership policy, as in effect from time to time, with respect to each Award.

c. **Severability**. In the event any provision of this Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of this Plan, and this Plan shall be construed and enforced as if the illegal or invalid provision had not been included.
d. **Requirements of Law**. The granting of Awards and the issuance of Shares under this Plan shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.
e. **Delivery of Title**. The Company shall have no obligation to issue or deliver evidence of title for Shares issued under this Plan prior to:
    i. Obtaining any approvals from governmental agencies that the Company determines are necessary or advisable; and
    ii. Completion of any registration or other qualification of the Shares under any applicable national or foreign law or ruling of any governmental body that the Company determines to be necessary or advisable.
f. **Inability to Obtain Authority**. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.
g. **Investment Representations**. The Committee may require any individual receiving Shares pursuant to an Award under this Plan to represent and warrant in writing that the individual is acquiring the Shares for investment and without any present intention to sell or distribute such Shares.
h. **Employees or Directors Based Outside of the United States**. Notwithstanding any provision of this Plan to the contrary, in order to comply with the laws in other countries in which the Company and/or its Subsidiaries operate or have Employees or in which Directors may reside, the Committee, in its discretion, shall have the power and authority to:
    i. Determine which Subsidiaries shall be covered by this Plan;
    ii. Determine which Employees or Directors outside the United States are eligible to participate in this Plan;
    iii. Modify the terms and conditions of any Award granted to Employees or Directors outside the United States to comply with applicable foreign laws;
    iv. Establish subplans and modify exercise procedures and other terms and procedures, to the extent such actions may be necessary or advisable. Any subplans and modifications to Plan terms and procedures established under this Section 20.8 by the Committee shall be attached to this Plan document as appendices; and
    v. Take any action, before or after an Award is made, that it deems advisable to obtain approval or comply with any necessary local government regulatory exemptions or approvals.

Notwithstanding the above, the Committee may not take any actions hereunder, and no Awards shall be granted, that would violate applicable law.

a. **Uncertificated Shares**. The transfer of Shares in connection with the exercise or settlement of an Award granted hereunder may be effected on a noncertificated basis, to the extent not prohibited by applicable law or the rules of any stock exchange.

b. **Unfunded Plan**. Participants shall have no right, title, or interest whatsoever in or to any investments that the Company, and/or its Subsidiaries may make to aid it in meeting its obligations under this Plan. Nothing contained in this Plan, and no action taken pursuant to its provisions, shall create or be construed to create a trust of any kind, or a fiduciary relationship between the Company and any Participant, beneficiary, legal representative, or any other individual. To the extent that any individual acquires a right to receive payments from the Company and/or its Subsidiaries under this Plan, such right shall be no greater than the right of an unsecured general creditor of the Company or a Subsidiary, as the case may be. All payments to be made hereunder shall be paid from the general funds of the Company or a Subsidiary, as the case may be, and no special or separate fund shall be established and no segregation of assets shall be made to assure payment of such amounts except as expressly set forth in this Plan.

c. **No Fractional Shares**. No fractional Shares shall be issued or delivered pursuant to this Plan or any Award. To the extent settlement or payout of an Award would result in a fractional Share being issuable, the number of Shares subject to settlement or payout under such Award shall be rounded down to the nearest whole Share and any rights to any fractional Shares (or payment therefor) shall be forfeited.

d. **Section 409A of the Code; Deferrals.** The Committee shall have full authority to give effect to any statement in an Award Agreement to the effect that an Award is intended to be "deferred compensation" subject to Section 409A, to be exempt from Section 409A or to have other intended treatment under Section 409A and/or other provision of the Code. To the extent necessary to give effect to this authority, in the case of any conflict or potential inconsistency between the Plan and a provision of any Award or Award Agreement with respect to the subject matter of this Section 20.12, the Plan shall govern. With respect to any Award made under the Plan that is intended to be "deferred compensation" subject to Section 409A: (a) references to termination of the Participant's employment will mean the Participant's "separation from service" with the Company or any applicable Subsidiary within the meaning of Section 409A; (b) any payment to be made with respect to such Award in connection with the Participant's separation from service with the Company or any applicable Subsidiary that would be subject to the limitations in Section 409A(a)(2)(b) of the Code shall be delayed until six months after the Participant's separation from service (or earlier death) in accordance with the requirements of Section 409A; (c) to the extent necessary to comply with Section 409A, any cash, other securities, other Awards or other property that the Company may deliver in lieu of Shares in respect of an Award shall not have the effect of deferring delivery or payment beyond the date on which such delivery or payment would occur with respect to the Shares that would otherwise have been deliverable (unless the Committee elects a later date for this purpose in accordance with the requirements of Section 409A); (d) if the

Award includes a “series of installment payments” (within the meaning of Section 1.409A-2(b)(2)(iii) of the regulations promulgated under the Code), the Participant’s right to the series of installment payments shall be treated as a right to a series of separate payments and not as a right to a single payment; and (e) if the Award includes “dividend equivalents” (within the meaning of Section 1.409A-3(e) of the regulations promulgated under the Code), the Participant’s right to the dividend equivalents shall be treated separately from the right to other amounts under the Award.

