

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

Form 20-F

- ☐ REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934
OR
☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2022
OR
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
OR
☐ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number
001-38176

Venator Materials PLC

(Exact Name of Registrant as specified in its charter)

N/A
(Translation of Registrant's name into English)

England and Wales
(Jurisdiction of incorporation or organization)

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Securities registered or to be 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 par value per share	VNTR	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the issuer's classes of capital stock or common stock as of the close of business covered by the annual report.

As of December 31, 2022, the registrant had outstanding 108,049,979 ordinary shares, \$0.001 par value per share.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☐ No ☒

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, 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. ☐

[†] The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive--based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☒

International Financial Reporting Standards as issued
by the International Accounting Standards Board ☐

Other ☐

If “Other” has been checked in response to the previous question indicate by check mark which financial statement item the registrant has elected to follow.
Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

VENATOR MATERIALS PLC AND SUBSIDIARIES
2022 ANNUAL REPORT ON FORM 20-F
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GENERAL

Except when the context otherwise requires or where otherwise indicated, (1) all references to "Venator," the "Company," "we," "us" and "our" refer to Venator Materials PLC and its subsidiaries, (2) all references to "Huntsman" refer to Huntsman Corporation and its subsidiaries, (3) all references to the "Titanium Dioxide" segment or business refer to the titanium dioxide ("TiO₂") business of Venator, (4) all references to the "Performance Additives" segment or business refer to the functional additives, color pigments, timber treatment and former water treatment businesses of Venator, and (5) we refer to the internal reorganization prior to our initial public offering ("IPO"), the separation transactions initiated to separate the Venator business from Huntsman's other businesses, including the entry into and effectiveness of the separation agreement and ancillary agreements, and the financing arrangements and debt, comprising the senior secured term loan facility (the "Term Loan Facility"), the asset-backed revolving facility (the "ABL Facility" and, together with the Term Loan Facility, the "Senior Credit Facilities") and the 5.75% senior unsecured notes due 2025 (the "Senior Unsecured Notes"), including the use of the net proceeds of the Senior Credit Facilities and the Senior Unsecured Notes, which were used to repay intercompany debt we owed to Huntsman and to pay related fees and expenses, as the "separation," which occurred on August 8, 2017.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain information set forth in this report contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities and Exchange Act of 1934 (the "Exchange Act"). All statements other than historical or current factual information are forward-looking statements, including without limitation statements regarding: projections of revenue, expenses, profit, margins, tax rates, tax provisions, cash flows, pension and benefit obligations and funding requirements, our liquidity position or other projected financial measures; management's plans and strategies for future operations, including statements relating to anticipated operating performance and improvements, cost reductions, construction cost estimates, restructuring activities and costs associated with site closures, new product and service developments, competitive strengths or market position, acquisitions, divestitures, spin-offs, or other distributions, strategic opportunities, securities offerings, share repurchases, dividends and executive compensation; our ability to explore and execute on strategic alternatives, including by raising additional equity capital or debt, by reducing or delaying our business activities, by initiating reductions in force, by selling assets, by restructuring, refinancing, purchasing, repaying or otherwise retiring our outstanding debt; our ability to remain compliant with all covenants in our debt agreements; the volatility in the price of our ordinary shares, including as a result of us exploring strategic alternatives; growth, declines and other trends in markets we sell into; new or modified accounting pronouncements, laws and regulations, including increased manufacturing, labeling and waste disposal regulations, the classification of TiO₂ as a carcinogen in the European Union and climate change regulation; legal proceedings, environmental, health and safety ("EHS") matters, tax audits and assessments and other contingent liabilities; foreign currency exchange rates and fluctuations in those rates; general economic and capital markets conditions and our ability to engage with shareholders and debtholders with respect to our capital structure or access capital markets on favorable terms or at all; the timing of any of the foregoing; assumptions underlying any of the foregoing; and any other statements that address events or developments that we intend or believe will or may occur in the future. In some cases, forward-looking statements can be identified by terminology such as "believes," "expects," "may," "will," "should," "anticipates," "estimates" or "intends" or the negative of such terms or other comparable terminology, or by discussions of strategy. We may also make additional forward-looking statements from time to time. All such subsequent forward-looking statements, whether written or oral, by us or on our behalf, are also expressly qualified by these cautionary statements.

Forward-looking statements are based on certain assumptions and expectations of future events which may not be accurate or realized. Forward-looking statements also involve risks and uncertainties, many of which are beyond our control. Important factors that may materially affect such forward-looking statements and projections include those risks and uncertainties described under Part I. Item 3.D. Risk Factors in this Annual Report on Form 20-F.

All forward-looking statements, including, without limitation, management's examination of historical operating trends, are based upon our current expectations and various assumptions. Our expectations, beliefs and projections are expressed in good faith and we believe there is a reasonable basis for them, but there can be no assurance that management's expectations, beliefs and projections will result or be achieved. All forward-looking statements apply only as of the date made. We undertake no obligation to publicly update or revise forward-looking statements whether because of new information, future events or otherwise, except as required by securities and other applicable law.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. Not applicable.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

We are subject to certain risks and hazards due to the nature of the business activities we conduct. The risks discussed below, any of which could materially and adversely affect our business, financial condition, cash flows, results of operations and share price, are not the only risks we face. We may experience additional risks and uncertainties not currently known to us or, as a result of developments occurring in the future, conditions that we currently deem to be immaterial may ultimately materially and adversely affect our business, financial condition, cash flows, results of operations and share price.

Risk Factors Summary

Risks Related to the Economy

- Our industry is affected by global economic factors, including risks associated with volatile economic conditions.
- The market for many of our TiO₂ products is cyclical and volatile, and we may experience depressed market conditions for such products.
- Price inflation for materials, labor, and services, further exacerbated by volatility in energy and commodity markets by the war in Ukraine, could adversely affect our business, results of operations and financial condition.
- The COVID-19 pandemic and related economic repercussions have created significant disruptions to the global economy and have adversely affected our business.

Risks Related to Competition

- The industries in which we operate are highly competitive, and we may not be able to compete effectively with our competitors that have greater financial resources, those that are vertically integrated or those that have a more advantageous geographic footprint.
- If we are unable to innovate and successfully introduce new products, or new technologies or processes, our profitability could be adversely affected.
- Our business is dependent on our intellectual property. If we are unable to enforce our intellectual property rights and prevent use of our intellectual property by third parties, our ability to compete may be adversely affected.

Risks Related to our Liquidity and Capital Resources

- We may not have sufficient liquidity to sustain operations and to continue as a going concern.
- We may not be able to raise additional capital in the future on favorable terms or at all.
- If we are unable to generate sufficient cash flow from our operations, our business, financial condition and results of operations may be materially and adversely affected.
- Our customers, prospective customers, suppliers or other companies with whom we conduct business may require modifications in our arrangements which could impact our liquidity.

Risks Related to our Manufacturing Operations and Suppliers

- Significant price increases in raw materials, energy or shipping, or interruptions in supply, have and may continue to result in increased costs that we may be unable to pass on to our customers.
- Our manufacturing operations involve risks that may increase our operating costs, which could reduce our profitability.
- Disruptions in production at our manufacturing facilities may have a material adverse impact on our business, results of operations and/or financial condition.
- We rely on our distributor network and third-party delivery services for the distribution and export of certain of our products.

Risks Related to Environmental, Health and Safety Matters

- We are subject to many environmental, health and safety laws and regulations that may result in unanticipated costs or liabilities.
- Restrictions on disposal of waste from our manufacturing processes could result in higher costs and negatively impact our ability to operate our manufacturing facilities.
- Classification of our products as a carcinogenic, mutagenic or reprotoxic chemical, or any increased regulatory scrutiny, could decrease demand for our products and subject us to manufacturing, labeling, transportation and waste disposal regulations and result in unanticipated costs.
- Our products, raw materials and operations are subject to chemical control laws in countries in which they are manufactured, transported or sold.
- Our operations are increasingly subject to climate change regulations that seek to reduce emissions of greenhouse gases (“GHGs”).

Risks Related to Announced Transactions, Restructuring and Cost Reduction Programs

- The proposed sale of our iron oxides business is contingent upon the satisfaction of a number of conditions.
- If we are unable to successfully implement our cost reduction programs, we may not realize the benefits we anticipate from such programs or may incur additional and/or unexpected costs in order to realize them.
- Costs from current and future restructuring programs and site closures may exceed our estimates.
- Our aspirations, goals, and initiatives related to sustainability, and our public statements and disclosures regarding them, may expose us to risk.

Risks Related to our Human Capital

- Certain of our pension and postretirement benefit plan obligations are currently unfunded or underfunded, and under certain circumstances we may have to significantly increase the level of cash funding to some or all of these plans.
- Our flexibility in managing our labor force may be adversely affected by existing or new labor and employment laws and policies in the jurisdictions in which we operate.

Risks Related to our International Operations, Regulations, Taxation and Foreign Currency

- Our results of operations may be adversely affected by fluctuations in currency exchange rates and tax rates and changes in tax laws in the jurisdictions in which we operate.
- The impact of differing and evolving international laws and regulations on trade or the manner of interpretation or enforcement of existing laws or regulations could adversely impact our financial performance and restrict our ability to operate our business or execute our strategies.

Risks Related to Litigation and Privacy

- Our operations, financial condition and liquidity could be adversely affected by legal claims against us.
- Increasing regulatory focus on privacy issues and expanding laws could impact our business and expose us to increased liability.

General Risk Factors

- We are subject to risks relating to our information technology systems, and any failure to adequately protect our critical information technology systems and manufacturing process control systems could materially affect our operations.

- Conflicts, military actions, terrorist attacks, public health crises, cyber-attacks and general instability, particularly in certain energy-producing nations, along with increased security regulations related to our industry, could adversely affect our business.

Risks Related to Our Relationship with SK Capital Partners, L.P. ("SK Capital")

- SK Capital owns just under 40% of our ordinary shares, with an option to acquire an additional 9%, and its interests may conflict with yours.
- Certain members of our board of directors (our "Board") may have actual or potential conflicts of interest because of their association with SK Capital.

Risks Related to Our Relationship with Huntsman

- We have agreed to indemnify Huntsman for certain liabilities.
- We could have significant tax liabilities for periods during which Huntsman operated our business.

Risks Related to Our Ordinary Shares

- If we cannot regain compliance with the rules of the New York Stock Exchange (the "NYSE") pertaining to a minimum average price per share, the NYSE may delist our stock.
- A number of our shares are eligible for future sale, which may cause the market price of our ordinary shares to decline.
- The rights of our shareholders may differ from the rights typically offered to shareholders of a United States ("U.S.") corporation organized in Delaware and these differences may make our ordinary shares less attractive to investors.
- U.S. investors may have difficulty enforcing civil liabilities against us, our directors or members of senior management.
- Our business and operations could be negatively affected if we become subject to a campaign from a shareholder activist

Risks Related to Our Status as a Foreign Private Issuer

- As a foreign private issuer, we are exempt from a number of rules or regulations under the U.S. securities laws and are permitted to file less information with the Securities and Exchange Commission (the "SEC") than U.S. public companies.
- While we are a foreign private issuer, we are not subject to certain NYSE corporate governance listing standards applicable to U.S. listed companies.

Risks Related to the Economy

Our industry is affected by global economic factors, including risks associated with volatile economic conditions.

Our financial results are substantially dependent on overall economic conditions globally, and particularly those in the U.S., Europe and Asia. Volatility in global market conditions, whether it is declining economic conditions globally or in any of these locations, or robust economic conditions contributing to sudden increases in inflation, could adversely affect our businesses. We experienced global inflationary pressures during 2021 and 2022, particularly in Europe where our raw materials and energy costs have seen significant price increases. We cannot predict whether European raw material and energy costs will continue to rise or experience volatility.

During downturns and periods of volatile demand, such as we have recently experienced, our revenues are reduced, and we typically experience greater pricing pressure and shifts in product demand and mix. Greater substitution of product imports from China may also occur which further impacts demand for our products. Uncertain and volatile economic, political, public health or business conditions in any of the regions in which we operate can impact demand for our products.

Volatile global market conditions and periods of declining demand can cause material adverse changes in our results of operations and financial condition, including as described below. We have experienced or are currently experiencing many of the impacts listed below and can give no assurances as to when, or if, these conditions and impacts will improve or whether they will continue to deteriorate. The impacts include:

- a decline in demand for our products, which has an immediate impact on our revenues;
- lower utilization of our manufacturing facilities, including stopping production at certain facilities, as a result of measures taken to respond to such conditions, which results in lower fixed cost absorption;
- negative impacts on our workforce as associates respond to perceived volatility as we moderate our production facilities to line up with demand;

- potential impairment charges or changes to the useful lives of our manufacturing equipment or other long-lived assets, to the extent that any downturn indicates that the carrying amount of the asset may not be recoverable or that such assets have diminished useful lives;
- greater challenges in forecasting results of operations, making business decisions, and identifying and prioritizing business risks;
- higher financing costs which could impact our ability to invest in our business and refinance existing debt;
- changes to our credit rating as a result of our financial results which could further impact our ability to access the capital markets;
- unfavorable credit terms with suppliers as they may require shorter terms or cash up front to respond to global market volatility, our unfavorable financial results or credit ratings, or their own need to generate cash flows;
- higher raw materials, freight and energy costs as a result of global inflation, or inflation in the regions in which we operate; and
- inability to increase our pricing sufficiently to cover the increases in costs due to inflation or other factors.

Further, during periods of economic disruption, more of our customers than normal may experience financial difficulties, including bankruptcies, restructurings and liquidations, which could affect our business by reducing sales, increasing our risk in extending trade credit to customers and reducing our profitability. A significant adverse change in a customer relationship or in a customer's financial position could cause us to limit or discontinue business with that customer, require us to assume more credit risk relating to that customer's receivables or limit our ability to collect accounts receivable from that customer.

The market for many of our TiO₂ products is cyclical and volatile, and we may experience depressed market conditions for such products.

Historically, the market for large volume TiO₂ applications, including coatings, paper and plastics, has experienced alternating periods of tight supply, causing prices and margins to increase, followed by periods of lower capacity utilization resulting in declining prices and margins. The volatility in this market is unpredictable and can be caused by a number of factors including changes in demand for products as a consequence of global and regional economic activity and changes in the customer's requirements. The supply-demand balance is also impacted by capacity additions or reductions, including unplanned outages, that result in changes of utilization rates. In addition, TiO₂ margins are impacted by significant changes in major input costs such as titanium bearing ores, energy and other feedstocks. Increasing costs of these inputs, particularly European energy, is currently having a material negative impact on our margins. Demand for TiO₂ depends in part on the housing and construction industries. These industries are cyclical in nature and have historically been impacted by economic downturns. Relative changes in the selling prices for our products are one of the main factors that affect the level of our profitability. In addition, pricing may affect customer inventory levels as customers may from time to time accelerate purchases of TiO₂ in advance of anticipated price increases or defer purchases of TiO₂ in advance of anticipated price decreases.

The cyclical and volatility of the TiO₂ industry results in significant fluctuations in profits and cash flow from period to period and over industry cycles. Our ability to successfully implement price increases or to manage falling TiO₂ prices depends on the current economic factors regionally and globally, including industry operating rates. The inability to successfully implement price increases or to manage falling TiO₂ prices in future periods could negatively impact our business, results of operations and/or financial condition.

In addition, the demand for TiO₂ and certain of our other products during a given year are subject to seasonal fluctuations. Because TiO₂ is widely used in paint and other coatings and construction, demand is higher in the construction seasons of spring and summer in the Northern Hemisphere. We may also be adversely affected by anticipated or unanticipated changes in regional weather conditions. For example, poor weather conditions in a region can lead to an abbreviated construction season, which can depress consumer sales of coatings and construction products that use TiO₂, which could have a negative effect on our cash position.

Price inflation for materials, labor, and services, further exacerbated by volatility in energy and commodity markets by the war in Ukraine, could adversely affect our business, results of operations and financial condition.

We have experienced considerable price inflation in costs for energy, materials, labor, and services during 2022. We may not be able to pass through inflationary cost increases and, if inflationary pressures are sustained, we may only be able to recoup a portion of our increased costs in future periods. Our ability to raise prices to reflect increased costs may also be limited by competitive conditions in the markets for our products. The war in Ukraine and prolonged geopolitical and economic conflict may continue to result in increased inflation, escalating energy and commodity prices and increasing costs of materials and services (together with shortages or inconsistent availability of materials and services), which may also have the effect of

heightening many of our other risks, such as those relating to cyber security, supply chain disruption, volatility in prices and market conditions, our ability to forecast demand, and our ability to successfully implement our global business strategies, any of which could negatively affect our business, results of operations and financial condition.

The COVID-19 pandemic and related economic repercussions have created significant disruptions to the global economy and have adversely affected our business. The impacts on the global economy and our business continue and we may not be able to effectively mitigate such impacts, which could have a material adverse effect on our results of operations, financial condition and liquidity.

As a result of the COVID-19 pandemic, governmental authorities implemented and from time to time continue to implement numerous and constantly evolving measures to try to contain the virus, such as travel bans and restrictions, limits on gatherings, quarantines, shelter-in-place orders and business shutdowns. In addition, outbreaks of COVID-19 such as those that have recently occurred in China have had direct impacts on our business as the operation of our facilities and those of our suppliers and customers have been negatively impacted by a reduced workforce as COVID-19 impacted the population after long-standing lockdowns were lifted.

If governmental authorities were to impose new restrictions as a result of COVID-19 or one of its variants on our manufacturing, operations or employees, or similar limitations for our customers, partners and suppliers, this could negatively impact demand for our products or could limit our ability to meet customer demand, which could have a material adverse effect on our results of operations and financial condition. Furthermore, disruptions of transportation, such as reduced availability of shipping vessels, port closures and increased border controls or closures, could result in increased costs, or negatively impact our relationships with our existing customers.

The impacts of the COVID-19 pandemic on our supply chain and the ensuing global economic volatility increased global shipping and logistics challenges. During the pandemic, we saw constrained global supplies of ore feedstocks and other raw materials. Any future outbreak of COVID-19 or its variants and restrictions imposed in response could impact the global supply of raw materials and the availability of freight and logistics capacity, which could cause material disruptions in our raw material supply. Some of our suppliers are sole-source suppliers for which we may have no alternative source of supply. Further, if we, our suppliers or customers were unable to perform their contractual obligations due to the COVID-19 pandemic, a force majeure event could be declared, rendering us, our suppliers or our customers unable to deliver all, or a portion of, any impacted orders or other contractual arrangements. If this were to occur, we may be forced to limit production and our customers could choose to discontinue or decrease the purchase of our products as a result of these measures. Such force majeure events could have significant negative impacts on our business.

The COVID-19 pandemic resulted in an increase in remote working by our personnel and personnel of other companies, which practice was partially maintained post-pandemic. The increase in remote working results in a higher risk of cyber-attacks, data breaches or similar events, whether through our systems or those of third parties on which we rely. Further risks associated with the increase in remote working by our personnel may include a diminished ability to deter and detect any unlawful activity by our personnel, such as noncompliance with the U.S. Foreign Corrupt Practices Act ("FCPA") or the United Kingdom ("U.K.") Bribery Act.

We cannot be certain that the measures we took to mitigate the economic impact of COVID-19 will not have unintended consequences. For example, in response to the financial impact of COVID-19, we reduced our capital expenditures. Part of our capital expenditures are used on facility upgrades and maintenance, including EHS maintenance. While we continue to fund capital expenditures for essential maintenance and safety measures, the reduction in capital expenditures on other items during this period could potentially result in a decrease in reliability at our manufacturing sites. Further, the deferral of maintenance projects could result in an increased capital expenditure burden in future years and result in plant reliability issues in the periods of deferral.

Risks Related to Competition

The industries in which we operate are highly competitive, and we may not be able to compete effectively with our competitors that have greater financial resources, those that are vertically integrated or those that have a more advantageous geographic footprint, which could have a material adverse effect on our business, results of operations and financial condition.

The industries in which we operate are highly competitive. Among our competitors are companies that are vertically-integrated (those that have their own raw material resources) and those who operate with a more favorable geographic footprint. Our manufacturing operations are primarily in Europe where we experience higher labor and energy costs, particularly in recent

periods where the war in Ukraine drove record setting energy prices, and where there is increased regulatory scrutiny driving increases in costs such as carbon emissions credits and capital investment to make our manufacturing sites compliant with increasingly restrictive regulatory requirements. Our competitors with their own raw material resources have a competitive advantage during periods of higher or rising raw material prices and competitors with manufacturing operations outside of Europe will have cost advantages as European regulatory requirements continue to have a significantly higher cost of compliance compared to the rest of the world. In addition, some of the companies with whom we compete may be able to produce products more economically than we can, including those with manufacturing bases outside of Europe who have significantly lower energy costs. Furthermore, some of our competitors have greater financial resources and better access to capital, which may enable them to invest significant capital into their businesses, including expenditures for research and development, or debottlenecking or other capacity expansions.

The global TiO₂ market is highly competitive, with the top producers accounting for a significant portion of the world's production capacity. Competition is based on a number of factors, such as price, product quality and service. Some of our competitors may be able to drive down prices for our products if their costs are lower than our costs. In addition, our TiO₂ business competes with numerous regional producers, including producers in China, who have significantly expanded their sulfate production capacity during the past several years and have continued to develop the commercial production of TiO₂ via chloride technology. The risk of our customers substituting our products with those made by Chinese producers could increase as the Chinese producers improve their quality levels and increase production capacity. The occurrence of any of these events could result in reduced earnings, higher operating losses, or higher negative cash flow from operating activities.

In addition, certain of our competitors in various countries in which we do business, including China, may be owned by or affiliated with members of local governments and political entities. These competitors may get special treatment with respect to regulatory compliance and product registration, while certain of our products, including those based on new technologies, may be delayed or even prevented from entering into the local market.

Certain of our businesses use technology that is widely available. Accordingly, barriers to entry, apart from capital availability, may be low in certain product segments of our businesses. The entrance of new competitors into the industry may reduce our ability to maintain margins or capture improving margins in circumstances where capacity utilization in the industry is increasing. Increased competition in any of our businesses could compel us to reduce the prices of our products, which could result in reduced margins and loss of market share and have a material adverse effect on our business, results of operations, financial condition and liquidity.

If we are unable to innovate and successfully introduce new products, or new technologies or processes, our profitability could be adversely affected.

Our industries and the end-use markets into which we sell our products experience periodic technological change and product improvement. We must continuously identify, develop and market innovative products or enhance existing products on a timely basis to maintain our profit margins and our competitive position. Our future growth depends on our ability to gauge the direction of commercial, technological and regulatory progress in key end-use markets and on our ability to fund and successfully develop, manufacture and market products in such changing end-use markets. We may be unable to develop new products or technology, either alone or with third parties, or license intellectual property rights from third parties on a commercially competitive basis. If we fail to keep pace with the evolving technological innovations in our end-use markets, including with respect to innovation or the development of alternative uses for, or application of, our products, our financial condition, results of operations and liquidity could be adversely affected. We cannot predict whether technological innovations will, in the future, result in a lower demand for our products or affect the competitiveness of our business. We may be required to invest significant resources to adapt to changing technologies, markets, competitive environments and laws and regulations. We cannot anticipate market acceptance of new products or future products. In addition, we may not achieve the expected benefits associated with new products or technologies developed to meet new laws or regulations if the implementation of such laws or regulations is delayed or accelerated.

Our business is dependent on our intellectual property. If we are unable to enforce our intellectual property rights and prevent use of our intellectual property by third parties, our ability to compete may be adversely affected. Further, third parties may claim that we infringe on their intellectual property rights, and resulting litigation may be costly.

Protection of our proprietary processes, apparatuses and other technology is important to our business. We rely on patent protection, as well as a combination of copyright and trade secret laws to protect and prevent others from duplicating our proprietary processes, apparatuses and technology. While a presumption of validity generally exists with respect to patents issued, there can be no assurance that our patents will not be challenged, invalidated, circumvented or rendered unenforceable. Such means may afford only limited protection of our intellectual property and may not (i) prevent our competitors from

duplicating our processes or technology; (ii) prevent our competitors from gaining access to our proprietary information and technology; or (iii) permit us to gain or maintain a competitive advantage. In addition, our competitors or other third parties may obtain patents that restrict or preclude our ability to lawfully produce or sell our products in a competitive manner, which could have a material adverse effect on our business, results of operations, financial condition and liquidity.

We rely upon trade secrets and other confidential and proprietary know-how and continuing technological innovation to develop and maintain our competitive position. While it is our policy to enter into agreements imposing nondisclosure and confidentiality obligations upon our employees and third parties to protect our intellectual property, these confidentiality obligations may be breached, may not provide meaningful protection for our trade secrets or proprietary know-how, or adequate remedies may not be available in the event of an unauthorized access, use or disclosure of our trade secrets and know-how. In addition, others could obtain knowledge of our trade secrets through independent development or other access by legal means.

Furthermore, we may not be able to effectively protect our intellectual property rights from misappropriation or infringement in countries where effective patent, trademark, trade secret and other intellectual property laws and judicial systems may be unavailable, or may not protect our proprietary rights to the same extent as U.S. law. The lack of adequate legal protections of intellectual property or failure of legal remedies for related actions could have a material adverse effect on our business, results of operations, financial condition and liquidity.

Our commercial success will also depend in part on not infringing, misappropriating or violating the intellectual property rights of others. From time to time, we may be subject to legal proceedings and claims, including claims of alleged infringement of trademarks, copyrights, patents and other intellectual property rights held by third parties. We may not be aware of whether our products do or will infringe existing or future patents or the intellectual property rights of others. Any litigation in this regard, regardless of outcome or merit, could result in substantial costs and diversion of management and technical resources as well as harm to our reputation, any of which could adversely affect our business, financial condition and results of operations. If the party claiming infringement were to prevail, we could be forced to discontinue the use of the related trademark, technology or design and/or pay significant damages unless we enter into royalty or licensing arrangements with the prevailing party or are able to redesign our products to avoid infringement. Any such license may not be available on reasonable terms, if at all, and there can be no assurance that we would be able to redesign our products in a way that would not infringe the intellectual property rights of others. We have already obtained licenses that give us rights to third-party intellectual property that is necessary or useful to our business. Further, any such license agreement would impose various royalty and other obligations on us. In addition, any payments we are required to make and any injunction we are required to comply with as a result of such infringement could harm our reputation and financial results.

Risks Related to our Liquidity and Capital Resources

As a result of a history of operating losses and negative cash flows, together with other factors, including the effect on our ability to borrow and events of default under our credit agreements as a result of the failure to deliver an unqualified opinion (including not containing an explanatory paragraph regarding going concern) with respect to our 2022 audited financial statements, we may not have sufficient liquidity to sustain operations and to continue as a going concern.

As described further under Item 5. “Operating and Financial Review and Prospects -Liquidity and Capital Resources-Liquidity and Going Concern”, which disclosure is incorporated into this risk factor, several conditions and events, including operating losses and negative cash flows, raise substantial doubt about our ability to continue as a going concern and accordingly, the Independent Auditors Report in our 2022 audited financial statements includes an explanatory paragraph regarding going concern.

As of December 31, 2022, we had \$1,040 million in debt outstanding comprised of \$353 million under our Term Loan Facility due 2024, \$219 million under our 9.5% Senior Secured Notes due 2025, \$373 million under our 5.75% Senior Unsecured Notes due 2025, \$80 million due under our ABL facility and \$15 million of other debt primarily consisting of insurance premium financing. Our ABL facility had \$162 million of available borrowing capacity at December 31, 2022. The available borrowing capacity has decreased to approximately \$37 million as of February 17, 2023 and we are unable to utilize the majority of this available liquidity due to a cash dominion minimum availability requirement if availability falls below 10% of the aggregate principal amount of our facility. Furthermore, failure to deliver an unqualified opinion (including not containing an explanatory paragraph regarding going concern) to the lenders under our Term Loan Facility and ABL facility by March 31, 2023 will result in a “default” under the terms of the agreements governing the Term Loan Facility and the ABL facility. A failure to timely cure such defaults, which cure may be required as early as April 30, 2023, will constitute an “event of default” under the terms of the agreements governing the Term Loan Facility and the ABL facility. Upon an event of default, the lenders under our Term Loan Facility and ABL facility can accelerate the repayment of the outstanding borrowings under our facilities and exercise other rights and remedies that they have under applicable laws. In addition, an acceleration of

indebtedness in an amount greater than \$50 million under our Term Loan Facility or ABL facility that remains uncured for 30 days will constitute an event of default under our 9.5% Senior Secured Notes due 2025 and our 5.75% Senior Unsecured Notes due 2025. We may seek a waiver of the requirement to deliver an unqualified opinion (including not containing an explanatory paragraph regarding going concern) from the lenders under the Term Loan Facility and the ABL facility. However, we can provide no assurance that, if sought, a waiver of this requirement will be granted. As a result of the foregoing likely events of default, all of our debt has been classified as current on our consolidated balance sheet for the year ended December 31, 2022.

If our indebtedness is accelerated, we cannot be certain that we will have sufficient funds available to pay the accelerated indebtedness or that we will have the ability to refinance the accelerated indebtedness on terms favorable to us or at all, which could have a material adverse effect on our business, results of operations and financial condition and could impact our ability to continue as a going concern. See “Risk Factors -We may not be able to raise additional capital in the future on favorable terms or at all, which could materially adversely affect our financial condition and results of operations including our inability to continue as a going concern.” Even if our creditors do not exercise all rights and remedies available to them in an event of default, such an event of default could cause a significant decline in the value of our ordinary shares. The inclusion of the explanatory language around going concern in our 2022 consolidated financial statements, any event of default under the agreements governing our indebtedness and any strategic transactions that we undertake to improve our liquidity position could also have an adverse impact on our reputation and relationship with third parties with whom we do business, including our customers, vendors and employees.

If we are not able to timely, successfully or efficiently implement the strategies that we are pursuing to improve our operating performance and financial position, obtain alternative sources of capital or otherwise meet our liquidity needs, we may need to voluntarily seek protection under applicable bankruptcy or insolvency laws, including Chapter 11 of the U.S. Bankruptcy Code. Holders of our ordinary shares may not receive any value or payments in a restructuring or similar scenario.

We may not be able to raise additional capital in the future on favorable terms or at all, which could materially adversely affect our financial condition and results of operations, including our inability to continue as a going concern.

Our TiO₂ business is capital intensive, and our success depends to a significant degree on our ability to develop and market innovative products and to maintain and update our facilities and process technology.

Our capital requirements will depend on many factors, including acceptance of, and demand for, our products, the extent to which we invest in new technology and research and development projects, and the status and timing of these developments. As noted elsewhere in this Form 20-F, we are conducting a strategic review of our business and plan to strengthen our liquidity position and engage shareholders and debtholders with respect to our capital structure. In connection with this strategic review, we are exploring options to refinance our existing indebtedness, including restructuring our existing capital and bringing on new sources of capital. There is no assurance, however, that such efforts will result in a refinancing or restructuring on acceptable terms, if at all. Obtaining such financing is more challenging under current market conditions. Disruptions in the capital and credit markets, including the increases in interest rates by the U.S. Federal Reserve to counteract inflation, as well as other factors, have caused some lenders to increase interest rates, enact tighter lending standards which we may not satisfy as a result of our debt level or otherwise, refuse to refinance existing debt at maturity on favorable terms, or at all, and in certain instances have reduced or ceased to provide funding to borrowers.

The credit rating agencies periodically review our ratings, considering factors such as our capital structure, earnings profile, and the condition of our industry and the credit markets generally. Credit ratings are subject to revision or withdrawal at any time by the assigning rating organization. We expect that the credit agencies will further reduce our credit ratings following the issuance of an audit opinion with an explanatory paragraph regarding going concern with respect to our 2022 audited financial statements. We expect that a drop in our credit ratings, such as that which occurred during the first quarter of 2023 and which we expect to occur again in the near future, will adversely impact our business, cash flows, results of operations, financial condition, liquidity and our ability to obtain additional financing or to refinance our debt.

In addition, alternative sources of capital, if available at all, could involve the issuance of debt or equity on unfavorable terms or that would result in significant dilution. For example, we may, at any time and from time to time, seek to purchase, repay, exchange or otherwise retire our outstanding debt in open market transactions, privately negotiated transactions, tender offers, exchange offers, pursuant to the terms of our outstanding debt, by restructuring our existing debt or otherwise. We may incur additional financing to fund such transactions or otherwise, which could include substantial additional debt (including secured debt) or equity or equity-linked financing. Although the terms of the agreements governing existing debt restrict our ability to incur additional debt (including secured debt), such restrictions are subject to several exceptions and qualifications and such restrictions and qualifications may be waived or amended, and debt (including secured debt) incurred in

compliance with such restrictions and qualifications (as they may be waived or amended) may be substantial. The number of our ordinary shares or securities convertible into our ordinary shares that may be issued in connection with such transactions may be material and our shareholders could suffer significant dilution and economic loss, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our current equity securities. Such transactions, if any, will be upon such terms and at such prices as we may determine, and will depend on prevailing market conditions, our liquidity requirements and cash position, contractual restrictions, trading prices of debt from time to time and other factors. The amounts involved in any such transactions, individually or in the aggregate, may be material. In addition, we may choose or need to obtain alternative sources of capital, otherwise meet our liquidity needs and/or restructure our existing indebtedness through the protections available under applicable bankruptcy or insolvency laws, including Chapter 11 of the U.S. Bankruptcy Code. Holders of our ordinary shares may not receive any value or payments in a restructuring or similar scenario.

If we are unable to generate sufficient cash flow from our operations, our business, financial condition and results of operations may be materially and adversely affected.

We are responsible for obtaining and maintaining sufficient working capital, funding our capital expenditure requirements and servicing our own debt. There is substantial doubt about our ability to continue as a going concern and our ability to generate sufficient funds from operations to service our debt and meet our business needs, such as funding working capital, pension obligations, capital expenditures, restructuring activities or the transfer of our existing manufacturing operations to other parts of our business. Our ability to generate cash is subject in part to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. If we are unable to generate sufficient cash and repay or refinance our debt as it becomes due, we may be forced to take disadvantageous actions, including entering into unfavorable financing arrangements, selling profitable parts of our business, which may disrupt long-term strategic plans, or initiate legal restructuring proceedings.

Our customers, prospective customers, suppliers or other companies with whom we conduct business may require modifications in our arrangements which could impact our liquidity.

Some of our customers, prospective customers, suppliers or other companies with whom we conduct business may require assurances as a condition to do business with them. These assurances may be in the form of letters of credit, financial guarantees, reduction in payment terms, or prepayments of goods or services, all of which will have a direct impact on our liquidity. Our inability to provide such assurances may result in the loss of customers or suppliers and could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Risks Related to our Manufacturing Operations and Suppliers

Significant price increases in raw materials, energy or shipping, or interruptions in supply, have and may continue to result in increased costs that we may be unable to pass on to our customers, which could reduce our profitability.

We incur substantial costs for raw materials, energy and shipping. These costs are subject to worldwide supply and demand as well as other factors beyond our control and we have experienced significant increases in all of these costs in recent years. Volatility in the cost for raw materials and energy have significantly affected our operating results. We purchase a substantial portion of our raw materials from third-party suppliers and the cost of these raw materials represents a substantial portion of our costs of goods sold. The prices of the raw materials that we purchase from third parties are cyclical and volatile. Our supply agreements with our TiO₂ feedstock suppliers provide us limited protection against price volatility as they mostly provide for market-based pricing. Contracts have historically been multi-year volume based with negotiated or formula driven short interval pricing and we have seen the terms of these contracts become less favorable with certain suppliers in response to the volatility in the post-COVID environment. Furthermore, we anticipate that substantial doubt about our ability to continue as a going concern will further impact these contracts and our relationships with these suppliers. To the extent we do not have fixed price contracts with respect to specific raw materials, we have no control over the costs of raw materials and such costs may fluctuate widely for a variety of reasons, including changes in availability, major capacity additions or reductions, or significant facility operating problems. While we attempt to match cost increases with corresponding product price increases, we are not always able to raise product prices immediately or at all. Moreover, the outcome of these efforts is largely determined by existing competitive and economic conditions. Timing differences between raw material prices, which may change daily, and contract product prices, which in many cases are negotiated only monthly or less often, also have had and may continue to have a negative effect on our cash flow. Any raw materials or energy cost increase that we are not able to pass on to our customers could have a material adverse effect on our business, results of operations, financial condition and liquidity.

There are several raw materials for which there are only a limited number of suppliers or a single supplier. For example, certain types of titanium-containing feedstocks suitable for use in our TiO₂ facilities are available from a limited number of suppliers around the world. To mitigate potential supply constraints, we enter into supply agreements with particular suppliers, evaluate alternative sources of supply and evaluate alternative technologies to avoid reliance on limited or sole-source suppliers. Where supply relationships are concentrated, particular attention is paid by the parties to ensure strategic intentions are aligned to facilitate long term planning. If certain of our suppliers are unable to meet their obligations under present supply agreements, we may be forced to pay higher prices to obtain the necessary raw materials from other sources and we may not be able to increase prices for our finished products to recoup the higher raw materials costs. Any interruption in the supply of raw materials could increase our costs or decrease our revenues, which could reduce our cash flow and have a material adverse effect on our financial statements, results of operations and liquidity.

The number of sources for and availability of certain raw materials is also specific to the particular geographical region in which a facility is located. Political and economic instability in the countries from which we purchase our raw material supplies could adversely affect their availability. In addition, if raw materials become unavailable within a geographic area from which they are now sourced, then we may not be able to obtain suitable or cost-effective substitutes. We may also experience higher operating costs such as energy costs, which could affect our profitability. For example, we are currently experiencing the impact of a substantial increase in energy costs in Europe. We may not always be able to increase our selling prices to offset the impact of any higher productions costs or reduced production levels, which could reduce our earnings and decrease our liquidity.

Our manufacturing operations involve risks that may increase our operating costs, which could reduce our profitability.

Our operations are subject to hazards inherent in the manufacturing and marketing of chemical and other products. These hazards include chemical spills, pipeline leaks and ruptures, storage tank leaks, discharges or releases of toxic or hazardous substances or gases and other hazards incident to the manufacturing, processing, handling, transportation and storage of dangerous chemicals. We are also potentially subject to other hazards, including natural disasters and severe weather; explosions and fires; transportation problems, including interruptions, spills and leaks; mechanical failures; unscheduled downtimes; labor difficulties; remediation complications; and other risks. In addition, some equipment and operations at our facilities are owned or controlled by third parties who may not be fully integrated into our safety programs and over whom we are able to exercise only limited control. Many potential hazards can cause bodily injury or loss of life, severe damage to or destruction of property and equipment and environmental damage, and may result in suspension of operations and the imposition of civil or criminal penalties and liabilities. Furthermore, we are subject to present and future claims with respect to workplace exposure to hazards, exposure of contractors on our premises as well as other persons located nearby, workers' compensation and other matters.

In response to the COVID-19 pandemic and the ensuing global economic impact, we implemented a number of cost saving measures, including reducing our capital expenditures. We have continued to operate a reduced capital expenditure budget in response to cost pressures and financial stress. Capital expenditures are used on facility maintenance, including EHS maintenance. While we continue to fund capital expenditures for essential maintenance and safety measures, the reduction in capital expenditures on other items during this period could result in a decrease in reliability at our manufacturing sites.

We maintain property, business interruption, products liability and casualty insurance policies that we believe are in accordance with customary industry practices, as well as insurance policies covering other types of risks, including pollution legal liability insurance, but we are not fully insured against all potential hazards and risks incident to our business. Each of these insurance policies is subject to customary exclusions, deductibles and coverage limits, in accordance with industry standards and practices. As a result of market conditions, our loss history and other factors, our premiums and deductibles for certain insurance policies can increase substantially and, in some instances, certain insurance may become unavailable or available to us only for reduced amounts of coverage. If an incident were to occur or we were to incur a significant liability for which we were not fully insured, it could have a material adverse effect on our business, results of operations, financial condition and liquidity.

Disruptions in production at our manufacturing facilities may have a material adverse impact on our business, results of operations and/or financial condition.

Manufacturing facilities in our industry are subject to planned and unplanned production shutdowns, turnarounds, outages and other disruptions. Any disruption at our facilities could impair our ability to use our facilities and have a material adverse impact on our revenues, increase our costs and expenses and negatively impact liquidity. Alternative facilities with sufficient capacity may not be available, may cost substantially more or may take significant time to increase production or qualify with our customers, any of which could negatively impact our business, results of operations, financial condition, and

liquidity. Unplanned production disruptions may occur for external reasons including natural disasters, weather, disease, strikes, power outages, telecommunication or utility failures, transportation interruption, government regulation, flood, political unrest, public crises, war or terrorism, or internal reasons, such as fire, unplanned maintenance or other manufacturing problems. Any such production disruption could have a material impact on our cash flows, results of operations and financial condition. We may also lose market share during a disruption in production due to customers who are forced to purchase products elsewhere or develop alternatives to our products and no longer purchase products from us after production is restored.

In addition, we rely on a number of vendors, suppliers and, in some cases, sole-source suppliers, service providers, toll manufacturers and collaborations with other industry participants to provide us with chemicals, feedstocks and other raw materials, along with energy sources and, in certain cases, facilities that we need to operate our business. If the business of these third parties is disrupted, some of these companies could be forced to reduce their output, shut down their operations or file for bankruptcy protection. If this were to occur, it could adversely affect their ability to provide us with the raw materials, energy sources or facilities that we need, which could materially disrupt our operations, including the production of certain of our products. Moreover, it could be difficult to find replacements for certain of our business partners without incurring significant delays or cost increases. Further, our ore feedstocks have a limited global supply and a change in the global supply landscape as a result of the closure of a mine could impact us even if we do not source our supply from that facility. All of these risks could have a material adverse effect on our business, results of operations, financial condition and liquidity.

While we maintain business recovery plans that are intended to allow us to recover from natural disasters or other events that could disrupt our business, we cannot provide assurances that our plans would fully protect us from the effects of all such disasters or from events that might increase in frequency or intensity due to climate change. In addition, insurance may not adequately compensate us for any losses incurred as a result of natural or other disasters. In areas prone to frequent natural or other disasters, insurance may become increasingly expensive or not available at all. Furthermore, some potential climate-driven losses, particularly flooding due to sea-level rises, may pose long-term risks to our physical facilities such that operations cannot be restored in their current locations.

We rely on our distributor network and third-party delivery services for the distribution and export of certain of our products. A significant disruption in these services or significant increases in prices for these services may disrupt our ability to deliver products or increase our costs.

We ship a significant portion of our products to our customers through our distributor network as well as independent third-party delivery companies. If any of our key distributors or third-party delivery providers experiences a significant disruption our products may not be delivered in a timely fashion. In addition, if our key distributors or third-party delivery providers increase prices, as we have experienced in recent years, and we are not able to pass along these increases to customers, find comparable alternatives or adjust our delivery network, our business, financial condition, results of operations and liquidity could be adversely affected.

Differences in views with our joint venture participants may cause our joint ventures not to operate according to their business plans or be able to effectively compete with operations of our competitors, which may adversely affect our results of operations.

We currently participate in joint ventures in Lake Charles, Louisiana with Kronos Worldwide, Inc. ("Kronos"), in Harrisburg, North Carolina with Lanxess and in Malaysia with Coogee Chemicals Pty. Ltd. The nature of a joint venture requires us to share control with third parties. Differences in views among joint venture participants may result in delayed decisions or failure to agree on major decisions. If these differences cause the joint ventures to deviate from their business plans or to fail to achieve their desired operating performance, we may not be able to effectively compete with operations of our competitors and our results of operations could be adversely affected.

Risks Related to Environmental, Health and Safety Matters

We are subject to many environmental, health and safety laws and regulations that may result in unanticipated costs or liabilities, which could reduce our profitability.

Our properties and operations, including our global manufacturing facilities, are subject to a broad array of EHS requirements, including extensive federal, state, local, foreign and international laws, regulations, rules and ordinances relating to pollution, protection of the environment and human health and safety, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. There has been a global upward trend in the number and complexity of current and proposed EHS laws and regulations, particularly in Europe, and including those relating to the chemicals used and generated in our operations and included in our substances and products. The costs to comply with

these EHS laws and regulations, as well as internal voluntary programs and goals, are significant and will continue to be significant in the foreseeable future and we may be more disadvantaged than our competitors given our European manufacturing footprint. Our facilities are dependent on environmental permits to operate. These operating permits are subject to modification, renewal and revocation, which could have a material adverse effect on our operations and our financial condition. In addition, third parties may contest our ability to receive or renew certain permits that we need to operate, which can lengthen the application process or even prevent us from obtaining necessary permits. Moreover, actual or alleged violations of permit requirements could result in restrictions or prohibitions on our operations and facilities. In the European Union ("EU"), a review of the Industrial Emissions Directive and the Large Volume Inorganic Chemicals BREF guidance are underway and these may result in changes to the operating permits at a number of plants operating in the EU.

In addition, we expect to incur significant capital expenditures and operating costs in order to comply with existing and future EHS laws and regulations. Capital expenditures and operating costs relating to EHS matters are subject to evolving requirements, and the timing and amount of such expenditures and costs will depend on the timing of the promulgation of the requirements as well as the enforcement of specific standards. Furthermore, the risk of non-compliance increases as regulatory standards become more complex and the cost of violation becomes higher.

We are also liable for the costs of investigating and remediation of environmental contamination on or from our currently-owned and operated properties. We also may be liable for environmental contamination on or from our formerly-owned and operated properties, and on or from third-party sites to which we sent hazardous substances or waste materials for disposal. In many circumstances, EHS laws and regulations impose joint, several, and/or strict liability for contamination, and therefore we may be held liable for cleaning up contamination at currently owned properties even if the contamination was caused by former owners, or at third-party sites even if our original disposal activities were in accordance with all then existing regulatory requirements. Moreover, certain of our facilities are in close proximity to other industrial manufacturing sites. In these locations, the source of contamination resulting from discharges into the environment may not be clear. We could potentially be held responsible for such liabilities even if the contamination did not originate from our sites, and we may have to incur significant costs to respond to any remedies imposed, or to defend any actions initiated, by environmental agencies.

Changes in EHS laws and regulations, violations of EHS law or regulations that result in civil or criminal sanctions, the revocation or modification of EHS permits, the bringing of investigations or enforcement proceedings against us by governmental agencies, the bringing of private claims alleging environmental damages against us, or the discovery of contamination on our current or former properties or at third-party disposal sites, could reduce our profitability or have a material adverse effect on our operations and financial condition.

Restrictions on disposal of waste from our manufacturing processes could result in higher costs and negatively impact our ability to operate our manufacturing facilities.