To the extent permitted by Code Section 409A, the Committee may, whether at the time of grant or at any time thereafter prior to payment or settlement, require a Participant to defer, or permit (subject to such conditions as the Committee may from time to time establish) a Participant to elect to defer, receipt of all or any portion of any payment of cash or Shares that would otherwise be due to such Participant in payment or settlement of any Award under the Plan. If any such deferral is required by the Committee (or is elected by the Participant with the permission of the Committee), the Committee shall establish rules and procedures for payment of such deferrals. The Committee may provide for the payment or crediting of interest, at such rate or rates as it shall in its discretion deem appropriate, on such deferred amounts credited in cash and the payment or crediting of Dividend Equivalents in respect of deferred amounts credited in Share Equivalents or Restricted Stock Units. Deferred amounts may be paid in a lump sum or in installments in the manner and to the extent permitted, and in accordance with rules and procedures established by the Committee. This Section 20.12 shall not apply to any grant of Options or SARs that are intended to be exempt from Code Section 409A.

a. **Nonexclusivity of this Plan**. The adoption of this Plan shall not be construed as creating any limitations on the power of the Board or Committee to adopt such other compensation arrangements as it may deem desirable for any Participant or Participants.
b. **No Constraint on Corporate Action.** Nothing in this Plan shall be construed to: (a) limit, impair, or otherwise affect the Company’s or a Subsidiary’s right or power to make adjustments, reclassifications, reorganizations, or changes of its capital or business structure, or to merge or consolidate, or dissolve, liquidate, sell, or transfer all or any part of its business or assets; or (b) limit the right or power of the Company or a Subsidiary to take any action which such entity deems to be necessary or appropriate.
c. **Governing Law**. The Plan and each Award Agreement shall be governed by the laws of the State of Connecticut, excluding any conflict of laws or choice of law rule or principle that might otherwise refer construction or interpretation of this Plan to the substantive law of another jurisdiction. Unless otherwise provided in the Award Agreement, recipients of an Award under this Plan are deemed to submit to the exclusive jurisdiction and venue of the federal or state courts in Fairfield County, Connecticut, to resolve any and all issues that may arise out of or relate to this Plan or any related Award Agreement.
d. **Right of Offset**. Except with respect to Awards that are intended to be “deferred compensation” subject to Section 409A, the Company will have the right to offset against its obligation to deliver Shares (or cash, other securities or other property) under the Plan or any Award Agreement any outstanding amounts (including, without limitation, travel and entertainment or advance account balances, loans, repayment obligations under any Awards, or amounts repayable to the Company pursuant to tax equalization, relocation, automobile or other employee programs)

that the Participant then owes to the Company and any amounts the Committee otherwise deems appropriate pursuant to any tax equalization policy or agreement.

e. **Irish Conditions of Issuance.** Notwithstanding any other provision of this Plan or any Award Agreement, (a) the Company shall not be obliged to issue any Shares pursuant to an Award unless at least the par (nominal) value of such newly issued Share has been fully paid in advance in accordance with applicable law (which requirement may mean the holder of an Award is obliged to make such payment), (b) no adjustments may be made to an Award which reduce the price payable for a Share subject to such Award below the par (nominal) value of a Share and (c) the Company shall not be obliged to issue or deliver any Shares in satisfaction of Awards until all legal and regulatory requirements associated with such issue or delivery have been complied with to the satisfaction of the Committee.

f. **No Third Party Beneficiaries.** Except as expressly provided therein, neither the Plan nor any Award Agreement will confer on any person other than the Company and the Participant of any Award any rights or remedies thereunder. The exculpation and indemnification provisions of Section 3.5 will inure to the benefit of an Administrator's estate and beneficiaries and legatees.

g. **Plan Headings.** The headings in the Plan are for the purpose of convenience only and are not intended to define or limit the construction of the provisions hereof.

EXHIBIT 31.01

I, Stephen F. Angel, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Linde plc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

July 30, 2021	By: /s/ Stephen F. Angel
	Stephen F. Angel
	Chief Executive Officer

EXHIBIT 31.02

I, Matthew J. White, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Linde plc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

July 30, 2021	By: /s/ Matthew J. White
	Matthew J. White
	Chief Financial Officer

SECTION 1350 CERTIFICATION

EXHIBIT 32.01

Pursuant to 18 U.S.C. § 1350, the undersigned officer of Linde plc (the "Company"), hereby certifies that the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

July 30, 2021	By: /s/ Stephen F. Angel
	Stephen F. Angel
	Chief Executive Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

A signed original of this written statement required by 18 U.S.C. § 1350 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

SECTION 1350 CERTIFICATION

EXHIBIT 32.02

Pursuant to 18 U.S.C. § 1350, the undersigned officer of Linde plc (the “Company”), hereby certifies that the Company’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (the “Report”) fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

July 30, 2021	By: /s/ Matthew J. White
	Matthew J. White
	Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. § 1350 and is not being filed as part of the Report or as a separate disclosure document.

A signed original of this written statement required by 18 U.S.C. § 1350 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.