A variety of materials are generated by our manufacturing processes, some of which are saleable as products or byproducts and others of which are not and must be reused or disposed of as waste. Storage, transportation, reuse and disposal of waste are generally regulated by governmental authorities in the jurisdictions in which we operate. If existing arrangements for reuse or disposal of waste cease to be available to us as a result of new rules, regulations or interpretations thereof, exhaustion of reclamation activities, landfill closures, or otherwise, we will need to find new arrangements for reuse or disposal, which could result in increased costs to us and negatively impact our consolidated financial statements. For example, gypsum is generated by our TiO₂ manufacturing facilities that use the sulfate process, such as those at Scarlino, Italy and Teluk Kalong, Malaysia. Gypsum produced at our Scarlino facility has been landfilled on-site and also transported for use in a reclamation project at Montioni, a nearby former quarry owned and operated by third parties. We continue to suspend TiO₂ production from two of the three calciner streams at our Scarlino facility to reduce the rate at which the remaining gypsum capacity both on-site and in the Montioni reclamation project is consumed. At the current one-stream operating rate, we will soon not have sufficient capacity for the gypsum produced and as a consequence expect to stop production during the second quarter of 2023. If we do not receive approvals for additional gypsum storage capacity by the end of the first quarter of 2023, we may permanently close the site and subsequently incur associated site closure costs and have a material adverse effect on our operations and financial condition.

Classification of our products as a carcinogenic, mutagenic or reprotoxic chemical, known as a CMR chemical, or any increased regulatory scrutiny, could decrease demand for our products and subject us to manufacturing, labeling, transportation and waste disposal regulations that could significantly increase our costs.

On October 4, 2019, the European Commission published a regulation, which classified certain forms of TiO₂ (in a powder form containing 1% or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$) as a category 2 carcinogen, which is a suspected human carcinogen based on evidence obtained from human and/or animal studies but which is not sufficient for a

category 1 classification. The regulation applied from October 1, 2021. Following the U.K.'s withdrawal from the EU, the same classification of TiO₂ as a suspected carcinogen was also published in the U.K.'s mandatory classification and labelling list and applied from October 1, 2021.

We have evaluated our TiO₂ products using internationally recognized tests methods and determined that these are not subject to classification in the EU or U.K. as the products do not contain 1% or more of particles with aerodynamic diameter \leq 10 μ m.

On May 13, 2020, we and a number of other applicants filed a legal challenge seeking the annulment of the Commission Delegated Regulation of 2019, in so far as it concerns the classification of TiO₂ as a carcinogenic substance by inhalation, in the General Court of the EU. On November 23, 2022, the Court annulled the classification concluding that the European Commission made a manifest error in its assessment of the reliability and acceptability of the study on which the classification is based, and that it had infringed the criterion according to which classification can relate only to a substance that has the intrinsic property to cause cancer. On February 8 2023 an appeal was filed by the EU Member State France. The effects of the judgement of the General Court of 23 November 2022 annulling the classification are suspended pending the outcome of the appeal.

On May 6, 2021 the European Food Safety Authority ("EFSA") published an opinion regarding the use of TiO₂ (E171) as a food additive. The EFSA Opinion did not identify any immediate health concern linked to E171, however it identified uncertainties regarding the genotoxic effects of E171 used in food with a need to further investigation and concluded that TiO₂ (E171) can no longer be considered safe when used as a food additive.

Following the EFSA opinion, the European Commission published a regulation on January 18, 2022 removing E171 from the list of approved food additives in the EU and requiring an assessment of the approval of the use of E171 in pharmaceutical products within three years of the publication of the regulation. The European Commission is also assessing the use of TiO₂ in other consumer products including toys, cosmetics, pharmaceuticals and food contact applications to determine whether to implement restrictions on the use of TiO₂ in these applications following the EFSA Opinion.

The adoption of the category 2 carcinogen classification in the EU or U.K. and the EFSA Opinion may negatively impact on public perception, market demand and prices of products containing TiO₂. The EFSA Opinion has triggered assessments in other countries outside the EU and a number of other jurisdictions such as Switzerland and have imposed restrictions on the use of TiO₂ in food which may increase our compliance obligations, impact consumer sentiment and decrease market demand. This may also impact powdered products with different chemistries but similar particle characteristics from our Performance Additives segment.

In July 2021, ECHA published its final decision regarding the substance evaluation of TiO₂ pursuant to article 46 of the REACH Regulation, the Community rolling action plan ("CoRap"). Following the decision, the registrants of TiO₂ are required to conduct and submit the results of a number of toxicological studies carried out on various forms of TiO₂ to ECHA, and provide an updated REACH registration dossier, within 30 months of the date of the decision.

Sales of TiO₂ in the EU represented 41% of our TiO₂ revenues for the year ended December 31, 2022.

Our products, raw materials and operations are subject to chemical control laws in countries in which they are manufactured, transported or sold.

We are subject to a wide array of laws governing chemicals, including the regulation of chemical substances and inventories under the Toxic Substances Control Act ("TSCA") in the U.S. and the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") and the EU's classification and labelling ("CLP") regulations in Europe and the U.K. Analogous regimes exist or are being developed in other parts of the world, including China, South Korea, Turkey, Russia and Taiwan. In addition, a number of countries where we operate, including the U.K., have adopted rules to conform chemical labeling in accordance with the Globally Harmonized System of Classification and Labeling of Chemicals ("GHS"). Many of these regulatory regimes are in the process of a multi-year implementation period for these rules.

In addition to the regulatory review of new substances, there has been a more recent focus under the laws in the E.U., US, and other countries, to review the safety of substances which have been marketed for many years, particularly for chemicals that are being marketed in formulations which include the benefits of nanotechnology, or containing nanoparticles (e.g. under TSCA in the U.S. and REACH and the Food Additives Regulation in the EU).

TSCA reform legislation was enacted in the U.S. in June 2016, and the U.S. Environmental Protection Agency (the "EPA") has begun the process of issuing new chemical control regulations authorized by and, in many areas, required by the

legislation. The EPA issued several final rules under the revised TSCA related to existing chemicals, including the following: (i) a rule to establish the EPA's process and criteria for identifying chemicals for risk evaluation; (ii) a rule to establish the EPA's process for evaluating high priority chemicals and their uses to determine whether or not they present an unreasonable risk to health or the environment; and (iii) a rule to require industry reporting of chemicals manufactured or processed in the U.S. over the past 10 years. The EPA has also released its framework for approving new chemicals and new uses of existing chemicals based on whether they present an unreasonable risk to health or the environment. Such a finding could result in either the issuance of rules restricting the use of the chemical being evaluated or in the need for additional testing. These rules and the EPA's risk determination for certain chemicals have been the subject of litigation and administrative review, and the costs of compliance with these regulations or relating to any new restriction or additional testing requirements that may be imposed cannot be estimated until the manner in which they will be implemented has been more precisely defined.

Governmental, regulatory and societal demands for increasing levels of product safety and environmental protection could result in increased pressure for more stringent regulatory control with respect to the chemical industry. In addition, these concerns could influence public perceptions regarding our products, raw materials and operations, the viability of certain products or raw materials, our reputation, the cost to comply with regulations, and the ability to attract and retain employees. Moreover, changes in product safety and environmental protection regulations could inhibit or interrupt our operations, or require us to modify our facilities or operations. Accordingly, product safety and environmental matters may cause us to incur significant unanticipated losses, costs or liabilities, which could reduce our profitability.

We use a variety of substances from third parties in the manufacture, processing and handling of our products, and it is possible that a substance could be classified as harmful, which could negatively impact our ability to sell or market our products. For example, pursuant to the CLP, chemical substances and mixtures cannot be placed on the EU market unless they comply with the CLP's requirements regarding classification, labelling and packaging. In 2019, new scientific data became available on Trimethylolpropane ("TMP"), and in December 2019 an EU supplier of this substance informed us that the REACH consortium responsible for TMP had self-classified TMP to be a suspected reproductive toxicant (Category 2). In 2022, Finland also notified ECHA of its intention to have TMP classified in reprotoxic category 1B. It is likely that Finland will submit its dossier to ECHA in 2023, which will be evaluated by ECHA's Risk Advisory Committee. We manufacture and sell numerous types of TiO₂ pigments and other products worldwide, some of which are treated with and/or contain TMP. We have taken action to comply with this regulation and continue to review the impact of this classification on our business in Europe and other regions.

Capital expenditures and costs relating to EHS matters will be subject to evolving regulatory requirements and will depend on the timing of the promulgation and enforcement of specific standards which impose requirements on our operations. Capital expenditures and costs beyond those currently anticipated may therefore be required under existing or future EHS laws.

Our operations are increasingly subject to climate change regulations that seek to reduce emissions of GHGs.

We are currently managing and reporting GHG emissions, to varying degrees, at our sites worldwide. These locations are subject to a number of existing GHG-related laws and regulations. Potential consequences of such restrictions include capital requirements to modify assets to meet GHG emission restrictions and/or increases in energy costs above the level of general inflation, as well as direct compliance costs. Currently, however, it is not possible to estimate the likely financial impact of potential future regulation on any of our sites.

Recent developments in climate change-related policy and regulations include the Green Deal in the EU, mandatory Task Force on Climate-Related Financial Disclosures ("TCFD") disclosures in the U.K., the U.K. commitment to becoming carbon neutral by 2050, and similar policy changes and commitments in other nations worldwide including the announcement that the U.S. is rejoining the Paris Agreement. These changes could affect us in a number of ways including potential requirements to decarbonize manufacturing processes and increased costs of carbon emissions credits. For example, during 2021 we became a net purchaser of carbon emissions credits in the EU and the U.K. As with other jurisdictions, our operations in the U.S. may become subject to increasing climate change regulations and we are currently monitoring these developments closely whilst investigating appropriate climate change strategies to enable us to comply with the new regulations and conform to new disclosure requirements such as TCFD.

Increasing concentrations of GHGs in the earth's atmosphere may produce climate changes that have significant physical effects, such as increased frequency and severity of storms, droughts, floods and other extreme climatic events. The severity of the changes varies in accordance with the models used to predict the changes, however, they could have adverse effects on our assets and operations. For example, we have a number of operations in low lying areas that may be at increased risk due to flooding, rising sea levels or disruption of operations from more frequent and severe weather events. These potential effects are also included in our investigation into appropriate climate change strategies.

Risks Related to Announced Transactions, Restructuring and Cost Reduction Programs

The proposed sale of our iron oxides business is contingent upon the satisfaction of a number of conditions, will require significant time and attention of our management and may have an adverse effect on us if not completed.

On November 14, 2022, we entered into a definitive agreement to sell our iron oxides business to Cathay Industries for an enterprise value of \$140 million. Completion of the proposed sale is subject to the satisfaction of various closing conditions, including but not limited to regulatory approvals. There can be no assurance that any of such conditions will be satisfied and that the proposed sale will be successfully completed. The failure to satisfy the necessary closing conditions, or other unanticipated developments, could delay or prevent the transaction from closing or cause it to occur on terms or conditions that are less favorable than anticipated, which could have a negative impact on our liquidity.

Our ongoing businesses may be adversely affected as we pursue the proposed sale, and we may be subject to certain risks and consequences, including, but not limited to, the following:

- execution of the proposed sale has required, and will continue to require, significant time and attention from management, which may postpone the execution of other initiatives that may be beneficial to us;
- completion of the proposed sale will require strategic, structural and process realignment and restructuring actions within our operations, which may require associated expenditures and could lead to a disruption of our operations, as well as the loss of key personnel beneficial to the operation and growth of our remaining businesses; and
- whether or not the proposed sale is completed, we may be responsible for certain costs and expenses incurred for third party advisors, such as legal, accounting and other professional fees, which may be significant.

Any of these factors, or the impact of not being able to complete the sale, could have a material adverse effect on our financial condition, results of operations, cash flows and our liquidity.

If we are unable to successfully implement our cost reduction programs, we may not realize the benefits we anticipate from such programs or may incur additional and/or unexpected costs in order to realize them.

We commenced our 2022 Cost Reduction Program in the fourth quarter of 2022. This cost and operational improvement program is designed to increase annual EBITDA by \$50 million compared to 2021, adjusted for the impact of foreign currency translation and inflation, by reducing selling, general and administrative expenses, and manufacturing costs through the implementation of more efficient operations and the reduction of manufacturing waste. We intend to complete all the actions necessary to deliver on our target by December 31, 2024.

Cost savings expectations are inherently difficult to predict and are necessarily speculative in nature, and we cannot provide assurance that we will achieve expected cost savings. A variety of factors could cause us not to realize some of the expected cost savings, including, among others, delays in the anticipated timing of activities related to our cost savings programs, lack of sustainability in cost savings over time, unexpected costs associated with operating our business, our ability to reduce headcount while retaining the necessary human capital to implement this plan, the lack of available liquidity to implement these cost savings measures and our ability to achieve the efficiencies contemplated by the cost savings initiative. We may be unable to realize all of these cost savings within the expected timeframe and we may incur additional or unexpected costs in order to realize them. These cost savings are based upon a number of assumptions and estimates that are in turn based on our analysis of the various factors which currently, and could in the future, impact our business. These assumptions and estimates are inherently uncertain and subject to significant business, operational, economic and competitive uncertainties and contingencies. Certain of the assumptions relate to business decisions that are subject to change, including, among others, our anticipated business strategies, our marketing strategies, our product development strategies and our ability to anticipate and react to business trends. Our ability to implement these cost savings measures will also be impacted by substantial doubt about our ability to continue as a going concern and actions we may take to mitigate these concerns, which may not align with such cost savings measures. Other assumptions relate to risks and uncertainties beyond our control, including, among others, the economic environment in which we operate, environmental regulation and other developments in our industry as well as conditions in the capital markets. The actual results of implementing the various cost savings initiatives may differ materially from the estimates set out in this report if any of these assumptions prove incorrect. Moreover, our continued efforts to implement these cost savings may divert management attention from the rest of our business and may preclude us from seeking attractive new opportunities, any of which may materially and adversely affect our business.

Costs from current and future restructuring programs and site closures may exceed our estimates and adversely affect our financial condition, results of operations, cash flows or business reputation.

We have implemented various restructuring initiatives to improve our operating efficiency, which have included in some instances the planned or completed closure of sites within our manufacturing network, including manufacturing sites in Pori (Finland), Calais (France) and a partial closure in Duisburg (Germany). We may announce additional restructuring programs and site closures in the future. Restructurings and site closures are complex and involve multiple aspects including environmental, government, regulatory, contractual and workforce matters. Costs and timeframes associated with restructurings or site closures have at times exceeded our estimates and it is possible that we may exceed projected costs and timeframes and not achieve targeted costs savings. Any material increase in restructuring or plant closure costs or timeframes could have a material impact on our consolidated financial statements.

Our aspirations, goals, and initiatives related to sustainability, and our public statements and disclosures regarding them, may expose us to risk.

We have developed and publicized, and expect to continue to establish, goals, targets, and other objectives related to sustainability matters. Our efforts to establish, accomplish, and accurately report on these goals, targets, and objectives could expose us to operational, reputational, financial, legal, and other risks. Our ability to achieve any stated goal, target, or objective is and will be subject to numerous factors and conditions, many of which are outside of our control, such as evolving regulatory or quasi-regulatory sustainability standards, differing requirements throughout the world and the pace of technological change. Achievement of these goals and initiatives may also be impacted by our plans to mitigate concerns around our ability to continue as a going concern as resources that would have been previously committed to sustainability initiatives may be diverted towards our mitigation plans.

We may face increased scrutiny from shareholders, other stakeholders and regulators related to our sustainability activities, including the goals, targets, and objectives that we announce, and our methodologies and timelines for pursuing them. If our sustainability practices do not meet shareholder or other stakeholder expectations and standards, which continue to evolve, our reputation, ability to attract or retain employees, and attractiveness as an investment, business partner, or as an acquiror could be negatively impacted. Similarly, our failure or perceived failure to pursue or fulfill our goals, targets, and objectives, to comply with ethical, environmental, or other standards, regulations, or expectations, or to satisfy various reporting standards with respect to these matters, within the timelines that we anticipate or at all, could have the same negative impacts, as well as expose us to government enforcement actions and litigation. Even if we achieve the goals, targets, and objectives we set, we may not realize all of the benefits anticipated at the time they were established.

Risks Related to our Human Capital

Certain of our pension and postretirement benefit plan obligations are currently unfunded or underfunded, and under certain circumstances we may have to significantly increase the level of cash funding to some or all of these plans, which would reduce the cash available for our business.

We have underfunded and unfunded obligations under our pension and postretirement benefit plans. The funded status of our pension plans is dependent upon many factors, including returns on invested assets, the level of certain market interest rates and the discount rate used to determine pension obligations. Unfavorable returns on plan assets or unfavorable changes in applicable laws or regulations, or in the application of laws or regulations to us by pension regulators or trustees, could materially change the timing and amount of required plan funding, which would reduce the cash available for our business. Also, a decrease in the discount rate used to determine pension obligations could result in an increase in the valuation of pension obligations, which could affect the reported funding status of our pension plans and future contributions, as well as the periodic pension cost in subsequent fiscal years. In addition, we have undertaken restructuring initiatives and site closures at locations within our manufacturing network that could impact our funding obligations as a result of funding rules specific to the jurisdiction in which the restructuring initiative or site closure occurs. As of December 31, 2022, our underfunded and unfunded deficit under our defined benefit plans was \$20 million, the majority of which related to funding obligations for our pension plans in Finland and Germany. If current or future restructuring initiatives or site closures were to cause or require an acceleration of our funding obligations under our pension and post-retirement benefit plans, it could have an adverse impact on our business, financial condition, results of operations and cash flows.

With respect to our pension and postretirement benefit plans, the effects of underfunding depend on the country in which the pension and postretirement benefit plan is established. In the U.K. and Germany, semi-public pension protection programs have the authority, in certain circumstances, to assume responsibility for underfunded pension schemes, including the right to recover the amount of the underfunding from us. The Finnish Financial Supervisory Authority has the authority to

recommend that we assign the underfunded pension scheme to a third-party insurance company, which would maintain the member benefits at the Company's cost. In the US, the Pension Benefit Guaranty Corporation ("PBGC") has the authority to terminate an underfunded tax-qualified pension plan under limited circumstances in accordance with the Employee Retirement Income Security Act of 1974, as amended. In the event our tax-qualified pension plans are terminated by the PBGC, we could be liable to the PBGC for the entire amount of the underfunding.

Our flexibility in managing our labor force may be adversely affected by existing or new labor and employment laws and policies in the jurisdictions in which we operate, many of which are more onerous than those of the U.S.; and some of our labor force has substantial workers' council or trade union participation, which creates a risk of disruption from labor disputes.

The global nature of our business presents difficulties in hiring and maintaining a workforce in certain countries. The majority of our employees are located outside the U.S. In many of these countries, including the U.K., Italy, Germany, France, Spain, Finland and Malaysia, labor and employment laws may be more onerous than in the U.S. and, in many cases, grant significant job protection to employees, including rights on termination of employment.

We are required to consult with, and seek the consent or advice of, various employee groups or works councils that represent our employees for any changes to our activities or employee benefits. This requirement could have a significant impact on our flexibility in managing costs and responding to market changes and could further increase the risk of completing our cost savings plans.

Risks Related to our International Operations, Regulations, Taxation and Foreign Currency

Our results of operations may be adversely affected by fluctuations in currency exchange rates and tax rates and changes in tax laws in the jurisdictions in which we operate.

We conduct a majority of our business operations outside the U.S. Sales to customers outside the U.S. contributed 71% of our revenue in 2022. Our operations are subject to international business risks, including the need to convert currencies received for our products into currencies in which we purchase raw materials or pay for services, which could result in a gain or loss depending on fluctuations in exchange rates. We transact business in many foreign currencies, including the euro, the British pound sterling, the Malaysian ringgit and the Chinese renminbi. We translate our local currency financial results into U.S. dollars based on average exchange rates prevailing during the reporting period or the exchange rate at the end of that period. During times of a strengthening U.S. dollar, our reported international sales and earnings may be reduced because the local currency may translate into fewer U.S. dollars. Because of our global operations, we are exposed to fluctuations in global currency rates which may result in gains or losses on our financial statements. While we have a hedging program in place to manage our global currency risk, these hedges may not fully mitigate the impact of currency exchange rate fluctuations, or may result in us not realizing gains in periods where the U.S. dollar is weakening.

We are subject to income taxation in the U.S. (federal and state) and numerous international jurisdictions. Tax laws, regulations, and administrative practices in various jurisdictions may be subject to significant change, with or without notice, due to economic, political, and other conditions, and significant judgment is required in evaluating and estimating our provision and accruals for these taxes. In particular, governmental agencies in domestic and international jurisdictions in which we and our affiliates do business, as well as the Organization for Economic Cooperation and Development, have recently focused on issues related to the taxation of multinational corporations. One example is in the area of "base erosion and profit shifting", where profits are claimed to be earned for tax purposes in low-tax jurisdictions, or payments are made between affiliates from a jurisdiction with high tax rates to a jurisdiction with lower tax rates. There are many transactions that occur during the ordinary course of business for which the ultimate tax determination is uncertain. In addition, our effective tax rates could be affected by numerous factors, such as intercompany transactions (including our eligibility to qualify for benefits under certain tax treaties in connection with the making of certain inter-company movements of cash), the relative amount of our foreign earnings, including earnings being lower than anticipated in jurisdictions where we are subject to lower statutory rates and higher than anticipated in jurisdictions where we are subject to higher statutory rates, the applicability of special tax regimes, losses incurred in jurisdictions in which we are not able to realize the related tax benefit, changes in foreign currency exchange rates, entry into new businesses and geographies, changes to our existing businesses and operations, acquisitions (including integrations) and investments and how they are financed, changes in our stock price, changes in our deferred tax assets and liabilities and their valuation, changes in our eligibility to qualify for benefits under certain tax treaties, and changes in the relevant tax, accounting, and other laws, regulations, administrative practices, principles, and interpretations.

We are also currently subject to audit in various jurisdictions, and these jurisdictions may assess additional income tax liabilities against us. Developments in an audit, litigation, or the relevant laws, regulations, administrative practices, principles,

and interpretations could have a material effect on our operating results or cash flows in the period or periods for which that development occurs, as well as for prior and subsequent periods.

In addition, we have recorded valuation allowances which result from our analysis of positive and negative evidence supporting the realization of tax benefits. Negative evidence includes a cumulative history of pre-tax operating losses in specific tax jurisdictions and significant concerns about our ability to continue as a going concern. Changes in valuation allowances have resulted in material fluctuations in our effective tax rate. Economic conditions may dictate the continued imposition of current valuation allowances and, potentially, the establishment of new valuation allowances and releases of existing valuation allowances. While significant valuation allowances remain, our effective tax rate will likely continue to experience significant fluctuations.

The impact of differing and evolving international laws and regulations on trade or the manner of interpretation or enforcement of existing laws or regulations could adversely impact our financial performance and restrict our ability to operate our business or execute our strategies.

Compliance with international laws and regulations on trade is complicated by our substantial global footprint, which requires significant resources to ensure compliance with applicable laws and regulations in the various countries where we conduct business. Our global operations expose us to trade and economic sanctions and other restrictions imposed by the U.S., the EU and other governments and organizations. The U.S. Departments of Justice, Commerce, State and Treasury and other federal agencies and authorities have a broad range of civil and criminal penalties they may seek to impose against corporations and individuals for violations of economic sanctions laws, export control laws, the U.S. Foreign Corrupt Practices Act ("FCPA") and other federal statutes and regulations, including those established by the Office of Foreign Assets Control ("OFAC"). Under these laws and regulations, as well as other anti-corruption laws, anti-money-laundering laws, export control laws, customs laws, sanctions laws and other laws governing our operations, various government agencies may require export licenses, may seek to impose modifications to business practices, including cessation of business activities in sanctioned countries or with sanctioned persons or entities and modifications to compliance programs, which may increase compliance costs, and may subject us to fines, penalties and other sanctions. A violation of these laws or regulations could adversely impact our business, results of operations and financial condition.

We cannot assure you that our policies and procedures are sufficient or that directors, officers, employees, representatives, manufacturers, supplier and agents have not engaged and will not engage in conduct for which we may be held responsible, nor can we assure you that our business partners have not engaged and will not engage in conduct that could materially affect their ability to perform their contractual obligations to us or even result in our being held liable for such conduct. Violations of the FCPA, OFAC restrictions or other export control, anti-corruption, anti-money-laundering and anti-terrorism laws or regulations may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could have a material adverse effect on our business, financial condition, cash flows and results of operations.

We may be classified as a passive foreign investment company for U.S. federal income tax purposes, which could result in adverse U.S. federal income tax consequences to U.S. holders of our ordinary shares.

A corporation organized or incorporated outside the U.S. generally will be classified as a passive foreign investment company ("PFIC") for U.S. federal income tax purposes in any taxable year in which, after applying certain look-through rules with respect to the income and assets of certain subsidiaries, either: (1) at least 75% of its gross income is classified as "passive income" (as defined in the Code) or (2) at least 50% of the average value of its total assets (which, assuming our stock is publicly-traded for the year being tested, would be measured by the fair market value of our assets) is attributable to assets that produce "passive income" or are held for the production of "passive income." U.S. shareholders of a PFIC are subject to a disadvantageous U.S. federal income tax regime with respect to certain distributions they receive from the PFIC, and the gain, if any, they derive from the sale, exchange or other taxable disposition of their interests in the PFIC.

Based on our market capitalization and the composition of our assets, income and operations, we do not believe that we currently are a PFIC, and we do not expect to become a PFIC in future taxable years. However, our status as a PFIC in any taxable year will depend on our assets, income and activities in each year, and because this is a factual determination made annually after the end of each taxable year, there can be no assurance that we will not be considered a PFIC for the current taxable year or any future taxable years, and it is possible that the U.S. Internal Revenue Service ("IRS") may take a contrary position with respect to our determination in any particular year. See "Part I, Item 10. Material U.S. Federal Income Tax Considerations for U.S. Holders—Passive Foreign Investment Company Considerations."

If a U.S. person is treated as owning at least 10% of our ordinary shares, U.S. holders of our ordinary shares may be subject to adverse U.S. federal income tax consequences.

If a U.S. person is treated as owning (directly, indirectly, or constructively) at least 10% of the value or voting power of our ordinary shares, such person may be treated as a “United States shareholder” within the meaning of Section 951 of the Code (as defined below) with respect to each “controlled foreign corporation.” Depending on the amount of United States shareholder ownership of our ordinary shares, we and certain of our non-U.S. subsidiaries may be treated as a controlled foreign corporation for U.S. federal income tax purposes. In addition, since the Company includes one or more U.S. subsidiaries, certain of our non-U.S. subsidiaries could be treated as controlled foreign corporations (regardless of whether or not we are treated as a controlled foreign corporation). A U.S. shareholder of a controlled foreign corporation may be required to report annually and include in its U.S. taxable income its pro rata share of “Subpart F income,” “global intangible low-taxed income,” and investments in U.S. property by controlled foreign corporations, regardless of whether we make any distributions. An individual that is a U.S. shareholder with respect to a controlled foreign corporation generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a U.S. shareholder that is a U.S. corporation. Failure to comply with these reporting obligations may subject a U.S. shareholder to significant monetary penalties and may prevent the statute of limitations with respect to such U.S. shareholder’s U.S. federal income tax return for the year for which reporting was due from starting. We cannot provide any assurances that we will assist holders of our ordinary shares in determining whether we or any of our non-U.S. subsidiaries are treated as a controlled foreign corporation or whether any holder of ordinary shares is treated as a U.S. shareholder with respect to any such controlled foreign corporation or furnish to any U.S. shareholders information that may be necessary to comply with the aforementioned reporting and tax paying obligations. The IRS has provided limited guidance on situations in which investors may rely on publicly available information to comply with their reporting and taxpaying obligations with respect to foreign-controlled controlled foreign corporations. A U.S. holder should consult its tax advisors regarding the potential application of these rules to an investment in our ordinary shares.

Our ability to use our U.S. net operating loss carryforwards to offset future taxable income may be subject to certain limitations

Section 382 and 383 of the U.S. Internal Revenue Code of 1986, as amended (the “Code”) imposes annual limitation on utilization of tax attributes, including net operating loss carryforwards, if ownership change occurs. In general, an ownership change, as defined by Section 382, results when the ownership of certain stockholders or public groups increases by more than 50 percentage points over a three-year period. If an ownership change occurs, the annual limitation on the future utilization of tax attributes existing on the change date is equal to the value of the stock of the corporation times the long term tax exempt rate. This amount may then be increased or decreased in the five years after the change by recognized built in gains or losses that existed in the company’s assets on the change date. SK Capital’s acquisition of 42.5 million Company shares from Huntsman on December 23, 2020 resulted in a change of control pursuant to Section 382. As a result, certain of our deferred tax assets, including U.S. tax net operating losses with an unlimited carryforward period, will be subject to an annual limitation on the amount of taxable income which can be offset by those limited attributions. The limitations from the ownership change may cause us to pay U.S. federal income taxes earlier than we otherwise would have paid them. If we undergo another ownership change in the future, we may be further limited in our utilization of the net operating losses existing at the time of such ownership change. Future regulatory changes could also limit our ability to utilize our net operating losses.

Risks Related to Litigation and Privacy

Our operations, financial condition and liquidity could be adversely affected by legal claims against us.

We face risks arising from various legal actions, including matters relating to antitrust, product liability, third party liability, intellectual property, contract disputes, industrial illness, labor disputes and environmental claims. It is possible that judgments could be rendered against us in these cases or others for which we could be uninsured or not covered by indemnity, or which may be beyond the amounts that we currently have reserved or anticipate incurring for such matters. In the past, antitrust claims have been made against TiO₂ companies, including us. In this type of litigation, the plaintiffs generally seek treble damages, which may be significant. Certain of our existing legal claims could result in significant judgments against us. An adverse outcome in any claim could be material and significantly impact our operations, financial condition and liquidity. For more information, see “Part III. Item 18. Financial Statements — Note 22. Commitments and Contingencies — Legal Matters” of this report.

Increasing regulatory focus on privacy issues and expanding laws could impact our business and expose us to increased liability.

As a global company, we are subject to global privacy and data security laws, regulations, and codes of conduct that apply to our various business units. These laws and regulations may be inconsistent across jurisdictions and are subject to evolving and differing (sometimes conflicting) interpretations. Government regulators, privacy advocates and class action attorneys are increasingly scrutinizing how companies collect, process, use, store, share and transmit personal data. This increased scrutiny may result in new interpretations of existing laws, thereby further impacting our business. Globally, laws such as the General Data Protection Regulation ("GDPR") in Europe, state laws in the U.S. on privacy, data and related technologies as well as industry self-regulatory codes create new compliance obligations and expand the scope of potential liability, either jointly or severally with our customers and suppliers. While we have invested in readiness to comply with applicable requirements, these new and emerging laws, regulations and codes may affect our ability to reach current and prospective customers, to respond to customer requests under the laws, and to implement our business effectively. Any perception of our practices, products or services as a violation of privacy rights may subject us to public criticism, reputational harm, or investigations or claims by regulators, industry groups or other third parties, all of which could disrupt our business and expose us to increased liability.

General Risk Factors

We are subject to risks relating to our information technology systems, and any failure to adequately protect our critical information technology systems and manufacturing process control systems could materially affect our operations.

We rely on information technology systems and manufacturing process control systems across our operations, including for management, operations, supply chain, financial information and various other processes and transactions. Our ability to effectively manage our business depends on the security, reliability and capacity of these systems. System failures, network disruptions or breaches of security could disrupt our operations, cause delays or cancellations of customer orders or impede the manufacture or shipment of products, processing of transactions or reporting of financial results. Our information technology systems and manufacturing process control systems, and those of our business partners, are subject to the risk of cyberattacks, including attacks resulting from phishing emails and ransomware infections. We are the subject of cyberattacks that may be intended to capture business information, disrupt our manufacturing or other operations, access our customers' information or harm our reputation as a company. We expect that there will continue to be cyberattacks and the measures we have taken to prevent or mitigate such attacks may not be effective, particularly as we continue remote working arrangements begun during the COVID-19 pandemic. The processes used by attackers are evolving in sophistication and increasing in frequency. Cyberattacks or other problems with our systems may result in a compromise of our manufacturing process control systems, the disclosure of proprietary information about our business or confidential information concerning our customers or employees. Any of these problems could result in significant negative impacts on our business, potentially catastrophic disruptions to our operations, damage to or destruction of our assets, injuries or deaths to people, adverse impacts on the environment and harm to our reputation.

In addition, following the pandemic and the related increase in remote working by our personnel and personnel of other companies, the risk of cyber-attacks, data breaches or similar events, whether through our systems or those of third parties on which we rely, has increased. Further risks associated with the increase in remote working by our personnel may include a diminished ability to deter and detect any unlawful activity by our personnel, such as noncompliance with the FCPA or the U.K. Bribery Act.

We have put in place security measures and disaster recovery plans designed to protect against the misappropriation or corruption of our systems, intentional or unintentional disclosure of confidential information, or disruption of our operations. Current employees have, and former employees may have, access to a significant amount of information regarding our operations which could be disclosed to our competitors or otherwise used to harm us. Moreover, our operations in certain locations, such as China, may be particularly vulnerable to security attacks or other problems. Any breach of our security measures could result in unauthorized access to and misappropriation of our information, corruption of data or disruption of operations or transactions, any of which could have a material adverse effect on our business.

In addition, we could be required to expend significant additional amounts to respond to information technology issues or to protect against threatened or actual security breaches. We may not be able to implement measures that will protect against the significant risks to our information technology systems.

Conflicts, military actions, terrorist attacks, public health crises, including the occurrence of a contagious disease or illness, such as the COVID-19 coronavirus, cyber-attacks and general instability, particularly in certain energy-producing nations, along with increased security regulations related to our industry, could adversely affect our business.

We are vulnerable to the effects of conflicts, military actions, terrorist attacks and public health crises. As has been the case with COVID-19, such effects have precipitated economic instability and turmoil in financial markets. Instability and turmoil, particularly in energy-producing nations, may result in raw material cost increases. The uncertainty and economic disruption resulting from hostilities, military action, acts of terrorism, public health crises or cyber-attacks may impact any or all of our facilities and operations or those of our suppliers or customers. Accordingly, any conflict, military action, terrorist attack, public health crises or cyber-attack that impacts us or any of our suppliers or customers, could have a material adverse effect on our business, results of operations, financial condition and liquidity.

In addition, a number of governments have instituted regulations attempting to increase the security of chemical plants and the transportation of hazardous chemicals, which could result in higher operating costs and could have a material adverse effect on our financial condition and liquidity.

Risks Related to Our Relationship with SK Capital

SK Capital owns just under 40% of our ordinary shares, with an option to acquire an additional 9%, and its interests may conflict with yours.

On December 23, 2020, we announced that funds advised by SK Capital closed on the previously announced agreement to purchase approximately 42.4 million shares, representing just under 40% of our outstanding shares, from Huntsman for a purchase price of approximately \$100 million. The agreement includes a 30-month option for the purchase of Huntsman's remaining approximate 9.7 million shares it holds. We are not a party to this agreement. On January 4, 2021, we announced the election of three directors associated with SK Capital and the resignation of two members of our Board. As a result of these events, SK Capital may exert significant influence over our business objectives and policies, including whether to continue as a publicly listed company, the composition of our board of directors and any action requiring the approval of our shareholders, such as the adoption of amendments to our articles of association, and the approval of mergers or a sale of substantially all of our assets. This concentration of ownership may also make some transactions, including mergers or other changes in control, more difficult or impossible without the support of SK Capital and could discourage others from making tender offers, which could prevent shareholders from receiving a premium for their shares. SK Capital's interests may conflict with your interests as a shareholder.

Certain members of our Board may have actual or potential conflicts of interest because of their association with SK Capital.

Certain members of our Board are associated with SK Capital, which could create, or appear to create, potential conflicts of interest when our directors are faced with decisions that could have different implications for SK Capital and us. The four members associated with SK Capital are Barry B. Siadat, Aaron C. Davenport, Daniele Ferrari and Heike van de Kerkhof. So long as SK Capital beneficially owns ordinary shares representing a significant percentage of the votes entitled to be cast by the holders of our outstanding ordinary shares, SK Capital can exert significant influence over our Board.

Risks Related to Our Relationship with Huntsman

We have agreed to indemnify Huntsman for certain liabilities, including those related to the operation of our business while it was still owned by Huntsman, and while Huntsman will indemnify us for certain liabilities, such indemnities may not be adequate.

Pursuant to the separation agreement and other agreements with Huntsman, we agreed to indemnify Huntsman for certain liabilities, including those related to the operation of our business while it was still owned by Huntsman, in each case for uncapped amounts. Indemnity payments that we may be required to provide Huntsman may be significant and could negatively impact our business. Third parties could also seek to hold us responsible for liabilities that Huntsman has agreed to retain. Further, there can be no assurance that the indemnity from Huntsman for its retained liabilities will be sufficient to protect us against the full amount of such liabilities, or that Huntsman will be able to fully satisfy its indemnification obligations to us. Moreover, even if we ultimately succeed in recovering from Huntsman any amounts for which we are held liable, we may be temporarily required to bear these losses ourselves.

We could have significant tax liabilities for periods during which Huntsman operated our business.

For any tax periods (or portions thereof) prior to the separation and our IPO, we or one or more of our subsidiaries will be included in consolidated, combined, unitary or similar tax reporting groups with Huntsman (including Huntsman's consolidated group for U.S. federal income tax purposes). Applicable laws (including U.S. federal income tax laws) often provide that each member of such a tax reporting group is liable for the group's entire tax obligation. Thus, to the extent Huntsman or other members of a tax reporting group of which we or one of our subsidiaries was a member fails to make any tax payments required by law, we could be liable for the shortfall. Huntsman will indemnify us for any taxes attributable to Huntsman and the internal reorganization and separation transactions that we or one of our subsidiaries are required to pay as a result of our (or one of our subsidiaries') membership in such a tax reporting group with Huntsman. We will also be responsible for any increase in Huntsman's tax liability for any period in which we or any of our subsidiaries are combined or consolidated with Huntsman to the extent attributable to our business (including any increase resulting from audit adjustments). Furthermore, with respect to periods prior to the separation in which one or more of Huntsman's subsidiaries are included in a consolidated, combined, unitary or similar tax reporting group with us, and if one or more of Huntsman's subsidiaries receives an adjustment that increases taxable income, such adjustment may result in the utilization of Venator tax attributes. The use of such Venator attributes would be free of charge to Huntsman and would result in the reduction of our deferred tax assets along with an increase in deferred tax expense in cases where no valuation allowance has been recognized against such deferred tax assets.

In addition, we will also be responsible for any taxes due with respect to tax returns that include only us and/or our subsidiaries for tax periods (or portions thereof) prior to the separation and our IPO.

Further, by virtue of the tax matters agreement, Huntsman effectively controls certain of our tax decisions in connection with any tax reporting group tax returns in which we (or any of our subsidiaries) are included. The tax matters agreement provides that Huntsman has sole authority to respond to and conduct all tax proceedings (including tax audits) and to prepare and file all such reporting group tax returns in which we or one of our subsidiaries are included on our behalf (including the making of any tax elections). This arrangement may result in conflicts of interest between Huntsman and us. See "Part III. Item 13. Certain Relationships and Related Party Transactions, and Director Independence."

In addition, for U.S. federal income tax purposes Huntsman recognized a gain as a result of the internal restructuring and IPO to the extent the fair market value of the assets associated with our U.S. businesses exceeded the basis of such assets for U.S. federal income tax purposes at the time of the separation. As a result of such gain recognized, the basis of the assets associated with our U.S. businesses increased. Pursuant to the tax matters agreement entered into at the time of the separation, we are required to make a future payment to Huntsman for any actual U.S. federal income tax savings we recognize as a result of any such basis increase for tax years through December 31, 2028. As of each of December 31, 2022 and 2021, we expected future payments to be \$21 million.

See "Part III. Item 18. Financial Statements — Note 19. Income Taxes" of this report for the amount of our known contingent tax liabilities. We currently have no reason to believe that we have any unrecorded outstanding tax liabilities from prior years; however, due to the inherent complexity of tax law, the many countries in which we operate, and the unpredictable nature of tax authorities, we believe there is inherent uncertainty.

The amount of tax for which we are liable for taxable periods preceding the separation may be impacted by elections Huntsman makes on our behalf.

Under the tax matters agreement, Huntsman has the right to make all elections for taxable periods preceding the separation and our IPO. As a result, the amount of tax for which we are liable for taxable periods preceding the separation and our IPO may be impacted by elections Huntsman makes on our behalf.

Risks Related to Our Ordinary Shares

If we cannot regain compliance with the rules of the New York Stock Exchange (the "NYSE") pertaining to a minimum average price per share, the NYSE may delist our stock, which could negatively affect our company, the price of our ordinary shares and our shareholders' ability to sell our ordinary shares.

On November 2, 2022, we received notice from the NYSE that we were no longer in compliance with the continued listing standard set forth in Section 802.01C of the NYSE's Listed Company Manual because the average closing price of the Company's ordinary shares was less than \$1.00 per share over a consecutive 30 trading-day period. In order to regain compliance, on the last trading day of any calendar month during the cure period or on the last business day of the six-month cure period, the Company's ordinary shares must demonstrate (i) a closing price of at least \$1.00 per share and (ii) an average

closing share price of at least \$1.00 over the 30 trading-day period ending on such date. There can be no assurances that the Company will meet continued listing standards within the specified cure period.

If we are unable to satisfy the NYSE criteria for continued listing, our ordinary shares would be subject to delisting. A delisting of our ordinary shares could negatively impact us by, among other things, reducing the liquidity and market price of our ordinary shares; reducing the number of investors willing to hold or acquire our ordinary shares (including because certain non-corporate U.S. investors may not qualify for the preferential rates of taxation with respect to any dividends made on our ordinary shares if we are not eligible for the benefits of a comprehensive tax treaty with the United States), which could negatively impact our ability to raise equity financing; decreasing the amount of news and analyst coverage of the Company; and limiting our ability to issue additional securities or obtain additional financing in the future, which could put additional pressure on our liquidity and ability to continue to operate as a going concern. In addition, delisting from the NYSE may negatively impact our reputation and, consequently, our business.

A number of our shares are eligible for future sale, which may cause the market price of our ordinary shares to decline.

Any sales of substantial amounts of our ordinary shares in the public market or the perception that such sales might occur may cause the market price of our ordinary shares to decline and impede our ability to raise capital through the issuance of equity securities. We may issue additional ordinary shares, including any securities that are convertible into or exchangeable for, or that represent the right to receive, ordinary shares or any substantially similar securities.

In connection with the IPO and the separation, we and Huntsman entered into a Registration Rights Agreement, pursuant to which we agreed, upon the request of Huntsman, to use our best efforts to effect the registration under applicable securities laws of the disposition of our ordinary shares retained by Huntsman. In connection with its sale of just under 40% of our outstanding shares to SK Capital in December 2020, Huntsman partially assigned the Registration Rights Agreement to SK Capital. Subject to prevailing market and other conditions, any future monetization may be effected in additional follow-on capital markets transactions or block transactions that permit an orderly distribution of SK Capital's or Huntsman's ordinary shares.

The rights of our shareholders may differ from the rights typically offered to shareholders of a U.S. corporation organized in Delaware and these differences may make our ordinary shares less attractive to investors.

We are incorporated under the laws of England and Wales. The rights of holders of our ordinary shares are governed by English law, including the provisions of the Companies Act 2006, and by our articles of association. These rights differ in certain respects from the rights of shareholders in typical U.S. corporations organized in Delaware, including with respect to preemptive rights, distribution of dividends, limitation on derivative suits, and certain heightened shareholder approval requirements.

U.S. investors may have difficulty enforcing civil liabilities against us, our directors or members of senior management.

We are incorporated under the laws of England and Wales. The U.S. and the U.K. do not currently have a treaty providing for the recognition and enforcement of judgments, other than arbitration awards, in civil and commercial matters. The enforceability of any judgment of a U.S. federal or state court in the U.K. will depend on the laws and any treaties in effect at the time, including conflicts of laws principles (such as those bearing on the question of whether a U.K. court would recognize the basis on which a U.S. court had purported to exercise jurisdiction over a defendant). In this context, there is doubt as to the enforceability in the U.K. of civil liabilities based solely on the federal securities laws of the U.S. In addition, awards for punitive damages in actions brought in the U.S. or elsewhere may be unenforceable in the U.K. An award for monetary damages under the U.S. securities laws would likely be considered punitive if it did not seek to compensate the claimant for loss or damage suffered and was intended to punish the defendant.

Provisions in our articles of association are intended to have anti-takeover effects that could discourage an acquisition of us by others and may prevent attempts by shareholders to replace or remove our current management.

Certain provisions in our articles of association are intended to have the effect of delaying or preventing a change in control or changes in our management. For example, our articles of association include provisions that establish an advance notice procedure for shareholder resolutions to be brought before an annual meeting of our shareholders, including proposed nominations of persons for election to our board of directors. U.K. law also prohibits the passing of written shareholder resolutions by public companies. In addition, our articles of association provide that we may not engage in a business combination with an interested shareholder for a period of three years after the time of the transaction in which the person became an interested shareholder unless our board of directors, prior to the time of the transaction in which the person became

an interested shareholder, approves the business combination or the transaction in which the shareholder becomes an interested shareholder, or under other specified limited circumstances. These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management, even if these events would be beneficial for our shareholders.

Pre-emption rights for U.S. and other non-U.K. holders of shares may be unavailable.

In the case of certain increases in our issued ordinary share capital, under English law, existing holders of our ordinary shares are entitled to pre-emption rights to subscribe for such shares, unless shareholders dis-apply such rights by a special resolution at a shareholders' meeting. There is no current dis-application in force, as the existing dis-application has expired, but we intend to propose equivalent resolutions at our next annual general meeting of shareholders. We cannot assure prospective U.S. investors that any exemption from the registration requirements of the Securities Act or applicable non-U.S. securities laws would be available to enable U.S. or other non-U.K. holders to exercise such pre-emption rights or, if available, that we will utilize any such exemption. For more information on the potential issuance of a material number of ordinary shares or securities convertible into our ordinary shares in connection with the strategic review of our business and plan to strengthen our liquidity position and engage our shareholders and debtholders with respect to our capital structure, please see "*Risks Related to our Liquidity and Capital Resources—We may not be able to raise additional capital in the future on favorable terms or at all, which could materially adversely affect our financial condition and results of operations, including our inability to continue as a going concern.*"

Transfers of our shares may be subject to stamp duty or stamp duty reserve tax in the U.K., which would increase the cost of dealing in our shares.

Stamp duty or stamp duty reserve tax ("SDRT"), are imposed in the U.K. on certain transfers of chargeable securities (which include shares in companies incorporated in the U.K.) at a rate of 0.5% of the consideration paid for the transfer. Certain issues or transfers of shares to depositories or into clearance systems may be charged at a higher rate of 1.5%.

Our shareholders are strongly encouraged to hold shares in book entry form through the facilities of The Depository Trust Company ("DTC"). Transfers of shares held in book entry form through DTC do not currently attract a charge to stamp duty or SDRT in the U.K. A transfer of title in the shares from within the DTC system out of DTC and any subsequent transfers that occur entirely outside the DTC system, will attract a charge to stamp duty at a rate of 0.5% of any consideration, which is payable by the transferee of the shares. Any such duty must be paid (and the relevant transfer document, if any, stamped by HM Revenue & Customs ("HMRC")) before the transfer can be registered in the books of Venator. However, if those shares are redeposited into DTC, the redeposit will attract stamp duty or SDRT at the rate of 1.5% to be paid by the transferor.

We have put in place arrangements to require that shares held in certificated form cannot be transferred into the DTC system until the transferor of the shares has first delivered the shares to a depository specified by us so that SDRT may be collected in connection with the initial delivery to the depository. Any such shares will be evidenced by a receipt issued by the depository. Before the transfer can be registered in our books, the transferor will also be required to put the depository in funds to settle the resultant liability to SDRT, which will be charged at a rate of 1.5% of the value of the shares.

As a result of changes in law because of Brexit, we are no longer able to deliver shares directly to the DTC for deposit and clearing within the DTC facilities. Instead, an arrangement is in place whereby the shares are indirectly issued to the DTC through the issuance of shares to a third party depository nominee, subsequent issuance and cancellation of depository receipts and transfer of the shares from the depository nominee to DTC's nominee Cede & Co. for further delivery into the DTC system, a process which is exempt from stamp duty under existing U.K. law. If this arrangement were to be disallowed under U.K. law, then transactions in our securities may be disrupted.

The facilities of DTC are a widely-used mechanism that allow for rapid electronic transfers of securities between the participants in the DTC system, which include many large banks and brokerage firms. Our ordinary shares are currently eligible via the method described above for deposit and clearing within the DTC system. We have entered into arrangements with DTC whereby we agreed to indemnify DTC for any SDRT that may be assessed upon it as a result of its service as a depository and clearing agency for our shares. However, DTC generally has discretion to cease to act as a depository and clearing agency for the shares. While we would pursue alternative arrangements to preserve our listing and maintain trading, any such disruption could have a material adverse effect on the market price of our ordinary shares.

Our business and operations could be negatively affected if we become subject to a campaign from a shareholder activist, which could cause us to incur significant expense, divert management's attention and resources, hinder the implementation of our strategic review initiatives, and have an adverse impact on our financial results and the price of our ordinary shares.

Shareholder activism, which can take many forms or arise in a variety of situations, has been increasing for public companies and could result in substantial costs to us, divert attention and valuable resource of our Board, management and employees, and disrupt our operations. On January 10, 2023 for instance, we received a letter from an approximately 14.3% shareholder of Venator, J&T MS 1 SICAV (together with its affiliates, "J&T"), which was made publicly available and in which J&T expressed concerns about Venator's financial and share price performance and our business strategy.

While we value open dialogue and continue to engage regularly with our shareholders, activist campaigns could be led by shareholders that have interests that are different from the majority of our shareholders and our Board, and may not be in the best interest of Venator. Further, shareholder activism could have an adverse impact on the price of our ordinary shares and give rise to perceived uncertainties as to our future direction, strategy or leadership. Shareholder activism could also adversely affect our relationships with customers and suppliers, may result in the loss of potential business opportunities, may make it more difficult for us to attract new or retain existing investors, customers, directors, employees or other partners, and may impact the manner in which we operate our business in ways we do not currently anticipate. Activist shareholders could also hinder the implementation of strategic initiatives that we are undertaking and may undertake in the future in order to address the near-term challenges to our business. As a result, we may be required to retain additional services of various professionals to advise us in matters related to shareholder activism, including legal, financial and communications advisers, the costs of which may negatively impact our financial results.

Risks Related to Our Status as a Foreign Private Issuer

As a foreign private issuer, we are exempt from a number of rules or regulations under the U.S. securities laws and are permitted to file less information with the SEC than U.S. public companies.

We are a "foreign private issuer," as defined in the SEC rules and regulations and, consequently, we are not subject to all of the disclosure requirements applicable to companies organized within the U.S. For example, we are exempt from certain rules under the Exchange Act that regulate disclosure obligations and other requirements related to the solicitation of proxies, consents or authorizations applicable to a security registered under the Exchange Act. In addition, our officers and directors are exempt from the reporting and "short-swing" profit recovery provisions of Section 16 of the Exchange Act and related rules with respect to their purchases and sales of our securities. Further, we are not required to comply with Regulation FD, which restricts the selective disclosure of material information. Moreover, we are not required to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. public companies. Accordingly, there may be less publicly available information concerning our company than there is for U.S. public companies.

As a foreign private issuer, we file annual reports on Form 20-F within four months of the close of each fiscal year ended December 31 and reports on Form 6-K relating to certain material events promptly after we publicly announce these events. However, because of the above exemptions for foreign private issuers, our shareholders are not afforded the same protections or information generally available to investors holding shares in public companies organized in the U.S.

While we are a foreign private issuer, we are not subject to certain NYSE corporate governance listing standards applicable to U.S. listed companies.

We are entitled to rely on a provision in the corporate governance listing standards of the NYSE that allows us to follow English corporate law and the U.K. Companies Act with regard to certain aspects of corporate governance. This allows us to follow certain corporate governance practices that differ in significant respects from the corporate governance requirements applicable to U.S. companies listed on the NYSE.

For example, we are exempt from NYSE regulations that require a listed U.S. company to (1) have a majority of the board of directors consist of independent directors, (2) require regularly scheduled executive sessions with only independent directors each year and (3) have a remuneration committee or a nominations or corporate governance committee consisting entirely of independent directors.

In accordance with our NYSE listing, our audit committee is required to comply with the provisions of Section 301 of the Sarbanes-Oxley Act and Rule 10A-3 of the Exchange Act, both of which are also applicable to NYSE-listed U.S. companies. Because we are a foreign private issuer, however, our audit committee is not subject to additional New York Stock Exchange requirements applicable to listed U.S. companies, including an affirmative determination that all members of the

audit committee are “independent” under more stringent criteria than those applicable to us as a foreign private issuer. Furthermore, the corporate governance listing standards of the NYSE require listed U.S. companies to, among other things, seek shareholder approval for the implementation of certain equity compensation plans and issuances of ordinary shares, which we are not required to follow as a foreign private issuer.

While historically we have not utilized any of the above exemptions and believe that we comply with all NYSE corporate governance listing standards applicable to U.S. listed companies, if a material number of ordinary shares are issued in connection with a restructuring or refinancing of our existing debt, including in exchange for existing debt, or to provide additional liquidity, we expect to use the accommodations granted to foreign private issuers by NYSE rules, which permit foreign private issuers not to seek shareholder approval for the issuance of 20% or more of their outstanding ordinary shares, subject to obtaining any required approvals for such ordinary share issuances under English law.

We may lose our foreign private issuer status, which would then require us to comply with the Exchange Act's domestic reporting regime.

As a foreign private issuer, we are not required to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. public companies. We may no longer be a foreign private issuer when such status is assessed as of June 30, 2023 (the end of our second fiscal quarter), which would require us to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. public companies as of December 31, 2023. In order to maintain our current status as a foreign private issuer, either (a) a majority of our ordinary shares must be either directly or indirectly owned of record by non-residents of the U.S. or (b) (1) a majority of our executive officers or directors cannot be U.S. citizens or residents, (2) more than 50 percent of our assets must be located outside the U.S. and (3) our business must be administered principally outside the U.S. If we lose our status as a foreign private issuer, we would be required to comply with the reporting and other requirements of the Exchange Act as applicable to U.S. public companies, which are more detailed and extensive than the requirements for foreign private issuers. We may also be subject to more stringent corporate governance practices in accordance with various SEC regulations and rules. The regulatory and compliance costs under U.S. securities laws applicable to a U.S. public company can be significantly higher than the costs incurred by a foreign private issuer. As a result, a loss of foreign private issuer status could increase our legal and financial compliance costs and could make some activities more time consuming and costly.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

The legal and commercial name of our Company is Venator Materials PLC. On April 28, 2017, we were incorporated under the laws of England and Wales as a public limited company as a wholly-owned subsidiary of Huntsman. We became an independent publicly traded company following our IPO and separation from Huntsman in August 2017. Following the separation and subsequent follow on share offering, Huntsman maintained ownership of approximately 49% of our outstanding shares. On December 23, 2020, SK Capital purchased approximately 42.4 million shares, representing just under 40% of Venator's outstanding shares, from Huntsman, including a 30-month option for the purchase of the remaining approximately 9.7 million Venator shares Huntsman holds. Our principal place of business is at Titanium House, Hanzard Drive, Wynyard Park, Stockton-On-Tees, TS22 5FD, United Kingdom. Our telephone number is +44 (0) 1740 608 001.

Our Internet website is www.venatorcorp.com. The SEC maintains an Internet website that contains reports regarding issuers, such as ours, that file electronically with the SEC at <http://www.sec.gov>. Information contained on or connected to our website is not incorporated by reference into this annual report on Form 20-F and should not be considered part of this annual report or any other filing we make with the SEC.

For a description of our principal capital expenditures and divestitures for the three years ended December 31, 2022, and for those currently in progress, see Item 5. “Operating and Financial Review and Prospects” of this Annual Report.

B. Business Overview

We are a leading global manufacturer and marketer of chemical products that improve the quality of life for downstream consumers and promote a sustainable future. Our products comprise a broad range of innovative chemicals and formulations that bring color and vibrancy to a variety of applications, protect and extend product life, and reduce energy consumption. We market our products globally to a diversified group of industrial customers through two segments: Titanium Dioxide, which consists of our TiO₂ business, and Performance Additives, which consists of our functional additives, color pigments, and timber treatment businesses. We are a leading global producer in many of our key product lines, including those

within TiO₂, color pigments and functional additives, and a leading North American producer of timber treatment products. Headquartered in Wymondslay, U.K., we employ approximately 3,400 associates worldwide and sell our products in more than 109 countries.

We operate in a variety of end markets, including industrial and architectural paints and coatings, plastics, construction materials, paper, printing inks, pharmaceuticals, food, cosmetics, fibers and films and personal care. Within these end markets, our products serve approximately 2,800 customers globally. Our production capabilities allow us to manufacture a broad range of high quality functional TiO₂ products as well as specialty and differentiated TiO₂ products that provide critical performance for our customers and sell at a premium for certain end-use applications. Our functional additives, color pigments and timber treatment products provide essential properties for our customers' end-use applications by enhancing the color and appearance of construction materials and delivering performance benefits in other applications such as corrosion and fade resistance, water repellence and flame suppression. We believe that our global footprint and broad product offerings differentiate us from our competitors and allow us to better meet our customers' needs.

For the year ended December 31, 2022, we had total revenues of \$2,173 million and a net loss of \$181 million. Adjusted EBITDA was \$53 million, which includes \$43 million from our Titanium Dioxide segment and \$53 million from our Performance Additives segment. See a reconciliation of Adjusted EBITDA to net income and to Adjusted EBITDA for each of our segments at Part III. Item 18. Financial Statements and Supplementary Data—Note 25. Operating Segment Information."

Our Titanium Dioxide and Performance Additives segments have evolved in recent years through certain site closures, reductions in operating costs, new product introductions, and selective divestment of certain businesses. We have a well-established position in each of the industries in which we operate. However, recent conditions and events raised substantial doubt about our ability to continue as a going concern. In response to these conditions and events, we are taking a number of actions which are intended to mitigate these conditions and events, but we have concluded that our plans do not alleviate substantial doubt about our ability to continue as a going concern. See further discussion around our ability to continue as a going concern at Part III. Item 18. Financial Statements and Supplementary Data—Note 1. Description of Business, Going Concern, and Summary of Significant Accounting Policies.

The table below summarizes the key products, end markets and applications, representative customers, revenues and sales information by segment as of December 31, 2022.

	Titanium Dioxide	Performance Additives
Product Groups	Titanium dioxide (TiO ₂)	Iron Oxide, Complex Inorganic Colored Pigments, Metal Carboxylate Driers, Ultra Marine Blue, Barium Sulfate, Zinc Sulfide and Timber Treatment.
End Markets and Applications	Coatings, Plastics, Paper, Printing Inks, Fibers and Films, Pharmaceuticals, Food, Cosmetics, Agriculture and Water Purification	Coatings, Plastics, Concrete Block, Roof Tiles, Cosmetics, Pharmaceuticals, Personal Care, Timber Treatment (Decking, Fencing and Fire Retardant Treated Wood) and Water Purification.
Representative Customers	AkzoNobel, Ampacet, Avient, BASF, DSM, Flint, Jotun, LG, LyondellBasell, Standridge and Sun Chemical	AkzoNobel, Ampacet, Avient, BASF, CRH, PPG, and Sabic

The following table shows sales by geographical region for the years ended December 31, 2022, 2021, 2020:

	2022		2021		2020	
	TiO ₂	Performance Additives	TiO ₂	Performance Additives	TiO ₂	Performance Additives
Europe	47 %	32 %	51 %	38 %	51 %	36 %
North America	24 %	50 %	19 %	43 %	20 %	45 %
APAC ⁽¹⁾	19 %	15 %	20 %	16 %	20 %	16 %
Other	10 %	3 %	10 %	3 %	9 %	3 %
Total	100 %	100 %	100 %	100 %	100 %	100 %

⁽¹⁾"APAC" refers to the Asia-Pacific region including India.

The following table shows sales by end markets for the year ended December 31, 2022, 2021, 2020:

	2022		2021		2020	
	TiO ₂	Performance Additives	TiO ₂	Performance Additives	TiO ₂	Performance Additives
Plastics	42 %	14 %	41 %	16 %	41 %	15 %
Architectural coatings	23 %	14 %	24 %	14 %	27 %	14 %
Industrial coatings	14 %	13 %	15 %	12 %	14 %	11 %
Construction	1 %	49 %	1 %	44 %	1 %	44 %
Other	20 %	10 %	19 %	14 %	17 %	16 %
Total	100 %	100 %	100 %	100 %	100 %	100 %

For additional information about our business segments, including related financial information, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 25. Operating Segment Information" and "Part I. Item 5. Operating and Financial Review and Prospects."

Our Business

Venator manufactures high quality TiO₂, functional additives, color pigments and timber treatment products. Our broad product range, coupled with our ability to develop and supply specialized products into technically exacting end-use applications, has positioned us as a leader in the markets we serve. We are a leader in the specialty and differentiated TiO₂ industry segments, which includes products that sell at a premium and generally have more stable margins than functional TiO₂. We also have complementary functional additives, color pigments and timber treatment businesses. We have 20 manufacturing facilities operating in nine countries with a total nameplate production capacity of approximately 937,000 metric tons per year. Of these facilities, seven are TiO₂ manufacturing facilities and 13 are color pigments, functional additives, and timber treatment manufacturing and processing facilities located in Europe, North America, and APAC.

Titanium Dioxide Segment

TiO₂ is derived from titanium-bearing ores and is a white inert pigment that provides whiteness, opacity and brightness to thousands of everyday items, including coatings, plastics, paper, printing inks, fibers, food and personal care products. We own a portfolio of brands, including the TIOXIDE[®], HOMBITAN[®], HOMBITEC[®], UVTITAN[®] and HOMBIKAT[®] ranges, the products for which are produced in our seven manufacturing facilities around the globe. We service over 1,100 customers in most major industries and geographic regions. Our global manufacturing footprint allows us to service the needs of both local and global customers, including Ampacet group, Avient, PPG, Standridge, Sun Chemicals, Color Tech, AkzoNobel, LyondellBasell, Jotun and Republic Powdered Metals. Annual industry demand for TiO₂ products tends to correlate with GDP growth rates over time and is seasonal. This seasonality is subject to global and regional economic conditions, as well as demand for end-use applications and other factors.

We are one of the four largest global TiO₂ producers, with nameplate production capacity of approximately 602,000 metric tons per year. We are able to manufacture a broad range of high quality TiO₂ products for functional, differentiated and

specialty applications. Our specialty and differentiated product grades generally sell at a premium into more specialized applications such as fibers, catalysts, food, pharmaceuticals and cosmetics.

There are two manufacturing processes for the production of TiO₂: the sulfate process and the chloride process. We believe that the chloride process accounts for approximately 44% of global production capacity. Most end-use applications can use pigments produced by either process, although there are markets that prefer pigment from a specific manufacturing route—for example, the inks market prefers sulfate products whereas the automotive coatings market prefers chloride products. Regional customers typically favor products that are available locally. The sulfate process produces TiO₂ in both the rutile and anatase forms, the latter being used in certain high-value specialty applications.

	Rutile TiO ₂	Anatase TiO ₂	Ultrafine TiO ₂
Characteristics	Most common form of TiO ₂ . Harder and more durable crystal	Softer, less abrasive pigment, preferred for some specialty applications	Very small particles of either rutile or anatase TiO ₂ (typically less than 100nm in diameter)
Typical Applications	Coatings, printing inks, PVC window frames, plastic masterbatches	Cosmetics, pharmaceuticals, food, polyester fibers, polyamide fibers	Catalysts and cosmetics

Our production capabilities are distinguished from some of our competitors because of our ability to manufacture high quality TiO₂ using both sulfate and chloride manufacturing processes, which gives us the flexibility to tailor our products to meet our customers' needs. By operating both sulfate and chloride processes, we also have the ability to use a wide range of titanium feedstocks, which enhances the competitiveness of our manufacturing operations, by providing flexibility in the selection of raw materials. This mitigates, to some extent, fluctuations in availability for any particular feedstock and allows us to manage our raw material costs.

Once an intermediate TiO₂ pigment has been produced using either the chloride or sulfate process, it is "finished" into a product with specific performance characteristics for particular end-use applications. Certain co-products from both processes which are disposed of require treatment prior to disposal to comply with environmental regulations. In order to reduce our disposal costs and to increase our cost competitiveness, we have developed and marketed the co-products from the manufacture of titanium dioxide at our facilities. We sell approximately 42% of the co-products generated by our TiO₂ business.

We have a broad customer base and have successfully differentiated our business by establishing ourselves as a market leader in a variety of niche end-use applications where the innovation and specialization of our products is rewarded with higher growth prospects and strong customer relationships.

Performance Additives Segment

Functional Additives. Functional additives are barium and zinc based inorganic chemicals used to make colors more brilliant, coatings shine, plastic more stable and alter the flow properties of paints. We are a leading global manufacturer of zinc and barium functional additives. The demand dynamics of functional additives are closely aligned with those of functional TiO₂ products given the overlap in applications served, including coatings and plastics.

Our products are sold under a portfolio of brands that are targeted to the construction sector such as BLANC FIXE™, SACHTOLITH® and ECOLIFE® focused predominantly on the coatings and plastics sectors.

	Barium and Zinc Additives
Characteristics	Specialty pigments and fillers based on barium and zinc chemistry
Typical Applications	Coatings, films, paper and glass fiber reinforced plastics

Color Pigments. We produce colored inorganic pigments for the construction, coatings, plastics and specialty markets. We are one of three global leaders in the manufacture and processing of liquid, powder and granulated forms of iron oxide color pigments. We also sell complex inorganic colored pigments, carbon black and metal carboxylate driers. The cost effectiveness, weather resistance, chemical and thermal stability and coloring strength of iron oxide make it an ideal colorant for construction materials, such as concrete, brick and roof tile, and for coatings and plastics. We produce a wide range of color pigments and are the world's second largest manufacturer of technical grade ultramarine blue pigments, which have a unique blue shade and are widely used to correct colors, giving them a desirable clean, blue undertone. These attributes have resulted in ultramarine blue being used world-wide for polymeric applications such as construction plastics, food packaging, automotive polymers, consumer plastics, as well as coatings and cosmetics.

In the fourth quarter of 2022, we entered into a definitive agreement with Cathay Industries to divest the iron oxide business from within the Color Pigments business. The disposal group is classified as assets held-for-sale as of December 31, 2022 on our consolidated balance sheet.

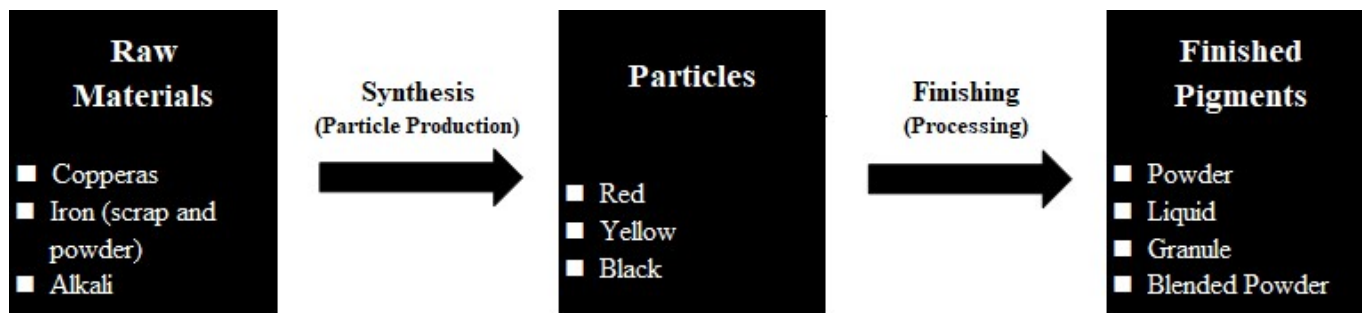
Our products are sold under a portfolio of brands that are targeted to the construction sector such as DAVIS COLORS[®], GRANUFIN[®] and FERROXIDE[®]. Holliday Pigments, COPPERAS RED[®] and MAPICO[®] focused predominantly on the coatings and plastics sectors. Annual industry demand for our color pigments is seasonal and typically follows the construction market.

Our products are also used by manufacturers of colorants, rubber, paper, cosmetics, pet food, digital ink, toner and other industrial uses delivering benefits in other applications such as corrosion protection and catalysis.

Our construction customers value our broad product range and benefit from our custom blending, color matching and color dosing systems. Our coatings customers benefit from a consistent and quality product.

	Iron Oxides	Ultramarines	Specialty Inorganic Chemicals	Driers
Characteristics	Powdered, granulated or in liquid form synthesized from a range of feedstocks	Range of ultramarine blue and violet and also manganese violet pigments	Complex inorganic pigments and cadmium pigments	A range of metal carboxylates and driers
Typical Applications	Construction, coatings, plastics, cosmetics, inks, catalyst and laminates	Predominantly used in plastics and also coatings and cosmetics	Coatings, plastics and inks	Predominantly coatings

Copperas, iron and alkali are raw materials for the manufacture of iron oxide pigments. They are used to produce colored pigment particles which are further processed into a finished pigment in powder, liquid, granule or blended powder form. Iron oxide pigment's cost effectiveness, weather resistance, chemical and thermal stability and coloring strength make it an ideal colorant for construction materials, such as concrete, brick and roof tile, and for coatings such as paints and plastics. We are one of the three largest inorganic color pigments producers which together represent more than 50% of the global market for iron oxide pigments. The remaining market share consists primarily of competitors based in China.



- Iron oxide can be synthesized using different types of feedstock (typically iron based waste streams) by using different synthesis processes
- Finishing includes milling, blending, granulating, and liquefying to meet the specific requirements of the end customers

Made from clay, our ultramarine blue pigments are non-toxic, weather resistant and thermally stable. Ultramarine blue pigments are used world-wide for food contact applications and are used extensively in plastics and the paint industry. Our ultramarine pigments are permitted for unrestricted use in certain cosmetics applications. We focus on supplying our customers with technical grade ultramarine blues and violets to high specification markets such as the cosmetics industry.

Timber Treatment. We manufacture wood protection chemicals used primarily in residential, commercial and industrial applications to prolong the service life of wood through protection from decay and fungal or insect attack. Wood that has been treated with our products is sold to consumers through major branded retail outlets. We sell our industrial products to customers who use our products for treating wood in industrial applications.

We manufacture our timber treatment chemicals in the US and market our products primarily in North America through Viance, LLC ("Viance"), our 50%-owned joint venture with Lanxess. Our residential construction products such as ECOLIFE[™], ACQ, and Copper Azole are sold for use in decking, fencing and other residential outdoor wood structures. Our

industrial construction products such as ULTRAPOLE™ Chromated Copper Arsenate are sold for use in telephone poles and salt water piers and pilings.

Customers, Sales, Marketing and Distribution

Titanium Dioxide Segment

We serve over 1,100 customers through our Titanium Dioxide segment. These customers produce paints and coatings, plastics, paper, printing inks, fibers and films, pharmaceuticals, food and cosmetics.

Approximately 87% of our TiO₂ sales are made directly to customers through our own global sales and technical services network. This network enables us to work directly with our customers and develop a deep understanding of our customers' needs resulting in valuable relationships. The remaining 13% of sales are made through our distribution network. We maximize the reach of our distribution network by utilizing specialty distributors in selected markets.

Larger customers are typically served via our own sales network and these customers often have annual volume targets with associated pricing mechanisms. Smaller customers are served through a combination of our global sales teams and a distribution network, and the route to market decision is often dependent upon customer size and end-use application.

Our focus is on marketing products and services to higher growth and higher value applications. For example, we believe that our Titanium Dioxide segment is well-positioned to benefit from sectors such as fibers and films, catalysts, cosmetics, pharmaceuticals and food, where customers' needs are complex resulting in fewer companies that have the capability to support them. We maximize reach through specialty distributors in selected markets. Our focused sales effort, technical expertise, strong customer service and local manufacturing presence have allowed us to achieve leading market positions in a number of countries.

Performance Additives Segment

We serve over 1,700 customers through our Performance Additives segment. These customers produce materials for the construction industry, as well as coatings, plastics, pharmaceutical, personal care and catalyst applications.

Performance Additives segment sales are made directly to customers through our own global sales and technical services network, in addition to utilizing distributors. Our focused sales effort, technical expertise, strong customer service and local manufacturing presence have allowed us to achieve leading market positions in a number of the countries where we manufacture our products. We sell iron oxides primarily through our global sales force whereas our ultramarine sales are predominantly through distributors. We sell our timber treatment products to consumers and industrial customers via the sales force of our joint venture, Viance.

Manufacturing and Operations

Titanium Dioxide Segment

As of December 31, 2022, our Titanium Dioxide segment had seven manufacturing facilities operating in six countries with a total nameplate production capacity of approximately 602,000 metric tons per year.

Production nameplate capacities of our TiO₂ manufacturing facilities are listed below.

Site	Annual Capacity (metric tons)				Process
	EMEA ⁽¹⁾	North America	APAC	Total	
Greatham, U.K.	150,000			150,000	Chloride TiO ₂
Uerdingen, Germany	107,000			107,000	Sulfate TiO ₂
Huelva, Spain	80,000			80,000	Sulfate TiO ₂
Scarlino, Italy	80,000			80,000	Sulfate TiO ₂
Duisburg, Germany	50,000			50,000	Sulfate TiO ₂
Lake Charles, Louisiana ⁽²⁾		75,000		75,000	Chloride TiO ₂
Teluk Kalung, Malaysia			60,000	60,000	Sulfate TiO ₂
Total	467,000	75,000	60,000	602,000	

- (1) "EMEA" refers to Europe, the Middle East and Africa.
- (2) This facility is owned and operated by Louisiana Pigment Company L.P. ("LPC"), a manufacturing joint venture that is owned 50% by us and 50% by Kronos. The capacity shown reflects our 50% interest in LPC.

Performance Additives Segment

As of December 31, 2022, our Performance Additives segment had 13 manufacturing facilities operating in seven countries with a total nameplate production capacity of approximately 335,000 metric tons per year.

Product Area	Annual Capacity (metric tons)			
	EMEA	North America	APAC	Total
Functional additives	50,000			50,000
Color pigments	85,000	40,000	20,000	145,000
Timber treatment		140,000		140,000
Total	135,000	180,000	20,000	335,000

Joint Ventures

LPC is our 50%-owned joint venture with Kronos. We share production offtake and operating costs of the plant with Kronos, though we market our share of the production independently. The operations of the joint venture are under the direction of a supervisory committee on which each partner has equal representation. Our investment in LPC is accounted for using the equity method.

Viance is our 50%-owned joint venture with Lanxess. Viance markets our timber treatment products. The joint venture sources all of its products through a contract manufacturing arrangement at our Harrisburg, North Carolina facility, and we bear a disproportionate amount of working capital risk of loss due to the supply arrangement whereby we control manufacturing on Viance's behalf. As a result, we concluded that we are the primary beneficiary and as a result, we consolidate the assets, liabilities and operating results of Viance into our consolidated financial statements.

Pacific Iron Products Sdn Bhd ("PIP") is our 50%-owned joint venture with Coogee Chemicals Pty. Ltd. ("Coogee Chemicals") that manufactures products for Venator. It was determined that the activities that most significantly impact its economic performance are raw material supply, manufacturing and sales. In this joint venture we supply all the raw materials through a fixed cost supply contract, operate the manufacturing facility and market the products of the joint venture to customers. Through a fixed price raw materials supply contract with the joint venture we are exposed to the risk related to the fluctuation of raw material pricing. We concluded that we are the primary beneficiary and as a result we consolidate the assets, liabilities and operating results of PIP into our consolidated financial statements.

Raw Materials

Titanium Dioxide Segment

The primary raw materials that are used to produce TiO₂ are various types of titanium feedstock, which include ilmenite, rutile, titanium slag (chloride slag and sulfate slag) and synthetic rutile. The world market for titanium-bearing ores has a diverse range of suppliers with the seven largest accounting for approximately 38% of global supply. The majority of our titanium-bearing ores are sourced from Africa, Canada, Australia and India. Ore accounts for approximately 42% of TiO₂ variable manufacturing costs, while utilities (electricity, gas and steam), sulfuric acid and chlorine collectively account for approximately 50% of variable manufacturing costs. Utilities can be volatile and we have recently experienced significant increases in the price of our utilities across our business, particularly in Europe, beginning in 2021 and we anticipate that we will continue to experience some volatility in 2023.

The majority of the titanium-bearing ores market is transacted on both short-term contracts and longer-term volume contracts with market-based pricing re-negotiated several times per year. This form of market-based ore contract provides flexibility and responsiveness in terms of pricing and quantity obligations.

Performance Additives Segment

Our primary raw materials for our Performance Additives segment are as follows:

	Functional Additives	Color Pigments	Timber Treatment
Primary raw materials	Barium and zinc based inorganics	Iron oxide particles, scrap iron, copperas, alkali	DCOIT, copper, monoethanolamine

The primary raw materials for functional additives production are barite and zinc. We currently source barite from China, where we have long standing supplier relationships and pricing is negotiated largely on a purchase by purchase basis. The quality of zinc required for our business is mainly mined in Australia but can also be sourced from Canada and South America. The majority of our zinc is sourced from two key suppliers with whom we have long standing relationships. Utilities, including electricity, gas and steam, are also significant part of our raw material costs for our functional additives business and can be volatile. We have recently experienced significant increases in the price of our utilities across our business, particularly in Europe, beginning in 2021 and we anticipate that we will continue to experience some volatility in 2023.

We source our raw material for the majority of our color pigments business from China, the U.S., France and Italy. Key raw materials are iron powder and metal scrap that are sourced from various mid-size and smaller producers primarily on a spot contract basis.

The primary raw materials for our timber treatment business are dichloro-octylisothiazolinone ("DCOIT") and copper. We source the raw materials for the majority of our timber treatment business from China and the U.S. DCOIT is sourced on a long-term contract whereas copper is procured from various mid-size and larger producers primarily on a spot basis.

Competition

The global markets in which our business operates are highly competitive and vary according to segment.

Titanium Dioxide Segment

Competition for Titanium Dioxide products is based on price, product quality and service. Our key competitors are The Chemours Company, Tronox Holdings plc ("Tronox"), Kronos and LB Group each of which has the ability to service global markets. Unlike chloride technology, the sulfate based TiO₂ technology used by our Titanium Dioxide segment is widely available. Accordingly, barriers to entry, apart from capital availability, may be low. The entrance of new competitors into the industry, the ability of existing or future competitors to increase production in low cost markets, and the development of proprietary technology that enables current or future competitors to produce functional grade products at a significantly lower cost, could render our technology uneconomic and reduce our ability to capture improving margins in circumstances where capacity utilization in the industry is increasing.

Competition within the specialty and differentiated TiO₂ markets is based on technical expertise in the customers' applications, customer service, product attributes (such as product form and quality), and price. Product quality is particularly critical in the technically demanding applications in which we focus as inconsistent product quality adversely impacts consistency in the end-product. Our primary competitors within specialty and differentiated TiO₂ applications include Fuji Titanium Industry, Kronos, Huierzin, ISK, Sakai Chemical Industry Co., Tayca Corporation and Precheza a.s.

Performance Additives Segment

Competition within the functional additives market is primarily based on technical expertise, brand recognition, product quality and price. Key competitors for barium-based additives include 20 Microns Ltd, Sakai Chemical Industry Co., Ltd., Solvay S.A. and various Chinese barium producers. Key competitors for zinc-based additives include various Chinese lithopone producers.

Competition within the color pigments market is based on price, product quality, technical capability, brand recognition and innovation. Our primary competitors within color pigments include Lanxess AG, Cathay Pigments Group, Ferro Corporation, and Shanghai Yipin Pigments Co., Ltd.

Competition within the timber treatment market is based on price, customer support services, innovative technology, including sustainable solutions and product range. Our primary competitors are Arxada and Koppers Inc.

Environmental, Health and Safety Matters

General

We are subject to extensive federal, state, local and international laws, regulations, rules and ordinances relating to occupational health and safety, process safety, pollution, protection of the environment and natural resources, product management and distribution, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. In the ordinary course of business, we are subject to frequent environmental inspections and monitoring and occasional investigations by governmental enforcement authorities. In the U.S., these laws include the Resource Conservation and Recovery Act ("RCRA"), the Occupational Safety and Health Act, the Clean Air Act (the "CAA"), the Clean Water Act, the Safe Drinking Water Act, and Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), as well as the state counterparts of these statutes.

In the EU, we are subject to numerous environmental, health and safety related provisions. EU regulations are automatically applicable to EU Member States from the date they enter into force, while directives become binding upon incorporation into member states' national legislation. Incorporation of directives into national law must take place by the deadline set by the relevant directive, usually within two years. Applicable laws include Directive 2004/35/CE on environmental liability with regard to the prevention and remedying of environmental damage, Directive 2008/98/EC on waste ("Waste Framework Directive"), Directive 1999/31/EC on the landfill of waste, the Seveso-III Directive on prevention of major accident hazards involving dangerous substances, Directive 2000/60/EC known as the EU Water Framework Directive, Directive 2010/75/EU on industrial emissions and Regulation (EC) 1907/2006 on REACH. Additionally, member states operate their own domestic legislation where not prescribed by EU law, including in the core areas of health and safety in the workplace, statutory nuisance and land contamination legislation, which are subject to national jurisdiction.

In addition, our production facilities require operating permits that are subject to renewal, modification and, in certain circumstances, revocation. Actual or alleged violations of safety laws, environmental laws or permit requirements could result in restrictions or prohibitions on plant operations or product distribution, substantial civil or criminal sanctions, or injunctions limiting or prohibiting our operations altogether. In addition, some environmental laws may impose liability on a strict, joint and several basis. Moreover, changes in environmental regulations could inhibit or interrupt our operations, or require us to modify our facilities or operations and make significant environmental compliance expenditures. Accordingly, environmental or regulatory matters may cause us to incur significant unanticipated losses, costs or liabilities. Information related to EHS matters may also be found in other areas of this report including "Item 1A. Risk Factors," and "Part III, Item 18, Financial Statements and Supplementary Data—Note 22. Commitments and Contingencies —Other Proceedings and Note 23. Environmental, Health and Safety Matters."

We are subject to a wide array of laws governing chemicals, including the regulation of chemical substances and inventories under TSCA in the U.S., and REACH, and the CLP regulation in Europe. Analogous regimes exist in other parts of the world, including the U.K., China, South Korea, and Taiwan. Several other countries have announced that they will be introducing similar systems in the future. In addition, a number of countries where we operate, including the U.K., have adopted rules to conform chemical labeling in accordance with the globally harmonized system. Many of these foreign regulatory regimes are in the process of a multi-year implementation period for these rules. For example, the GHS established a uniform system for the classification, labeling and packaging of certain chemical substances. The current REACH and CLP regimes are also under review in Europe.

On October 14, 2020, the European Commission published a Chemical Strategy for Sustainability. This is part of the EU's zero pollution ambition, which is a key commitment of the European Green Deal. The strategy aims to protect citizens and the environment by reforming chemicals regulation in Europe and regulating substances classified as hazardous, including, but not limited to, carcinogenic, mutagenic or toxic for reproduction in consumer products. The strategy may introduce new regulatory categories and impact the future regulation of our products.

The classification or restriction of our products could negatively impact sales. On October 4, 2019, the European Commission published a regulation, which classified certain forms of TiO₂ (in a powder form containing 1% or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$) as a category 2 carcinogen, which is a suspected human carcinogen based on evidence obtained from human and/or animal studies but which is not sufficient for a category 1 classification. The regulation applied from October 1, 2021. Following the U.K.'s withdrawal from the EU, the same classification of TiO₂ as a suspected carcinogen was also published in the U.K.'s mandatory classification and labelling list and applied from October 1, 2021.

We have evaluated our TiO₂ products using internationally recognized tests methods and determined that these are not subject to classification in the EU or U.K. as the products do not contain 1% or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$.

On May 13, 2020, we and a number of other applicants filed a legal challenge seeking the annulment of the Commission Delegated Regulation of 2019, in so far as it concerns the classification of TiO₂ as a carcinogenic substance by inhalation, in the General Court of the EU. On November 23, 2022, the Court annulled the classification concluding that the European Commission made a manifest error in its assessment of the reliability and acceptability of the study on which the classification is based, and that it had infringed the criterion according to which classification can relate only to a substance that has the intrinsic property to cause cancer. On February 8 2023 an appeal was filed by the EU Member State France. The effects of the judgement of the General Court of 23 November 2022 annulling the classification are suspended pending the outcome of the appeal.

On May 6, 2021 the EFSA published an opinion regarding the use of TiO₂ (E171) as a food additive. The EFSA Opinion did not identify any immediate health concern linked to E171, however it identified uncertainties regarding the genotoxic effects of E171 used in food with a need to further investigation and concluded that TiO₂ (E171) can no longer be considered safe when used as a food additive.

Following the EFSA opinion, the European Commission published a regulation on January 18, 2022 removing E171 from the list of approved food additives in the EU and requiring an assessment of the approval of the use of E171 in pharmaceutical products within three years of the publication of the regulation. The European Commission is also assessing the use of TiO₂ in other consumer products including toys, cosmetics, pharmaceuticals and food contact applications to determine whether to implement restrictions on the use of TiO₂ in these applications following the EFSA Opinion.

The adoption of the category 2 carcinogen classification in the EU or U.K. and the EFSA Opinion may negatively impact on public perception, market demand and prices of products containing TiO₂. The EFSA Opinion has triggered assessments in other countries outside the EU and a number of other jurisdictions such as Switzerland and have imposed restrictions on the use of TiO₂ in food which may increase our compliance obligations, impact consumer sentiment and decrease market demand. This may also could also impact powdered products with different chemistries but similar particle characteristics from our Performance Additives segment.

In July 2021, ECHA published its final decision regarding the substance evaluation of TiO₂ pursuant to article 46 of the REACH Regulation, the Community rolling action plan ("CoRap"). Following the decision, the registrants of TiO₂ are required to conduct and submit the results of a number of toxicological studies carried out on various forms of TiO₂ to ECHA, and provide an updated REACH registration dossier, within 30 months of the date of the decision.

Environmental, Health and Safety Systems

We are committed to achieving and maintaining compliance with all applicable EHS legal requirements, and we have developed policies and management systems that are intended to identify the multitude of EHS legal requirements applicable to our operations, enhance compliance with applicable legal requirements, improve the safety of our employees, contractors, community neighbors and customers and minimize the production and emission of wastes and other pollutants. We cannot guarantee, however, that these policies and systems will always be effective or that we will be able to manage EHS legal requirements without incurring substantial costs. Although EHS legal requirements are constantly changing and are frequently difficult to comply with, these EHS management systems are designed to assist us in our compliance goals while also fostering efficiency and improvement and reducing overall risk to us.

Environmental Remediation

We have incurred, and we may in the future incur, liability to investigate and clean up waste or contamination at our current or former facilities or facilities operated by third parties at which waste or other materials may have been disposed. Similarly, we may incur costs for the cleanup of waste that was disposed of prior to the purchase of our businesses. Under some circumstances, the scope of our liability may extend to damages to natural resources. At the current time, we are unable to estimate the total cost to remediate contaminated sites. For a discussion of remediation matters, see "Part III. Item 18. Financial Statements — Note 23. Environmental, Health and Safety Matters" of this report.

We are undertaking detailed assessments of the environmental status of three facilities in the EU and one in the U.S. as part of detailed site investigations. The assessment of the environmental status of these facilities may lead to a requirement for environmental remediation.

Under CERCLA and similar laws in other jurisdictions, a current or former owner or operator of real property may be liable for remediation costs regardless of whether the release or disposal of hazardous substances was in compliance with law at the time it occurred or whether it owned or operated the facility at the time of the release. Outside the U.S., analogous contaminated property laws, such as those in effect in the EU, can hold past owners and/or operators liable for remediation at

former facilities. We have not been notified by third parties of claims against us for cleanup liabilities at former facilities or third-party sites, including, but not limited to, sites listed under CERCLA.

Under RCRA in the U.S. and similar laws in other jurisdictions, we may be required to remediate contamination originating from our properties. Similar laws exist in a number of locations in which we currently operate, or previously operated, manufacturing facilities. Some of our manufacturing sites have an extended history of industrial chemical manufacturing and use, including on-site waste disposal. We are aware of soil, groundwater or surface contamination from past operations at some of our sites, and we may find contamination at other sites in the future.

China has implemented and continues to develop new laws and regulations covering environmental contamination and created the Ministry for Environment Protection. We are currently assessing whether these regulatory changes will have a material effect on our financial statements.

Climate Change

Globally, our operations are increasingly subject to regulations that seek to reduce emissions of GHGs, such as carbon dioxide and methane, which may be contributing to changes in the earth's climate. Increasing presence of climate change at the top of the global political and media agenda may lead to further domestic regulations and international agreements and commitments to restrict GHG emissions, all of which can lead to the necessity for increased investment in innovative energy sources and increased capital expenditure.

Recent developments in climate change related policy and regulations include the Green Deal in the EU, mandatory disclosures in the U.K. by the TCFD, the U.K. commitment to becoming carbon neutral by 2050, and similar policy changes and commitments in other nations worldwide. These changes could affect us in a number of ways including potential requirements to decarbonize manufacturing processes and increased costs of GHG allowances. As with other jurisdictions, our operations in the U.S. may become subject to increasing climate change regulations and we are currently monitoring these developments closely while investigating appropriate climate change strategies to enable us to comply with the new regulations and conform to new disclosure requirements such as TCFD.

U.S. efforts to curb GHG emissions are being led by the EPA's GHG regulations and similar programs of certain states. To the extent that our domestic operations are subject to the EPA's GHG regulations, we may face increased capital and operating costs associated with new or expanded facilities. Significant expansions of our existing facilities or construction of new facilities may be subject to the CAA requirements for pollutants regulated under the Prevention of Significant Deterioration and Title V programs. Some of our facilities are also subject to the EPA's Mandatory Reporting of Greenhouse Gases rule, and any further regulation may increase our operational costs. In April of 2022, the SEC proposed new rules regarding the reporting of GHG emissions and impacts of such emissions and climate change generally on businesses subject to SEC reporting requirements. These rules, if adopted, could result in additional costs for preparing financial statements and additional liability. It is uncertain at this time whether the rules, as proposed, will be adopted and go into effect.

We are already managing and reporting GHG emissions, to varying degrees, at our sites worldwide. These locations are subject to a number of existing GHG related laws and regulations. Potential consequences of such restrictions include capital requirements to modify assets to meet GHG emission restrictions and/or increases in energy costs above the level of general inflation, as well as direct compliance costs. Currently, however, it is not possible to estimate the likely financial impact of potential future regulation on any of our sites.

Increasing concentrations of GHGs in the earth's atmosphere may produce climate changes that have significant physical effects, such as increased frequency and severity of storms, droughts, floods and other extreme climatic events. The potential severity of the changes varies in accordance with the Representative Concentration Pathway ("RPC") used to predict the changes, however, they could have adverse effects on our assets and operations. For example, we have a number of operations in low lying areas that may be at increased risk due to flooding, rising sea levels or disruption of operations from more frequent and severe weather events. We are assessing the potential impact of climate change on our business and manufacturing facilities.

C. Organizational Structure

Please refer to Exhibit 8 to this Annual Report for a listing of our subsidiaries, including our significant subsidiaries, and the name, country of incorporation or residence, and proportion of ownership interest of each.

D. Property, Plant and Equipment

We own or lease chemical manufacturing and research facilities in the locations indicated in the list below which we believe are adequate for our short-term and anticipated long-term needs. We own or lease office space and storage facilities throughout the world. See “Environmental, Health and Safety Matters” in Item 4.B. of this Annual Report for a further discussion of environmental issues that may affect the company’s utilization of the properties below, and “Manufacturing and Operations” in Item 4.B. of this Annual Report for further information about the productive capacity of our properties and the products produced.

The following is a list of our principal owned or leased properties where manufacturing, research and main office facilities are located.

Location ⁽²⁾	Business Segment ⁽⁴⁾	Description of Facility
Duisburg, Germany	Various	TiO ₂ , Functional Additives, and Research Facility and Administrative Offices
Greatham, U.K.	TiO ₂	TiO ₂ Manufacturing Facility
Huelva, Spain	TiO ₂	TiO ₂ Manufacturing Facility
Lake Charles, Louisiana ⁽³⁾	TiO ₂	TiO ₂ Manufacturing Facility
Scarlino, Italy	TiO ₂	TiO ₂ Manufacturing Facility
Teluk Kalung, Malaysia ⁽¹⁾	TiO ₂	TiO ₂ Manufacturing Facility
Uerdingen, Germany ⁽¹⁾	TiO ₂	TiO ₂ Manufacturing Facility
Augusta, Georgia ⁽⁵⁾	Additives	Color Pigments Manufacturing Facility
Birtley, U.K.	Additives	Color Pigments Manufacturing Facility
Comines, France	Additives	Color Pigments Manufacturing Facility
Dandenong, Australia ^{(1), (5)}	Additives	Color Pigments Manufacturing Facility
Freeport, Texas	Additives	Timber Treatments Manufacturing Facility
Harrisburg, North Carolina	Additives	Timber Treatments Manufacturing Facility
Kidsgrove, U.K. ⁽⁵⁾	Additives	Color Pigments Manufacturing Facility
Los Angeles, California ^{(1), (5)}	Additives	Color Pigments Manufacturing Facility
Sudbury, U.K. ⁽⁵⁾	Additives	Color Pigments Manufacturing Facility
Taicang, China ⁽⁵⁾	Additives	Color Pigments Manufacturing Facility
Turin, Italy ⁽⁵⁾	Additives	Color Pigments Manufacturing Facility
Walluf, Germany ^{(1), (5)}	Additives	Color Pigments Manufacturing Facility
Everberg, Belgium ⁽¹⁾	Various	Shared Services Center and Administrative Offices
Kuala Lumpur, Malaysia ⁽¹⁾	Various	Shared Services Center and Administrative Offices
The Woodlands, Texas ^{(1), (5)}	Various	Administrative Offices
Wynyard, U.K. ⁽¹⁾	Various	Headquarters & Administrative Offices, Research Facility and Shared Services Center

(1) Leased land and/or building.

(2) Excludes plant in Calais, France which was closed in 2017 and the plant in Pori, Finland which was closed in 2022.

(3) Owned by LPC, our unconsolidated manufacturing joint venture which is owned 50% by us and 50% by Kronos.

(4) Solely for the purposes of this column, "TiO₂" and "Additives" represent the Titanium Dioxide and Performance Additives segments, respectively.

(5) The assets and/or leases are held for sale at December 31, 2022. For further discussion see Part III, Item 18, Financial Statements and Supplementary Data—Note 6 - Property, Plant and Equipment.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The following discussion and analysis should be read in conjunction with the information under the headings "Note Regarding Forward-Looking Statements," "Part I. Item 3.D. Risk Factors," and "Part I. Item 4B. Business Overview," as well as the audited consolidated financial statements and the related notes thereto. Discussion and analysis related to the year ended December 31, 2020 is located in the Form 20-F filed February 22, 2022.

A. Operating Results

The following table sets forth our consolidated results of operations for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,			Percent Change Year Ended	
	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
(Dollars in millions)					
Revenues	\$ 2,173	\$ 2,212	\$ 1,938	(2)%	14 %
Cost of goods sold	2,088	2,020	1,778	3 %	14 %
Operating expenses ⁽³⁾	92	182	170	(49)%	7 %
Restructuring, impairment and plant closing and transition costs	142	68	58	109 %	17 %
Operating (loss) income	(149)	(58)	(68)	157 %	(15)
Interest expense, net	(61)	(59)	(52)	3 %	13 %
Other income	92	12	27	667 %	(56)%
Loss before income taxes	(118)	(105)	(93)	12 %	13 %
Income tax benefit (expense)	(63)	31	(12)	NM	NM
Net loss	(181)	(74)	(105)	145 %	(30)%
Reconciliation of net loss to adjusted EBITDA:					
Interest expense, net	61	59	52	3 %	13 %
Income tax expense (benefit)	63	(31)	12	NM	NM
Depreciation and amortization	107	119	114	(10)%	4 %
Net income attributable to noncontrolling interests	(7)	(3)	(7)	133 %	(57)%
Other adjustments:					
Business acquisition and integration expense	1	1	1		
Separation expense (gain), net	2	3	(10)		
(Gain) loss on disposition of businesses/assets	(40)	9	(5)		
Certain legal expenses/settlements	(81)	5	6		
Amortization of pension and postretirement actuarial losses	2	11	13		
Net plant incident (credits) costs	(16)	13	7		
Restructuring, impairment and plant closing and transition costs	142	68	58		
Adjusted EBITDA⁽¹⁾	\$ 53	\$ 180	\$ 136	(71)%	32 %
Net cash (used in) provided by operating activities	(114)	19	34	NM	(44)%
Net cash used in investing activities	(24)	(60)	(64)	(60)%	(6)%
Net cash provided by (used in) financing activities	99	(21)	192	NM	NM
Capital expenditures	(69)	(73)	(69)	(5)%	6 %

	Year Ended December 31, 2022	Year Ended December 31, 2021	Year Ended December 31, 2020
<i>(Dollars in millions)</i>			
Reconciliation of net loss to adjusted net loss attributable to Venator Materials PLC ordinary shareholders:			
Net loss	\$ (181)	\$ (74)	\$ (105)
Net income attributable to noncontrolling interests	(7)	(3)	(7)
Other adjustments:			
Business acquisition and integration expense	1	1	1
Separation expense (gain), net	2	3	(10)
(Gain) loss on disposition of businesses/assets	(40)	9	(5)
Certain legal expenses/settlements	(81)	5	6
Amortization of pension and postretirement actuarial losses	2	11	13
Net plant incident (credits) costs	(16)	13	7
Restructuring, impairment and plant closing and transition costs	142	68	58
Income tax adjustments ⁽⁴⁾	141	(34)	20
Adjusted net loss attributable to Venator Materials PLC ordinary shareholders⁽²⁾	\$ (37)	\$ (1)	\$ (22)
Weighted-average shares-basic	107.9	107.2	106.7
Weighted-average shares-diluted	107.9	107.2	106.7
Net loss attributable to Venator Materials PLC ordinary shareholders per share:			
Basic	\$ (1.74)	\$ (0.72)	\$ (1.05)
Diluted	\$ (1.74)	\$ (0.72)	\$ (1.05)
Other non-GAAP measures:			
Adjusted net(loss) income per share: ⁽²⁾			
Basic	\$ (0.34)	\$ (0.01)	\$ (0.21)
Diluted	\$ (0.34)	\$ (0.01)	\$ (0.21)

NM—Not meaningful

- (1) Our management uses adjusted EBITDA to assess financial performance. Adjusted EBITDA is defined as net income/loss before interest income/expense, net, income tax expense/benefit, depreciation and amortization, and net income attributable to noncontrolling interests, as well as eliminating the following adjustments: (a) business acquisition and integration expense/credits; (b) separation gain/expense; (c) loss/gain on disposition of businesses/assets; (d) certain legal expenses/settlements; (e) amortization of pension and postretirement actuarial losses/gains; (f) net plant incident costs/credits; and (g) restructuring, impairment, and plant closing and transition costs/credits. We believe that net income is the performance measure calculated and presented in accordance with generally accepted accounting principles in the U.S ("U.S. GAAP" or "GAAP") that is most directly comparable to adjusted EBITDA.

We believe adjusted EBITDA is useful to investors in assessing our ongoing financial performance and provides improved comparability between periods through the exclusion of certain items that management believes are not indicative of our operational profitability and that may obscure underlying business results and trends. However, this measure should not be considered in isolation or viewed as a substitute for net income or other measures of performance determined in accordance with U.S. GAAP. Moreover, adjusted EBITDA as used herein is not necessarily comparable to other similarly titled measures of other companies due to potential inconsistencies in the methods of calculation. Our management believes this measure is useful to compare general operating performance from period to period and to make certain related management decisions. Adjusted EBITDA is also used by securities analysts, lenders and others in their evaluation of different companies because it excludes certain items that can vary widely across different industries or among companies within the same industry. For example, interest expense can be highly dependent on a company's capital structure, debt levels and credit ratings. Therefore, the impact of interest expense on earnings can vary significantly among companies. In addition, the tax positions of companies can vary because of their differing abilities to take advantage of tax benefits and because of the tax policies of the various jurisdictions in which they operate. As a result, effective tax rates and tax expense can vary considerably among companies. Finally, companies employ productive assets of different ages and utilize different

methods of acquiring and depreciating such assets. This can result in considerable variability in the relative costs of productive assets and the depreciation and amortization expense among companies.

Nevertheless, our management recognizes that there are limitations associated with the use of adjusted EBITDA in the evaluation of us as compared to net income. Our management compensates for the limitations of using adjusted EBITDA by using this measure to supplement U.S. GAAP results to provide a more complete understanding of the factors and trends affecting the business rather than U.S. GAAP results alone.

In addition to the limitations noted above, adjusted EBITDA excludes items that may be recurring in nature and should not be disregarded in the evaluation of performance. However, we believe it is useful to exclude such items to provide a supplemental analysis of current results and trends compared to other periods because certain excluded items can vary significantly depending on specific underlying transactions or events, and the variability of such items may not relate specifically to ongoing operating results or trends and certain excluded items, while potentially recurring in future periods, may not be indicative of future results.

- (2) Adjusted net income/loss attributable to Venator ordinary shareholders is computed by eliminating the after-tax amounts related to the following from net income/loss attributable to Venator Materials PLC ordinary shareholders: (a) business acquisition and integration expenses/credits; (b) separation gain/expense; (c) loss/gain on disposition of businesses/assets; (d) certain legal expenses/settlements; (e) amortization of pension and postretirement actuarial losses/gains; (f) net plant incident costs/credits; and (g) restructuring, impairment, and plant closing and transition costs/credits. Basic adjusted net (loss) income per share excludes dilution and is computed by dividing adjusted net (loss) income by the weighted average number of shares outstanding during the period. Adjusted diluted net income per share reflects all potential dilutive ordinary shares outstanding during the period increased by the number of additional shares that would have been outstanding as dilutive securities. Adjusted diluted net loss per share does not include dilution as this would have an anti-dilutive effect in periods where we report adjusted net loss.

Adjusted net income/loss and adjusted net income/loss per share amounts are presented solely as supplemental information. These measures exclude similar noncash items as Adjusted EBITDA in order to assist our investors in comparing our performance from period to period and as such, bear similar risks as Adjusted EBITDA as documented in footnote (1) above. For that reason, adjusted net income/loss and the related per share amounts, should not be considered in isolation and should be considered only to supplement analysis of U.S. GAAP results.

- (3) As presented within Item 5, operating expenses include selling, general and administrative expenses and other operating expense/income.
- (4) Income tax expense is adjusted by the amount of additional tax expense or benefit that we would accrue if we used non-GAAP results instead of GAAP results in the calculation of our tax liability, taking into consideration our tax structure. We used a normalized effective tax rate of 35% in 2022, and we estimate an effective tax rate of 25% in 2023, which reflects the weighted average tax rate applicable under the various jurisdictions in which we operate. This non-GAAP tax rate eliminates the effects of non-recurring and period specific items which are often attributable to restructuring and acquisition decisions and can vary in size and frequency. This rate is subject to change over time for various reasons, including changes in the geographic business mix, valuation allowances, and changes in statutory tax rates.

We eliminate the effect of significant changes to income tax valuation allowances from our presentation of adjusted net income to allow investors to better compare our ongoing financial performance from period to period. We do not adjust for insignificant changes in tax valuation allowances because we do not believe it provides more meaningful information than is provided under GAAP. We believe that our revised approach enables a clearer understanding of the long-term impact of our tax structure on post tax earnings.

Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021

For the year ended December 31, 2022, net loss was \$181 million on revenues of \$2,173 million, compared with a net loss of \$74 million on revenues of \$2,212 million for the same period in 2021. The increase of \$107 million in net loss was the result of the following items:

- Revenues for the year ended December 31, 2022 decreased by \$39 million, or 2%, as compared with the same period in 2021. The decrease was due to a \$68 million, or 4%, decrease in revenue in our Titanium Dioxide segment partially offset by a \$29 million, or 5%, increase in revenue in our Performance Additives segment. See "—Segment Analysis" below.

- Our operating expenses for the year ended December 31, 2022 decreased by \$90 million, or 49%, as compared to the same period in 2021, primarily due to a \$39 million gain related to the sale of the Los Angeles facility, a \$23 million gain as a result of our settlement with NES, a \$12 million favorable variance related to gains on the sales of assets from our Pori site in 2022 as compared to losses in 2021, and the favorable impact of foreign exchange of \$9 million as the U.S. Dollar strengthened against the Euro.
- Restructuring, impairment and plant closing and transition costs for the year ended December 31, 2022 increased to \$142 million from \$68 million for the same period in 2021. For more information concerning restructuring activities, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 13. Restructuring, Impairment and Plant Closing and Transition Costs" of this report.
- Other income for the year ended December 31, 2022 increased by \$80 million primarily as a result of \$85 million recognized in the second quarter of 2022 from a legal settlement with Tronox.
- Income tax expense for the year ended December 31, 2022 was \$63 million compared to \$31 million of income tax benefits in 2021. Our income tax expense is significantly affected by the mix of income and losses in the tax jurisdictions in which we operate, as impacted by the presence of valuation allowances in certain tax jurisdictions. In 2022, we recognized a valuation allowance against certain net deferred tax assets of \$59 million. For further information concerning taxes, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 19. Income Taxes" of this report.

Segment Analysis

	Year Ended December 31,		Percent Change Favorable (Unfavorable)
(in millions)	2022	2021	
Revenues			
Titanium Dioxide	\$ 1,597	\$ 1,665	(4) %
Performance Additives	576	547	5 %
Total	<u><u>\$ 2,173</u></u>	<u><u>\$ 2,212</u></u>	(2) %
Adjusted EBITDA			
Titanium Dioxide	\$ 43	\$ 165	(74) %
Performance Additives	53	65	(18) %
	96	230	(58) %
Corporate and other	(43)	(50)	14 %
Total	<u><u>\$ 53</u></u>	<u><u>\$ 180</u></u>	(71) %

	Year Ended December 31, 2022 vs. 2021				
	Average Selling Price ⁽¹⁾				
	Local Currency	Foreign Currency Translation Impact	Mix & Other	Sales Volumes ⁽²⁾	Divestitures ⁽³⁾
Period-Over-Period Increase (Decrease)					
Titanium Dioxide	22 %	(7)%	— %	(19)%	—%
Performance Additives	26 %	(5)%	(1)%	(13)%	(2)%

(1) Excludes revenues from tolling arrangements, by-products and raw materials.

(2) Excludes sales volumes of by-products and raw materials.

(3) Our water treatment business was disposed of in the second quarter of 2021.

Titanium Dioxide

The Titanium Dioxide segment generated revenues of \$1,597 million in the twelve months ended December 31, 2022, a decrease of \$68 million, or 4%, compared to the same period in 2021. The decrease was primarily due to a 19% decrease in sales volumes and a 7% unfavorable impact from foreign currency translation, primarily as a result of the Euro weakening against the U.S. Dollar. This was partially offset by a 22% increase in average local currency selling prices, which we implemented to recover higher costs of energy, raw materials, and shipping.

Adjusted EBITDA for the Titanium Dioxide segment was \$43 million, a decrease of \$122 million, or 74%, in the twelve months ended December 31, 2022 compared to the same period in 2021. This decrease is primarily a result of increased raw material, energy, shipping, and maintenance costs and a decrease in sales volumes.

Performance Additives

The Performance Additives segment generated revenues of \$576 million in the twelve months ended December 31, 2022, an increase of \$29 million, or 5% compared to 2021. This increase was a result of a 26% improvement in average selling price, which we implemented to recover higher costs of energy, raw materials and shipping, partially offset by a 13% decrease in volumes, a 5% unfavorable impact from foreign currency translation, primarily as a result of the Euro weakening against the U.S. Dollar, and a 1% decrease from mix and other. In addition, 2% of the decrease was due to lost revenue from our water treatment business, which we sold in the second quarter of 2021 and which accounted for approximately \$10 million of revenue in 2021.

Adjusted EBITDA in the Performance Additives segment was \$53 million, a decrease of \$12 million, or 18%, for the twelve months ended December 31, 2022 compared to 2021. The decrease in adjusted EBITDA is primarily related to higher raw materials, shipping and energy costs and a decrease in sales volumes.

Corporate and other

Corporate and other represents expenses which are not allocated to our segments. Losses from Corporate and other were \$43 million, a decrease of \$7 million for the twelve months ended December 31, 2022 compared to 2021 due to lower personnel cost of \$4 million and the favorable impact of foreign currency translation as a result of the Euro weakening against the dollar.

Year Ended December 31, 2021 Compared to the Year Ended December 31, 2020

For the year ended December 31, 2021, net loss was \$74 million on revenues of \$2,212 million, compared with a net loss of \$105 million on revenues of \$1,938 million for the same period in 2020. The decrease of \$31 million in net loss was the result of the following items:

- Revenues for the year ended December 31, 2021 increased by \$274 million, or 14%, as compared with the same period in 2020. The increase was due to a \$234 million, or 16%, increase in revenue in our Titanium Dioxide segment and a \$40, or 8%, increase in revenue in our Performance Additives segment. See "—Segment Analysis" below.
- Our operating expenses for the year ended December 31, 2021 increased by \$12 million, or 7%, as compared to the same period in 2020, primarily due to the impact of \$12 million of non-recurring savings during 2020 as a result of actions taken to reduce costs during the COVID-19 pandemic, a \$6 million gain from the sale of our property in Umbogintwini, South Africa during the third quarter of 2020, a \$6 million loss from the disposal of assets at our Pori, Finland site in 2021, and increased personnel costs during 2021, partially offset by \$19 million of savings from our 2020 business improvement program realized during 2021.
- Restructuring, impairment and plant closing and transition costs for the year ended December 31, 2021 increased to \$68 million from \$58 million for the same period in 2020. For more information concerning restructuring activities, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 13. Restructuring, Impairment and Plant Closing and Transition Costs" of this report.
- Other income for the year ended December 31, 2021 decreased by \$15 million primarily as a result of the change in the related party payable to Huntsman pursuant to the tax matters agreement entered into as part of our separation. For further information concerning the payable to Huntsman under the tax matters agreement, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 19. Income Taxes" of this report.
- Income tax benefit for the year ended December 31, 2021 was \$31 million compared to \$12 million of income tax expense in 2020. Our income tax expense is significantly affected by the mix of income and losses in the tax jurisdictions in which we operate, as impacted by the presence of valuation allowances in certain tax jurisdictions. In 2021, we released valuation allowance against certain net deferred tax assets of \$47 million. For further information concerning taxes, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 19. Income Taxes" of this report.

Segment Analysis

(in millions)	Year Ended December 31,		Percent Change Favorable (Unfavorable)
	2021	2020	
Revenues			
Titanium Dioxide	\$ 1,665	\$ 1,431	16 %
Performance Additives	547	507	8 %
Total	\$ 2,212	\$ 1,938	14 %
Segment adjusted EBITDA			
Titanium Dioxide	\$ 165	\$ 127	30 %
Performance Additives	65	55	18 %
	230	182	26 %
Corporate and other	(50)	(46)	(9) %
Total	\$ 180	\$ 136	32 %

Year Ended December 31, 2021 vs. 2020					
Period-Over-Period Increase (Decrease)	Average Selling Price ⁽¹⁾		Mix & Other	Sales Volumes ⁽²⁾	Divestitures ⁽³⁾
	Local Currency	Foreign Currency Translation Impact			
Titanium Dioxide	8 %	3 %	— %	5 %	— %
Performance Additives	3 %	2 %	1 %	5 %	(3) %

(1) Excludes revenues from tolling arrangements, by-products and raw materials.

(2) Excludes sales volumes of by-products and raw materials.

(3) Our water treatment business was disposed of in the second quarter of 2021.

Titanium Dioxide

The Titanium Dioxide segment generated revenues of \$1,665 million in the twelve months ended December 31, 2021, an increase of \$234 million, or 16%, compared to the same period in 2020. The increase was primarily due to an 8% increase in the average TiO₂ selling price, a 5% increase in sales volumes, and a 3% favorable impact from foreign currency translation, primarily as a result of the Euro strengthening against the U.S. Dollar. The increase in sales volume was driven by increased demand during 2021 compared to the prior year which was impacted by the COVID-19 pandemic.

Adjusted EBITDA for the Titanium Dioxide segment was \$165 million, an increase of \$38 million, or 30%, in the twelve months ended December 31, 2021 compared to the same period in 2020. This increase is primarily a result of higher revenue, \$23 million of savings from our business improvement program, and the favorable impact of higher plant utilization in 2021, partially offset by increased raw material, energy, shipping, and maintenance costs and the impact of \$18 million of non-recurring savings during 2020 as a result of actions taken to reduce costs during the COVID-19 pandemic.

Performance Additives

The Performance Additives segment generated revenues of \$547 million in the twelve months ended December 31, 2021, an increase of \$40 million, or 8% compared to 2020. This increase was a result of a 5% increase in volumes a 3% improvement in average selling price, a 2% favorable impact from foreign currency translation, primarily as a result of the Euro strengthening against the U.S. Dollar, and a 1% increase from mix and other. The increase in sales volume was driven by increased demand during 2021 compared to the prior year which was impacted by the COVID-19 pandemic. The increase in revenues was partially offset by the decrease in revenue from our water treatment business which was sold in the second quarter of 2021.

Adjusted EBITDA in the Performance Additives segment was \$65 million, an increase of \$10 million, or 18%, for the twelve months ended December 31, 2021 compared to 2020. The increase in adjusted EBITDA is primarily related to higher revenue and a \$6 million benefit from our business improvement programs, partially offset by higher raw materials, shipping and energy costs and the impact of \$2 million of non-recurring savings during 2020 as a result of actions taken to reduce costs during the COVID-19 pandemic.

Corporate and other

Corporate and other represents expenses which are not allocated to our segments. Losses from Corporate and other were \$50 million, or \$4 million higher for the twelve months ended December 31, 2021 than 2020 due to the impact of \$7 million of non-recurring savings during 2020 as a result of actions taken to reduce costs during the COVID-19 pandemic, an increase in personnel costs in 2021, and the unfavorable impact of foreign exchange rates, partially offset by \$6 million of savings from our business improvement programs.

B. Liquidity and Capital Resources

Financing Arrangements

We have an ABL Facility with an available aggregate principal amount of up to \$330 million. Availability to borrow under the ABL Facility is subject to a borrowing base calculation comprising both accounts receivable and inventory in the U.S., Canada, the U.K. and Germany and accounts receivable only in France and Spain. Thus, the base calculation may fluctuate from time to time and may be further impacted by the lenders' discretionary ability to impose reserves and availability blocks that might otherwise incrementally increase borrowing availability. The borrowing base calculation as of December 31, 2022, after taking into consideration \$45 million reserved for letters of credit available to be issued by one of our lenders, is approximately \$266 million, of which \$162 million is available to be drawn, as a result of \$80 million of borrowings and approximately \$24 million of letters of credit issued and outstanding.

We have \$1,040 million in debt outstanding comprised of \$353 million under our Term Loan Facility, \$219 million under our 9.5% Senior Secured Notes due 2025 (the "Senior Secured Notes"), \$373 million under our 5.75% Senior Unsecured Notes due 2025 (the "Senior Unsecured Notes"), \$80 million due under our ABL facility, issued by our subsidiaries Venator Finance S.à r.l. and Venator Materials LLC (the "Issuers") and \$15 million of other debt primarily consisting of insurance premium financing. Through December 31, 2022, we were in compliance with all applicable financial covenants included in the terms of our Senior Credit Facility, Senior Secured Notes and Senior Unsecured Notes. However, as a result of the likely event of default described below, all of our debt has been classified as current on our consolidated balance sheet for the year ended December 31, 2022.

We have a \$21 million related-party note payable to Huntsman pursuant to a tax matters agreement entered into at the time of the separation of which \$14 million has been presented as accounts payable to affiliate and \$7 million has been presented as a noncurrent payable to affiliate on our consolidated balance sheet as of December 31, 2022.

For further discussion of financing arrangements, see "Part III. Item 18. Financial Statements — Note 16. Debt" of this report.

Liquidity and Going Concern

The accompanying consolidated financial statements are prepared in accordance with generally accepted accounting principles applicable to a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business.

We began to experience global inflationary pressures during 2021, particularly in Europe, where we experienced significant increases in our energy costs during periods subsequent to the COVID-19 pandemic shutdowns. The inflationary pressures on European energy were exacerbated in 2022 after Russia's invasion of Ukraine while other operating costs also remained inflated. Beginning in the third quarter of 2022, we began to experience a significant reduction in demand for our TiO₂ products sold in Europe and APAC while energy market prices reached record highs and other cost inflation continued to increase. The decrease in demand continued through the fourth quarter of 2022 and we reported a net loss of \$181 million and net cash outflows from operations of \$114 million for the year ended December 31, 2022. At December 31, 2022, we had an accumulated deficit of \$648 million and a working capital deficit of approximately \$396 million. We had total liquidity of \$276 million at December 31, 2022, consisting of \$114 million of cash and cash equivalents and \$162 million of availability under our ABL facility compared to total liquidity at February 17, 2023 of \$134 million, consisting of \$97 million of cash and cash

equivalents and approximately \$37 million of available liquidity under our ABL facility as a result of borrowings made during 2023 and discretionary reserves imposed by the lenders. However, we are unable to utilize the majority of this available liquidity due to a cash dominion minimum availability requirement if availability falls below 10% of the aggregate principal amount of our facility. In addition, we expect that our lenders will impose additional discretionary reserves, including a reserve currently estimated to be approximately \$25 million related to our cross-currency swaps, which will further impact our available liquidity.

Based on our current projections, we expect to continue to incur negative cash flows for the twelve-month period following the date of this filing and we believe that our current level of liquidity is not sufficient to fund ongoing operations. We expect our cash flows to be impacted by recent and future downgrades in our credit ratings, upon which we expect our suppliers to reduce our credit terms or require other assurances, such as prepaying for future deliveries, which will further impact our liquidity. Furthermore, failure to deliver an unqualified opinion (including not containing an explanatory paragraph regarding going concern) to the lenders under our Term Loan Facility and ABL Facility by March 31, 2023 will result in a “default” under our credit agreements. A failure to timely cure such default, which cure may be required as early as April 30, 2023, will constitute an “event of default” under our credit agreements. Upon an event of default, the lenders under our Term Loan Facility and ABL Facility can accelerate the repayment of the outstanding borrowings under our facilities and exercise other rights and remedies that they have under applicable laws. In addition, an event of default under our Term Loan Facility or ABL Facility that remains uncured for 30 days will constitute an event of default under our Senior Secured Notes and our Senior Unsecured Notes. These conditions and events raise substantial doubt about our ability to continue as a going concern.

We have taken a number of recent actions to increase our liquidity, including implementing a cost reduction program and entering into a definitive agreement to divest the iron oxide business from within the Color Pigments business which is expected to close at the end of the first quarter of 2023. However, our projections show the need for additional liquidity beginning in the second half of 2023, beyond that which we expect to generate as a result of the foregoing actions, and as such, we are undertaking plans to mitigate these conditions and events and improve our liquidity position, including an in-depth strategic review of our business to improve our operations, strengthen our liquidity, and establish a sustainable capital structure. Given current market conditions, we cannot provide assurance that our undertakings will be successful. Credit and market disruptions, among other things, make it more difficult for us to obtain, or increase our cost of obtaining capital and financing for our operations and may require us to restructure our existing debt. Our access to additional capital may not be available on terms acceptable to us or at all. We may seek a waiver of the requirement to deliver an unqualified opinion (including not containing an explanatory paragraph regarding going concern) from the lenders. However, we can provide no assurance that, if sought, a waiver of this requirement will be granted. If we are unable to obtain a waiver from our lenders and raise additional capital or restructure our existing capital in order to provide sufficient liquidity to operate our business, we may have to take other strategic measures. However, our plans have not been finalized, and the execution of such plans will be subject to market conditions and other uncertainties which are not within our control, and therefore the outcome of our plans cannot be deemed probable. As a result, we have concluded that our plans do not alleviate substantial doubt about our ability to continue as a going concern.

The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

Items Impacting Short-Term and Long-Term Liquidity

Our liquidity can be significantly impacted by various factors. As noted above, economic conditions in the form of inflationary pressures throughout 2022 and significant reductions in customer demand in the second half of 2022 have had a material impact on our adjusted EBITDA and liquidity. During 2022, the following items and measures we took generated significant cash inflows:

- We received \$85 million from a legal settlement with Tronox on April 25, 2022, and we recognized \$13 million related to a legal settlement with NES on July 14, 2022. For further discussion see Part III. Item 18. Financial Statements — Note 22. Commitments and Contingencies of this report.
- During 2022, through a series of transactions, we terminated existing, and re-entered into new, cross currency swaps, resulting in total cash proceeds of \$24 million.
- We received proceeds of \$42 million, net of \$9 million of taxes and other expenses, during the fourth quarter of 2022 as a result of the \$51 million sale-leaseback transaction for our color pigments facility located in Los Angeles, California.

However, due to rising prices and costs and the decrease in demand for our products in the second half of 2022, cash outflows for our accounts receivable and inventory, net of accounts payable, as reflected in our consolidated statements of cash flows, were \$135 million for the year ended December 31, 2022. Additionally, we expect our working capital to be a use of liquidity in 2023 primarily as a result of improving sales revenue during the year and the corresponding impact on accounts receivable. Other uses of cash that we project for 2023 include the following:

- We expect total capital expenditures in 2023 to be approximately \$55 million to \$60 million, which consists primarily of maintenance capital expenditure and excludes capital expenditures for our iron oxide business beginning in the second quarter of 2023.
- During 2023, we expect to contribute approximately \$9 million to our pension and postretirement benefit plans, which is consistent with 2022 amounts.
- We are involved in a number of cost reduction programs for which we have established restructuring accruals. As of December 31, 2022, we had \$8 million of accrued restructuring costs of which \$6 million is classified as current. We expect to pay approximately \$20 million for restructuring costs under existing approved restructuring plans during 2023. For further discussion of these plans and the costs involved, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 13. Restructuring, Impairment and Plant Closing and Transition Costs" of this report.
- We are closing our Pori, Finland, TiO₂ manufacturing facility and have terminated production at the Pori site. Subject to the outcome of a new arbitration initiated November 15, 2022, we may be required to pay up to approximately \$33 million in the next twelve months for contractual amounts previously accrued in connection with a natural gas supply agreement, plus interest thereon. We have accrued \$35 million related to this matter of which \$16 million is current and has been included in accrued liabilities on our consolidated balance sheet at December 31, 2022.
- We are currently seeking approvals for additional offsite storage capacity for gypsum for our Scarlino site, and if we do not receive approvals by the end of the first quarter of 2023, we may permanently close the site and subsequently incur associated site closure costs. For further discussion, see D. Trend Information.

In response to these conditions, we are taking the following actions:

- We commenced our 2022 Cost Reduction Program in the fourth quarter of 2022. This cost and operational improvement program is designed to increase annual EBITDA by \$50 million compared to 2021, adjusted for the impact of foreign currency translation and inflation, by reducing selling, general and administrative expenses, and manufacturing costs through the implementation of more efficient operations and the reduction of manufacturing waste. We intend to complete all the actions necessary to deliver on our target by December 31, 2024. We estimate the cost to implement the plan to be \$30 million, of which approximately \$10 million will be incurred during 2023.
- On November 14, 2022, we entered into a definitive agreement with Cathay Industries to divest the iron oxide business from within the Color Pigments business (the "disposal group") for an approximate enterprise value of \$140 million. Based on the carve out financial statements dated December 31, 2022, we estimate cash proceeds related to this sale will be approximately \$135 million, as a result of purchase price adjustments for closing indebtedness of \$20 million and closing fees, partially offset by an adjustment for primary working capital, all of which we expect to realize on March 31, 2023, which is the anticipated closing date, as well as a tax benefit which we expect will be realized in 2024. We anticipate that the borrowing base on our ABL will reduce by approximately \$55 million as a result of closing this sale resulting in an estimated net liquidity improvement of approximately \$80 million.

However, as noted above, our projections show the need for further liquidity beyond these actions beginning in the second half of 2023 and as such, we are undertaking an in-depth strategic review of our business to improve our operations, strengthen our liquidity, and establish a sustainable capital structure.

In addition, we may, at any time and from time to time, seek to purchase, repay, exchange or otherwise retire our outstanding debt in open market transactions, privately negotiated transactions, tender offers, exchange offers, pursuant to the terms of our outstanding debt, by restructuring our existing debt or otherwise. We may incur additional financing to fund such transactions or otherwise, which could include substantial additional debt (including secured debt) or equity or equity-linked financing. Although the terms of the agreements governing existing debt restrict our ability to incur additional debt (including secured debt), such restrictions are subject to several exceptions and qualifications and such restrictions and qualifications may be waived or amended, and debt (including secured debt) incurred in compliance with such restrictions and qualifications (as they may be waived or amended) may be substantial. The number of our ordinary shares or securities convertible into our

ordinary shares that may be issued in connection with such transactions may be material and our shareholders could suffer significant dilution and economic loss, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our current equity securities. Such transactions, if any, will be upon such terms and at such prices as we may determine, and will depend on prevailing market conditions, our liquidity requirements and cash position, contractual restrictions, trading prices of debt from time to time and other factors. The amounts involved in any such transactions, individually or in the aggregate, may be material. In addition, from time to time we engage in discussions with holders of our existing debt and other potential financing sources regarding such transactions and we expect to continue to engage in such discussions in the future. We cannot provide any assurance as to if or when we will consummate any such transactions or the terms of any such transactions. In addition, we may choose or need to obtain alternative sources of capital, otherwise meet our liquidity needs and/or restructure our existing indebtedness through the protections available under applicable bankruptcy or insolvency laws, including Chapter 11 of the U.S. Bankruptcy Code. Holders of our ordinary shares may not receive any value or payments in a restructuring or similar scenario.

As of December 31, 2022 and 2021, we had \$30 million and \$23 million, respectively, of cash and cash equivalents held outside of the U.S. and Europe, including our variable interest entities. Due to the substantial doubt about our ability to continue as a going-concern, Venator is no longer able to control the decision to indefinitely reinvest earnings of our non-U.K. subsidiaries. The financial uncertainty that exists creates a presumption that unremitted non-U.K. earnings will be needed to meet existing obligations. As a result, we have recognized a deferred tax liability of \$2 million related to undistributed earnings of non-U.K. subsidiaries at December 31, 2022.

Cash Flows for the Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021

Net cash used in operating activities was \$114 million for the twelve months ended December 31, 2022, compared to cash provided by operating activities of \$19 million for the twelve months ended December 31, 2021. The decrease in net cash provided by operating activities for the twelve months ended December 31, 2022 compared with the same period of 2021 was primarily attributable to a \$127 million decrease in our Adjusted EBITDA and a \$145 million unfavorable variance in cash flows from changes in operating assets and liabilities partially offset by \$98 million in cash proceeds from legal settlements with Tronox and NES.

Net cash used in investing activities was \$24 million for the twelve months ended December 31, 2022, compared to net cash used in investing activities of \$60 million for the twelve months ended December 31, 2021. The decrease in net cash used in investing activities was primarily attributable to a \$46 million increase in proceeds from sales of businesses and assets primarily as the result of the sale-leaseback of our Los Angeles manufacturing site in the fourth quarter of 2022 and a \$4 million decrease in capital expenditures, partially offset by a \$14 million unfavorable variance in net cash paid to unconsolidated affiliates.

Net cash provided by financing activities was \$99 million for the twelve months ended December 31, 2022, compared to net cash used in financing activities of \$21 million for the twelve months ended December 31, 2021. The increase in net cash provided by financing activities for the twelve months ended December 31, 2022 compared with the same period of 2021 was primarily attributable to \$75 million in net borrowings on short term debt, \$24 million in cash received for settlement of cross-currency swaps, and \$14 million in borrowings on current notes payable.

Cash Flows for the Year Ended December 31, 2021 Compared to the Year Ended December 31, 2020

Net cash provided by operating activities was \$19 million for the twelve months ended December 31, 2021, compared to \$34 million for the twelve months ended December 31, 2020. The decrease in net cash provided by operating activities for the twelve months ended December 31, 2021 compared with the same period of 2020 was primarily attributable to a \$5 million decrease in cash inflows from net income and a \$10 million unfavorable variance in cash flows from changes in operating assets and liabilities.

Net cash used in investing activities was \$60 million for the twelve months ended December 31, 2021, compared to net cash used in investing activities of \$64 million for the twelve months ended December 31, 2020. The decrease in net cash used in investing activities was primarily attributable to a \$16 million positive variance in net cash received from unconsolidated affiliates and a \$4 million increase in proceeds from sales of businesses and assets, partially offset by a \$12 million unfavorable variance in cash received from notes receivable and a \$4 million increase in capital expenditures.

Net cash used in financing activities was \$21 million for the twelve months ended December 31, 2021, compared to net cash provided by financing activities of \$192 million for the twelve months ended December 31, 2021. The decrease in net cash provided by financing activities for the twelve months ended December 31, 2021 compared with the same period of 2020

was primarily attributable to the net proceeds of \$215 million from the issuance of long-term debt during the second quarter of 2020.

Contractual Obligations and Commercial Commitments

Our obligations under long-term debt (including the current portion), lease agreements and other contractual commitments as of December 31, 2022 are summarized below:

<i>(Dollars in millions)</i>	2023	2024	2025	2026	2027	After 2027	Total
Long-term debt, including current portion ⁽¹⁾	\$ 98	\$ 352	\$ 600	\$ —	\$ —	\$ —	\$ 1,050
Interest ⁽²⁾	70	54	22	—	—	—	146
Finance leases ⁽³⁾	2	1	1	1	1	2	8
Operating leases ⁽³⁾	11	9	8	8	7	71	114
Purchase commitments ⁽⁴⁾	159	170	63	41	39	3	475
Total⁽⁴⁾⁽⁵⁾	\$ 340	\$ 586	\$ 694	\$ 50	\$ 47	\$ 76	\$ 1,793

- (1) The maturity is presented based on the contracted maturity dates of the debt agreements. However, due to the anticipated violation of certain debt covenants in our Term Loan Facility and ABL Facility, we have classified the outstanding amounts as a current liability in the consolidated balance sheet as of December 31, 2022. See "Note 1. Description of Business, Going Concern, and Summary of Significant Accounting Policies" for further discussion of our going concern evaluation. For more information on the debt agreements, see "—Financing Arrangements."
- (2) Interest calculated using actual and forecasted interest rates as of December 31, 2022 and contractual maturity dates.
- (3) This amount includes leases classified as held for sale as of December 31, 2022.
- (4) We have various purchase commitments extending through 2030 for materials, supplies and services entered into in the ordinary course of business. Included in the purchase commitments table above are contracts which require minimum volume purchases that extend beyond one year or are renewable annually and have been renewed for 2023. Certain contracts allow for changes in minimum required purchase volumes in the event of a temporary or permanent shutdown of a facility. To the extent the contract requires a minimum notice period, such notice period has been included in the above table. The contractual purchase price for substantially all of these contracts is variable based upon market prices, subject to annual negotiations. We have estimated our contractual obligations by using the terms of our current pricing for each contract.
- (5) The above table does not reflect expected tax payments and unrecognized tax benefits due to the inability to make reasonably reliable estimates of the timing and amount of payments. For additional discussion on unrecognized tax benefits, see "Part III. Item 18. Financial Statements — Note 19. Income Taxes" of this report.

C. Research and development, patents and licenses, etc.

Research and development costs are expensed as incurred and recorded in selling, general and administrative expense. Research and development costs charged to expense were \$12 million, \$15 million and \$13 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Proprietary protection of our processes, apparatuses, and other technology and inventions is important to our businesses. When appropriate, we file patent and trademark applications, often on a global basis, for new product development technologies. For example, we have obtained patents and trademark registrations covering relevant jurisdictions for key product platforms related to functional pigments and additives and active materials technologies. These platforms are used for solar reflection (ALTIRIS® pigments), to keep colored surfaces cooler when they are exposed to the sun, enhance air purification, improve catalytic processes (HOMBIKAT®) or lead to products that help manage heat in plastic applications or lead to metal deactivation in cables (SACHTOLITH®).

We own a total of approximately 660 issued patents and pending patent applications. Our patent portfolio includes approximately 40 issued U.S. patents, approximately 533 patents issued in countries outside the U.S. and 117 pending patent applications, worldwide. While a presumption of validity exists with respect to issued U.S. patents, we cannot assure that any of our patents will not be challenged, invalidated, circumvented or rendered unenforceable. Furthermore, we cannot assure the issuance of any pending patent application, or that if patents do issue, that these patents will provide meaningful protection against competitors or against competitive technologies. Additionally, our competitors or other third parties may obtain patents that restrict or preclude our ability to lawfully produce or sell our products in a competitive manner.

We also rely upon unpatented proprietary know-how and continuing technological innovation and other trade secrets to develop and maintain our competitive position. There can be no assurance, however, that confidentiality and other agreements into which we enter and have entered will not be breached, that they will provide meaningful protection for our trade secrets or proprietary know-how, or that adequate remedies will be available in the event of an unauthorized use or disclosure of such trade secrets and know-how. In addition, there can be no assurance that others will not obtain knowledge of these trade secrets through independent development or other access by legal means.

In addition to our own patents, patent applications, proprietary trade secrets and know-how, we are a party to certain licensing arrangements and other agreements authorizing us to use trade secrets, know-how and related technology and/or operate within the scope of certain patents owned by other entities. We also have licensed or sub-licensed intellectual property rights to third parties.

Certain of our products are well-known brand names and we have approximately 810 global trademark registrations and applications. Some of these registrations and applications include filings under the Madrid system for the international registration of marks and may confer rights in multiple countries. However, there can be no assurance that the trademark registrations will provide meaningful protection against the use of similar trademarks by competitors, or that the value of our trademarks will not be diluted. In our Titanium Dioxide segment, we consider our TIOXIDE[®], HOMBITAN[®], HOMBITEC[®], UVTITAN[®], HOMBIKAT[®], DELTIO[®] and ALTIRIS[®] trademarks to be valuable assets. In our Performance Additives segment, we consider BLANC FIXE[™], GRANUFIN[®], SACHTOLITH[®], FERROXIDE[®] and ECOLIFE[®] trademarks to be valuable assets. The FERROXIDE[®] and GRANUFIN[®] trademarks (and other trademarks) are included within the definitive agreement to sell our iron oxide pigments business from within our Performance Additives segment to Cathay Industries.

D. Trend Information

Recent Developments

New York Stock Exchange ("NYSE") Notice Regarding Continuing Listing Standard

On November 2, 2022, we received notice from the NYSE that we were no longer in compliance with the continued listing standard set forth in Section 802.01C of the NYSE's Listed Company Manual because the average closing price of the Company's ordinary shares was less than \$1.00 per share over a consecutive 30 trading-day period. In order to regain compliance, on the last trading day of any calendar month during the cure period or on the last business day of the six-month cure period, the Company's ordinary shares must demonstrate (i) a closing price of at least \$1.00 per share and (ii) an average closing share price of at least \$1.00 over the 30 trading-day period ending on such date. The Company intends to cure the deficiency within a period permissible under Section 802.01C of the NYSE's Listed Company Manual. However, there can be no assurances that the Company will meet continued listing standards within the specified cure period.

Global Economic Conditions

We have experienced inflationary impacts across our businesses, driven by the impact of the COVID-19 pandemic, the war in Ukraine and resulting economic sanctions, and general macroeconomic factors. These factors have increased our manufacturing costs, particularly in Europe. We continue to experience the impacts of the COVID-19 pandemic on supply chains, particularly in the APAC region, where recent lockdowns occurred. In addition, government lockdowns and restrictions imposed by China in response to COVID-19 have resulted in slower economic growth in China and decreased demand for titanium dioxide in the Chinese market, leading Chinese titanium dioxide manufacturers to export more product to other markets in which we compete. These are some of the events and conditions that raise substantial doubt about our ability to continue as a going concern as discussed in B. Liquidity and Capital Resources above.

While we are taking actions to respond to the inflationary environment, and global demand dynamics, we may not be able to enact these measures in a timely manner, or the measures may not be sufficient to offset the increase in costs, or drop in demand, which could have a material adverse impact on our profitability and results of operations. See further discussion in B. Liquidity and Capital Resources.

Military Action in Ukraine

On February 24, 2022, Russian forces launched a significant military action against Ukraine, which resulted in conflict and disruption in the region. Additionally, in response to this action, the United Kingdom, much of Europe and the United States have imposed numerous economic sanctions against Russia and related persons and entities. We suspended sales of products into Russia, which has not had a material impact on our financial statements. We do not have physical assets in Russia or Ukraine and we do not expect the conflict in Ukraine to have a direct material impact on our business. This conflict has

exacerbated existing cost inflation and supply chain issues, most notably in Europe, where we have experienced significant increases in energy costs during 2022 due in large part to reduced availability of Russian natural gas, which we expect to continue in the near term. The impacts of this evolving situation and its effect on global economies in future periods are difficult to predict and depend on factors outside our control, including the extent of further military action by Russia, the potential escalation of the conflict and the impacts of these actions on demand, supply chains, and the global economy.

Duisburg, Germany Manufacturing Site

Our manufacturing site located in Duisburg, Germany has the production capacity to manufacture 50,000 metric tons of TiO₂ and 50,000 metric tons of functional additives (barium and zinc products). Demand for TiO₂ products sold into fibers and active materials applications has been weak following the COVID-19 pandemic and during ongoing weak demand in Asia. This manufacturing site has been significantly impacted by higher inflationary costs resulting in unsustainably low TiO₂ contribution margins. TiO₂ selling prices for these products could not be increased sufficiently to mitigate the higher inflationary costs. We have taken steps to reduce the economic impact on our business by shutting down the site during the fourth quarter of 2022 and into the first quarter of 2023 and by furloughing most of our employees at the site. We are in the process of restarting production for both TiO₂ and functional additives in the first quarter of 2023, however we do not believe it is economically viable to continue TiO₂ production longer term. We therefore intend to permanently close TiO₂ production at our Duisburg site unless economic conditions meaningfully improve. As a result, we will engage with the relevant works council when required. Additionally, we will begin the process of re-assessing the useful lives of the assets at our Duisburg site during the first quarter of 2023 and this process will continue as our plans develop. We intend to transfer the production of certain specialty TiO₂ products to other sites with lower manufacturing costs. We continue to see healthy demand for our functional additives products and expect to be able to mitigate the higher inflationary costs with pricing and therefore intend to continue the production of certain profitable functional additives products at this site.

Scarlino Gypsum Developments

Our Scarlino, Italy TiO₂ manufacturing facility generates gypsum from the manufacturing process, which has been landfilled on-site and also transported for use in a reclamation project at Montioni, a nearby former quarry owned and operated by third parties. Venator Italy Srl, the quarry operator and site management are subjects of an investigation by the Italian Public Prosecutor's Office concerning whether our Scarlino site and the quarry operator are in full compliance with applicable laws and permits with regard to the use of gypsum for reclamation at the quarry.

In the second quarter of 2021, we requested regional approval for a project for the use of gypsum in a specified on-site area on our Scarlino site. Following a review with relevant regional representatives, we submitted a revised request for regional approval in the first quarter of 2022. Following its determination that a preliminary (or screening) environmental impact assessment would be required, in November 2022 the Tuscany Region issued a further decree requiring a full environmental impact assessment before the project can be approved. We currently expect to submit the additional requested information to the Region by the end of the first quarter of 2023.

We continue to suspend TiO₂ production from two of the three calciner streams at the facility to reduce the rate at which the remaining gypsum capacity both on-site and in the Montioni reclamation project is consumed. At the current one-stream operating rate, we will soon not have sufficient capacity for the gypsum produced and as a consequence expect to stop production during the second quarter of 2023. If we do not receive approvals for additional gypsum storage capacity by the end of the first quarter of 2023, we may permanently close the site and subsequently incur associated site closure costs.

Should we receive timely approvals, and we continue to operate the facility, we intend to continue to pursue longer-term options, including operational changes to reduce the volume of gypsum produced in our process and developing new business opportunities for the sale of gypsum for commercial use. However, in January 2023, we concluded, due to our inability to obtain required approvals from regulatory authorities for various options for gypsum disposal thus far and our assessment of the likelihood of obtaining these approvals prior to the end of the first quarter, that the useful life of the Scarlino property, plant and equipment should be reduced to the end of the second quarter of 2023. Adjustments to depreciation will be accounted for prospectively.

In September 2022, Venator was the successful bidder in an auction to purchase the La Vallina quarry in Tuscany. Venator successfully completed the purchase of the quarry on January 19, 2023. If our Scarlino facility remains operational and we receive the required approvals from regional authorities to operate the quarry as a landfill, at a future point the La Vallina quarry could be used as a landfill to provide longer-term disposal capacity for gypsum we produce at the Scarlino site.

Sale of Iron Oxide Business

On November 14, 2022, we entered into a definitive agreement with Cathay Industries to divest the disposal group for an approximate enterprise value of \$140 million. Based on the carve out financial statements dated December 31, 2022, we estimate cash proceeds related to this sale will be approximately \$135 million, as a result of purchase price adjustments for closing indebtedness of \$20 million and closing fees, partially offset by an adjustment for primary working capital, all of which we expect to realize on March 31, 2023, which is the anticipated closing date, as well as a tax benefit which we expect will be realized in 2024. We anticipate that the borrowing base on our ABL will reduce by approximately \$55 million as a result of closing this sale resulting in an estimated net liquidity improvement of approximately \$80 million.

The disposal group is included in our Performance Additives operating segment, and the assets and liabilities of the disposal group are classified as assets held-for-sale as of December 31, 2022 on our consolidated balance sheet.

For the year ended December 31, 2022 we wrote down the carrying value of the assets held-for-sale to the fair value less cost to sell and recognized an impairment of \$111 million, which was recorded in Restructuring, impairment and plant closing and transition costs in our consolidated statements of operations.

Recent Trends and Outlook

We expect the following in our Titanium Dioxide segment in the near term: (i) continued inflation in the cost of European energy and other raw material with moderation in costs as 2023 progresses; (ii) gradual recovery in demand throughout 2023; and (iii) alignment of production at our manufacturing facilities to respond to product demand.

We expect the following in our Performance Additives segment in the near term: (i) weaker demand for our color pigments products across all regions with gradual recovery through 2023; (ii) continued inflation in the cost of European energy and other raw materials with moderation in costs as 2023 progresses; and (iii) the impact of moderation at our Duisburg, Germany TiO₂ and functional additives manufacturing site at the beginning of 2023, notwithstanding a healthy demand for functional additives products.

We commenced our 2022 Cost Reduction Program in the fourth quarter of 2022. This cost and operational improvement program is designed to increase annual EBITDA by \$50 million compared to 2021, adjusted for the impact of foreign currency translation and inflation, by reducing selling, general and administrative expenses, and manufacturing costs through the implementation of more efficient operations and the reduction of manufacturing waste. We intend to complete all the actions necessary to deliver on our target by December 31, 2024. We estimate the cost to implement the plan to be \$30 million, of which approximately \$10 million will be incurred during 2023.

We expect total capital expenditures in 2023 to be approximately \$55 million to \$60 million, which consists primarily of maintenance capital expenditure and excludes capital expenditures for our iron oxide business beginning in the second quarter of 2023.

Further, we announced on January 20, 2023 that we plan to conduct a strategic review of our business and plan to strengthen our liquidity position and engage shareholders and debtholders with respect to our capital structure. Along with our advisors, we have commenced discussions with key stakeholders, as we evaluate all options to establish a sustainable capital structure. We welcome continued dialogue with our shareholders and debtholders on supporting Venator through this process. In the event that the strategic review concludes there is a need for deleveraging and/or equitization of part of Venator's debt, this will very likely result in material dilution of the existing share capital.

E. Critical Accounting Estimates

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires management to make judgments, estimates and assumptions that affect the reported amounts in our consolidated financial statements. Our significant accounting policies are summarized in "Part III. Item 18. Financial Statements — Note 1. Description of Business, Going Concern, and Summary of Significant Accounting Policies" of this report. Summarized below are our critical accounting estimates:

Long-Lived Assets

The useful lives of our property, plant and equipment are estimated based upon our historical experience, engineering estimates and industry information and are reviewed when economic events indicate that we may not be able to recover the carrying value of the assets. The estimated lives of our property range from 3 to 50 years and depreciation is recorded on the

straight-line method. Inherent in our estimates of useful lives is the assumption that periodic maintenance and an appropriate level of annual capital expenditures will be performed. Without on-going capital improvements and maintenance, the productivity and cost efficiency declines and the useful lives of our assets would be shorter.

The estimation of the useful lives of our long-lived assets is a significant estimate that requires management judgment and is assessed by management on a quarterly basis. At December 31, 2022, if the estimated useful lives of our property, plant and equipment had either been one year greater or one year less than their recorded lives, then depreciation expense for 2022 would have been approximately \$11 million less or \$14 million greater, respectively.

We are required to evaluate the carrying value of our long-lived tangible and intangible assets whenever events indicate that such carrying value may not be recoverable in the future or when management's plans change regarding those assets, such as idling or closing a plant. We evaluate impairment by comparing undiscounted cash flows of the related asset groups that are largely independent of the cash flows of other asset groups to their carrying values. Key assumptions in determining the future cash flows include the useful life, asset groups, technology, competitive pressures, raw material pricing and regulations. In connection with our asset evaluation policy, we reviewed all of our long-lived asset groups for indicators that the carrying value may not be recoverable. As a result of this evaluation, we determined that impairment indicators existed for our European TiO₂ and Functional Additives asset group at December 31, 2022. We concluded that the estimated undiscounted cash flows for the use and eventual disposition of the European TiO₂ and Functional Additives asset group were in excess of the net carrying value of the asset group, and therefore no impairment was recorded.

Employee Benefit Programs

We sponsor several contributory and non-contributory defined benefit plans, covering employees primarily in the U.S., the U.K., Germany and Finland, but also covering employees in a number of other countries. We fund the material plans through trust arrangements (or local equivalents) where the assets are held separately from us. We also sponsor unfunded postretirement plans which provide medical and, in some cases, life insurance benefits covering certain employees in the U.S. and Canada. Amounts recorded in our consolidated financial statements are recorded based upon actuarial valuations performed by various third-party actuaries. Inherent in these valuations are numerous assumptions regarding expected long-term rates of return on plan assets, discount rates, compensation increases, mortality rates and health care cost trends. We evaluate these assumptions at least annually.

The discount rate is used to determine the present value of future benefit payments at the end of the year. For our U.S. and non-U.S. plans, the discount rates were based on the results of matching expected plan benefit payments with cash flows from a hypothetical yield curve constructed with high-quality corporate bond yields.

The following weighted-average discount rate assumptions were used for the defined benefit and other postretirement plans for the year:

	December 31, 2022	December 31, 2021	December 31, 2020
Defined benefit plans			
Projected benefit obligation	4.41 %	1.58 %	1.09 %
Net periodic pension cost	1.58 %	1.09 %	1.60 %
Other postretirement benefit plans			
Projected benefit obligation	5.39 %	2.91 %	2.46 %
Net periodic pension cost	2.91 %	2.46 %	3.27 %

The expected return on plan assets is determined based on asset allocations, historical portfolio results, historical asset correlations and management's expected long-term return for each asset class. The expected rate of return on U.S. plan assets was 7.75% in 2022 and 2021, each, and the expected rate of return on non-U.S. plans was 2.75% and 4.00% for 2022 and 2021, respectively.

Management, with the advice of actuaries, uses judgment to make assumptions on which our employee pension and postretirement benefit plan obligations and expenses are based. The effect of a 1% (100 basis point) change in three key

assumptions is summarized as follows (dollars in millions):

Assumptions	Statement of Operations ⁽¹⁾	Balance Sheet Impact ⁽²⁾
Discount rate		
1% increase	\$ 3	\$ (73)
1% decrease	1	88
Expected long-term rates of return on plan assets		
1% increase	(10)	—
1% decrease	10	—

(1) Estimated (decrease) increase on 2022 net periodic benefit cost.

(2) Estimated (decrease) increase on December 31, 2022 pension and postretirement liabilities and accumulated other comprehensive loss.

Income Taxes

We use the asset and liability method of accounting for income taxes. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial and tax reporting purposes. We evaluate deferred tax assets to determine whether it is more likely than not that they will be realized. Valuation allowances are reviewed on a tax jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets for each jurisdiction. These conclusions require significant judgment. In evaluating the objective evidence that historical results provide, we consider the cyclicity of businesses and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limit our ability to consider other subjective evidence such as our projections for the future. Changes in expected future income in applicable jurisdictions could affect the realization of deferred tax assets in those jurisdictions. As of December 31, 2022, we had total valuation allowances of \$719 million. See "Part III. Item 18. Financial Statements and Supplementary Data—Note 19. Income Taxes" of this report for more information regarding our valuation allowances.

Accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The application of income tax law is inherently complex. We are required to determine if an income tax position meets the criteria of more-likely-than-not to be realized based on the merits of the position under tax law, in order to recognize an income tax benefit. This requires us to make significant judgments regarding the merits of income tax positions and the application of income tax law. Additionally, if a tax position meets the recognition criteria of more-likely-than-not we are required to make judgments and apply assumptions in order to measure the amount of the tax benefits to recognize. These judgments are based on the probability of the amount of tax benefits that would be realized if the tax position was challenged by the taxing authorities. Interpretations and guidance surrounding income tax laws and regulations change over time. As a consequence, changes in assumptions and judgments can materially affect amounts recognized in our consolidated financial statements.

Restructuring and Plant Closing and Transition Costs

We recorded restructuring charges in recent periods in connection with closing certain plant locations, workforce reductions and other cost savings programs in each of our business segments. These charges are recorded when management has committed to a plan and incurred a liability related to the plan. Estimates for plant closing costs include the write-off of the carrying value of the plant, any necessary environmental and/or regulatory costs, contract termination and demolition costs. Estimates for workforce reductions and other costs savings are recorded based upon estimates of the number of positions to be terminated, termination benefits to be provided and other information, as necessary. Management evaluates the estimates on a quarterly basis and will adjust the reserve when information indicates that the estimate is above or below the currently recorded estimate. For further discussion of our restructuring activities, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 13. Restructuring, Impairment and Plant Closing and Transition Costs" of this report.

Contingent Loss Accruals

Environmental remediation costs for our facilities are accrued when it is probable that a liability has been incurred and the amount can be reasonably estimated. Estimates of environmental liabilities require evaluating government regulation, available technology, site-specific information and remediation alternatives. We accrue an amount equal to our best estimate of the costs to remediate based upon the available information. The extent of environmental impacts may not be fully known and the processes and costs of remediation may change as new information is obtained or technology for remediation is improved.

Our process for estimating the expected cost for remediation considers the information available, technology that can be utilized and estimates of the extent of environmental damage. Adjustments to our estimates are made periodically based upon additional information received as remediation progresses. As of December 31, 2022 and 2021, we had recognized a liability of \$4 million and \$10 million, respectively, related to these environmental matters. For further information, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 23. Environmental, Health and Safety Matters" of this report.

We are subject to legal proceedings and claims arising out of our business operations. We routinely assess the likelihood of any adverse outcomes to these matters, as well as ranges of probable losses. A determination of the amount of the reserves required, if any, for these contingencies is made after analysis of each known claim. We have an active risk management program consisting of numerous insurance policies secured from many carriers. These policies often provide coverage that is intended to minimize the financial impact, if any, of the legal proceedings. The required reserves may change in the future due to new developments in each matter. For further information, see "Part III. Item 18. Financial Statements and Supplementary Data—Note 22. Commitments and Contingencies—Legal Proceedings" of this report.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

The Board of Directors

The following table sets forth certain information regarding the individuals who are members of our Board, including their ages as of February 21, 2023.

Name	Age	Position(s) at Venator
Stefan M. Selig	59	Chairman of the Board of Directors
Simon Turner	59	Director, President and Chief Executive Officer
Aaron Davenport	51	Director
Jame Donath	48	Director
Daniele Ferrari	61	Director
Peter Huntsman	59	Director
Heike van de Kerkhof	60	Director
Vir Lakshman	63	Director
Dr. Barry Siadat	69	Director

Biographical information concerning the members of our Board is set forth below.

Stefan M. Selig was appointed Chairman of the Board of Directors of Venator in January 2023. Mr. Selig is the founder of BridgePark Advisors LLC and serves as the Lead Independent Director of the Board of directors for Safehold Inc. and is a Board member of Simon Property Group. Mr. Selig served as Undersecretary of Commerce for International Trade for the U.S. Department of Commerce from June 2014 to June 2016. Prior to that time, Mr. Selig was with Bank of America Merrill Lynch from March 1999 to May 2014, ultimately serving as Executive Vice Chairman of Global Corporate and Investment Banking. Mr. Selig is a member of our Audit Committee.

Simon Turner has served as President and Chief Executive Officer and as a director since the second quarter of 2017. Mr. Turner served as Division President, Pigments & Additives, at Huntsman Corporation from November 2008 to August 2017, Senior Vice President, Pigments & Additives, from April 2008 to November 2008, Vice President of Global Sales from September 2004 to April 2008 and General Manager Co-Products and Director Supply Chain and Shared Services from July 1999 to September 2004. Prior to joining Huntsman Corporation, Mr. Turner held various positions with Imperial Chemical Industries PLC ("ICI").

Aaron Davenport was appointed as a director of Venator in January 2021. Mr. Davenport serves as Managing Director of SK Capital Partners, a private investment firm, a position he has held since August 2010. Mr. Davenport currently serves as Chairman of the Board of Seqens, Heubach, Noramco, Extractas Bioscience, Purisys and Woodstock Sterile Solutions, all private companies. Prior to joining SK Capital Partners, Mr. Davenport was a Principal at Arsenal Capital Partners where he co-led Arsenal's healthcare investing efforts and served on the firm's Operating and Investment Committees. Mr. Davenport's professional career began in a general management role with CB Richard Ellis/Whittier Partners, where his leadership positions included Director of Business Strategy and Development.

Jame Donath was appointed a director of Venator in January 2023. Mr. Donath is an investor and corporate director with over 20 years of experience sourcing and executing credit and private equity investments. He was formerly the Managing Partner of Magnolia Road Capital, a global event-driven credit hedge fund based in New York. Prior to forming Magnolia Road in 2013, Mr. Donath was a Managing Director at Davidson Kempner Capital Management in New York and London, where he launched and oversaw the firm's European credit business. He started his career at Goldman Sachs in the Investment Banking Division. Mr. Donath is a member of our Compensation Committee and our Nominating and Corporate Governance Committee (the "Governance Committee").

Daniele Ferrari was appointed as a director of Venator in August 2017. Mr. Ferrari also serves as a director of Huntsman Corporation. Mr. Ferrari currently serves as an independent Senior Advisor to SK Capital Partners, a position he has held since February 2021. Until December 2020, Mr. Ferrari was Chief Executive Officer of Versalis S.p.A., a chemical manufacturer, a position he held since March 2011. Mr. Ferrari has over 30 years of experience in the chemical industry, including as President of Huntsman Corporation's Performance Products division until January 2011 and in several business assignments at ICI in the U.K. Mr. Ferrari is the past President of CEFIC, the European counterpart of the American Chemistry Council, and formerly served as President of PlasticsEurope, an association of plastics manufacturers. Mr. Ferrari is a member of our Compensation Committee and our Governance Committee.

Peter Huntsman was appointed as a director in the second quarter of 2017. Mr. Huntsman currently serves as Chairman of the Board, President and Chief Executive Officer of Huntsman Corporation and has served as a director of Huntsman Corporation and its affiliated companies since 1994. Prior to his appointment in July 2000 as CEO of Huntsman Corporation, Mr. Huntsman had served as its President and Chief Operating Officer since 1994. In 1987, after working for Olympus Oil since 1983, Mr. Huntsman joined Huntsman Polypropylene Corporation as Vice President before serving as Senior Vice President and General Manager. Mr. Huntsman has also served as Senior Vice President of Huntsman Chemical Corporation and as a Senior Vice President of Huntsman Packaging Corporation, a former subsidiary of Huntsman Corporation. Mr. Huntsman is a member of our Audit Committee.

Heike van de Kerkhof was appointed as a director of Venator in January 2021. Ms. Van de Kerkhof serves as Chief Executive Officer and a member of the Board of Directors of Archroma Management GmbH, a global, diversified producer of specialty chemicals, a position she has held since January 2020. Prior to joining Archroma, Ms. van de Kerkhof served as Vice President BP Lubricants for the Western Hemisphere for BP Oil UK Ltd, an oil and gas company, from January 2018 to December 2019. She worked as Vice President Global Sales Titanium Technologies at Chemours International Operations Sarl, a fluor products and titanium dioxide company spun-off from DuPont, from July 2015 to December 2017. Previously, she held numerous leadership positions at DuPont International from 1989 to 2015. She currently serves as a non-executive director at OCI N.V., a publicly-traded global producer and distributor of nitrogen products and methanol based in the Netherlands. Ms. van de Kerkhof serves as chair of our Governance Committee and a member of our Compensation Committee.

Vir Lakshman was appointed as a director of Venator in February 2021. Mr. Lakshman worked for KPMG in Germany from 1999 to July 2019, where he was Head of Chemicals and Life Sciences in Germany and a Deal Advisory Partner. Mr. Lakshman led several global due diligence transactions in the Chemicals and Life Sciences sector for both corporate and private equity clients. He also organized regular roundtables for chemical companies, enabling them to network and share best practices. He developed thought leadership in areas such as Digitalization and M&A. Prior to KPMG, Mr. Lakshman held senior positions at GE Capital, including that of CFO at Budapest Bank in Hungary, and worked for Coopers & Lybrand (now PwC) in the U.K. and in Germany. He is a U.K. Chartered Accountant. Mr. Lakshman is Chair of our Audit Committee.

Dr. Barry Siadat was appointed as a director and Chairman of the Board in December 2020. Following his resignation as Chairman of the Board and Lead Independent director in January 2023, Dr. Siadat continues to serve as a director of Venator. Dr. Siadat serves as Co-Founder and Managing Director of SK Capital Partners, a private investment firm, a position he has held since December 2007. Dr. Siadat currently serves as Chairman of the Board for Ascend Performance Materials, Aristech Acrylics, Archroma and SI Group. Additionally, he serves on the Board of Directors of Mt. Sinai Hospital in Miami Beach. Dr. Siadat began his career at W.R. Grace & Co., where he held a number of technical, operating and executive positions, including Vice President, Corporate Technologies. In 1995, he joined AlliedSignal where he was Corporate Vice President and Chief Growth Officer and later President of Avient Technologies.

Senior Management

The following table sets forth certain information regarding the individuals who are our members of senior management, including their ages as of February 21, 2023.

Name	Age	Position(s) at Venator
Executive Officers		
Simon Turner	59	President and Chief Executive Officer, Director
Kurt Ogden	54	Executive Vice President and Chief Financial Officer
Russ Stolle	60	Executive Vice President, General Counsel and Chief Compliance Officer
Mahomed Maiter	61	Executive Vice President, Business Operations
Rob Portsmouth	57	Senior Vice President, Sustainability and EHS
Kevin Wilson	50	Senior Vice President, Human Resources
Stefano Soccol	55	Senior Vice President, TiO2 Commercial

Biographical information concerning our members of senior management is set forth below other than for Mr. Turner, our President, Chief Executive Officer and director, whose biography is set forth above under "**Board of Directors.**"

Kurt Ogden was named Executive Vice President and Chief Financial Officer of Venator in February 2019. Prior to then, he served as Venator's Senior Vice President and Chief Financial Officer from the second quarter of 2017. Mr. Ogden served as Vice President, Investor Relations and Finance of Huntsman from February 2009 until August 2017 and as Director, Corporate Finance from October 2004 to February 2009. Between 2000 and 2004, he was Executive Director Financial Planning and Analysis with Hillenbrand Industries and Vice President Treasurer with Pliant Corporation. Mr. Ogden began his career with Huntsman Chemical Corporation in 1993 and held various positions with related companies up to 2000. Mr. Ogden is a Certified Public Accountant.

Russ Stolle was named Executive Vice President, General Counsel and Chief Compliance Officer of Venator in February 2019. Prior to then, he served as Venator's Senior Vice President, General Counsel and Chief Compliance Officer from the second quarter of 2017. Mr. Stolle served as Senior Vice President and Deputy General Counsel of Huntsman from January 2010 until August 2017. From October 2006 to January 2010, Mr. Stolle served as Huntsman's Senior Vice President, Global Public Affairs and Communications, from November 2002 to October 2006, he served as Huntsman's Vice President and Deputy General Counsel, from October 2000 to November 2002, he served as Huntsman's Vice President and Chief Technology Counsel and from April 1994 to October 2000 he served as Huntsman's Chief Patent and Licensing Counsel. Prior to joining Huntsman in 1994, Mr. Stolle had been an attorney with Texaco Inc. and an associate with the law firm of Baker Botts L.L.P.

Mahomed Maiter was named Executive Vice President, Business Operations of Venator in February 2019. Prior to then he served as Venator's Senior Vice President, White Pigments from the second quarter of 2017. He has over 36 years of experience in the chemical and pigment industry covering a range of senior commercial, global sales and marketing, business development, manufacturing and business roles. From January 2007 to April 2017, Mr. Maiter served as Vice President Global Sales and Marketing, Vice President Revenue and Vice President Business Development of Huntsman's Pigments and Additives business. From August 2005 to December 2006, he was Vice President of Huntsman's European Polymers business. Mr. Maiter started his career in the chemical industry in 1985 when he joined the Tioxide business of ICI in South Africa where he held various operations and manufacturing roles. He relocated to the U.K. in June 1995 to take up a General Manager position in ICI in the Tioxide business and was subsequently appointed to Global Marketing Director and Vice President Commercial.

Rob Portsmouth has served as Senior Vice President, Sustainability and EHS of Venator since May 2022. Dr. Portsmouth previously served as Senior Vice President, EHS, Innovation and Technology of Venator since January 2019 and Vice President, Innovation since April 2017. He has over 27 years of experience in the chemical industry having started his career with Royal Dutch Shell in South Africa before joining the Tioxide business of ICI in South Africa in 1996 where he held roles in manufacturing, operations and technical management. Dr. Portsmouth relocated to the U.K. in 2003 where he served as Director of Global Marketing and Director of Business Development for Huntsman's Pigments and Additives business between 2003 and 2017. Dr. Portsmouth received his Doctorate in Chemical Engineering from the University of Cambridge (U.K.).

Kevin Wilson has served as Senior Vice President, Human Resources since August 2021. Mr. Wilson previously served as Vice President, Human Resources of Venator since August 2017 and as Global Human Resources Director of Huntsman's Pigments division since 2012. Mr. Wilson has over 20 years of human resources experience and prior to joining Venator and Huntsman held various positions with Siemens, TATA Group and BASF. Before moving into human resources,

Mr. Wilson qualified as a mechanical engineer and worked in a variety of engineering and manufacturing roles. He holds an MSc in Quality Management from the University of Sunderland.

Stefano Soccol has served as Senior Vice President, TiO2 Commercial since April 2022. Prior to joining Venator, Mr. Soccol served as Business Unit Director base chemicals, intermediates and polyolefins for Versalis, a petrochemical company owned by Eni, from June 2011 until March 2022. Mr. Soccol has over 30 years' experience in the chemical and petrochemical industry, having served as commercial director and business development director for engineering and petrochemical companies at a global level. He has deep commercial, marketing, innovation and business development skills. Mr. Soccol relocated to the UK from Italy in 2022 where he served as Business Unit Director base chemicals, intermediates and polyolefins for Versalis. Mr. Soccol holds a masters degree in Chemical Engineering from Politecnico Milano.

B. Compensation

The following discussion provides the amount of compensation paid, and benefits in-kind granted, by us and our subsidiaries to our directors and members of our administrative, supervisory or management bodies for services in all capacities to us and our subsidiaries for the fiscal year ended December 31, 2022, as well as the amounts set aside or accrued for the fiscal year ended December 31, 2022 to provide pension, retirement or similar benefits to our directors and members of our administrative, supervisory or management bodies.

The following information on Directors' remuneration has been prepared in accordance with disclosure requirements for a "quoted company" under the Companies Act.

Director Remuneration for 2022

The table below shows the remuneration paid to or receivable by, and benefits in kind granted to, our directors in 2022 (in thousands), and in the case of Mr. Turner, reflects the remuneration paid for his service as our Chief Executive Officer. Mr. Turner is the only executive director of the company. He is remunerated by our wholly-owned subsidiary, Venator Materials UK Limited, in GBP and the amounts below have been converted into US dollars.

	Executive	Non-executive ⁷							
Single total figure table	Simon Turner ⁶	Daniele Ferrari ⁸	Peter R. Huntsman ⁸	Heike van de Kerkhofs	Vir Lakshman ⁸	Miguel Kohlmann ⁸	Kathy Patrick ⁸	Total	
Salary and fees	\$ 966	\$ 86	\$ 75	\$ 95	\$ 95	\$ 30	\$ 75	\$ 1,422	
Taxable benefits ¹	\$ 22	—	—	—	—	—	—	\$ 22	
Pension ²	\$ 145	—	—	—	—	—	—	\$ 145	
Other ³	\$ 7	\$ 120	\$ 120	\$ 120	\$ 120	\$ 30	\$120	\$ 637	
Total Fixed	\$ 1,140	\$ 206	\$ 195	\$ 215	\$ 215	\$ 60	\$ 195	\$ 2,226	
STIP award ⁴	\$ 944	—	—	—	—	—	—	\$ 1,234	
LTIP award ⁵	\$ 2,625	—	—	—	—	—	—	\$ 2,625	
Total Variable	\$ 3,569	—	—	—	—	—	—	\$ 3,859	
Total	\$ 4,709	\$ 206	\$ 195	\$ 215	\$ 215	\$ 60	\$ 195	\$ 5,795	

- For the CEO, taxable benefits relate to use of a company car. For the non-executive directors, there are no taxable benefits.
- Pension amounts for 2022 relate to pension cash contributions paid to the CEO (please see "Pension" below for further details).
- Other amounts for the CEO relate to a tax gross-up on his pension scheme. For non-executive directors, amounts relate to annual equity awards under the 2017 Stock Incentive Plan ("LTIP") (please see "Compensation of Non-Executive Directors" below for further details).
- The short-term incentive plan ("STIP") award amount for 2022 relates to bonus amounts for the financial year ending December 31, 2022 and reflects the sum of an annual performance award under the plan and any additional discretionary bonus payments for exceptional results paid during the year. (Please see "STIP Award" below for further details).
- Details of outstanding equity awards granted to the CEO under the LTIP are discussed below. The values included in the table above relate to the grant date fair values of awards granted under the LTIP. In accordance with the regulations, the fair value of the restricted stock unit and stock option awards are included in the single total figure of remuneration for the year in which they are granted. The value of performance units will be reported in the single total figure for the year in which the performance period ends.
- Amounts paid to the CEO in GBP have been converted using an exchange rate of 1 GBP to 1.35 USD, being the exchange rate as of February 15, 2022, the date on which 2022 compensation was approved.
- Non-executive directors Barry Siadat and Aaron Davenport waived their rights to compensation for 2022.

- Please see "Compensation of Non-Executive Directors" below for an explanation of these fees. Ms. Patrick ceased serving as a director on August 9, 2022. Mr. Kohlmann was appointed as a director on August 9, 2022 and resigned on January 18, 2023. The table reflects fees for pro rata service for these directors.

Compensation of Non-Executive Directors

The fee policy for non-executive directors in 2022 was as follows:

Annual retainer		\$60,000
Additional retainer:	Chairman of the Board ¹	\$40,000
	Vice Chairman/Lead Independent Director ¹	\$25,000
	Audit Committee: Chair	\$20,000
	Audit Committee: Member ²	\$15,000
	Compensation Committee: Chair	\$15,000
	Compensation Committee: Member ²	\$10,000
	Nominating & Governance Committee: Chair	\$15,000
	Nominating & Governance Committee: Member ²	\$10,000

- Dr. Siadat served as Chairman of the Board and Lead Independent Director until January 2023 and waived any compensation payable for these roles.
- The chair of each committee was eligible to receive the retainer applicable to committee members in addition to the retainer applicable to the committee chair.

In addition to cash compensation, non-executive directors were eligible to receive annual equity based compensation with an aggregate grant date value equal to \$120,000 in the form of either ordinary shares or share units, at the election of each director. These ordinary shares or share units were granted under the LTIP and were fully vested upon grant with no exercise price payable, other than the nominal value of the ordinary shares which is paid upon issuance. Details of the share awards granted in 2021 to the non-executive directors are set out in the table below:

	Award type	Value ¹ (\$'000)	Award date	No. of shares granted
Daniele Ferrari	Equity Share Units	\$ 120	February 16, 2022	48,193
Peter R. Huntsman	Equity Shares	\$ 120	February 16, 2022	48,193
Heike van de Kerkhof	Equity Shares	\$ 120	February 16, 2022	48,193
Vir Lakshman	Equity Shares	\$ 120	February 16, 2022	48,193
Miguel Kohlmann	Equity Shares Units	\$ 30	November 8, 2022	40,541
Kathy Patrick	Equity Share Units	\$ 120	February 16, 2022	48,193
Total		\$ 630		281,506

- Based on the share price on the date of grant of \$2.49 on February 16, 2022 other than Mr. Kohlmann, which was based on the share price on the date of grant of \$0.74 on November 8, 2022.

Compensation of Senior Management

For the year ended December 31, 2022, the aggregate compensation granted, accrued or paid to members of our administrative, supervisory and management bodies (including our Chief Executive Officer, who also serves as an executive director) for services in all capacities was \$18.5 million.

STIP award

Mr. Turner was entitled to participate in an annual bonus arrangement referred to as the short-term incentive plan or "STIP" for the year ending December 31, 2022. The bonus opportunity for target performance under the annual performance plan component was 105% of base salary. Achievement levels between threshold and target under the annual performance plan component result in award payouts from 0% to 100% of target. Achievement levels between target and maximum result in award payouts from 100% to 200% of target for the CEO. The award under the annual performance plan component was based on:

Performance measure	Weighting	Performance (in millions)			Actual performance	Payout (%)
		Threshold	Target	Stretch		
Adjusted free cash flow ¹	40%	\$(25)	\$—	\$25	\$(98)	—%
Adjusted EBITDA ²	25%	\$220	\$275	\$300	\$53	—%
Reduce legacy cash uses ³	20%	\$10	\$14	\$18	\$29	40%
Discretionary for personal performance	15%	—	—	—	7.5%	7.5%
Total	100%					47.5%

- Adjusted free cash flow is a non-GAAP financial measure that the Compensation Committee uses as a component of the STIP for executive officers, including Mr. Turner. Adjusted free cash flow is defined as cash provided from operating activities and cash required for certain investing and financing activities, which for 2021 includes net cash investments in LPC, proceeds from the sales of our Water Treatment business and portions of our Pori, Finland facility and cash paid under our tax matters agreement. The Compensation Committee seeks to include these items within the definition of adjusted free cash flow as it seeks to focus and incentivize executive officers on the most controllable elements of cash flow.
- For a description of Adjusted EBITDA, see Item 4. "Information on the Company" of this Annual Report.
- An internal performance measure based on reduction in spend on pensions, the Pori facility, restructuring activities and business improvements.

The Compensation Committee made no adjustments to the final award payout determined in accordance with the corporate and performance criteria described above. With respect to the personal performance element under the annual performance plan component, the Compensation Committee considered Mr. Turner's leadership and accomplishments on various matters, including the sale and leaseback of the Company's Los Angeles, California facility, the favourable settlement in the arbitration with Neste Engineering Services resulting in a net payment to the Company, implementation of Project Rhine at the Company's Duisburg, Germany facility, fixed cost savings and the outstanding year for personal and process safety at the Company, and awarded Mr. Turner a payout of 7.5% (or 50% of the target weighting). Based on performance during 2022 under the annual performance plan component, the Compensation Committee awarded a payout of 47.5% of target to Mr. Turner, as indicated in the table above. During 2022, the Compensation Committee also awarded Mr. Turner a one-time discretionary bonus of £304,000 for his efforts in connection with the exceptional result in the Tronox litigation and resulting \$85 million cash settlement received by the Company. The STIP awards are paid in cash.

Pension

While employed by Huntsman prior to the separation, Mr. Turner participated in defined benefit pension arrangements through the tax-qualified Tioxide Pension Fund and, for service with Huntsman through 2010, the Huntsman Global Pension Scheme. The Tioxide Pension Fund was largely maintained to provide benefits for employees in Huntsman's Pigments and Additives segment. Sponsorship of the plan was transferred to Venator in connection with the Separation. At the beginning of 2018, Huntsman transferred sponsorship of the Huntsman Global Pension Scheme to Venator and Venator continues to maintain the plan for applicable participants. Normal retirement age under these pension schemes is age 60 for Mr. Turner and he is not entitled to additional benefits if he retires early.

The company did not make any contributions under either of these plans for Mr. Turner in 2022 and will not make further contributions in future years. In lieu of making contributions to these plans, the company makes monthly cash payments to Mr. Turner that are approximately equivalent to amounts that he would have been eligible to receive as an active plan participant, although the amounts are not directly calculated pursuant to the terms of the pension plan documents and equate to

approximately 15% of Mr. Turner's salary. As of December 31, 2022, Mr. Turner had approximately 33 years of service in the U.K. and is fully vested in benefits from these plans.

LTIP Awards

Details of the supplemental equity granted to Mr. Turner under the LTIP in 2022 are set forth below. Other than as indicated below, the awards are not subject to performance conditions.

Award	Fair value ¹ (\$'000)	Award date	No. of shares granted	Exercise price (\$)	Date of vesting/exercise	Expiry Date
Restricted stock units	1,750	February 16, 2022	702,811	—	The award vests in three equal annual installments beginning February 16, 2022	—
Stock options	875	February 16, 2022	583,333	2.49	The award vests in three equal annual installments beginning February 16, 2022	February 16, 2032
Performance Units ²	875	February 16, 2022	Target: 351,406 Max: 702,811	—	The award vests on December 31, 2024 subject to achievement of three-year relative total shareholder return "TSR" performance	—

- Based on the fair value of the awards at the date of grant. The fair value of the restricted stock units and the performance units on the date of grant is the same as the face value. The fair value of each stock option on the date of grant was \$1.50 using the Black Scholes valuation method. Please see Note 18 to the Consolidated Financial Statements ("*Share-Based Compensation Plans*") for additional information about the LTIP.
- Performance units are paid based on relative performance against a group of peers over three years as follows:

Percentile Rank Relative TSR ^a	Payout Percentage of Target Number of Shares ^b
90 th percentile or better	200%
75 th percentile or better	175%
50 th percentile or better	100%
25 th percentile or better	50%
Less than 25 th percentile	0%

a. The peer group comprises the following companies:

Albemarle Corporation	Chemours Company	Stepan Company
Ashland Global Holdings Inc.	Croda International Plc	Trinseo PLC
Axalta Coating Systems	Element Solutions Inc.	Tronox Limited
Cabot Corporation	Mineral Technologies Inc.	Wacker Chemie AG

b. Payout for performance between points determined using straight-line interpolation. The Committee may reduce the payout of performance units if absolute TSR is negative.

As of December 31, 2022, the CEO had outstanding the awards set forth below under the LTIP. Other than as indicated below, the awards are not subject to performance conditions.

Awards	Award date	No. of shares	Exercise price (\$)	Date of vesting/exercise	Expiry Date
Stock option	August 16, 2017	57,496	15.81	Fully vested February 1, 2021	February 1, 2027
Stock option	August 16, 2017	54,268	6.67	Fully vested February 1, 2021	February 1, 2027
Stock option	August 16, 2017	11,145	17.13	Fully vested February 1, 2021	February 1, 2027
Stock options	September 27, 2017	41,494	22.83	Fully vested September 27, 2021	September 27, 2027
Stock options	February 14, 2018	109,409	21.86	The award vests in three equal annual installments beginning February 14, 2019 ¹	February 14, 2028
Stock options	February 13, 2019	223,214	5.75	The award vests in three equal annual installments beginning February 13, 2020 ¹	February 13, 2029
Restricted stock units	February 11, 2020	147,849	—	The award vests in three equal annual installments beginning February 11, 2021 ²	—
Performance units	February 11, 2020	221,774	—	The award vests on December 31, 2022, subject to the achievement of relative TSR performance metrics during the performance period from January 1, 2020 to December 31, 2022	—
Stock options	February 11, 2020	455,298	3.10	The award vests in three equal annual installments beginning February 11, 2021 ¹	February 11, 2030
Restricted stock units	February 17, 2021	282,485	—	The award vests in three equal annual installments beginning February 17, 2022 ²	—
Performance units	February 17, 2021	211,864	—	The award vests on December 31, 2023, subject to the achievement of relative TSR performance metrics during the performance period from January 1, 2021 to December 31, 2023	—
Stock options	February 17, 2021	366,109	4.13	The award vests in three equal annual installments beginning February 17 2022 ¹	February 17, 2031
Restricted Stock Units	February 16, 2022	702,811	—	The award vests in three equal annual installments beginning February 16, 2023	—
Performance units	February 17, 2021	351,406	—	The award vests on December 31, 2023, subject to the achievement of relative TSR performance metrics during the performance period from January 1, 2021 to December 31, 2023	0
Stock options	February 16, 2022	583,333	2.49	The award vests in three equal annual installments beginning February 16, 2023	February 16, 2032
Total		3,819,555			

- Each option may not be exercised on or after the earliest of the following: (i) the date that is ten (10) years following the date of grant (which is tied to the original grant date of the parent award); (ii) the expiry of the period of six months following termination or certain changes of control; and (iii) the expiry of the period during which any person or groups of persons is bound or entitled under Sections 979 to 982 or Sections 983 to 985 of the Companies Act 2006 (or similar law of another jurisdiction) to acquire shares of the same class as the ordinary shares.
- Upon vesting of restricted stock units and performance units, ordinary shares are delivered to Mr. Turner net of shares forfeited for taxes.

Executive Severance Plan

We adopted the Executive Severance Plan in 2017 to provide severance and change of control benefits to certain of our executives, including Mr. Turner, in connection with a termination of the executive's employment by us without "Reasonable Cause," or by the executive for "Good Reason," (both terms of which are defined below). In November 2017, we amended and

restated the Executive Severance Plan to provide market severance benefits to our key executives and to be more inclusive for our participants outside of the U.S.

The Executive Severance Plan provides our participants with cash payments upon a qualifying termination event equal to two times the executive's base compensation plus an amount equal to the executive's "Pro Rata Bonus for Termination Year." The portion of the payment related to base compensation will be paid within 60 days of an executive's termination, and the portion of the payment related to the pro rata bonus will be paid in ordinary course under the applicable plan as payments are made to the remaining participating employee population, unless otherwise required by applicable law. In the event that a participant is eligible to receive severance benefits pursuant to a separate plan or arrangement, whether by contract with us or through a regulatory entitlement, the participant will not be eligible for severance benefits pursuant to the Executive Severance Plan unless the participant waives all rights to the benefits under that separate severance plan, arrangement or entitlement. Conversely, the participant can elect not to participate in the Executive Severance Plan and continue to be eligible for benefits under such a separate severance plan, arrangement or entitlement. In connection with the amendment and restatement of the plan, Mr. Turner waived his rights to a 12-month notice of termination benefit in favor of eligibility under the Executive Severance Plan.

Pursuant to the Executive Severance Plan:

- "Reasonable Cause" means: (1) the grossly negligent, fraudulent, dishonest or willful violation of any law, the material violation of any of our significant policies that materially and adversely affects us or other circumstances where we would be entitled, under the executive's contract, if any, to terminate the executive's employment, or (2) the failure of the participant to substantially perform his duties.
- "Good Reason" means a voluntary termination of employment by the executive as a result of us or one of our affiliates (1) making a materially detrimental reduction or change to the job responsibilities or in the base salary for a participant, or (2) within a period of 12 months following a Change in Control (as defined within clause (b) of the Change of Control definition for our Stock Incentive Plan), changing the participant's place of work by more than 50 miles, in either case which has not been remedied by us or our affiliate within 30 days of the receipt of notice of the event by the participant.
- "Pro Rata Bonus for Termination Year" means a pro rata portion (by calendar days) of the annualized bonus under the applicable bonus program in effect at the time of the executive's termination where the annualized bonus is calculated in accordance with our actual performance for the full calendar year during which the executive's termination occurs.

The Executive Severance Plan also provides for outplacement services for a period of 12 months following the executive's termination or until the executive obtains substantially comparable employment.

The Executive Severance Plan provides for the continuation of medical benefits for U.S. participants for up to two years following termination (which will be in the form of a lump sum cash payment equal to the Consolidated Omnibus Budget Reconciliation Act ("COBRA"), premium at the time of departure multiplied by the severance period multiplied by 150%).

Employment Agreement

In December 2018, we entered into an Employment Agreement with Mr. Turner providing that a breach of such Employment Agreement by our Company or our affiliates shall be deemed to be a sufficient cause for a "Termination for Good Reason" under the Executive Severance Plan. In addition, upon a "Termination for Good Reason" under the Executive Severance Plan following a Change of Control, any Replacement Awards granted to an executive will become fully vested in accordance with the LTIP.

Pursuant to the LTIP, an award will meet the conditions of a "Replacement Award" if: (1) it is of the same type as the replaced award (or a different type acceptable to the Compensation Committee); (2) it has an intrinsic value at least equal to the value of the replaced award; (3) it relates to publicly traded equity securities of our company or our successor in the Change of Control or another entity that is affiliated with our company or our successor following the Change of Control; (4) its terms and conditions comply with the terms of the Stock Incentive Plan; and (5) its other terms and conditions are not less favorable to the participant than the terms and conditions of the replaced award (including the provisions that would apply in the event of a subsequent Change of Control). The determination of whether the conditions of the Stock Incentive Plan are satisfied will be made by the Compensation Committee, as constituted immediately before the Change of Control, in its sole discretion.

C. Board Practices

Our Board consists of nine members. Our Board has determined that eight of our nine directors, Dr. Siadat, Messrs. Davenport, Ferrari, Huntsman, Lakshman, Selig and Donath, and Ms. van de Kerkhof, are independent as that term is defined under the rules of the NYSE. Each of our directors serves for a term of one year.

The Board has adopted Corporate Governance Guidelines, which address corporate governance matters applicable to the Board and supplement our articles of association. The Corporate Governance Guidelines are available on our website at www.venatorcorp.com.

Committees of our Board of Directors

Our Board has an audit committee, a compensation committee and a nominating and corporate governance committee. Each of these committees has a written charter, which are available on our website at www.venatorcorp.com.

Audit Committee

The audit committee, which consists of Messrs. Lakshman (Chair), Huntsman and Selig, assists the Board in overseeing our accounting and financial reporting processes and the audits of our financial statements. Mr. Lakshman serves as chair of the committee. The audit committee consists exclusively of members of our Board who are financially literate, and Mr. Lakshman is considered an "audit committee financial expert" as defined by applicable SEC rules. Our Board has determined that all of the members of the audit committee satisfy the independence requirements set forth in Rule 10A-3 under the Exchange Act. The audit committee is governed by a charter that complies with New York Stock Exchange rules. The audit committee's responsibilities include:

- sole responsibility for the appointment, retention and termination of our independent registered public accounting firm;
- responsible for the compensation and oversight of the work of our independent registered public accounting firm;
- monitors our independent registered public accounting firm's qualifications and independence;
- monitors the integrity of our financial statements;
- monitors the performance of our internal audit function and independent registered public accounting firm;
- monitors our compliance with legal and regulatory requirements applicable to financial and disclosure matters; and
- monitors financial and enterprise risk exposures.

Compensation Committee

The compensation committee, which consists of Messrs. Ferrari (Chair) and Donath and Ms. van de Kerkhof, assists the Board in determining the compensation of our executive officers. Mr. Ferrari serves as chair of the committee. Under SEC and NYSE rules, there are heightened independence standards for members of the compensation committee, including a prohibition against the receipt of any compensation from us other than standard board member fees. Although foreign private issuers are not required to meet this heightened standard with respect to all members, we have determined that all members meet this heightened standard. The compensation committee's responsibilities include:

- supports the Board in fulfilling its oversight responsibilities relating to senior management and director compensation;
- reviews, evaluates and approves our compensation programs, policies and plans, including STIP awards, equity based compensation and compensation agreements;
- reviews and approves compensation for our corporate and executive officers who are employees, and reviews and recommends compensation for our directors;
- carries out its responsibilities under applicable securities laws and regulations relating to our proxy statement for the annual general meeting of shareholders or other applicable report or filing;
- performs such other functions as the Board may assign from time to time; and
- monitors employment and compensation-related risk exposures to our company risk exposures.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee, which consists of Ms. van de Kerkhof (Chair) and Messrs. Donath and Ferrari, assists our Board in identifying individuals qualified to become members of our Board consistent with criteria established by our Board and in developing our corporate governance principles. Ms. van de Kerkhof serves as chair of the committee. The nominating and corporate governance committee's responsibilities include:

- ensures that our corporate governance system performs well;

- reviews and assesses the adequacy of our Corporate Governance Guidelines annually;
- monitors director independence;
- manages the Board's annual director evaluation process;
- assesses the appropriate balance of skills, characteristics and perspectives required for an effective board;
- identifies, screens and recommends qualified director candidates;
- periodically assesses the adequacy of the Board's size;
- monitors our compliance with legal and regulatory requirements;
- oversees succession planning for our CEO;
- oversees our corporate and EHS compliance programs; and
- monitors EHS and compliance risk exposures.

D. Employees

To remain a leading global manufacturer and marketer of chemical products, it is important that we continue to attract and retain exceptional talent. Our business results depend on our ability to successfully manage our employees, including attracting, identifying and retaining key talent. Factors that may affect our ability to attract and retain qualified employees include employee morale, our reputation, competition from other employers and availability of qualified individuals.

We believe that our values-based culture is a competitive advantage that is critical to our success and we implement policies that set forth these values including our Business Conduct Guidelines. We pride ourselves on maintaining high ethical standards and integrity, employee health and safety, teamwork, innovation and performance. We emphasize the importance of each of our employees supporting our core values, establishing standards for work ethic, collaboration, and a commitment to deliver results.

At each date shown, we had the following employees broken out by department and geography:

December 31, 2022	Total	Europe	APAC	North America
Direct production and distribution	2,830	2,244	402	184
Sales and administration	497	400	64	33
Research and development	86	86	—	—
Total	3,413	2,730	466	217
December 31, 2021				
Direct production and distribution	2,945	2,386	395	164
Sales and administration	484	389	63	32
Research and development	93	93	—	—
Total	3,522	2,868	458	196
December 31, 2020				
Direct production and distribution	3,100	2,550	390	160
Sales and administration	477	380	64	33
Research and development	108	108	—	—
Total	3,685	3,038	454	193

We consider our employee relations to be good. A significant number of our employees are employed in jurisdictions where they are represented by a local works council consisting of company and employee representatives. A number of our employees are members of unions and we have entered into collective bargaining agreements with these unions on terms that we believe are typical for the industry in which we operate. We have experienced work stoppages in the past, but do not consider any of these work stoppages to have been material to our operations. We also employed on average 318, 173 and 174 temporary contract and agency staff in 2022, 2021 and 2020, respectively. Our average total headcount, including employees, temporary contract and agency staff, was 3,731, 3,695 and 3,859 in 2022, 2021 and 2020, respectively.

E. Share Ownership

For information regarding the share ownership of our directors and executive officers, see “Item 6.B.—Compensation—Outstanding Equity Awards, Grants and Option Exercises” and “Item 7.A—Major Shareholders.”

F. Disclosure of a registrant’s action to recover erroneously awarded compensation.

Not Applicable.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

The following table sets forth the beneficial ownership of our shares as of February 10, 2023:

- each person who we know owns beneficially more than 5% of our ordinary shares;
- each of our directors and executive officers; and
- all of our directors and executive officers as a group.

We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In accordance with the regulations of the SEC, in computing the number of ordinary shares beneficially owned by a person and the percentage ownership of such person, we deemed to be outstanding all ordinary shares subject to options or other rights held by the person that are currently exercisable or exercisable within 60 days of February 10, 2023, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person. These shares are deemed to be outstanding and beneficially owned by the person holding those options for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

The information contained in the following table is not necessarily indicative of beneficial ownership for any other purpose, and the inclusion of any shares in the table does not constitute an admission of beneficial ownership of those shares. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them.

Name of Beneficial Owner	Ordinary shares Beneficially Owned ⁽¹⁾	
	Shares	Percent ⁽²⁾
5% OR MORE BENEFICIAL OWNERS:		
SK Praetorian Holdings, L.P. ⁽³⁾	42,429,807	39.3 %
J&T MS 1 SICAV a.s. ⁽⁴⁾	15,401,123	14.3 %
Huntsman Corporation ⁽⁵⁾	9,688,761	9.0%
DIRECTORS AND EXECUTIVE OFFICERS		
Stefan M. Selig	—	*
Aaron C. Davenport	—	*
Jame Donath	—	*
Daniele Ferrari ⁽⁶⁾	147,574	*
Peter R. Huntsman ⁽⁷⁾	151,456	*
Heike van de Kerkhof	51,374	*
Vir Lakshman	51,442	*
Dr. Barry B. Siadat ⁽³⁾	42,429,807	39.3 %
Simon Turner ⁽⁸⁾	1,390,664	*
Kurt Ogden ⁽⁹⁾	485,093	*
Russ Stolle ⁽¹⁰⁾	417,041	*
Mahomed Maiter ⁽¹¹⁾	379,782	*
Dr. Robert L. Portsmouth ⁽¹²⁾	164,569	*
Stefano Soccol	—	

Kevin Wilson ⁽¹³⁾	85,309	*
ALL DIRECTORS AND EXECUTIVE OFFICERS AS A GROUP (15 persons)⁽¹⁴⁾	45,794,652	42.4 %

* Less than 1%

- (1) Unless otherwise indicated, the address of each beneficial owner is c/o Venator Materials PLC, Titanium House, Hanzard Drive, Wynyard Park, Stockton-on-Tees, TS22 5FD, United Kingdom and such beneficial owner has sole voting and dispositive power over such shares.
- (2) Based upon an aggregate of 108,090,520 ordinary shares outstanding on February 10, 2023.
- (3) As reported in Schedule 13D filed with the SEC on December 23, 2020. Based on such 13D filing, each of SK Praetorian Holdings, L.P., SK Praetorian GP, LLC, SK Capital Investment V, L.P, SK Capital Investment V, Ltd., Jamshid Keynejad, serving as a director of SK Capital Investment V, Ltd., and Barry Siadat, serving as a director of SK Capital Investment V, Ltd., has sole voting power over 0 shares, shared voting power over 42,429,807 shares, sole dispositive power over 0 shares and shared dispositive power over 42,429,807 shares. The address of SK Praetorian Holdings, L.P. is 430 Park Avenue, 18th Floor, New York, New York 10022.
- (4) As reported in Schedule 13D/A filed with the SEC on January 10, 2023. Based on such 13G/A filing, J&T MS 1 SICAV a.s. and Sokolovská 700/113a, Prague 8 each has shared voting power over 15,401,123 shares, sole voting power over 0 shares, shared dispositive power over 15,401,123 shares and sole dispositive power over 0 shares. AMISTA is the sole director of J&T MS 1. J&T MS 1 SICAV. The address of J&T MS 1 SICAV a.s. is Sokolovská 700/113a, Prague 8, Czech Republic.
- (5) As reported in Schedule 13G/A filed with the SEC on February 1, 2021. Represents ordinary shares held of record by Huntsman (Holdings) Netherlands, B.V., which is a wholly-owned subsidiary of Huntsman Corporation. Based on such 13G filing, Huntsman Corporation has sole voting power over 9,688,761 shares, shared voting power over 0 shares, sole dispositive power over 9,688,761 shares and shared dispositive power over 0 shares. The address of Huntsman Corporation is 10003 Woodloch Forest Drive, The Woodlands, Texas, 77380.
- (6) Consists of 147,574 vested share units, the shares underlying which will be deliverable upon termination of service.
- (7) Includes 70,325 vested share units, the shares underlying which will be deliverable upon termination of service.
- (8) Includes options to purchase 922,596 ordinary shares that are exercisable within 60 days of February 10, 2023.
- (9) Includes options to purchase 322,435 ordinary shares that are exercisable within 60 days of February 10, 2023.
- (10) Includes options to purchase 298,606 ordinary shares that are exercisable within 60 days of February 10, 2023.
- (11) Includes options to purchase 268,660 ordinary shares stock that are exercisable within 60 days of February 10, 2023.
- (12) Includes options to purchase 117,099 ordinary shares that are exercisable within 60 days of February 10, 2023.
- (13) Includes options to purchase 69,027 ordinary shares that are exercisable within 60 days of February 10, 2023.
- (14) Includes options to purchase a total of 1,998,423 ordinary shares that are exercisable within 60 days of February 10, 2023, and a total of 258,440 vested share units, the shares underlying which will be delivered to the applicable holder upon termination of service.

Pursuant to a Share Purchase Agreement, dated as of August 28, 2020 (the "Share Purchase Agreement") by and among SK Praetorian Holdings and Huntsman International LLC (the "Seller"), SK Praetorian Holdings agreed to purchase depository receipts representing the lesser of (i) all of the 52,118,568 ordinary shares owned by Huntsman (Holdings) Netherlands B.V. ("HHN") and a wholly-owned subsidiary of the Seller, and (ii) such number of ordinary shares owned by HHN as of immediately prior to the closing date that represents 39.75% of the then-outstanding ordinary shares of the Company (such depository receipts, the "Purchased Shares"). On December 23, 2020, SK Praetorian Holdings purchased the Purchased Shares, representing 42,429,807 ordinary shares, or 39.75% of the then-outstanding ordinary shares of the Company.

To our knowledge, other than as provided in the table above, our other filings with the SEC and this Annual Report, there has been no significant change in the percentage ownership held by any major shareholder since January 1, 2020. The major shareholders listed above do not have voting rights with respect to their ordinary shares that are different from the voting rights of other holders of our ordinary shares.

We are not aware of any arrangement whereby we are directly or indirectly owned or controlled by another corporation, by any foreign government or by any other natural or legal person severally or jointly, nor are we aware of any arrangement that may, at a subsequent date, result in a change of control of our company.

Record Holders

We have three holders of record, including two record holders in the U.S. To our knowledge, as of January 31, 2023, approximately 82% of our total outstanding ordinary shares are held in the U.S by beneficial owners.

B. Related Party Transactions

Policies and Procedures

The Board has adopted a Related Party Transactions Policy, which includes the procedures for review, approval and monitoring of transactions involving our company and "related persons" (directors, executive officers, shareholders owning five percent or greater of our ordinary shares, or their respective immediate family members). The policy covers any transaction involving amounts exceeding \$120,000 in which a related person has a direct or indirect material interest.

The Compensation Committee reviews and approves any compensation paid to family members of directors and executive officers. All other related person transactions must be approved by the Audit Committee, which approves the transaction only if it determines that the transaction is in, or is not inconsistent with, our interests. In evaluating the transaction, the Audit Committee considers all relevant factors, including as applicable (1) the benefit to us in entering into the transaction; (2) the alternatives to entering into a related person transaction; and (3) whether the transaction is on terms comparable to those available to third parties. If a director is involved in the transaction, he or she is recused from all discussions and decisions about the transaction. The transaction must be approved in advance of its consummation. The Audit Committee periodically monitors the transaction to ensure that there are no changed circumstances that would render it advisable, or not inconsistent with such circumstances, to amend or terminate the transaction and reviews the transaction annually to determine whether it continues to be in our interests.

The Audit Committee approved all transactions described below, in accordance with the Related Party Transactions Policy, and continues to monitor arrangements described below consistent with the Related Party Transactions Policy.

Transactions

Our Relationship with Huntsman Corporation

Prior to the separation, all of our outstanding ordinary shares were indirectly owned by Huntsman Corporation. Currently, Huntsman Corporation, through a wholly owned subsidiary, owns approximately 9% of our outstanding ordinary shares.

This section provides a summary description of agreements entered into between Huntsman Corporation and us in connection with the Separation and our relationship with Huntsman Corporation in 2017. This description of the agreements between Huntsman and us is a summary and, with respect to each such agreement, is qualified by reference to the terms of the agreement, each of which has been filed with the SEC. We urge you to read the full text of these agreements. We entered into these agreements with Huntsman Corporation immediately prior to the completion of the separation; accordingly, we entered into these agreements with Huntsman Corporation in the context of our relationship as a wholly-owned subsidiary of Huntsman Corporation. Huntsman Corporation determined the terms of these agreements, which may be more or less favorable to us than if they had been negotiated with unaffiliated third parties.

Separation Agreement

The separation agreement between Huntsman Corporation and our company governs the treatment of all aspects relating to indemnification (other than for tax matters) and insurance, and generally provides for cross-indemnities principally designed to place financial responsibility for the obligations and liabilities of our business with us and financial responsibility for the obligations and liabilities of the remaining Huntsman businesses with Huntsman. The separation agreement also establishes procedures for handling claims subject to indemnification and related matters. We and Huntsman also generally released each other from all claims and liabilities between Huntsman and its subsidiaries on the one hand and us and our subsidiaries on the other hand arising prior to the separation including in connection with the activities to implement the separation other than claims arising under the transaction agreements, including the indemnification provisions described above or as expressly provided otherwise in the transaction agreements.

Tax Matters Agreement

The tax matters agreement governs the respective rights, responsibilities, and obligations of Huntsman and us with respect to tax liabilities and benefits, tax attributes, the preparation and filing of tax returns, the control of audits and other tax proceedings, and other matters regarding taxes.

In general, pursuant to the tax matters agreement:

- We are responsible for any taxes due with respect to tax returns that include only us and/or our subsidiaries. Huntsman is responsible for any taxes due with respect to tax returns that include only Huntsman and/or its subsidiaries (excluding us and our subsidiaries). We are responsible for, and indemnify Huntsman for, taxes attributable to the operations of our businesses prior to the internal reorganization and the separation reflected on a tax return filed by Huntsman.
- We and Huntsman agreed to cooperate in the preparation of tax returns, refund claims and conducting tax audits concerning matters covered by the agreement.
- We and Huntsman were assigned responsibilities for administrative matters, such as the filing of tax returns, payment of taxes due, retention of records and conduct of audits, examinations, and similar proceedings. Huntsman generally controls tax returns that include both its businesses and our businesses and any disputes relating to such tax returns.

- Huntsman is responsible for any sales, use, transfer, registration, documentary, stamp or similar taxes applicable to, or resulting from, the internal reorganization or the sale of our shares in connection with the Separation.

In addition, for U.S. federal income tax purposes Huntsman recognized a gain as a result of the internal restructuring and IPO to the extent the fair market value of the assets associated with our U.S. businesses exceeded the basis of such assets for U.S. federal income tax purposes at the time of the separation. As a result of such gain recognized, the basis of the assets associated with our U.S. businesses increased. Pursuant to the tax matters agreement, we are required to make a future payment to Huntsman for any actual U.S. federal income tax savings we recognize as a result of any such basis increase for tax years through December 31, 2028. As of each of December 31, 2022 and 2021, we expected future payments to be \$21 million.

Registration Rights Agreement

In connection with the separation, we entered into a Registration Rights Agreement with Huntsman. Pursuant to the Registration Rights Agreement, we agreed to register the sale of our ordinary shares owned by Huntsman under certain circumstances. The Registration Rights Agreement was partially assigned by Huntsman to SK Capital in December 2020 in connection with their acquisition of just under 40% of Venator's outstanding shares from Huntsman.

Demand Rights

Huntsman (or its permitted transferees) have the right to require us by written notice to prepare and file a registration statement registering the offer and sale of a certain number of the ordinary shares they own. Subject to certain exceptions, we are not obligated to effect a demand registration within 90 days after the closing of any underwritten offering of our ordinary shares. Further, we are not obligated to effect more than a total of eight demand registrations.

We are also not obligated to effect any demand registration in which the anticipated aggregate offering price for our ordinary shares included in such offering is less than \$25 million. To the extent we are eligible to effect a registration on Form F-3, any such demand registration may be for a shelf registration statement. We are required to use reasonable best efforts to maintain the effectiveness of any such registration statement until the earlier of (i) 180 days (or five years in the case of a shelf registration statement) after the effective date thereof or (ii) the date on which all ordinary shares covered by such registration statement have been sold (subject to certain extensions).

In addition, Huntsman (or its permitted transferees) has the right to require us, subject to certain limitations, to effect a distribution of any or all of the ordinary shares they own by means of an underwritten offering.

Piggyback Rights

Subject to certain exceptions, if at any time we propose to register an offering of ordinary shares or conduct an underwritten offering, whether or not for our own account, then we must notify Huntsman (or its permitted transferees) of such proposal to allow them to include a specified number of the ordinary shares they own in that registration statement or underwritten offering, as applicable.

Conditions and Limitations; Expenses

These registration rights are subject to certain conditions and limitations, including the right of the underwriters to limit the number of shares to be included in a registration and our right to delay or withdraw a registration statement under certain circumstances. We will generally pay all registration and offering expenses such registration, other than underwriting discounts and commissions, in connection with our obligations under the Registration Rights Agreement, regardless of whether a registration statement is filed or becomes effective.

Sales to SK Capital Partners Portfolio Companies

Two of our directors, Barry Siadat and Aaron Davenport, each have an interest in SK Capital Partners, LP, a registered investment adviser, as well as in investment funds advised by SK Capital Partners that invest in portfolio companies in the chemicals, pharmaceuticals and specialty materials space. In their roles as Managing Directors of SK Capital Partners, each sits on certain boards of such portfolio companies. From time to time, we may enter into commercial transactions with SK Capital portfolio companies. During 2022, we did not make purchases from any such portfolio companies and had sales to such portfolio companies of \$4 million in the aggregate, with no sales to any individual company in an amount greater than \$2 million. All such transactions were arms-length commercial transactions.

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

The financial statements required by this item are included at Part III. Item 18. Financial Statements.

Legal Proceedings

Information regarding legal and arbitration proceedings is included at Part III. Item 18. Financial Statements and Supplementary Data—Note 22. Commitments and Contingencies.

Dividend Policy

For the foreseeable future, we do not expect to pay dividends. However, we anticipate that our board of directors will consider the payment of dividends from time to time to return a portion of our profits to our shareholders when we experience adequate levels of profitability and associated reduced debt leverage. If our board of directors determines to pay any dividend in the future, there can be no assurance that we will continue to pay such dividends or the amount of such dividends.

B. Significant Changes

Except as set forth in this Annual Report, there have been no significant changes since December 31, 2022.

ITEM 9. THE OFFER AND LISTING

Not applicable.

A. Offer and Listing Details

Our ordinary shares, \$0.001 par value per share, are listed on the NYSE under the symbol "VNTR." As of February 17, 2023, there were three shareholders of record and the closing price of our ordinary shares on the New York Stock Exchange was \$0.67 per share.

B. Plan of Distribution

Not applicable.

C. Markets

The information required by this item is set forth in "A. Offer and Listing Details."

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

The information required by this section, including a summary of certain key provisions of our articles of association, is set forth in Exhibit 2.1 (Description of Share Capital) filed as an exhibit to this Annual Report on Form 20-F and is incorporated herein by reference.

C. Material Contracts

The following is a summary of each material contract, other than contracts entered into in the ordinary course of business, to which the Company is a party, for the two years immediately preceding the filing of this Annual Report on Form 20-F.

On October 15, 2021, we and certain of our wholly-owned subsidiaries entered into the Amendment and Restatement Agreement, which amended and restated our revolving credit agreement (as amended and restated, the "ABL Credit Agreement"). Among other things, the amendment provides for (i) an extension of the revolving loan commitments pursuant to the ABL Credit Agreement until October 15, 2026, or if earlier, 91 days prior to maturity date of any indebtedness in an amount in excess of \$75 million and (ii) a reduction in the revolving loan commitments to \$330 million.

On May 22, 2020, Venator Finance S.à r.l., and Venator Materials LLC (the "Issuers"), entered into an indenture, by and among the Issuers, the guarantors party thereto and Wilmington Trust, National Association, as trustee (the "Trustee"), in connection with the issuance of the Issuers' 9.5% Senior Secured Notes due 2025. On August 19, 2020, certain French, German and Spanish subsidiaries of the Company entered into supplemental indentures with the Trustee to guarantee the Notes (the "Supplemental Indentures"). The Notes are guaranteed on a senior secured basis by each of the Company's restricted subsidiaries (other than the Issuers and certain other excluded subsidiaries) that is a guarantor under the Company's Senior Credit Facilities. The Notes are secured on a first-priority basis by liens on all of the assets that secure the Company's Term Loan Facility and on a second-priority basis in all inventory, accounts receivable, deposit accounts, securities accounts, certain related assets and other current assets that secure the ABL Facility on a first-priority basis and the Term Loan Facility on a second-priority basis, in each case, other than certain excluded assets.

On May 8, 2020, the Issuers entered into a purchase agreement by and among the Issuers, the guarantors party thereto and J.P. Morgan Securities LLC, as representative of the initial purchasers, pursuant to which the Issuers agreed to issue and sell to the initial purchasers \$225 million in aggregate principal amount of the Issuers' 9.5% Senior Secured Notes due 2025. The notes are senior secured obligations of the Issuers, and interest is payable semi-annually in arrears. The notes are guaranteed on a senior secured basis by the Company and each of the Company's restricted subsidiaries (other than the Issuers and certain other excluded subsidiaries) that is a guarantor under the Company's Senior Credit Facilities. The notes are secured on a first-priority basis by liens on all of the assets that secure the Term Loan Facility on a first-priority basis and are secured on a second-priority basis in all inventory, accounts receivable, deposit accounts, securities accounts, certain related assets and other current assets that secure the ABL Facility on a first-priority basis and the Term Loan Facility on a second-priority basis, in each case other than certain excluded assets.

On November 14, 2022, we entered into a definitive agreement with Cathay Industries to divest the iron oxide business from within the Color Pigments business (the "disposal group") for an approximate enterprise value of \$140 million. Based on the carve out financial statements dated December 31, 2022, we estimate cash proceeds related to this sale will be approximately \$135 million, as a result of purchase price adjustments for closing indebtedness of \$20 million and closing fees, partially offset by an adjustment for primary working capital, all of which we expect to realize on March 31, 2023, which is the anticipated closing date, as well as a tax benefit which we expect will be realized in 2024.

For additional information on our material contracts, please see Item 4, "Information on the Company" and "Item 7.B. Related Party Transactions" of this Annual Report on 20-F.

D. Exchange Controls

There are no governmental laws, decrees, regulations or other legislation in the U.K. that may affect the import or export of capital, including the availability of cash and cash equivalents for use by us, or that may affect the remittance of dividends, interest, or other payments by us to non-resident holders of our ordinary shares, other than withholding tax requirements. There is no limitation imposed by English law or our articles of association on the right of non-residents to hold or vote shares.

E. Taxation

Material U.S. Federal Income Tax Considerations for U.S. Holders

The following is a summary of certain material U.S. federal income tax considerations relating to the acquisition, ownership and disposition of our ordinary shares by a U.S. holder (as defined below). This summary addresses only the U.S. federal income tax considerations for U.S. holders who hold our ordinary shares as capital assets within the meaning of Section 1221 of the Code (generally property held for investment). This summary does not address all U.S. federal income tax matters that may be relevant to a particular U.S. holder. This summary does not address tax considerations applicable to investors that own (directly or by attribution) 10 percent or more of the Company's equity interests (by voting power or value), nor does this summary discuss all of the tax considerations that may be relevant to certain types of investors subject to special tax rules including, without limitation, the following:

- banks, financial institutions or insurance companies;
- brokers, dealers or traders in securities, currencies, commodities, or notional principal contracts;
- securities traders that elect mark-to-market tax accounting;
- tax-exempt organizations, retirement plans, individual retirement accounts and other tax-deferred accounts;
- real estate investment trusts, regulated investment companies or grantor trusts;
- persons that hold our ordinary shares as part of a hedge, straddle, conversion, constructive sale or other "synthetic security" or integrated transaction;
- entities or arrangements classified as partnerships for U.S. federal income tax purposes or other pass-through entities, or persons that will hold our ordinary shares through such an entity;
- investors that will hold ordinary shares in connection with a permanent establishment or fixed base outside the United States;
- certain former citizens or former long term residents of the United States; and
- holders that have a "functional currency" for U.S. federal income tax purposes other than the U.S. dollar.

Further, this summary does not address the U.S. federal estate, gift, Medicare tax on net investment income or alternative minimum tax considerations, or any U.S. state, local, or non-U.S. tax considerations of the acquisition, ownership and disposition of our ordinary shares.

This following summary is based on the Code, existing, proposed and temporary U.S. Treasury regulations promulgated thereunder, published rulings of the IRS and administrative and judicial interpretations thereof, in each case as in effect on the date of this filing. All the foregoing is subject to change, which change could apply retroactively, and subject to differing interpretations, all of which could affect the tax considerations described below. We cannot assure you that a change in law will not significantly alter the tax considerations that we describe in this summary. No ruling will be sought from the IRS with respect to any statement or conclusion in this discussion, and there can be no assurances that the IRS will not take a contrary or different position concerning the tax consequences of the acquisition, ownership and disposition of our ordinary shares or that such a position would not be sustained by a court. Holders should consult their own tax advisors concerning the U.S. federal, state, local and non-U.S. tax consequences of acquiring, owning, and disposing of our ordinary shares in their particular circumstances.

As used herein, a "U.S. holder" is a beneficial owner of our ordinary shares that is, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the U.S.;
- a corporation, or other entity that is treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the U.S., any state thereof, or the District of Columbia;

- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- any trust if (1) a U.S. court is able to exercise primary supervision over the administration of such trust and one or more "United States persons" persons (as defined in the Code Section 7701(a)(30)) have the authority to control all substantial decisions of the trust, or (2) it has a valid election in place under applicable U.S. Treasury regulations to be treated as a United States person.

If a partnership, including an entity or arrangement treated as a partnership for U.S. federal income tax purposes, holds our ordinary shares, the tax treatment of a partner in the partnership generally will depend upon the status of the partner, upon the activities of the partnership and upon certain determinations made at the partner level. Accordingly, we urge partnerships, including entities or arrangements treated as partnerships for U.S. federal income tax purposes, and partners in such entity or arrangement considering the purchase of our ordinary shares to consult their tax advisors regarding the U.S. federal income tax considerations of the acquisition, ownership and disposition of our ordinary shares.

As indicated below, this discussion is subject to U.S. federal income tax rules applicable to a PFIC.

PERSONS CONSIDERING AN INVESTMENT IN OUR ORDINARY SHARES SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE PARTICULAR TAX CONSEQUENCES APPLICABLE TO THEM RELATING TO THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR ORDINARY SHARES, INCLUDING THE APPLICABILITY OF U.S. FEDERAL INCOME TAX LAWS AND THE APPLICABILITY AND EFFECT OF U.S. FEDERAL, STATE, LOCAL, AND NON-U.S. TAX LAWS.

Tax Residence of the Company for U.S. Federal Income Tax Purposes

While, for U.S. federal tax purposes, a corporation is generally considered to be a tax resident of the jurisdiction of its organization or incorporation, Section 7874 of the Code provides an exception to this general rule under which a non-U.S. incorporated entity may, in certain circumstances, be classified as a U.S. corporation for U.S. federal tax purposes. The law and Treasury regulations promulgated under Section 7874 of the Code are complex and somewhat unclear, and may depend upon the subjective valuation of certain assets. Even though, as part of our internal reorganization, we acquired from affiliates of Huntsman certain assets, including stock of U.S. subsidiaries and assets previously held by U.S. corporations, we have historically taken, and intend to continue to take, the position that the Company will not be treated as a U.S. corporation for U.S. federal income tax purposes under Section 7874 of the Code. The remainder of this discussion assumes such position will be respected.

Distributions

Although we do not currently plan to make distributions, and subject to the discussion in "—Passive Foreign Investment Company Considerations" below, the amount (before reduction for any amounts withheld in respect of non-U.S. withholding tax, if any) of distributions received by a U.S. holder with respect to our ordinary shares will be taxable as dividends in the year received (or deemed received) to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Such dividends generally will be includible in a U.S. holder's gross income in accordance with the U.S. holder's method of accounting for U.S. federal income tax purposes. Distributions in excess of both current and accumulated earnings and profits will then be treated as a non-taxable return of capital to the U.S. holder to the extent of, and will be applied against and correspondingly reduce, the U.S. holder's adjusted tax basis in the ordinary shares, and thereafter will be treated as capital gains from the sale or exchange of such ordinary shares. Such gains will be taxable as long-term capital gain if the U.S. holder has held the ordinary shares for more than one year as of the time such distribution is received. However, since we do not calculate (and do not intend to calculate) our earnings and profits under U.S. federal income tax principles, it is expected that any distribution will be reported as a dividend, even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain under the rules described above. Dividends on the ordinary shares received by non-corporate U.S. holders generally will not be eligible for the dividends received deduction allowed to U.S. corporations for dividends received from certain other corporations.

Certain non-corporate U.S. holders may qualify for the preferential rates of taxation with respect to dividends on ordinary shares applicable to long-term capital gains applicable to qualified dividend income (as discussed below) if we are a "qualified foreign corporation" and certain other requirements (discussed below) are met. A non-U.S. corporation (other than a corporation that is classified as a PFIC for the taxable year in which the dividend is paid or the preceding taxable year) generally will be considered to be a qualified foreign corporation (a) if it is eligible for the benefits of a comprehensive tax treaty with the United States which the Secretary of Treasury of the United States determines is satisfactory for purposes of this provision and which includes an exchange of information provision, or (b) if its ordinary shares are readily tradable on an established securities market in the United States. Our ordinary shares are currently listed on the NYSE, which is an established

securities market in the U.S. and accordingly any such dividends will generally be "qualified dividend income" in the hands of individual U.S. holders, provided that they satisfy certain holding period and other requirements. In the event that our ordinary shares are delisted from the NYSE, whether any dividends are "qualified dividend income" will depend on our ability to qualify for the benefits of a tax treaty with the United States. While we currently believe that we qualify for such tax treaty benefits, we cannot provide any assurances that we currently (or will) qualify for any such tax treaty benefits in the event that our ordinary shares are delisted from the NYSE.

Dividends on ordinary shares generally will constitute foreign source income for foreign tax credit limitation purposes. Subject to certain limitations, a U.S. holder generally may claim the amount of any U.K. withholding tax as either a deduction from gross income or a credit against U.S. federal income tax liability. The U.K. currently does not have a dividend withholding tax but there is no assurance that a dividend withholding tax will not be enacted in the future. However, the foreign tax credit is subject to numerous complex limitations that must be determined and applied on an individual basis. Generally, the credit cannot exceed the proportionate share of a U.S. holder's U.S. federal income tax liability that such U.S. holder's foreign source taxable income bears to such U.S. holder's worldwide taxable income. In applying this limitation, a U.S. holder's various items of income and deduction must be classified, under complex rules, as either "foreign source" or "U.S. source." In addition, this limitation is calculated separately with respect to specific categories of income. However, if the Company is a "United States-owned foreign corporation," solely for foreign tax credit purposes, a portion of the dividends allocable to the Company's U.S.-source earnings and profits may be re-characterized as U.S.-source. A "United States-owned foreign corporation" is any foreign corporation in which United States persons own, directly or indirectly, 50% or more (by vote or by value) of the stock. Under an exception, dividends will not be allocated to U.S.-source income if less than 10% of the earnings and profits of the United States-owned foreign corporations are attributable to sources within the United States. We cannot provide any assurances that we are not or will not be characterized as a "United States-owned foreign corporation." If we are a United States-owned foreign corporation, if 10% or more of our earnings and profits are attributable to sources within the United States, the portion of the dividends paid on the ordinary shares allocable to our U.S.-source earnings and profits would be treated as U.S.-source, and a U.S. Holder would not be permitted to offset any foreign tax withheld as a credit against U.S. federal income tax imposed on that portion of the dividends. Each U.S. holder should consult its own tax advisors regarding the foreign tax credit rules.

In general, the amount of a distribution paid to a U.S. holder in a foreign currency will be the dollar value of the foreign currency calculated by reference to the spot rate of exchange in effect on the date the distribution is includible in the U.S. holder's income, regardless of whether the payment is in fact converted into U.S. dollars at that time. Generally, a U.S. holder should not recognize any foreign currency gain or loss if the foreign currency is converted into dollars on the date the payment is received. However, any gain or loss resulting from currency exchange fluctuations during the period from the date the U.S. holder includes the dividend payment in income to the date such U.S. holder actually converts the payment into dollars will be treated as ordinary income or loss. Such currency exchange income or loss (if any) generally will be U.S.-source ordinary income or loss for foreign tax credit limitation purposes.

Sale, Exchange or Other Taxable Disposition of Ordinary Shares

A U.S. holder will generally recognize gain or loss for U.S. federal income tax purposes upon the sale, exchange or other taxable disposition of our ordinary shares in an amount equal to the difference between the U.S. dollar value of the amount realized from such sale, exchange or disposition and the U.S. holder's adjusted tax basis for those ordinary shares. Subject to the discussion in "—Passive Foreign Investment Company Considerations" below, this gain or loss will generally be a capital gain or loss. The adjusted tax basis in the ordinary shares generally will be equal to the cost of such ordinary shares paid by the U.S. holder. Capital gain from the sale, exchange or other taxable disposition of the ordinary shares of a non-corporate U.S. holder is generally eligible for a preferential rate of taxation applicable to capital gains, if the non-corporate U.S. holder's holding period determined at the time of such sale, exchange or other taxable disposition for such ordinary shares exceeds one year (i.e., such gain is long-term capital gain). The deductibility of capital losses for U.S. federal income tax purposes is subject to limitations under the Code. Any such gain or loss that a U.S. holder recognizes generally will be treated as U.S.-source income or loss for foreign tax credit limitation purposes.

For a cash basis taxpayer, units of foreign currency paid or received are translated into U.S. dollars at the spot rate on the settlement date of the sale, exchange or other taxable disposition. In that case, no foreign currency exchange gain or loss will result from currency fluctuations between the trade date and the settlement date of such sale. An accrual basis taxpayer, however, may elect the same treatment required of cash basis taxpayers with respect to sales, exchanges, and other taxable dispositions of the ordinary shares that are treated as traded on an established securities market, provided the election is applied consistently from year to year. Such election may not be changed without the consent of the IRS. For an accrual basis taxpayer who does not make such election, units of foreign currency paid or received are translated into U.S. dollars at the spot rate on the trade date of the sale, exchange or other taxable disposition. Such an accrual basis taxpayer may recognize exchange gain or

loss based on currency fluctuations between the trade date and the settlement date. Any foreign currency gain or loss a U.S. holder recognizes will be U.S.-source ordinary income or loss.

Passive Foreign Investment Company Considerations

If we are classified as a PFIC in any taxable year, a U.S. holder would be subject to special rules generally intended to reduce or eliminate any benefits from the deferral of U.S. federal income tax that a U.S. holder could derive from investing in a non-U.S. company that does not distribute all of its earnings on a current basis.

A corporation organized or incorporated outside the U.S. generally will be classified as a PFIC for U.S. federal income tax purposes in any taxable year in which, after applying certain look-through rules with respect to the income and assets of certain subsidiaries, either: (i) at least 75% of its gross income is classified as "passive income" (as defined in the Code) or (ii) at least 50% of the average quarterly value of its total assets (which, assuming our stock is publicly-traded for the year being tested, would be measured by the fair market value of our assets) is attributable to assets that produce "passive income" or are held for the production of "passive income."

Based on our market capitalization, the composition of our assets, income and operations, and our ordinary shares being publicly traded for U.S. federal income tax purposes, we do not believe that we currently are a PFIC, and we do not expect to become a PFIC in future taxable years. Because this is a factual determination made annually after the end of each taxable year, there can be no assurance that we will not be considered a PFIC for the current taxable year or any future taxable years. Our status in any taxable year will depend on our assets, income and activities in each year (which could change significantly during the course of a taxable year), including the market value of our assets for such taxable year, which generally will be, in part, based on the market price of our ordinary shares (which may be volatile), and whether our stock is publicly traded for U.S. federal income tax purposes.. In addition, it is possible that the IRS may take a contrary position with respect to our determination in any particular year, and therefore, there can be no assurance that we will not be classified as a PFIC for the current taxable year or in the future.

If we were a PFIC for any taxable year while a U.S. holder held our ordinary shares, unless the U.S. holder makes certain elections (discussed below), such U.S. holder would generally be taxed at the highest ordinary income rates in effect for individuals or corporations, as appropriate, for that taxable year on any gain recognized from the sale, exchange or other taxable disposition of our ordinary shares, and interest charges generally applicable to underpayments of tax would apply to any taxes payable. Further, to the extent that any distribution received by a U.S. holder on ordinary shares exceeds 125% of the average of the annual distributions on our ordinary shares received during the preceding three years or the U.S. holder's holding period, whichever is shorter, that distribution would be subject to taxation in the same manner as gain on the sale, exchange or other taxable disposition of ordinary shares if we were a PFIC, described above.

If we are determined to be a PFIC, U.S. holders may be able to make certain elections that could alleviate some of the adverse consequences of PFIC status and would result in an alternative treatment of the ordinary shares. Such elections include a "mark to market" election, a "deemed sale" election, and a "qualified electing fund" election. We currently do not provide the information required to make any such elections, and U.S. holders should therefore not assume that any particular election will be available to them.

If we are determined to be a PFIC with respect to a U.S. holder for any taxable year, the U.S. holder will be deemed to own equity in any of the entities in which we hold equity that also are PFICs and therefore the general tax treatment for U.S. holders described in this section would apply to indirect distributions and gains deemed to be realized by U.S. holders in respect of any such subsidiaries.

Under the PFIC rules, if we were considered a PFIC at any time that a U.S. holder holds an ordinary share, we would continue to be treated as a PFIC with respect to such holder's investment unless (i) we cease to be a PFIC, and (ii) the U.S. holder has made a "deemed sale" election under the PFIC rules. If a U.S. holder owns ordinary shares during any taxable year in which we are a PFIC, the U.S. holder generally will be required to file an IRS Form 8621 (Information Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund) with respect to the Company, generally with the U.S. holder's federal income tax return for that taxable year. If we were a PFIC for a given taxable year, then you should consult your tax advisor concerning your annual filing requirements.

The U.S. federal income tax rules relating to PFICs are complex. Prospective U.S. investors are urged to consult their own tax advisors with respect to the acquisition, ownership and disposition of our ordinary shares, the consequences to them of an investment in a PFIC, any elections available with respect to the ordinary shares and the IRS information reporting obligations with respect to the acquisition, ownership and disposition of the ordinary shares.

Backup Withholding and Information Reporting

U.S. holders generally will be subject to information reporting requirements with respect to dividends on our ordinary shares and on the proceeds from the sale, exchange or other taxable disposition of our ordinary shares that are made into the U.S. or through certain U.S.-related financial intermediaries, unless the U.S. holder is an "exempt recipient." If a U.S. holder does not establish that it is exempt from these rules, it may be subject to backup withholding on such amounts received, unless the U.S. holder provides a taxpayer identification number and a duly executed IRS Form W-9 (or other successor form) or otherwise complies with the requirements of the backup withholding rules. Backup withholding is not an additional tax, and the amount of any backup withholding will be allowed as a credit against a U.S. holder's U.S. federal income tax liability and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

Foreign Asset Reporting

Certain U.S. holders who are individuals (and, to the extent specified in applicable U.S. Treasury regulations, certain U.S. holders that are entities and certain non-U.S. holders) that hold an interest in "specified foreign financial assets" (which may include our ordinary shares) are required to report information relating to an interest in our ordinary shares, subject to certain exceptions (including an exception for shares held in accounts maintained by certain U.S. financial institutions) by filing IRS Form 8938 (Statement of Specified Foreign Financial Assets) with their federal income tax return. Substantial penalties apply to any failure to file IRS Form 8938, unless the failure is shown to be due to reasonable cause and not due to willful neglect. Also, in the event a U.S. holder does not file IRS Form 8938 or fails to report a specified foreign financial asset that is required to be reported, the statute of limitations on the assessment and collection of U.S. federal income taxes of such U.S. holder for the related tax year may not close before the date which is three years after the date on which the required information is filed. U.S. holders are urged to consult their tax advisors regarding their information reporting obligations, if any, with respect to their ownership and disposition of our ordinary shares.

THE DISCUSSION ABOVE IS A GENERAL SUMMARY. IT DOES NOT COVER ALL TAX MATTERS THAT MAY BE OF IMPORTANCE TO A PROSPECTIVE INVESTOR. EACH PROSPECTIVE INVESTOR IS URGED TO CONSULT ITS OWN TAX ADVISOR ABOUT THE TAX CONSEQUENCES TO IT OF AN INVESTMENT IN OUR ORDINARY SHARES IN LIGHT OF THE INVESTOR'S OWN CIRCUMSTANCES.

Material U.K. Tax Considerations

The following paragraphs relate only to persons who are resident for tax purposes in (and only in) the U.K. (except to the extent that the position of non-U.K. resident persons is expressly referred to herein). They describe certain U.K. tax consequences relating to the holding of our ordinary shares and are based on current U.K. tax law and HMRC published practice (both of which are subject to change at any time, possibly with retrospective effect). They do not constitute legal or tax advice and do not purport to be a complete analysis of all U.K. tax considerations relating to the holding of our ordinary shares. They relate only to persons who are absolute beneficial owners of our ordinary shares.

These paragraphs may not relate to certain classes of holders of our ordinary shares, such as (but not limited to):

- persons who are connected with the Company;
- insurance companies;
- charities;
- collective investment schemes;
- pension schemes;
- brokers or dealers in securities or persons who hold ordinary shares otherwise than as an investment;
- persons who have (or are deemed to have) acquired their ordinary shares by virtue of an office or employment or who are or have been officers or employees of the Company or any of its affiliates; and
- individuals who are subject to U.K. taxation on a remittance basis.

These paragraphs do not describe all of the circumstances in which holders of our ordinary shares may benefit from an exemption or relief from U.K. taxation. It is recommended that all holders of our ordinary shares obtain their own tax advice. In particular, non-U.K. resident or domiciled persons are advised to consider the potential impact of any relevant double tax agreements.

Taxation of Dividends

Withholding Tax

Dividends paid by the Company will not be subject to any withholding or deduction for or on account of U.K. tax, irrespective of the residence or particular circumstances of the recipient shareholders.

Income Tax

An individual holder of our ordinary shares who is resident for tax purposes in the U.K. may, depending on his or her particular circumstances, be subject to U.K. tax on dividends received from the Company. An individual holder of our ordinary shares who is not resident for tax purposes in the U.K. should not be chargeable to U.K. income tax on dividends received from the Company unless he or she carries on (whether solely or in partnership) any trade, profession or vocation in the U.K. through a branch or agency to which the ordinary shares are attributable. There are certain exceptions for trading in the U.K. through independent agents, such as some brokers and investment managers.

An individual holder who is resident for tax purposes in the U.K. and who receives a dividend in the tax year 2021/2022 will be entitled to a tax-free annual allowance of £2,000. Any dividend income received by such individual U.K. holder in excess of this tax-free allowance will be taxed at rates of 7.5%, 32.5%, and 38.1% for basic rate, higher rate, and additional rate taxpayers respectively. From 6 April 2022, these rates are expected to increase to 8.75%, 33.75% and 39.35% respectively. Dividend income that is within the allowance will count towards an individual's basic or higher rate limits. Dividend income will be treated as the top slice of an individual's income.

Corporation Tax

Corporate holders of our ordinary shares that are resident for tax purposes in the U.K. or which carry on a trade in the U.K. through a permanent establishment to which the ordinary shares are attributable should not be subject to U.K. corporation tax on any dividend received from the Company so long as the dividends fall within an exempt class, which should be the case, although certain conditions must be met (including anti-avoidance conditions).

Taxation of Disposals

A disposal of our ordinary shares by a shareholder resident for tax purposes in the U.K. may, depending on the shareholder's circumstances and subject to any available exemptions or reliefs, give rise to a chargeable gain or an allowable loss for the purposes of U.K. capital gains tax or U.K. corporation tax on chargeable gains (collectively, "CGT").

If an individual holder of our ordinary shares, who is subject to U.K. income tax at either the higher or the additional rate becomes liable to U.K. capital gains tax on the disposal of ordinary shares, the applicable rate will be 20% (2021/22). For an individual holder of our ordinary shares who is subject to U.K. income tax at the basic rate and liable to U.K. capital gains tax on such disposal, the applicable rate would be 10% (2021/22), save to the extent that any capital gains exceed the unused basic rate tax band. In that case, the rate applicable to the excess would be 20% (2021/22).

If a corporate holder of our ordinary shares, including a corporate holder which carries on a trade in the U.K. through a permanent establishment to which the ordinary shares are attributable, becomes liable to U.K. corporation tax on the disposal of the ordinary shares, the main rate of U.K. corporation tax (currently 19%) would apply. A holder of our ordinary shares that is not resident for tax purposes in the U.K. should not normally be liable to CGT on a disposal of ordinary shares. However, an individual holder of our ordinary shares who has ceased to be resident for tax purposes in the U.K. for a period of five years or less and who disposes of ordinary shares during that period may be liable on his or her return to the U.K. to U.K. tax on any capital gain realized (subject to any available exemption or relief).

Stamp Duty and SDRT

The discussion below relates to holders of our ordinary shares wherever resident.

Transfers of our ordinary shares within a clearance service or depositary receipt system should not give rise to a liability to U.K. stamp duty or SDRT, provided that no instrument of transfer is entered into and that no election that applies to the ordinary shares is, or has been, made by the clearance service under Section 97A of the U.K. Finance Act 1986. It is understood that HMRC regards the facilities of DTC as a clearance service for these purposes and we are not aware of any relevant election under Section 97A of the U.K. Finance Act 1986 being made.

Transfers of our ordinary shares within a clearance service where an election has been made by the clearance service under Section 97A of the U.K. Finance Act 1986 will generally be subject to SDRT (rather than U.K. stamp duty) at the rate of 0.5% of the amount or value of the consideration.

Transfers of our ordinary shares that are held in certificated form will generally be subject to U.K. stamp duty at the rate of 0.5% of the consideration given (rounded up to the nearest £5). An exemption from U.K. stamp duty is available for a written instrument transferring an interest in shares where the amount or value of the consideration is £1,000 or less, and it is certified on the instrument that the transaction effected by the instrument does not form part of a larger transaction or series of transactions for which the aggregate consideration exceeds £1,000. SDRT may be payable on an agreement to transfer such shares, generally at the rate of 0.5% of the consideration given in money or money's worth under the agreement to transfer the shares. This charge to SDRT would be discharged if an instrument of transfer is executed pursuant to the agreement which gave rise to SDRT and U.K. stamp duty is duly paid on the instrument transferring the shares within six years of the date on which the agreement was made or, if the agreement was conditional, the date on which the agreement became unconditional.

If our ordinary shares (or interests therein) are transferred (in the case of U.K. stamp duty) or issued or transferred (in the case of U.K. SDRT) to, or to a nominee or agent for, a person whose business is or includes the provision of clearance services or issuing depositary receipts, U.K. stamp duty or SDRT is provided for under U.K. legislation at the rate of 1.5% of the amount or value of the consideration given or, in certain circumstances, the value of the shares (save to the extent that an election has been made under Section 97A of the U.K. Finance Act 1986). However, following litigation, HMRC have confirmed that they will no longer seek to apply the 1.5% SDRT charge on such an issue of shares or securities on the basis that the charge is not compatible with EU law. HMRC guidance has confirmed that the 1.5% charge on issues or transfers integral to the raising of capital will remain disappplied under the terms of the European Union (Withdrawal) Act 2018 (as amended) following the UK's departure from the European Union. HMRC's view is that the 1.5% SDRT or stamp duty charge will continue to apply to such a transfer of shares or securities to a clearance service or depositary receipt system where the transfer is not an integral part of an issue of share capital. This liability for U.K. stamp duty or SDRT will strictly be accountable by the clearance service or depositary receipt system, as the case may be, but will, in practice, generally be reimbursed by participants in the clearance service or depositary receipt system.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We are required to make certain filings with the SEC. The SEC maintains an internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that site is www.sec.gov.

We also make available on our website, free of charge, our annual reports on Form 20-F and the text of our reports on Form 6-K, including any amendments to these reports, as well as certain other SEC filings, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. Our website address is www.venatorcorp.com. The information contained on our website is not incorporated by reference in this document.

I. Subsidiary Information

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks, such as changes in interest rates, foreign exchange rates, and commodity prices. We manage these risks through normal operating and financing activities and, when appropriate, through the use of derivative instruments. We do not invest in derivative instruments for speculative purposes.

Interest Rate Risk

We are exposed to interest rate risk through the structure of our debt portfolio which includes a mix of fixed and floating rates. Actions taken to reduce interest rate risk include managing the mix and rate characteristics of various interest-bearing liabilities.

The carrying value of our floating rate debt is \$433 million at December 31, 2022. A hypothetical 1% increase in interest rates on our floating rate debt as of December 31, 2022 would increase our interest expense by approximately \$4 million on an annualized basis.

Foreign Exchange Rate Risk

We are exposed to market risks associated with foreign exchange. Our cash flows and earnings are subject to fluctuations due to exchange rate variation. Our revenues and expenses are denominated in various foreign currencies. We enter into foreign currency derivative instruments to minimize the short-term impact of movements in foreign currency rates. Where practicable, we generally net multicurrency cash balances among our subsidiaries to help reduce exposure to foreign currency exchange rates. Certain other exposures may be managed from time to time through financial market transactions, principally through the purchase of spot or forward foreign exchange contracts (generally with maturities of three months or less). We do not hedge our foreign currency exposures in a manner that would eliminate the effect of changes in exchange rates on our cash flows and earnings. At December 31, 2022 and 2021 we had \$71 million and \$68 million notional amount (in U.S. dollar equivalents) outstanding in foreign currency contracts with a term of approximately one month.

In August 2019 we entered into three fixed to fixed cross-currency swaps which notionally exchanged \$200 million at a fixed rate of 5.75% for €181 million on which a weighted average rate of 3.73% was payable. The cross-currency swaps were designated as cash flow hedges of a fixed rate U.S. Dollar intercompany loan and the economic effect is to eliminate uncertainty on the U.S. Dollar cash flows.

During 2022, we entered into five transactions whereby, in each transaction, we terminated three existing cross-currency swaps and concurrently entered into three new cross-currency interest rate swaps resulting in total cash proceeds of \$24 million across all five transactions. As of December 31, 2022, we have three cross-currency interest rate swaps which notionally exchanged \$200 million at a fixed rate of 5.75% for €207 million on which a weighted average rate of 4.30% is payable. The cross-currency swaps have been designated as fair value hedges of a fixed rate U.S. Dollar intercompany loan. The cross-currency swaps are set to mature in July 2025, which is the best estimate of the repayment date on the intercompany loan.

Commodity Price Risk

A portion of our products and raw materials are commodities whose prices fluctuate as market supply and demand fundamentals change. Accordingly, product margins and the level of our profitability tend to fluctuate with the changes in the business cycle. We try to protect against such instability through various business strategies. These include provisions in sales contracts allowing us to pass on higher raw material costs through timely price increases and formula price contracts to transfer or share commodity price risk. We also manage our raw material and energy costs with a mix of fixed and variable price supply arrangements, some of which require the purchase of minimum quantities. We did not have any commodity derivative instruments that were required to be marked-to-market as of December 31, 2022 and 2021.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

Not applicable

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

Not applicable

ITEM 15. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As required by rule 13-a 15(b) under the Exchange Act, we have evaluated, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this annual report. Based on this evaluation, our principal executive officer and principal financial officer have concluded that, as of December 31, 2022, our disclosure controls and procedures were effective, in that they ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (2) accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes to our internal control over financial reporting during the twelve months ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control framework and processes are designed to provide reasonable assurance to management and our Board of Directors regarding the reliability of financial reporting and the preparation of our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America.

Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of our Company;
- provide reasonable assurance that transactions are recorded properly to allow for the preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of our Company are being made only in accordance with authorizations of management and our Board of Directors;
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our consolidated financial statements; and
- provide reasonable assurance as to the detection of fraud.

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changing conditions, effectiveness of internal control over financial reporting may vary over time.

Our management assessed the effectiveness of our internal control over financial reporting and concluded that, as of December 31, 2022, such internal control is effective. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control-Integrated Framework (2013)* ("COSO").

Attestation Report of the Registered Public Accounting Firm

Our independent registered public accountants, Deloitte & Touche LLP, with direct access to our Board of Directors through our Audit Committee, have audited our consolidated financial statements and have issued an attestation report on internal control over financial reporting as of December 31, 2022.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Venator Materials PLC

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Venator Materials PLC and subsidiaries (the “Company”) as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 21, 2023, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed 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. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

Houston, Texas
February 21, 2023

ITEM 16 RESERVED

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that Vir Lakshman qualifies as an “audit committee financial expert” as defined in Item 16A of Form 20-F under the Securities Exchange Act of 1934, as amended. In addition, the Board has determined that Vir Lakshman, Peter Huntsman and Stefan Selig each satisfy the “independence” requirements as set forth in Rule 10A-3 under the Exchange Act.

ITEM 16B. CODE OF ETHICS

Our Company has adopted a code of ethics that applies to our principal executive officer, principal financial officer and principal accounting officer or controller and is intended to meet the definition of “code of ethics” under Item 16B of Form 20-F under the Exchange Act. A copy of the code of ethics is posted on our website, at www.venatorcorp.com. We intend to disclose any amendments to, or waivers from, our code of ethics that applies to our directors or executive officers on our website, to the extent required under the rules of the New York Stock Exchange or the SEC.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table shows the aggregate fees billed by Deloitte & Touche LLP and Deloitte Touche Tohmatsu Limited member firms in 2022 and 2021 for the services indicated (dollars in thousands):

	2022	2021
Audit Fees (1)	3,548	3,037
Audit-Related Fees (2)	5	254
Tax Fees (3)	694	1,549
All Other Fees (4)	—	33
Total	\$ 4,247	\$ 4,873

- (1) Includes fees associated with annual integrated audits of Venator Materials PLC, reviews of Quarterly Reports on Form 6-K and statutory audits required internationally.
- (2) Includes fees associated with services related to our non-statutory audits and agreed upon procedures.
- (3) Includes fees associated with tax compliance, tax advice and tax planning services including, but not limited to, international tax compliance and advice, federal and state tax advice, and assistance with the preparation of foreign and domestic tax returns.
- (4) Includes fees associated with vendor due diligence services.

The Audit Committee has adopted a pre-approval policy that provides guidelines for the audit, audit-related, tax and other non-audit services that may be provided to Venator. All of the fees in the table above were approved in accordance with this policy. The policy (a) identifies the guiding principles that must be considered by the Audit Committee in approving services to ensure that Deloitte & Touche LLP’s independence is not impaired; (b) describes the audit, audit-related, tax and other services that may be provided and the non-audit services that are prohibited; and (c) sets forth pre-approval requirements for all permitted services. Under the policy, all services to be provided by Deloitte & Touche LLP must be pre-approved by the Audit Committee. The Audit Committee has delegated authority to approve permitted services to the Audit Committee’s Chair. Such approval must be reported to the entire Audit Committee at the next scheduled Audit Committee meeting.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

Not applicable.

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

None.

ITEM 16G. CORPORATE GOVERNANCE

We are a "foreign private issuer" as defined by the SEC. As a foreign private issuer, we are permitted to follow certain home country corporate governance practices instead of corporate governance practices required by the NYSE for US domestic issuers. We currently follow the corporate governance practices required by the NYSE for US domestic issuers and do not avail ourselves of the exemptions afforded to foreign private issuers under the NYSE rules. We may in the future, however, decide to use permitted foreign private issuer exemptions with respect to some or all of the NYSE listing standards, including with respect to the exemption from the NYSE requirement to obtain shareholder approval for certain issuances of securities, including (1) shareholder approval to adopt or materially revise equity compensation plans or share incentive plans, as well as (2) shareholder approval prior to an issuance (a) of more than 1% of a company's common stock (including derivative securities thereof) in either number or voting power to related parties, (b) of more than 20% of a company's outstanding common stock (including derivative securities thereof) in either number or voting power or (c) that would result in a change of control.

Because we are a foreign private issuer, our directors and senior management are not subject to the short-swing profit rules or the obligations to report transactions in company securities under Section 16 of the Exchange Act. They are, however, subject to the obligations to report changes in share ownership under Section 13 of the Exchange Act and related SEC rules.

Due to our status as a foreign private issuer our ability to follow certain home country corporate governance practices, our shareholders do not have the same protections afforded to shareholders of companies that are subject to all of the NYSE corporate governance standards and shareholder approval requirements.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

ITEM 16I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

Not Applicable

ITEM 18. FINANCIAL STATEMENTS

VENATOR MATERIALS PLC AND SUBSIDIARIES
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Venator Materials PLC

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Venator Materials PLC and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive loss, equity, and cash flows, for each of the three years in the period ended December 31, 2022, and the related notes and the schedule listed in the Index at Item 18 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 21, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company is projecting both insufficient liquidity to meet its obligations as they become due over the next twelve months and a violation of its debt covenants, which raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Property, plant and equipment – Scarlino useful lives - Refer to Note 1 to the financial statements

Critical Audit Matter Description

The Company's Scarlino, Italy titanium dioxide manufacturing facility generates gypsum from the manufacturing process, which has been landfilled on-site and also transported for use in a reclamation project at a nearby former quarry owned and operated by third parties. In the second quarter of 2021, the Company requested approval from regulatory authorities for a project for the use of gypsum in a specified on-site area on its Scarlino site; however, approval has not yet been granted. The Company has suspended

titanium dioxide production from two of the three calciner streams at the facility to reduce the rate at which the remaining gypsum capacity both on-site and in the quarry reclamation project is consumed. At the current one-stream operating rate, the Company will soon not have sufficient capacity for the gypsum produced and as a consequence expects to stop production during the second quarter of 2023. If the Company does not receive approvals for additional gypsum storage capacity by the end of the first quarter of 2023, it may permanently close the site. The property, plant and equipment at the Company's Scarlino manufacturing facility has a net book value of \$87 million and the Scarlino manufacturing facility is included in the Company's European TiO₂ and Functional Additives asset group, which was evaluated for impairment as discussed below. Additionally, the Company evaluated the useful life of the property, plant and equipment at the Scarlino manufacturing plant at various times throughout 2022 as facts and circumstances warranted. In January 2023, management concluded that due to its inability to obtain required approvals from regulatory authorities for various options for gypsum disposal thus far and its assessment of the likelihood of obtaining these approvals prior to the end of the first quarter of 2023, that the useful life of the Scarlino property, plant and equipment should be reduced to the end of the second quarter of 2023. Adjustments to depreciation will be accounted for prospectively.

We identified management's judgments regarding the useful life of the Scarlino property, plant and equipment throughout 2022 as a critical audit matter because of (1) the uncertainty associated with obtaining any required government approvals for additional capacity at the on-site landfill and any longer-term options for disposing of the gypsum, (2) the significant management judgments, estimates, and assumptions used to determine the useful life of the Scarlino property, plant and equipment. Testing management's judgments, estimates, and assumptions required a high degree of auditor judgment and an increased extent of effort.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's judgments, estimates, and assumptions regarding the useful life of the Scarlino property, plant and equipment, included the following, among others:

- We tested the effectiveness of controls over management's judgments, estimates, and assumptions involved in the evaluation of the useful life of the Scarlino property, plant and equipment.
- We evaluated the reasonableness of management's judgments and assumptions regarding the useful life of the Scarlino property, plant and equipment by:
 - Performing inquiries with the Company's management and subject matter experts regarding their views on the most likely outcome of the regulatory approval process for additional capacity at the on-site landfill and the feasibility of longer-term options for disposal of the gypsum and to reduce the volume of gypsum produced in the Scarlino manufacturing process or developing new business opportunities for the sale of gypsum for commercial use.
 - Evaluating written correspondence and other materials between the Company and the regulatory authorities related to the Company's request for approval of additional capacity at the on-site landfill, as well as longer-term options for disposal of the gypsum and to reduce the volume of gypsum produced in the Scarlino manufacturing process.
 - Observing the Company's facility and the former quarry to corroborate management's assertion that disposal capacity was available into the second quarter of 2023 as the Company evaluated longer-term options.
- We evaluated management's financial statement disclosures regarding the uncertainty associated with obtaining required regulatory approvals for additional capacity at the on-site landfill and any longer-term options for disposing of the gypsum, and its conclusion to reduce the useful life of the Scarlino property plant and equipment beginning in January 2023.

Property, plant and equipment – impairment evaluation - Refer to Note 22 to the financial statements

Critical Audit Matter Description

Various macroeconomic factors have led to a significant reduction in demand for titanium dioxide in the second half of 2022 and the Company's 2022 sales volumes in the Titanium Dioxide segment declined by 19% compared to 2021. Additionally, raw material and energy costs increased significantly during 2022. The Company decreased production at several European manufacturing facilities in the fourth quarter of 2022, including the Scarlino, Italy titanium dioxide manufacturing facility discussed above. As a result of the above facts and circumstances, the Company identified an impairment indicator for its European TiO₂ and Functional Additives asset group at December 31, 2022. The property, plant and equipment at the Company's European TiO₂ and Functional Additives asset group as of December 31, 2022 has a net book value of \$448 million. The Company concluded that the estimated undiscounted cash flows for the use and eventual disposition of the European TiO₂ and Functional Additives asset group were in excess of the net carrying value of the asset group, and therefore no impairment was recorded.

We identified management's judgments regarding the future cash flows of the European TiO₂ and Functional Additives asset group as a critical audit matter because of the significant management judgments, estimates, and assumptions made to evaluate the European TiO₂ and Functional Additives asset group for impairment, including judgements and assumptions about the continued availability of the Scarlino manufacturing facility and other actions planned to be taken by the Company to reduce titanium dioxide manufacturing capacity permanently. Testing management's judgments, estimates, and assumptions required a high degree of auditor judgment and an increased extent of effort.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's judgments, estimates, and assumptions regarding the recoverability of the European TiO₂ and Functional Additives asset group included the following, among others:

- We tested the effectiveness of controls over management's judgments, estimates, and assumptions involved in the evaluation of the future cash flows of the European TiO₂ and Functional Additives asset group, including controls over the Company's forecasting process.
- We evaluated the Company's conclusion that the European TiO₂ and Functional Additives asset group is the appropriate level for determining independent cash flows.
- We tested the mathematical accuracy of management's forecast of future cash flows of the European TiO₂ and Functional Additives asset group and the comparison to the carrying value of such asset group.
- We evaluated the reasonableness of management's forecast of future cash flows of the European TiO₂ and Functional Additives asset group by:
 - Evaluating the reasonableness of management's forecasts by comparing the forecasts to (1) historical and current year results, (2) internal communications to management and the Board of Directors, (3) forecasted information included in industry reports of the Company, and (4) third-party and independently researched market data.
 - Evaluating the reasonableness of the methodology used to estimate future cash flows considering planned actions to be taken by the Company to reduce titanium dioxide manufacturing capacity permanently.

/s/ DELOITTE & TOUCHE LLP

Houston, Texas
February 21, 2023

We have served as the Company's auditor since 2020.

VENATOR MATERIALS PLC AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

<i>(In millions, except par value)</i>	December 31, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents ^(a)	\$ 114	\$ 156
Accounts receivable (net of allowance for doubtful accounts of \$3 and \$4, respectively)(a)	234	363
Accounts receivable from affiliates	13	8
Inventories ^(a)	499	478
Prepaid expenses	27	23
Other current assets	48	61
Assets held for sale	198	—
Total current assets	1,133	1,089
Property, plant and equipment, net ^(a)	640	848
Operating lease right-of-use assets ^(a)	17	30
Intangible assets, net ^(a)	2	11
Investment in unconsolidated affiliates	114	101
Deferred income taxes	11	77
Other noncurrent assets	152	208
Total assets	\$ 2,069	\$ 2,364
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable ^(a)	\$ 255	\$ 360
Accounts payable to affiliates	30	17
Accrued liabilities ^(a)	106	125
Current operating lease liability	3	6
Current portion of debt	1,041	5
Liabilities held for sale	94	—
Total current liabilities	1,529	513
Long-term debt including finance leases	6	949
Operating lease liability ^(a)	15	28
Other noncurrent liabilities	202	285
Noncurrent payable to affiliates	7	21
Total liabilities	1,759	1,796
Commitments and contingencies (Notes 22 and 23)		
Equity		
Ordinary shares \$0.001 par value, 200 shares authorized, each, 108 and 107 issued and outstanding, respectively	—	—
Additional paid-in capital	1,345	1,337
Accumulated deficit	(648)	(460)
Accumulated other comprehensive loss	(391)	(314)
Total Venator Materials PLC shareholders' equity	306	563
Noncontrolling interest in subsidiaries	4	5
Total equity	310	568
Total liabilities and equity	\$ 2,069	\$ 2,364

^(a) At December 31, 2022 and 2021, the following amounts from consolidated variable interest entities are included in the respective balance sheet captions above: \$6 and \$4 of cash and cash equivalents; \$9 and \$7 of accounts receivable, net; \$6 and \$2 of inventories; \$3 each of property, plant and equipment, net; \$2 and nil of operating lease right-of-use assets; \$2 and \$5 of intangible assets, net; \$3 each of accounts payable; and \$4 and \$3 of accrued liabilities. See "Note 9. Variable Interest Entities."

See notes to consolidated financial statements.

VENATOR MATERIALS PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended December 31,		
	2022	2021	2020
<i>(Dollars in millions, except per share amounts)</i>			
Trade sales, services and fees, net	\$ 2,173	\$ 2,212	\$ 1,938
Cost of goods sold	2,088	2,020	1,778
Operating expenses:			
Selling, general and administrative	146	155	156
Restructuring, impairment and plant closing and transition costs	142	68	58
Other operating (income) expense, net	(54)	27	14
Total operating expenses	234	250	228
Operating Loss	(149)	(58)	(68)
Interest expense	(76)	(71)	(64)
Interest income	15	12	12
Other income, net	92	12	27
Loss before income taxes	(118)	(105)	(93)
Income tax (expense) benefit	(63)	31	(12)
Net loss	(181)	(74)	(105)
Net income attributable to noncontrolling interests	(7)	(3)	(7)
Net loss attributable to Venator	\$ (188)	\$ (77)	\$ (112)
Per Share Data:			
Loss attributable to Venator Materials PLC ordinary shareholders, basic	\$ (1.74)	\$ (0.72)	\$ (1.05)
Loss attributable to Venator Materials PLC ordinary shareholders, diluted	\$ (1.74)	\$ (0.72)	\$ (1.05)

See notes to consolidated financial statements.

VENATOR MATERIALS PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	Year ended December 31,		
	2022	2021	2020
<i>(Dollars in millions)</i>			
Net loss	\$ (181)	\$ (74)	\$ (105)
Other comprehensive (loss) income, net of tax			
Foreign currency translation adjustment	(92)	(37)	78
Pension and other postretirement benefits adjustments	14	53	(11)
Adjustments to equity method investments	3	—	—
Hedging instruments	(2)	(1)	(11)
Other comprehensive (loss) income, net of tax	(77)	15	56
Comprehensive loss	(258)	(59)	(49)
Comprehensive income attributable to noncontrolling interest	(7)	(3)	(7)
Comprehensive loss attributable to Venator	\$ (265)	\$ (62)	\$ (56)

See notes to consolidated financial statements.

VENATOR MATERIALS PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY

	Total Venator Materials PLC Equity						
	Ordinary Shares		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest in Subsidiaries	Total
	Shares	Amount					
<i>(Dollars in millions)</i>							
Balance, January 1, 2020	107	\$ —	\$ 1,322	\$ (271)	\$ (385)	\$ 7	\$ 673
Net (loss) income	—	—	—	(112)	—	7	(105)
Other comprehensive loss	—	—	—	—	56	—	56
Dividends paid to noncontrolling interests	—	—	—	—	—	(8)	(8)
Activity related to stock plans	—	—	8	—	—	—	8
Balance, December 31, 2020	107	\$ —	\$ 1,330	\$ (383)	\$ (329)	\$ 6	\$ 624
Net (loss) income	—	—	—	(77)	—	3	(74)
Other comprehensive income	—	—	—	—	15	—	15
Dividends paid to noncontrolling interests	—	—	—	—	—	(4)	(4)
Activity related to stock plans	—	—	7	—	—	—	7
Balance, December 31, 2021	107	\$ —	\$ 1,337	\$ (460)	\$ (314)	\$ 5	\$ 568
Net (loss) income	—	—	—	(188)	—	7	(181)
Other comprehensive loss	—	—	—	—	(77)	—	(77)
Dividends paid to noncontrolling interests	—	—	—	—	—	(8)	(8)
Activity related to stock plans	1	—	8	—	—	—	8
Balance, December 31, 2022	108	\$ —	\$ 1,345	\$ (648)	\$ (391)	\$ 4	\$ 310

See notes to consolidated financial statements.

VENATOR MATERIALS PLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,		
	2022	2021	2020
<i>(Dollars in millions)</i>			
Operating Activities:			
Net loss	\$ (181)	\$ (74)	\$ (105)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	107	119	114
Deferred income taxes	59	(44)	2
(Gain) Loss on disposal of assets	(44)	10	(5)
Noncash restructuring and impairment charges	116	10	35
Noncash legal settlement	(13)	—	—
Separation (gain) loss, net	(1)	3	(10)
Noncash interest	5	5	5
Noncash (gain) loss on foreign currency transactions	(2)	7	4
Other, net	9	7	8
Changes in assets and liabilities:			
Accounts receivable	69	(65)	14
Inventories	(172)	(60)	102
Prepaid expenses	(7)	—	(3)
Other current assets	(15)	(19)	11
Other noncurrent assets	9	(49)	(32)
Accounts payable	(32)	120	(77)
Accrued liabilities	23	6	(6)
Other noncurrent liabilities	(44)	43	(23)
Net cash (used in) provided by operating activities	(114)	19	34
Investing Activities:			
Capital expenditures	(69)	(73)	(69)
Proceeds from sale of businesses/assets	56	10	6
Cash received from unconsolidated affiliates	58	28	33
Investment in unconsolidated affiliates	(69)	(25)	(46)
Cash received from notes receivable	—	—	12
Net cash used in investing activities	(24)	(60)	(64)
Financing Activities:			
Proceeds from (payments on) short-term debt, net	75	(2)	3
Proceeds from notes payable	27	—	—
Repayment of notes payable	(13)	—	(7)
Principal payments on long-term debt	(5)	(5)	(5)
Proceeds from issuance of long-term debt	—	—	221
Proceeds from the termination of cross-currency swap contracts	24	—	—
Dividends paid to noncontrolling interests	(8)	(4)	(8)
Debt issuance costs paid	(1)	(3)	(7)
Other financing activities	—	(7)	(5)
Net cash provided by (used in) financing activities	99	(21)	192
Effect of exchange rate changes on cash	(3)	(2)	3
Net change in cash and cash equivalents	(42)	(64)	165
Cash and cash equivalents at beginning of period	156	220	55
Cash and cash equivalents at end of period	\$ 114	\$ 156	\$ 220

Supplemental cash flow information:

Cash paid for interest excluding hedging activity	\$	64	\$	62	\$	39
Cash paid for income taxes		4		14		3

Supplemental disclosure of noncash activities:

Capital expenditures included in accounts payable as of December 31, 2022, 2021, 2020, respectively	\$	10	\$	30	\$	23
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See notes to consolidated financial statements.

VENATOR MATERIALS PLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Description of Business, Going Concern, and Summary of Significant Accounting Policies

Description of Business

For convenience in this report, the terms "our," "us," "we", the "Company", or "Venator" may be used to refer to Venator Materials PLC and, unless the context otherwise requires, its subsidiaries.

Venator became an independent publicly traded company following our IPO and separation from Huntsman Corporation ("Huntsman") in August 2017. Venator operates in two segments: Titanium Dioxide and Performance Additives. The Titanium Dioxide segment primarily manufactures and sells TiO₂, and operates seven TiO₂ manufacturing facilities across the globe. The Performance Additives segment manufactures and sells functional additives, color pigments and timber treatment chemicals. This segment operates 13 manufacturing and processing facilities globally.

Basis of Presentation

Venator's consolidated financial statements have been prepared in accordance with U.S. GAAP. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

In the notes to consolidated financial statements, all dollar and share amounts in tabulations are in millions of dollars and shares, respectively, unless otherwise indicated.

Going Concern

The accompanying consolidated financial statements are prepared in accordance with generally accepted accounting principles applicable to a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business.

We began to experience global inflationary pressures during 2021, particularly in Europe, where we experienced significant increases in our energy costs during periods subsequent to the COVID-19 pandemic shutdowns. The inflationary pressures on European energy were exacerbated in 2022 after Russia's invasion of Ukraine while other operating costs also remained inflated. Beginning in the third quarter of 2022, we began to experience a significant reduction in demand for our TiO₂ products sold in Europe and APAC while energy market prices reached record highs and other cost inflation continued to increase. The decrease in demand continued through the fourth quarter of 2022 and we reported a net loss of \$181 million and net cash outflows from operations of \$114 million for the year ended December 31, 2022. At December 31, 2022, we had an accumulated deficit of \$648 million and a working capital deficit of approximately \$396 million. We had total liquidity of \$276 million at December 31, 2022, consisting of \$114 million of cash and cash equivalents and \$162 million of availability under our ABL facility compared to total liquidity at February 17, 2023 of \$134 million, consisting of \$97 million of cash and cash equivalents and approximately \$37 million of available liquidity under our ABL facility as a result of borrowings made during 2023 and discretionary reserves imposed by the lenders. However, we are unable to utilize the majority of this available liquidity due to a cash dominion minimum availability requirement if availability falls below 10% of the aggregate principal amount of our facility. In addition, we expect that our lenders will impose additional discretionary reserves, including a reserve currently estimated to be approximately \$25 million related to our cross-currency swaps, which will further impact our available liquidity.

Based on our current projections, we expect to continue to incur negative cash flows for the twelve-month period following the date of this filing and we believe that our current level of liquidity is not sufficient to fund ongoing operations. We expect our cash flows to be impacted by recent and future downgrades in our credit ratings, upon which we expect our suppliers to reduce our credit terms or require other assurances, such as prepaying for future deliveries, which will further impact our liquidity. Furthermore, failure to deliver an unqualified opinion (including not containing an explanatory paragraph regarding going concern) to the lenders under our Term Loan Facility and ABL Facility by March 31, 2023 will result in a "default" under our credit agreements. A failure to timely cure such default, which cure may be required as early as April 30, 2023, will constitute an "event of default" under our credit agreements. Upon an event of default, the lenders under our Term Loan Facility and ABL Facility can accelerate the repayment of the outstanding borrowings under our facilities and exercise

other rights and remedies that they have under applicable laws. In addition, an event of default under our Term Loan Facility or ABL Facility that remains uncured for 30 days will constitute an event of default under our 9.5% Senior Secured Notes due 2025 (the "Senior Secured Notes") and our 5.75% Senior Unsecured Notes due 2025 (the "Senior Unsecured Notes"). These conditions and events raise substantial doubt about our ability to continue as a going concern.

We have taken a number of recent actions to increase our liquidity, including implementing a cost reduction program and entering into a definitive agreement to divest the iron oxide business from within the Color Pigments business which is expected to close at the end of the first quarter of 2023. However, our projections show the need for additional liquidity beginning in the second half of 2023, beyond that which we expect to generate as a result of the foregoing actions, and as such, we are undertaking plans to mitigate these conditions and events and improve our liquidity position, including an in-depth strategic review of our business to improve our operations, strengthen our liquidity, and establish a sustainable capital structure. Given current market conditions, we cannot provide assurance that our undertakings will be successful. Credit and market disruptions, among other things, make it more difficult for us to obtain, or increase our cost of obtaining capital and financing for our operations and may require us to restructure our existing debt. Our access to additional capital may not be available on terms acceptable to us or at all. We may seek a waiver of the requirement to deliver an unqualified opinion (including not containing an explanatory paragraph regarding going concern) from the lenders. However, we can provide no assurance that, if sought, a waiver of this requirement will be granted. If we are unable to obtain a waiver from our lenders and raise additional capital or restructure our existing capital in order to provide sufficient liquidity to operate our business, we may have to take other strategic measures. However, our plans have not been finalized, and the execution of such plans will be subject to market conditions and other uncertainties which are not within our control, and therefore the outcome of our plans cannot be deemed probable. As a result, we have concluded that our plans do not alleviate substantial doubt about our ability to continue as a going concern.

The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

Summary of Significant Accounting Policies

Asset Retirement Obligations

Venator accrues for asset retirement obligations, which consist primarily of asbestos abatement costs, demolition and removal costs, leasehold remediation costs and landfill closure costs, in the period in which the obligations are incurred. Asset retirement obligations are initially recorded at estimated fair value. When the related liability is initially recorded, Venator capitalizes the cost by increasing the carrying amount of the related long-lived asset. Over time, the liability is accreted to its estimated settlement value and the capitalized cost is depreciated over the useful life of the related asset. Upon settlement of the liability, Venator will recognize a gain or loss for any difference between the settlement amount and the liability recorded. See "Note 14. Asset Retirement Obligations."

Carrying Value of Long-Lived Assets

Venator reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable. Recoverability is based upon current and anticipated undiscounted cash flows, and Venator recognizes an impairment when such estimated cash flows are less than the carrying value of the asset. Measurement of the amount of impairment, if any, is based upon the difference between carrying value and fair value. Fair value is generally estimated by discounting estimated future cash flows using a discount rate commensurate with the risks involved. In connection with our asset evaluation policy, we reviewed all of our long-lived asset groups for indicators that the carrying value may not be recoverable. As a result of this evaluation, we determined that impairment indicators existed for our European TiO₂ and Functional Additives asset group at December 31, 2022. We concluded that the estimated undiscounted cash flows for the use and eventual disposition of the European TiO₂ and Functional Additives asset group were in excess of the net carrying value of the asset group, and therefore no impairment was recorded.

Assets and liabilities (disposal groups) to be sold are classified as held for sale at the lower of their carrying value or fair value less any costs to sell. Any loss resulting from this measurement is recognized in the period in which the held for sale criteria are met. We assess the fair value of a disposal group, less any costs to sell, each reporting period it remains classified as held for sale and report any subsequent changes as an adjustment to the carrying value of the disposal group, as long as the new carrying value does not exceed the carrying value of the disposal group at the time it was initially classified as held for sale.

Cash and Cash Equivalents

Venator considers cash in bank accounts and short-term highly liquid investments with remaining maturities of three months or less at the date of purchase to be cash and cash equivalents.

Cost of Goods Sold

Venator classifies the costs of manufacturing and distributing its products as cost of goods sold. Manufacturing costs include variable costs, primarily raw materials and energy, and fixed expenses directly associated with production. Manufacturing costs include, among other things, plant site operating costs and overhead costs (including depreciation), production planning and logistics costs, repair and maintenance costs, plant site purchasing costs, and engineering and technical support costs. Distribution, freight, and warehousing costs are also included in cost of goods sold.

Derivative Transactions and Hedging Activities

All derivatives are recorded on Venator's consolidated balance sheets at fair value. Gains and losses on derivative instruments designated as cash flow hedges are recorded in accumulated other comprehensive income (loss) and recognized in income (expense) when the hedged item impacts earnings.

Gains and losses on derivative instruments designated as fair value hedges are presented in the same income statement line that is used to present the earnings effect of the hedged item. In regards to our cross-currency swaps, changes in fair value attributable to the change in spot foreign currency rates are recognized in foreign exchange gain (loss), and reported in Other operating expense (income) in our consolidated statements of operations, along with the offsetting gains and losses of the related hedged item. We have elected to exclude the forward interest rate differential from the assessment of hedge effectiveness in the fair value hedge and account for it as an excluded component. The changes in fair value of the excluded component of the cross-currency swaps are recorded in Other comprehensive income (loss). See "Note 17. Derivative Instruments and Hedging Activities."

Carbon Emissions Allowances

Venator carries carbon emissions allowances at the lower of cost or market which are classified as "Other current assets" on the consolidated balance sheets and are held until surrendered, at which point they are offset against the related carbon emissions obligation.

Environmental Expenditures

Environmental-related restoration and remediation costs are recorded as liabilities when site restoration and environmental remediation and cleanup obligations are either known or considered probable and the related costs can be reasonably estimated. Other environmental expenditures that are principally maintenance or preventative in nature are recorded when expended and incurred and are expensed or capitalized as appropriate. See "Note 23. Environmental, Health and Safety Matters."

Financial Instruments

The carrying amounts reported in the balance sheets for cash and cash equivalents, accounts receivable, amounts receivable from affiliates, accounts payable, current portion of amounts payable to affiliates, and accrued liabilities approximate their fair value because of the immediate or short-term maturity of these financial instruments. The fair value of non-qualified employee benefit plan investments is estimated using prevailing market prices. The estimated fair values of Venator's long-term debt are based on quoted market prices for the identical liability when traded as an asset in an active market.

Foreign Currency Translation

Venator is domiciled in the U.K. which uses the British pound sterling, however, we report in U.S. dollars. The accounts of Venator's operating subsidiaries outside of the U.S. consider the functional currency to be the currency of the economic environment in which they operate. Accordingly, assets and liabilities are translated at rates prevailing at the balance sheet date. Revenues, expenses, gains and losses are translated at a weighted average rate for the period. Cumulative translation adjustments are recorded to equity as a component of accumulated other comprehensive loss.

Net foreign currency translation gains of \$2 million, net losses of \$7 million, and net losses of \$4 million are reported in other income, net in the consolidated statements of operations for the years ended December 31, 2022, 2021 and 2020, respectively.

Income Taxes

Venator uses the asset and liability method of accounting for income taxes. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial and tax reporting purposes. Venator evaluates deferred tax assets to determine whether it is more likely than not that they will be realized. Valuation allowances are reviewed on a tax jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets for each jurisdiction. These conclusions require significant judgment. In evaluating the objective evidence that historical results provide, Venator considers the cyclicity of Venator and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limit Venator's ability to consider other subjective evidence such as Venator's projections for the future. Changes in expected future income in applicable tax jurisdictions could affect the realization of deferred tax assets in those jurisdictions.

Accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The application of income tax law is inherently complex. Venator is required to determine if an income tax position meets the criteria of more-likely-than-not to be realized based on the merits of the position under tax law, in order to recognize an income tax benefit. This requires Venator to make significant judgments regarding the merits of income tax positions and the application of income tax law. Additionally, if a tax position meets the recognition criteria of more-likely-than-not, Venator is required to make judgments and apply assumptions in order to measure the amount of the tax benefits to recognize. The judgments are based on the probability of the amount of tax benefits that would be realized if the tax position was challenged by the taxing authorities. Interpretations and guidance surrounding income tax laws and regulations change over time. As a consequence, changes in assumptions and judgments can materially affect amounts recognized in the consolidated financial statements. See "Note 19. Income Taxes."

Intangible Assets

Intangible assets are stated at cost (fair value at the time of acquisition) and are amortized using the straight-line method over the estimated useful lives or the life of the related agreement as follows:

Patents, trademarks and technology	5 - 30 years
Other intangibles	5 - 15 years

Inventories

Inventories are stated at the lower of cost or market, with cost determined using the first-in, first-out and average costs methods for different components of inventory.

Legal Costs

Venator expenses legal costs, including those legal costs incurred in connection with a loss contingency, as incurred.

Property, Plant and Equipment

Property, plant and equipment is stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives or lease term as follows:

Buildings and leasehold improvements	5 - 50 years
Plant and equipment	3 - 30 years

Normal maintenance and repairs of plant and equipment are charged to expense as incurred. Renewals, betterments, and major repairs that significantly extend the useful life of the assets are capitalized and the assets replaced, if any, are retired.

Research and Development

Research and development costs are expensed as incurred and recorded in selling, general and administrative expense. Research and development costs charged to expense were \$12 million, \$15 million and \$13 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Restructuring and Plant Closing and Transition Costs

Venator records restructuring, plant closing, and transition costs when management approves a detailed restructuring plan which materially changes either the scope of our business or the way that business is conducted. Costs associated with a restructuring plan generally consist of employee termination benefits, adjustments in the carrying value of the related facilities and machinery and equipment, and other exit-related costs including costs to close facilities. We record a liability for employee termination benefits when (i) management commits to a plan of termination, (ii) the plan identifies the number of employees to be terminated and their job classifications or functions, locations and the expected completion date, (iii) the plan establishes the terms of the benefit arrangement and (iv) it is unlikely that significant changes to the plan will be made or the plan will be withdrawn. Restructuring and related costs may also include the write-down or accelerated depreciation of related assets when the sale or abandonment of the asset is a direct result of the plan. Other exit-related costs include demolition and site preservation costs. Restructuring, plant closing, and transition costs are recognized as an operating expense within the consolidated statements of operations. See "Note 13. Restructuring, Impairment and Plant Closing and Transition Costs" for additional detail.

Revenue Recognition

We generate substantially all of our revenues through sales of inventory in the open market and via long-term supply agreements. At contract inception, we assess the goods promised in our contracts and identify a performance obligation for each promise to transfer to the customer a distinct good. In substantially all cases, a contract has a single performance obligation to deliver a promised good to the customer. Revenue is recognized when the performance obligations under the terms of our contracts are satisfied. Generally, this occurs at the time of shipping, at which point the control of the goods transfers to the customer. Further, in determining whether control has transferred, we consider if there is a present right to payment and legal title, along with risks and rewards of ownership having transferred to the customer. Revenue is measured as the amount of consideration we expect to receive in exchange for transferred goods. Sales, value added, and other taxes we collect concurrent with revenue-producing activities are excluded from revenue. Incidental items that are immaterial in the context of the contract are recognized as expense. We have elected to account for all shipping and handling activities as fulfillment costs. We recognize these costs for shipping and handling when control over products have transferred to the customer as an expense in cost of goods sold. We have also elected to expense commissions when incurred as the amortization period of the commission asset that we would have otherwise recognized is less than one year.

The amount of consideration we receive and revenue we recognize is based upon the terms stated in the sales contract, which may contain variable consideration such as discounts or rebates. We also give our customers a limited right to return products that have been damaged, do not satisfy their specifications, or for other specific reasons. Payment terms on product sales to our customers typically range from 30 days to 90 days. Although certain exceptions exist where standard payment terms are exceeded, these instances are infrequent and do not exceed one year. Discounts are allowed for some customers for early payment or if certain volume commitments are met. As our standard payment terms are less than one year, we have elected to not assess whether a contract has a significant financing component. In order to estimate the applicable variable consideration at the time of revenue recognition, we use historical and current trend information to estimate the amount of discounts, rebates, or returns to which customers are likely to be entitled. Historically, actual discount or rebate adjustments relative to those estimated and accrued at the point of which revenue is recognized have not materially differed.

Share-based Compensation

We measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost will be recognized over the period during which the employee is required to provide services in exchange for the award.

Earnings Per Share

Basic earnings per share excludes dilution and is computed by dividing net income attributable to Venator Materials PLC ordinary shareholders by the weighted average number of shares outstanding during the period. Diluted earnings per share reflects all potential dilutive ordinary shares outstanding during the period and is computed by dividing earnings attributable to

Venator Materials PLC ordinary shareholders by the weighted average number of shares outstanding during the period increased by the number of additional shares that would have been outstanding as dilutive securities.

Note 2. Recently Issued Accounting Pronouncements

Accounting Pronouncements Pending Adoption in the Current Period

In March 2020, the FASB issued ASU No. 2020-04, *Reference Rate Reform (Topic 848)*. The amendments in this ASU temporarily simplify the accounting for contract modifications, including hedging relationships, due to the transition from London Interbank Offering Rate ("LIBOR") and other interbank offered rates to alternative reference interest rates. In January 2021, the FASB issued ASU No. 2021-01, *Reference Rate Reform (Topic 848): Scope*, which provided clarifying guidance to ASU 2020-04. Under ASU No. 2021-01, entities can elect not to remeasure contracts at the modification date or reassess a previous accounting determination if certain conditions are met. Additionally, entities can elect to continue applying hedge accounting for hedging relationships affected by reference rate reform if certain conditions are met. These ASUs were effective upon issuance and generally can be applied to applicable contract modifications through December 31, 2022. Currently our Senior Credit Facilities and cross currency swaps reference LIBOR-based rates. Our Credit Facilities either contain, or will contain, provisions specifying alternative interest rate calculations to be employed when LIBOR ceases to be available as a benchmark. We have adhered to the ISDA 2020 IBOR Fallbacks Protocol, which will govern our derivatives upon the final cessation of USD LIBOR. We do not expect a significant impact to our operating results, financial position or cash flows from the transition from LIBOR to alternative reference interest rates, but we will continue to monitor the impact of this transition until it is completed.

Note 3. Leases

We have leases for warehouses, office space, land, office equipment, production equipment and automobiles. Right of Use ("ROU") assets and lease obligations are recognized at the lease commencement date based on the present value of lease payments over the lease term. We have elected to account for lease and associated non-lease components as a single lease component for all asset classes with the exception of buildings and we do not recognize ROU assets and related lease obligations with lease terms of 12 months or less from the commencement date. Operating lease ROU assets and liabilities are included in operating lease right-of-use assets, current operating lease liabilities, and operating lease liabilities on our consolidated balance sheet. Finance lease ROU assets are included in property, plant and equipment, net, while finance lease liabilities are included in long-term debt. As the implicit rate is not readily determinable in most of our lease arrangements, we use our incremental borrowing rate based on information available at the commencement date in order to determine the net present value of lease payments. We give consideration to our recent debt issuances as well as publicly available data for instruments with similar characteristics when calculating our incremental borrowing rates.

We determine if an arrangement is a lease or contains a lease at inception. Certain leases contain renewal options that can extend the term of the lease for one year or more. Our leases have remaining lease terms of up to 89 years, some of which include options to extend the lease term for up to 20 years. Options are recognized as part of our ROU assets and lease liabilities when it is reasonably certain that we will extend that option. Sublease arrangements and leases with residual value guarantees, sale leaseback terms or material restrictive covenants, are immaterial. Lease payments include fixed and variable lease components. Variable components are derived from usage or market-based indices, such as the consumer price index. The components of lease expense were as follows:

Lease Cost	Year Ended December 31,		
	2022	2021	2020
Operating lease cost	\$ 10	\$ 11	12
Finance lease cost:			
Amortization of right-of-use assets	1	1	2
Interest on lease liabilities	—	—	1
Short-term lease cost	—	—	1

Supplemental balance sheet information related to leases was as follows:

Leases	As of December 31,	
	2022	2021
Assets		
Operating Lease Right-of-Use Assets ⁽¹⁾	\$ 56	\$ 30
Finance Lease Right-of-Use Assets, at cost	\$ 14	\$ 15
Accumulated Depreciation	(9)	(8)
Finance Lease Right-of-Use Assets, net	\$ 5	\$ 7
Liabilities		
Operating Lease Obligation		
Current	\$ 5	\$ 6
Non-Current	53	28
Total Operating Lease Liabilities ⁽²⁾	\$ 58	\$ 34
Finance Lease Obligation		
Current	\$ 1	\$ 1
Non-Current	6	7
Total Finance Lease Liabilities	\$ 7	\$ 8

⁽¹⁾ Operating lease right-of-use assets include assets of \$39 million related to assets held for sale.

⁽²⁾ Operating lease liabilities include liabilities of \$40 million related to assets held for sale.

Cash paid for amounts included in the present value of operating lease liabilities were as follows:

Cash Flow Information	Year Ended December 31,		
	2022	2021	2020
Operating cash flows from operating leases	\$ 10	\$ 11	11
Operating cash flows from finance leases	—	—	1
Financing cash flows from finance leases	1	1	1

Lease Term and Discount Rate	As of December 31,	
	2022	2021
Weighted average remaining lease term (years)		
Operating leases	14.8	16.0
Finance leases	3.3	4.2
Weighted average discount rate		
Operating leases	9.5 %	7.1 %
Financing leases	5.2 %	5.2 %

Maturities of lease liabilities as of December 31, 2022 were as follows:

Year ending December 31,	Operating Leases	Finance Leases	Total
2023	\$ 11	\$ 2	\$ 13
2024	9	1	10
2025	8	1	9
2026	8	1	9
2027	7	1	8
After 2028	71	2	73
Total lease payments	114	8	122
Less: Interest	56	1	57
Present value of lease liabilities ⁽¹⁾	\$ 58	\$ 7	\$ 65

⁽¹⁾ Operating lease liabilities include liabilities of \$40 million related to assets held for sale.

Note 4. Revenue

The following table disaggregates our revenue by major geographical region for the years ended December 31, 2022, 2021 and 2020:

	2022			2021			2020		
	Titanium Dioxide	Performance Additives	Total	Titanium Dioxide	Performance Additives	Total	Titanium Dioxide	Performance Additives	Total
Europe	\$ 758	\$ 186	\$ 944	\$ 853	\$ 208	\$ 1,061	\$ 728	\$ 182	\$ 910
North America	376	287	663	317	234	551	282	228	510
APAC	306	86	392	334	89	423	287	81	368
Other	157	17	174	161	16	177	134	16	150
Total Revenues	\$ 1,597	\$ 576	\$ 2,173	\$ 1,665	\$ 547	\$ 2,212	\$ 1,431	\$ 507	\$ 1,938

The following table disaggregates our revenue by major product line for the years ended December 31, 2022, 2021 and 2020:

	2022			2021			2020		
	Titanium Dioxide	Performance Additives	Total	Titanium Dioxide	Performance Additives	Total	Titanium Dioxide	Performance Additives	Total
TiO ₂	\$ 1,597	\$ —	\$ 1,597	\$ 1,665	\$ —	\$ 1,665	\$ 1,431	\$ —	\$ 1,431
Color Pigments	—	297	297	—	289	289	—	248	248
Functional Additives	—	129	129	—	132	132	—	111	111
Timber Treatment	—	150	150	—	117	117	—	127	127
Water Treatment ⁽²⁾	—	—	—	—	9	9	—	21	21
Total Revenues	\$ 1,597	\$ 576	\$ 2,173	\$ 1,665	\$ 547	\$ 2,212	\$ 1,431	\$ 507	\$ 1,938

⁽²⁾ Water Treatment business was sold in May 2021.

Note 5. Loss Per Share

Basic and diluted loss per share is determined using the following information:

	For the years ended December 31,		
	2022	2021	2020
Numerator:			
Basic and diluted (loss) income from continuing operations:			
Net loss attributable to Venator Materials PLC ordinary shareholders	\$ (188)	\$ (77)	\$ (112)
Denominator:			
Weighted average shares outstanding	107.9	107.2	106.7
Potential dilutive impact of share-based awards ⁽¹⁾	—	—	—

⁽¹⁾ The potentially dilutive impact of share-based awards was excluded from the calculation of net loss per share for the twelve months ended December 31, 2022, 2021, and 2020 because there is an anti-dilutive effect as we are in net loss positions.

The number of anti-dilutive employee share-based awards excluded from the computation of diluted EPS was 5 million for the year ended December 31, 2022, 3 million for the year ended December 31, 2021, and 4 million for the year ended December 31, 2020.

Note 6. Inventories

Inventories are stated at the lower of cost or market, with cost determined using first-in, first-out and average cost methods for different components of inventory. Inventories at December 31, 2022 and 2021 consisted of the following:

	December 31,	
	2022	2021
Raw materials and supplies	\$ 218	\$ 185
Work in process	33	51
Finished goods	248	242
Total	\$ 499	\$ 478

Finished goods inventory is net of inventory reserves of \$21 million and \$2 million at December 31, 2022 and 2021, respectively.

Note 7. Property, Plant and Equipment

The cost and accumulated depreciation of property, plant and equipment at December 31, 2022 and 2021 were as follows:

	December 31,	
	2022	2021
Land and land improvements	\$ 45	\$ 90
Buildings	194	253
Plant and equipment	1,784	2,070
Construction in progress	75	109
Total	2,098	2,522
Less accumulated depreciation	(1,458)	(1,674)
Property, plant, and equipment—net	\$ 640	\$ 848

Depreciation expense for the years ended December 31, 2022, 2021 and 2020 was \$98 million, \$113 million and \$110 million, respectively.

Sale of our Iron Oxide Business

On November 14, 2022, we entered into a definitive agreement with Cathay Industries to divest the iron oxide business from within the Color Pigments business (the “disposal group”) for an approximate enterprise value of \$140 million. Based on the carve out financial statements dated December 31, 2022, we estimate cash proceeds related to this sale will be approximately \$135 million, as a result of purchase price adjustments for closing indebtedness of \$20 million and closing fees, partially offset by an adjustment for primary working capital, all of which we expect to realize on March 31, 2023, which is the anticipated closing date, as well as a tax benefit which we expect will be realized in 2024.

The disposal group is included in our Performance Additives operating segment, and the assets and liabilities of the disposal group are classified as assets held-for-sale as of December 31, 2022 on our consolidated balance sheet.

For the year ended December 31, 2022 we wrote down the carrying value of the assets held-for-sale to the fair value less cost to sell and recognized an impairment of \$111 million, which was recorded in Restructuring, impairment and plant closing and transition costs in our consolidated statements of operations.

Included in our consolidated balance sheet as of December 31, 2022 are the following amounts of assets and liabilities held for sale.

	December 31, 2022
Accounts receivable, net	\$ 31
Accounts receivable from affiliates	1
Inventories	121
Prepaid expenses	2
Other current assets	8
Property, plant and equipment, net	104
Operating lease right-of-use assets	39
Intangible assets, net	1
Deferred income taxes	2
Loss recognized on held for sale classification	(111)
Total Assets Held for Sale	\$ 198
Accounts payable	\$ 27
Accounts payable to affiliates	2
Accrued liabilities	15
Current operating lease liability	2
Noncurrent operating lease liability	38
Other noncurrent liabilities	10
Total Liabilities Held for Sale	\$ 94

Sale-Leaseback of our Los Angeles Color Pigments Facility

On October 10, 2022, we closed on a sale-leaseback transaction for our Color Pigments manufacturing facility located in Los Angeles, California. We received proceeds of \$42 million, net of \$9 million of taxes and other expenses, and recorded a gain of \$39 million which is included in Other operating (income) expense, net in our consolidated statements of operations. As part of the transaction, we entered into an agreement to lease the property for an initial period of 15 years, with an option to extend the lease for two additional terms of approximately 10 years each.

Note 8. Investment In Unconsolidated Affiliates

Investments in companies in which we exercise significant influence, but do not control, are accounted for using the equity method.

Venator Investments Ltd., a wholly-owned subsidiary of Venator, has a 50%-owned joint venture with Kronos. Located in Lake Charles, Louisiana, LPC produces TiO₂ for the exclusive benefit of each of the joint venture partners. In accordance with the joint venture agreement, this plant operates on a break-even basis. This investment is accounted for using the equity method and totaled \$114 million and \$101 million at December 31, 2022 and 2021, respectively.

Note 9. Variable Interest Entities

We evaluate our investments and transactions to identify variable interest entities for which we are the primary beneficiary. We hold a variable interest in the following joint ventures for which we are the primary beneficiary:

- Pacific Iron Products Sdn Bhd is our 50%-owned joint venture with Coogee Chemicals that manufactures products for Venator. It was determined that the activities that most significantly impact its economic performance are raw material supply, manufacturing and sales. In this joint venture we supply all the raw materials through a fixed cost supply contract, operate the manufacturing facility and market the products of the joint venture to customers. Through a fixed price raw materials supply contract with the joint venture we are exposed to the risk related to the fluctuation of raw material pricing. As a result, we concluded that we are the primary beneficiary.
- Viance is our 50%-owned joint venture with Lanxess. Viance markets timber treatment products for Venator. We have determined that the activity that most significantly impacts Viance's economic performance is manufacturing. The joint venture sources all of its products through a contract manufacturing arrangement at our Harrisburg, North Carolina facility and we bear a disproportionate amount of working capital risk of loss due to the supply arrangement whereby we control manufacturing on Viance's behalf. As a result, we concluded that we are the primary beneficiary.

Creditors of these entities have no recourse to Venator's general credit. As the primary beneficiary of these variable interest entities, the joint ventures' assets, liabilities and results of operations are included in Venator's consolidated financial statements.

The revenues, income before income taxes and net cash provided by operating activities for our variable interest entities are as follows:

	Year ended December 31,		
	2022	2021	2020
Revenues	\$ 128	\$ 92	\$ 104
Income before income taxes	14	6	15
Net cash provided by operating activities	18	11	16

Note 10. Intangible Assets

The cost and accumulated amortization of intangible assets at December 31, 2022 and 2021 were as follows:

	December 31, 2022			December 31, 2021		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
Patents, trademarks and technology	\$ 26	\$ 25	\$ 1	\$ 27	\$ 19	\$ 8
Other intangibles	10	9	1	14	11	3
Total	\$ 36	\$ 34	\$ 2	\$ 41	\$ 30	\$ 11

Amortization expense was \$9 million, \$6 million and \$4 million for the years ended December 31, 2022, 2021 and 2020, respectively. During the fourth quarter of 2021, intangible assets with a net book value of \$7 million had a reduction in their remaining useful life as a result of a change in their intended use. The remaining useful life of these assets was reduced from seven years to less than one year.

Our estimated future amortization expense for intangible assets over the next five years is as follows:

Year ending December 31,	Amount
2023	\$ 2
2024	—
2025	—
2026	—
2027	—

Note 11. Other Noncurrent Assets

Other noncurrent assets at December 31, 2022 and 2021 consisted of the following:

	December 31,	
	2022	2021
Pension assets	\$ 114	\$ 172
Spare parts inventory	33	32
Debt issuance costs	3	4
Other	2	—
Total	\$ 152	\$ 208

Note 12. Accrued Liabilities

Accrued liabilities at December 31, 2022 and 2021 consisted of the following:

	December 31,	
	2022	2021
Accrued interest	\$ 22	\$ 21
Payroll and benefits	17	28
Emissions compliance obligations	16	10
Rebate accrual	7	9
Restructuring and plant closing costs	22	29
Other miscellaneous accruals	22	28
Total	\$ 106	\$ 125

Note 13. Restructuring, Impairment and Plant Closing and Transition Costs

Venator has initiated various restructuring programs in an effort to reduce operating costs and maximize operating efficiency.

Restructuring Activities

Company-wide Restructuring

In the fourth quarter of 2022, we implemented a plan to reduce selling, general and administrative expenses across all of our businesses. As part of the program, we recorded cash restructuring expense of \$2 million for the year ended December 31, 2022, all of which related to employee benefits.

In December 2020, we implemented a plan to decommission certain existing equipment in a section of our Duisburg, Germany Titanium Dioxide manufacturing site. As part of the program, we recorded cash restructuring expense of nil and \$10 million for the years ended December 31, 2022 and 2021, all of which was related to employee benefits. We recorded restructuring expense of \$30 million for the year ended December 31, 2020, of which \$20 million was accelerated depreciation and \$10 million related to employee benefits. 2020 restructuring expense consisted of \$10 million of cash expenses and \$20 million of non-cash expense.

Titanium Dioxide Segment

In July 2016, we implemented a plan to close our Umbogintwini, South Africa Titanium Dioxide manufacturing facility. As part of the program, we recorded restructuring expense of nil, nil and \$1 million for the years ended December 31, 2022, 2021 and 2020, respectively, all of which related to plant shutdown costs. In connection with this plan, in August 2020 we sold the Umbogintwini facility. Accordingly, during the third quarter of 2020 we received proceeds of \$6 million related to this sale and recognized a corresponding gain on disposal of assets of \$6 million. This gain is recorded in the Other operating expense, net in our consolidated statements of operations.

In March 2017, we implemented a plan to close the white end finishing and packaging operation of our Titanium Dioxide manufacturing facility at our Calais, France site. The announced plan follows the 2015 closure of the black-end manufacturing operations and resulted in the closure of the entire facility. As part of the program, we recorded restructuring and plant closure expense of \$5 million, \$9 million and \$5 million for the years ended December 31, 2022, 2021 and 2020, respectively, all of which related to plant shutdown costs. \$5 million of the plant shutdown costs recorded in 2021 were non-restructuring plant closure costs. We expect to incur additional cash plant shutdown costs of approximately \$8 million through 2024.

In September 2018, we implemented a plan to close our Pori, Finland Titanium Dioxide manufacturing facility. We recorded approximately \$18 million of restructuring expense and plant closing costs the year ended December 31, 2022, of which approximately \$14 million was restructuring expense related to the plan and \$4 million was for minimum annual quantities and a termination fee under a gas supply contract for which \$16 million is recorded as accrued liabilities and \$19 million is recorded as other non-current liabilities on our consolidated balance sheet as of December 31, 2022. Restructuring expense consists of \$2 million related to accelerated depreciation and \$12 million related to cash plant shutdown costs.

We recorded approximately \$49 million of restructuring expense and plant closing costs related to our Pori facility for the year ended December 31, 2021, of which approximately \$12 million was restructuring expense related to the plan and \$37 million was related to minimum annual quantities under a gas supply contract. Restructuring expense consists of \$5 million related to accelerated depreciation, \$5 million related to plant shutdown costs, and \$2 million related to employee benefits. This restructuring expense consisted of \$7 million of cash expense and a net noncash expense of \$5 million.

We recorded restructuring expense related to our Pori facility of \$19 million for the year ended December 31, 2020, of which \$12 million related to accelerated depreciation, \$5 million related to plant shutdown costs, and \$2 million related to employee benefits. This restructuring expense consisted of \$7 million of cash expense and a net noncash expense of \$12 million.

We expect to incur additional charges of approximately \$27 million at our Pori site through the end of 2025, of which \$1 million relates to accelerated depreciation, \$23 million relates to plant shut down costs, \$2 million relates to other employee costs and \$1 million related to the write off of other assets. Future charges consist of \$2 million of noncash costs and \$25 million of cash costs.

Performance Additives Segment

In May 2021, we completed the sale of our water treatment business for approximately \$6 million in cash. We recorded a loss on disposal of \$2 million, which is included in Other income in our consolidated statements of operations.

Accrued Restructuring Costs

As of December 31, 2022, 2021 and 2020, current and non-current accrued restructuring costs by type of cost and initiative consisted of the following:

	Workforce reductions ⁽¹⁾	Other restructuring costs	Total ^{(2) (3)}
Accrued restructuring costs as of January 1, 2020	\$ 15	\$ 1	\$ 16
2020 adjustments for 2019 and prior initiatives	(1)	(1)	(2)
2020 charges for 2019 and prior initiatives	5	10	15
2020 charges for 2020 initiatives	9	1	10
2020 payments for 2019 and prior initiatives	(11)	(9)	(20)
2020 payments for 2020 initiatives	—	(1)	(1)
Foreign currency effect on liability balance	1	—	1
Accrued restructuring costs as of December 31, 2020	\$ 18	\$ 1	\$ 19
2021 charges for 2020 and prior initiatives	12	10	22
2021 payments for 2020 and prior initiatives	(7)	(10)	(17)
Foreign currency effect on liability balance	(1)	(1)	(2)
Accrued restructuring costs as of December 31, 2021	\$ 22	\$ —	\$ 22
2022 charges for 2019 and prior initiatives	1	18	19
2022 charges for 2022 initiatives	3	—	3
2022 payments for 2019 and prior initiatives	(4)	(18)	(22)
2022 payments for 2020 initiatives	(11)	—	(11)
2022 payments for 2022 initiatives	(2)	—	(2)
Foreign currency effect on liability balance	(1)	—	(1)
Accrued restructuring costs as of December 31, 2022	\$ 8	\$ —	\$ 8
Current portion of restructuring reserves	\$ 6	\$ —	\$ 6
Long-term portion of restructuring reserve	\$ 2	\$ —	\$ 2

- (1) The total workforce reduction reserves of \$8 million at December 31, 2022 relate to the termination of 44 positions, of which 40 positions had been terminated but not yet paid as of December 31, 2022.
- (2) Accrued liabilities remaining at December 31, 2022 and 2021 by year of initiatives were as follows:

	December 31,	
	2022	2021
2019 initiatives and prior	\$ 4	\$ 8
2020 initiatives	3	14
2022 initiatives	1	—
Total	\$ 8	\$ 22

- (3) All total accrued restructuring costs as of December 31, 2022, 2021 and 2020 were related to the Titanium Dioxide segment, with the exception of nil, \$1 million, and \$1 million, respectively, which were related to the Performance Additives segment.

Restructuring, Impairment and Plant Closing and Transition Costs

Details with respect to restructuring, impairment and plant closing and transition costs for the years ended December 31, 2022, 2021 and 2020 are provided below:

	2022	2021	2020
Cash restructuring charges	\$ 22	\$ 21	\$ 25
Other plant closure costs	4	42	—
Accelerated depreciation	2	5	32
Impairment of assets	114	—	3
Adjustments to restructuring plans initiated prior to 2019	—	—	(2)
Total Restructuring, Impairment of Plant Closing and Transition Costs	\$ 142	\$ 68	\$ 58

Note 14. Asset Retirement Obligations

Asset retirement obligations consist primarily of asbestos abatement costs, demolition and removal costs, leasehold remediation costs and landfill closure costs. Venator is legally required to perform capping and closure and post-closure care on the landfills and asbestos abatement on certain of its premises. For each asset retirement obligation, Venator recognized the estimated fair value of a liability and capitalized the cost as part of the cost basis of the related asset.

The following table describes changes to Venator's asset retirement obligation liabilities:

	December 31,	
	2022	2021
Asset retirement obligations at beginning of year	\$ 27	\$ 32
Accretion expense	2	2
Liabilities incurred	1	—
Liabilities settled	—	(6)
Transferred to current liabilities held for sale	(8)	—
Foreign currency effect on reserve balance	(2)	(1)
Asset retirement obligations at end of year	\$ 20	\$ 27

Note 15. Other Noncurrent Liabilities

Other noncurrent liabilities at December 31, 2022 and 2021 consisted of the following:

	December 31,	
	2022	2021
Pension liabilities	\$ 130	\$ 215
Restructuring and plant closing costs	21	30
Asset retirement obligations	20	26
Derivative liabilities	19	1
Other	12	13
Total	\$ 202	\$ 285

Note 16. Debt

Outstanding debt, excluding finance leases and net of remaining unamortized discount and issuance costs of \$10 million and \$14 million as of December 31, 2022 and 2021, respectively, consisted of the following:

	December 31,	
	2022	2021
Term Loan Facility	\$ 353	\$ 356
Senior Secured Notes	219	217
Senior Unsecured Notes	373	372
ABL Facility	80	—
Other	15	1
Total debt	\$ 1,040	\$ 946
Less: short-term debt and current portion of long-term debt	1,040	4
Total long-term debt	\$ —	\$ 942

The estimated fair value of the Term Loan Facility was \$264 million and \$359 million as of December 31, 2022 and 2021, respectively. The estimated fair value of the Senior Secured Notes was \$162 million and \$247 million as of December 31, 2022 and 2021, respectively. The estimated fair value of the Senior Unsecured Notes was \$114 million and \$362 million as of December 31, 2022 and 2021, respectively. The estimated fair values of the Term Loan Facility, Senior Secured Notes and Senior Unsecured Notes are based upon quoted market prices (Level 1).

The aggregate principal amount outstanding under our ABL Facility was \$80 million and nil as of December 31, 2022 and 2021, respectively, at an interest rate of approximately 2.7% on our outstanding balances. It is not practical to determine the fair value of the ABL Facility.

The weighted average interest rate on our outstanding balances under the Term Loan Facility, Senior Secured Notes, and Senior Unsecured Notes as of December 31, 2022 is approximately 7%.

Senior Credit Facilities

Our Senior Credit Facilities provide for first lien senior secured financing of up to \$705 million, consisting of:

- the Term Loan Facility in an aggregate principal amount of \$375 million, with a maturity of August 2024; and
- the ABL Facility in an aggregate principal amount of up to \$330 million, with a maturity of October 15, 2026, or if earlier, 91 days prior to maturity of any indebtedness in an amount in excess of \$75 million.

The Term Loan Facility amortizes in aggregate annual amounts equal to 1% of the original principal amount of the Term Loan Facility, and is paid quarterly.

We anticipate the violation of certain debt covenants in our Term Loan Facility and ABL Facility, specifically the issuance of an unqualified audit opinion (including not containing an explanatory paragraph regarding going concern) to the lenders under our Term Loan Facility and ABL Facility, thereby allowing the lenders under our Term Loan Facility and ABL Facility to accelerate the repayment of the outstanding borrowings under our facilities and exercise other rights and remedies that they have under applicable laws. In addition, an event of default under our Term Loan Facility or ABL facility that remains uncured for 30 days will constitute an event of default under our 9.5% Senior Secured Notes due 2025 and our 5.75% Senior Unsecured Notes due 2025. As a result of these anticipated events of default, we have classified the outstanding amounts as a current liability in the consolidated balance sheet as of December 31, 2022. See "Note 1. Description of Business, Going Concern, and Summary of Significant Accounting Policies" for further discussion of our going concern evaluation.

Availability to borrow under the \$330 million of commitments under the ABL Facility is subject to a borrowing base calculation comprised of accounts receivable and inventory in U.S., Canada, the U.K., and Germany and accounts receivable in France and Spain, that fluctuate from time to time and may be further impacted by the lenders' discretionary ability to impose reserves and availability blocks that might incrementally decrease borrowing availability. As a result, the aggregate amount available for extensions of credit under the ABL Facility at any time is the lesser of \$330 million and the borrowing base calculated according to the formula described above minus the aggregate amount of extensions of credit outstanding under the ABL Facility at such time. The borrowing base calculation as of December 31, 2022, after taking account of \$45 million reserved for letters of credit available to be issued by one of our lenders, is approximately \$266 million, of which \$162 million is available to be drawn, as a result of approximately \$80 million of drawn debt and \$24 million of letters of credit issued and outstanding. As of February 17, 2023 our available liquidity under our ABL facility had reduced to \$37 million as a result of borrowings made during 2023 and discretionary reserves imposed by the lenders. However, we are unable to utilize the majority of this available liquidity due to a cash dominion minimum availability requirement if availability falls below 10% of the aggregate principal amount of our facility. See "Note 1. Description of Business, Going Concern, and Summary of Significant Accounting Policies" for further discussion of our borrowing base and the related going concern evaluation.

Borrowings under the Term Loan Facility bear interest at a rate equal to, at Venator's option, either (a) a LIBOR based rate determined by reference to the costs of funds for Eurodollar deposits for the interest period relevant to such borrowing, adjusted for certain additional costs subject to an interest rate floor to be agreed or (b) a base rate determined by reference to the highest of (i) the rate of interest per annum determined from time to time by JPMorgan Chase Bank, N.A. as its prime rate in effect at its principal office in New York City, (ii) the federal funds rate plus 0.50% per annum and (iii) the one-month adjusted LIBOR plus 1.00% per annum, in each case plus an applicable margin to be agreed upon. Borrowings under the ABL Facility bear interest at a variable rate equal to an applicable margin based on the applicable quarterly average excess availability under the ABL Facility plus either a LIBOR or a base rate. The applicable margin percentage is calculated and established once every three calendar months and varies from 150 to 200 basis points for LIBOR loans depending on the quarterly average excess availability under the ABL Facility for the immediately preceding three-month period. The Senior Credit Facilities contain covenants that are usual and customary for facilities of this type, including events of default and financial, affirmative and negative covenants. In addition, the ABL Facility contains a springing financial covenant that requires the Company and its restricted subsidiaries to maintain a consolidated fixed charge coverage ratio of at least 1:1 for certain periods of time, if borrowing availability is less than 10% of the facility line cap. The Senior Credit Facilities contain customary change of control provisions, the breach of which entitle the lenders to take various actions, including the acceleration of amounts due under the facility.

All obligations under the Senior Credit Facilities are guaranteed by Venator and substantially all of our subsidiaries (the "Guarantors"), and are secured by substantially all of the assets of Venator and the Guarantors, in each case subject to certain exceptions. Lien priority as between the Term Loan Facility and the ABL Facility with respect to the collateral will be governed by an intercreditor agreement.

Senior Secured Notes

On May 22, 2020, we completed an offering of \$225 million in aggregate principal amount of Senior Secured Notes due on July 1, 2025 at 98% of their face value. The Senior Secured Notes are obligations of our wholly owned subsidiaries, Venator Finance S.à r.l. and Venator Materials LLC (the "Issuers") and bear interest of 9.5% per year payable semi-annually in arrears. The Senior Secured Notes are guaranteed on a senior secured basis by Venator and each of Venator's restricted subsidiaries (other than the Issuers and certain other excluded subsidiaries) that is a guarantor under Venator's Term Loan Facility and ABL Facility. The Senior Secured Notes are secured on a first-priority basis by liens on all of the assets that secure the Term Loan Facility on a first-priority basis and are secured on a second-priority basis in all inventory, accounts receivable, deposit accounts, securities accounts, certain related assets and other current assets that secure the ABL Facility on a first-priority basis and the Term Loan Facility on a second-priority basis, in each case, other than certain excluded assets. The Senior Secured Notes contain covenants that are usual and customary for facilities of this type, including events of default and financial, affirmative and negative covenants. Upon the occurrence of certain change of control events, holders of the Venator Senior Secured Notes will have the right to require that the Issuers purchase all or a portion of such holder's Senior Secured Notes in cash at a purchase price equal to 101% of the principal amount thereof plus accrued and unpaid interest, if any, to the date of repurchase.

Senior Unsecured Notes

Our Senior Unsecured Notes are general unsecured senior obligations of the Issuers and are guaranteed on a general unsecured senior basis by Venator and certain of Venator's subsidiaries. The indenture related to the Senior Unsecured Notes imposes certain limitations on the ability of Venator and certain of its subsidiaries to, among other things, incur additional

indebtedness secured by any principal properties, incur indebtedness of non-guarantor subsidiaries, enter into sale and leaseback transactions with respect to any principal properties, consolidate or merge with or into any other person or lease, sell or transfer all or substantially all of its properties and assets. The Senior Unsecured Notes bear interest of 5.75% per year payable semi-annually and will mature on July 15, 2025. The Senior Unsecured Notes will be redeemable in whole or in part at any time at the redemption prices set forth in the indenture, plus accrued and unpaid interest, if any, up to, but not including, the redemption date. Upon the occurrence of certain change of control events (other than the separation), holders of the Venator Senior Unsecured Notes will have the right to require that the Issuers purchase all or a portion of such holder's Senior Unsecured Notes in cash at a purchase price equal to 101% of the principal amount thereof plus accrued and unpaid interest, if any, to the date of repurchase.

Letters of Credit

As of December 31, 2022 we had \$77 million issued and outstanding letters of credit and bank guarantees to third parties. Of this amount, \$10 million were issued by various banks on an unsecured basis with the remaining \$67 million issued from our secured ABL facility.

Other Short-Term Notes Payable

In the third quarter of 2022 we entered into an agreement to finance the premiums for some of our corporate insurance programs. The premium finance agreement includes an initial amount of \$23 million and interest is payable at 4.4% per annum. Payment of principle and interest is due in monthly installments with the final amount payable in June 2023. Approximately \$14 million was outstanding at December 31, 2022 and is included in "current portion of debt" on our consolidated balance sheets.

Related Party Notes Payable of Venator to Subsidiaries of Huntsman International

We have a note payable of \$21 million as of December 31, 2022 and 2021, respectively, to Huntsman for an estimated liability pursuant to the tax matters agreement entered into at the time of the separation. Approximately \$14 million and nil is current as of December 31, 2022 and 2021, respectively, and has been presented as accounts payable to affiliates on our consolidated balance sheet, while \$7 million and \$21 million has been presented as Noncurrent payable to affiliates on our consolidated balance sheets as of December 31, 2022 and 2021, respectively.

Maturities

The scheduled maturities of our debt (excluding debt to affiliates) by year as of December 31, 2022 are as follows ⁽¹⁾:

Year ended December 31,	Amount
2023	\$ 98
2024	352
2025	600
2026	—
2027	—
Thereafter	—
Total	\$ 1,050

⁽¹⁾ The maturity is presented based on the contracted maturity dates of the debt agreements. However, due to the anticipated violation of certain debt covenants in our Term Loan Facility and ABL Facility, we have classified the outstanding amounts as a current liability in the consolidated balance sheet as of December 31, 2022. See "Note 1. Description of Business, Going Concern, and Summary of Significant Accounting Policies" for further discussion of our going concern evaluation.

Note 17. Derivative Instruments and Hedging Activities

To reduce cash flow volatility from foreign currency fluctuations, we enter into forward and swap contracts to hedge portions of cash flows of certain foreign currency transactions. We do not use derivative financial instruments for trading or speculative purposes.

Cross-Currency Swaps

In August 2019, we entered into three cross-currency interest rate swaps which notionally exchanged \$200 million at a fixed rate of 5.75% for €181 million on which a weighted average rate of 3.73% was payable. The cross-currency swaps were designated as cash flow hedges of a fixed rate U.S. Dollar intercompany loan and the economic effect is to eliminate uncertainty on the U.S. Dollar cash flows.

During 2022, we entered into five transactions whereby, in each transaction, we terminated three existing cross-currency swaps and concurrently entered into three new cross-currency interest rate swaps resulting in total cash proceeds of \$24 million across all five transactions. As of December 31, 2022, we have three cross-currency interest rate swaps which notionally exchanged \$200 million at a fixed rate of 5.75% for €207 million on which a weighted average rate of 4.30% is payable. The cross-currency swaps have been designated as fair value hedges of a fixed rate U.S. Dollar intercompany loan. The cross-currency swaps are set to mature in July 2025, which is the best estimate of the repayment date on the intercompany loan.

We formally assessed the hedging relationship at the inception of the fair value hedge in order to determine whether the derivatives that are used in the hedging transactions are highly effective in offsetting changes in fair value attributable to the hedged item and we will continue to assess the relationship on an ongoing basis. We use the spot method to measure effectiveness of our cross-currency swap agreement, comparing the quarterly change in the spot exchange rates on the USD notional amount underlying the cross-currency swap designated hereunder and the quarterly change in spot exchange rates on the USD debt. Fair value changes attributable to the change in spot foreign currency rates are recognized in foreign exchange gain (loss), and reported in Other operating (income) expense, net in our consolidated statements of operations, along with the offsetting gains and losses of the related hedged item. We have elected to exclude the forward interest rate differential from the assessment of hedge effectiveness in the fair value hedge and account for it as an excluded component. The changes in fair value of the excluded component of the cross-currency swaps are recorded in Other comprehensive income (loss).

The fair value of these cross-currency swaps were liabilities of \$19 million and \$1 million at December 31, 2022 and 2021, respectively, and they were recorded as other long-term liabilities on our consolidated balance sheets. We estimate the fair values of our cross-currency swaps by taking into consideration valuations obtained from a third-party valuation service that utilizes an income-based industry standard valuation model for which all significant inputs are observable either directly or indirectly. These inputs include foreign currency exchange rates, credit default swap rates and cross-currency basis swap spreads. The cross-currency swap has been classified as Level 2 because the fair value is based upon observable market-based inputs or unobservable inputs that are corroborated by market data.

During 2022, 2021, and 2020, the changes in accumulated other comprehensive loss associated with these cash flow hedging activities was a loss of \$2 million, a loss of \$1 million, and a loss of \$11 million, respectively. As of December 31, 2022, accumulated other comprehensive loss of nil is expected to be reclassified to earnings during the next twelve months. The actual amount that will be reclassified to earnings over the next twelve months may vary from this amount due to changing market conditions.

We would be exposed to credit losses in the event of nonperformance by a counterparty to our derivative financial instruments. We continually monitor our position and the credit rating of our counterparties, and we do not anticipate nonperformance by the counterparties.

Forward Currency Contracts Not Designated as Hedges

We transact business in various foreign currencies and we enter into currency forward contracts to offset the risk associated with the risks of foreign currency exposure. At December 31, 2022 and 2021 we had \$71 million and \$68 million, respectively, notional amount (in U.S. dollar equivalents) outstanding in foreign currency contracts with a term of approximately one month. The contracts are valued using observable market rates (Level 2).

Note 18. Share-Based Compensation Plan

On August 1, 2017, our compensation committee and board of directors adopted the Venator Materials 2017 Stock Incentive Plan (the "LTIP") to provide for the granting of non-qualified stock options, incentive stock options, stock appreciation rights, restricted stock, phantom shares, performance awards and other stock-based awards to our employees, directors and consultants and to employees and consultants of our subsidiaries, provided that incentive stock options may be granted solely to employees. The terms of the grants are fixed at the grant date. As of December 31, 2022, we were authorized to grant up to 17.8 million shares under the LTIP. As of December 31, 2022, we had 5.4 million shares remaining under the LTIP available for grant. Stock option awards have a maximum contractual term of 10 years and generally must have an

exercise price at least equal to the market price of Venator's ordinary shares on the date the stock option award is granted. Share-based awards generally vest over a three-year period; certain performance awards vest over a two-year period and awards to Venator's directors vest on the grant date.

We incurred \$8 million, \$7 million and \$8 million in stock-based compensation expense for the years ended December 31, 2022, 2021 and 2020, respectively. The total income tax benefit recognized in the consolidated statements of operations for stock-based compensation arrangements was \$1 million, \$1 million and \$2 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Stock Options

The fair value of the stock option awards were estimated using the Black-Scholes valuation model that uses the assumptions noted in the following table. Expected volatilities were based on a weighted average of the historical volatility of Huntsman's common stock and our ordinary shares through the grant date, whereby the volatility of Huntsman's common stock was used to estimate historical volatility for periods prior to the separation. The expected term of stock options granted was estimated using the safe harbor approach calculated as the vesting period plus remaining contractual term divided by two. The risk-free rate for the periods within the expected life of the option was based on the U.S. Treasury yield curve in effect at the time of grant. The assumptions noted below represent the weighted average of assumptions utilized for stock options granted during 2022, 2021 and 2020 under the LTIP.

	Year ended December 31,		
	2022	2021	2020
Dividend yield	—	—	—
Expected volatility	62.1 %	64.4 %	50.4 %
Risk-free interest rate	2.7 %	0.8 %	1.5 %
Expected life of stock options granted during the period	6.0 years	6.0 years	6.0 years

The table below presents the changes in stock option awards for our ordinary shares from December 31, 2021 through December 31, 2022.

	Shares (in thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in millions)
Outstanding at December 31, 2021	4,330	\$ 6.45	\$ —	
Granted	1,784	2.47		
Exercised	—	—		
Forfeited	(36)	3.23		
Expired	(35)	9.44		
Outstanding at December 31, 2022	6,043	5.28	7.43	\$ —
Exercisable at December 31, 2022	3,089	7.50	6.34	—

Intrinsic value is the difference between the market value of our ordinary shares and the exercise price of each stock option multiplied by the number of stock options outstanding for those stock options where the market value exceeds their exercise price. During the years ended December 31, 2022, 2021 and 2020, the total intrinsic value of stock options exercised was nil, each.

The weighted-average grant-date fair value of stock options granted during December 31, 2022, 2021 and 2020 was \$2.47, \$2.39 and \$1.51 per option, respectively. As of December 31, 2022, there was \$3 million of total unrecognized compensation cost related to nonvested stock option arrangements granted under the LTIP. That cost is expected to be recognized over a weighted-average period of 1.8 years.

Restricted Stock Units

The fair value of the restricted stock units are based on the closing share price on the date of grant. For the performance unit awards granted during the years ended December 31, 2022 and 2021, the number of shares earned varies based on the Company achieving certain performance criteria over a three-year performance period. The performance criteria are total stockholder return of our ordinary shares relative to the total stockholder return of a specified industry peer-group for the three-year performance period. Additionally, performance unit awards were granted during the year ended December 31, 2021 based on achieving a certain return on net assets. The fair value of each performance unit award was estimated using a Monte Carlo simulation model that uses various assumptions, including an expected volatility rate and a risk-free interest rate. For the year ended December 31, 2022, the weighted-average expected volatility rate was 84.1% and the weighted-average risk-free interest rate was 1.8%.

The table below presents the changes in nonvested awards for our ordinary shares from December 31, 2021 through December 31, 2022.

	Shares (in thousands)	Weighted Average Grant-Date Fair Value
Nonvested at December 31, 2021	3,278	\$ 4.72
Granted	2,698	2.77
Vested ⁽¹⁾	(1,218)	3.95
Forfeited and expired	(237)	8.53
Nonvested at December 31, 2022	4,521	3.56

- (1) As of December 31, 2022, a total of 258,440 restricted stock units were vested but not yet issued. These shares have not been reflected as vested shares in the table because, in accordance with the restricted stock unit agreements, these shares are not issued for vested restricted stock until termination of employment.

As of December 31, 2022, there was \$7 million of total unrecognized compensation cost related to nonvested share compensation arrangements granted under the LTIP. That cost is expected to be recognized over a weighted-average period of 1.8 years.

Note 19. Income Taxes

The components of income (loss) before income taxes were as follows:

	Year ended December 31,		
	2022	2021	2020
U.K.	\$ 27	\$ (9)	\$ 4
Non-U.K.	(145)	(96)	(97)
Total	\$ (118)	\$ (105)	\$ (93)

A summary of the provisions for current and deferred income taxes is as follows:

	Year ended December 31,		
	2022	2021	2020
Income tax (benefit) expense:			
U.K.			
Current	\$ —	\$ —	\$ —
Deferred	—	—	—
Non-U.K.			
Current	4	13	10
Deferred	59	(44)	2
Total	\$ 63	\$ (31)	\$ 12

The reconciliation of the differences between the U.K. income taxes at the U.K. statutory rate to Venator's provision for income taxes is as follows:

	Year ended December 31,		
	2022	2021	2020
Loss from continuing operations before income taxes	\$ (118)	\$ (105)	\$ (93)
Expected tax benefit at U.K. statutory rate of 19%	\$ (23)	\$ (20)	\$ (18)
Change resulting from:			
Non-U.K. tax rate differentials	(14)	(10)	(9)
Other tax effects, including nondeductible expenses	3	2	2
Effect of tax rate changes	—	(9)	(6)
Change in valuation allowance	96	6	43
Other	1	—	—
Total income tax (benefit) expense	\$ 63	\$ (31)	\$ 12

Venator operates in over 20 non-U.K. tax jurisdictions with no specific country earning a predominant amount of its off-shore earnings. Some of these countries have income tax rates that are approximately the same as the U.K. statutory rate, while other countries have rates that are higher or lower than the U.K. statutory rate. Losses earned in countries with higher average statutory rates than the U.K., resulted in higher tax benefit of \$14 million, \$10 million and \$9 million, respectively, for the years ended December 31, 2022, 2021 and 2020.

Components of deferred income tax assets and liabilities at December 31, 2022 and 2021 were as follows:

	December 31,	
	2022	2021
Deferred income tax assets:		
Net operating loss carryforwards	\$ 621	\$ 621
Pension and other employee compensation	28	50
Property, plant and equipment	56	60
Operating lease liability	11	11
Other, net	84	87
Total	\$ 800	\$ 829
Total deferred income tax liabilities:		
Pension and other employee compensation	\$ (25)	\$ (36)
Property, plant and equipment	(28)	(42)
Operating lease, right of use asset	(9)	(10)
Other, net	(8)	—
Total	\$ (70)	\$ (88)
Net deferred tax assets before valuation allowance	\$ 730	\$ 741
Valuation allowance	(719)	(664)
Net deferred tax assets	\$ 11	\$ 77
Non-current deferred tax assets	11	77
Non-current deferred tax liabilities	—	—
Net deferred tax assets	\$ 11	\$ 77

Venator has NOLs of \$3,004 million in various jurisdictions, principally in Finland, France, Germany, Italy, Luxembourg, Spain, South Africa, U.S. and the U.K., all of which have no expiration dates except for \$1,319 million, which begin to expire on December 31, 2028 and is subject to a valuation allowance.

Included in the \$3,004 million of gross NOLs is \$1,041 million attributable to our Luxembourg entity, which begin to expire on December 31, 2035. As of December 31, 2022, due to the uncertainty surrounding the realization of the benefits of these losses, there is a full valuation allowance of \$237 million against these net tax effected NOLs.

Venator has total net deferred tax assets, before valuation allowance, of \$730 million, including \$621 million of tax-effected NOLs. After taking into account deferred tax liabilities, Venator has recognized valuation allowance on net deferred tax assets of \$719 million, including valuation allowances in the following countries: Finland, France, Germany, Hong Kong, Italy, Luxembourg (as discussed above), Malaysia, South Africa, Spain, and the U.K. Venator also has net deferred tax assets of \$11 million, not subject to valuation allowances, primarily in the U.S.

Valuation allowances are reviewed each period on a tax jurisdiction by jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets. These conclusions require significant judgment. In evaluating the objective evidence that historical results provide, we consider the cyclicity of businesses and cumulative income or losses during the applicable period. Uncertainties regarding expected future income in certain jurisdictions could affect the realization of deferred tax assets in those jurisdictions and result in additional valuation allowances in future periods.

Venator began to experience global inflationary pressures during 2021, particularly in Europe, where we experienced significant increases in energy costs during periods subsequent to the COVID-19 pandemic shutdowns. The inflationary pressures on European energy were exacerbated in 2022 after Russia's invasion of Ukraine while other operating costs also remained inflated. Beginning in the third quarter of 2022, we began to experience a significant reduction in demand for our TiO₂ products sold in Europe and APAC while energy market prices reached record highs and other cost inflation continued to increase. For further information regarding going concern, see "Note 1. Description of Business, Going Concern, and Summary Of Significant Accounting Policies." At December 31, 2022, we concluded that there was insufficient positive evidence in our Spanish business to overcome this negative evidence. As a result we recognized a full valuation allowance against Spanish net deferred tax assets of \$50 million.

Based on management's ongoing analysis of positive and negative evidence within our Malaysia business we concluded at September 30, 2022 that there was insufficient positive evidence to overcome a history of losses. As a result, we recognized a full valuation allowance against Malaysian net deferred tax assets of \$9 million.

At December 31, 2021, in part because of the strength and consistency of historical, current, and anticipated future earnings, we determined there was sufficient positive evidence within our Spanish business to conclude that it was more likely than not that deferred taxes would be realizable. We therefore removed the remaining valuation allowance accordingly, recognizing an income tax benefit of \$47 million.

Pursuant to Sections 382 and 383 of the Code, utilization of U.S. tax attributes, including loss carryforwards, are subject to annual limitations due to any ownership changes of 5% owners. In general, an ownership change, as defined by Section 382, results when the ownership of certain stockholders or public groups increases by more than 50 percentage points over a three-year period. If an ownership change occurs, the annual limitation on the future utilization of tax attributes existing on the change date is equal to the value of the stock of the corporation times the long term tax exempt rate. This amount may then be increased or decreased in the five years after the change by recognized built in gains or losses that existed in the company's assets on the change date.

SK Capital's acquisition of 42.5 million Venator shares from Huntsman on December 23, 2020 resulted in a change of control pursuant to Section 382. As a result, certain Venator deferred tax assets, including U.S. tax net operating losses with an unlimited carryforward period, are subject to an annual limitation on the amount of taxable income which can be offset by such tax assets. The limitations from the ownership change may cause us to pay U.S. federal income taxes earlier than we otherwise would have. Based on management's analysis of positive and negative evidence within our U.S. business, and especially considering historical earnings and the evidence of estimated future income in an amount sufficient to exceed the limitation, we have concluded at December 31, 2022 and 2021, respectively, that there is sufficient positive evidence that our U.S. deferred tax assets will be realized. Net deferred tax assets in our U.S. business were \$11 million and \$14 million at December 31, 2022 and 2021, respectively.

The following is a reconciliation of the unrecognized tax benefits:

	2022	2021	2020
Unrecognized tax benefits as of January 1,	\$ 17	\$ 18	\$ 16
Gross increases and decreases- tax positions taken during prior period	—	—	2
Gross increases and decreases—tax positions taken during the current period	—	—	—
Decreases related to settlements of amounts due to tax authorities	—	(1)	—
Reductions resulting from the lapse of statutes of limitation	—	—	—
Foreign currency movements	—	—	—
Unrecognized tax benefits as of December 31,	\$ 17	\$ 17	\$ 18

As of December 31, 2022, 2021 and 2020, the amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate is \$3 million, \$3 million and \$1 million, respectively.

In accordance with Venator's accounting policy, we recognize interest and penalties accrued related to unrecognized tax benefits in income tax expense, which were insignificant for each of the years ended December 31, 2022, 2021 and 2020.

Venator conducts business globally and, as a result, files income tax returns in the U.S. federal, various U.S. state and various non-U.S. jurisdictions. The following table summarizes the tax years that remain subject to examination by major tax jurisdictions:

Tax Jurisdiction	Open Tax Years
France	2019 and later
Germany	2014 and later
Italy	2017 and later
Malaysia	2015 and later
Spain	2019 and later
United Kingdom	2019 and later
United States federal	2019 and later

Certain of Venator's U.S. and non-U.S. income tax returns are currently under various stages of audit by applicable tax authorities and the amounts ultimately agreed upon in resolution of the issues raised may differ materially from the amounts accrued.

Venator estimates that it is reasonably possible that no change of its unrecognized tax benefits could occur within 12 months of the reporting date.

For U.S. federal income tax purposes Huntsman recognized a gain as a result of the IPO and the separation to the extent the fair market value of the assets associated with our U.S. businesses exceeded the basis of such assets for U.S. federal income tax purposes at the time of the separation. As a result of such gain recognized, the basis of the assets associated with our U.S. businesses was increased. Pursuant to the tax matters agreement entered into at the time of the separation, we are required to make a future payment to Huntsman for any actual U.S. federal income tax savings we recognize as a result of any such basis increase for tax years through December 31, 2028. As of each of December 31, 2022 and 2021, we expected future payments to be \$21 million. Any subsequent adjustment asserted by U.S. taxing authorities could change the amount of gain recognized with a corresponding basis and liability adjustment for us under the tax matters agreement.

Due to the substantial doubt about our ability to continue as a going-concern, Venator is no longer able to control the decision to indefinitely reinvest earnings of our non-U.K. subsidiaries. The financial uncertainty that exists creates a presumption that unremitted non-U.K. earnings will be needed to meet existing obligations. As a result, we have recognized a deferred tax liability of \$2 million related to undistributed earnings of non-U.K. subsidiaries at December 31, 2022.

Note 20. Employee Benefit Plans

Defined Benefit and Other Postretirement Benefit Plans

Venator sponsors defined benefit plans in a number of countries outside of the U.S. in which employees of Venator participate. The availability of these plans and their specific design provisions are consistent with local competitive practices and regulations.

The disclosures for the defined benefit and other postretirement benefit plans within the U.S. are combined with the disclosures of the plans outside of the U.S. Of the total projected benefit obligations for Venator as of December 31, 2022 and 2021, the amount related to the U.S. benefit plans was \$8 million and \$11 million, respectively, or 1% each. Of the total fair value of plan assets for Venator, the amount related to the U.S. benefit plans for December 31, 2022 and 2021 was \$7 million and \$9 million, or 1% each.

The following table sets forth the funded status of the plans for Venator and the amounts recognized in the consolidated balance sheets at December 31, 2022 and 2021:

	Defined Benefit Plans		Other Postretirement Benefit Plans	
	2022	2021	2022	2021
Change in benefit obligation				
Benefit obligation at beginning of year	\$ 1,072	\$ 1,203	\$ 3	\$ 3
Service cost	2	2	—	—
Interest cost	15	13	—	—
Actuarial (gain) loss	(279)	(72)	(1)	—
Gross benefits paid	(44)	(47)	—	—
Plan amendments	—	6	—	—
Exchange rates	(90)	(31)	—	—
Benefit obligation at end of year	\$ 676	\$ 1,072	\$ 2	\$ 3
Accumulated benefit obligation at end of year	670	1,060		
Change in plan assets				
Fair value of plan assets at beginning of year	\$ 1,028	\$ 1,055	\$ —	\$ —
Actual return on plan assets	(244)	16	—	—
Employer contribution	9	18	—	—
Gross benefits paid	(44)	(47)	—	—
Exchange rates	(93)	(14)	—	—
Fair value of plan assets at end of year	\$ 656	\$ 1,028	\$ —	\$ —
Funded status				
Fair value of plan assets	\$ 656	\$ 1,028	\$ —	\$ —
Benefit obligation	(676)	(1,072)	(2)	(3)
Accrued benefit cost	\$ (20)	\$ (44)	\$ (2)	\$ (3)
Amounts recognized in balance sheet:				
Noncurrent asset	\$ 114	\$ 172	\$ —	\$ —
Current liability	(1)	(1)	—	—
Noncurrent liability ⁽¹⁾	(133)	(215)	(2)	(3)
Total	\$ (20)	\$ (44)	\$ (2)	\$ (3)
Amounts recognized in accumulated other comprehensive loss:				
Net actuarial loss (gain)	\$ 262	\$ 276	\$ (3)	\$ (3)
Prior service cost	8	9	—	—
Total	\$ 270	\$ 285	\$ (3)	\$ (3)

⁽¹⁾ Noncurrent liabilities include liabilities of \$5 million related to assets held for sale.

Actuarial gains and losses arising during 2022 and 2021 were primarily due to changes in discount rates used to determine our projected benefit obligation. The fair value of plan assets decreased during 2022 as compared to 2021 primarily due to decreased investment returns in pension assets.

Components of net periodic benefit gains for the years ended December 31, 2022, 2021 and 2020 were as follows:

	Defined Benefit Plans		
	2022	2021	2020
Service cost	\$ 2	\$ 2	\$ 3
Interest cost	15	13	17
Expected return on plan assets	(25)	(43)	(46)
Amortization of actuarial loss	2	12	13
Amortization of prior service cost	1	1	1
Settlement loss	—	—	1
Net periodic benefit gain	\$ (5)	\$ (15)	\$ (11)

The amounts recognized in net periodic benefit cost and other comprehensive loss for the years ended December 31, 2022, 2021 and 2020 were as follows:

	Defined Benefit Plans		
	2022	2021	2020
Current year actuarial (gain) loss	\$ (9)	\$ (45)	\$ 26
Amortization of actuarial loss	(2)	(12)	(13)
Current year prior service cost	—	6	—
Amortization of prior service cost	(1)	(1)	(1)
Other	(1)	(1)	(1)
Total recognized in other comprehensive (income) loss	(13)	(53)	11
Net periodic benefit gain	(5)	(15)	(11)
Total recognized in net periodic benefit cost and other comprehensive loss	\$ (18)	\$ (68)	\$ —

	Other Postretirement Benefit Plans		
	2022	2021	2020
Current year actuarial loss	\$ (1)	\$ —	\$ —
Total recognized in other comprehensive loss	(1)	—	—
Net periodic benefit cost	—	—	—
Total recognized in net periodic benefit cost and other comprehensive loss	\$ (1)	\$ —	\$ —

The following weighted-average assumptions were used to determine the projected benefit obligation at the measurement date and the net periodic pension cost for the year:

	Defined Benefit Plans		
	2022	2021	2020
Projected benefit obligation:			
Discount rate	4.41 %	1.58 %	1.09 %
Rate of compensation increase	2.19 %	2.12 %	2.12 %
Net periodic pension cost:			
Discount rate	1.58 %	1.09 %	1.60 %
Rate of compensation increase	2.12 %	2.12 %	2.56 %
Expected return on plan assets	2.99 %	4.03 %	5.02 %

	Other Postretirement Benefit Plans		
	2022	2021	2020
Projected benefit obligation:			
Discount rate	5.39 %	2.91 %	2.46 %
Net periodic pension cost:			
Discount rate	2.91 %	2.46 %	3.27 %
Rate of compensation increase	— %	— %	— %

At December 31, 2022 and 2021, the health care trend rate used to measure the expected increase in the cost of benefits was assumed to be 5.79%, decreasing to 4.52% after 2030. Assumed health care cost trend rates can have a significant effect on the amounts reported for the postretirement benefit plans.

The projected benefit obligation and fair value of plan assets for the defined benefit plans with projected benefit obligations in excess of plan assets as were as follows:

	December 31,	
	2022	2021
Projected benefit obligation	\$ 240	\$ 386
Fair value of plan assets	105	170

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for the defined benefit plans with an accumulated benefit obligation in excess of plan assets as of December 31, 2022 and 2021 were as follows:

	December 31,	
	2022	2021
Projected benefit obligation	\$ 238	\$ 384
Accumulated benefit obligation	237	383
Fair value of plan assets	104	168

Expected future contributions and benefit payments are as follows:

	Defined Benefit Plans	Other Postretirement Benefit Plans
2023 expected employer contributions:		
To plan trusts	\$ 8	\$ —
Expected benefit payments:		
2023	46	—
2024	47	—
2025	49	—
2026	49	—
2027	50	—
2028 - 2032	258	1

Our investment strategy with respect to pension assets is to pursue an investment plan that, over the long term, is expected to protect the funded status of the plan, enhance the real purchasing power of plan assets and not threaten the plan's ability to meet currently committed obligations. Additionally, our investment strategy is to achieve returns on plan assets, subject to a prudent level of portfolio risk. Plan assets are invested in a broad range of investments. These investments are diversified in terms of domestic and international equities, both growth and value funds, including small, mid and large capitalization equities; short-term and long-term debt securities; real estate; and cash and cash equivalents. The investments are further diversified within each asset category. The portfolio diversification provides protection against a single investment or asset category having a disproportionate impact on the aggregate performance of the plan assets.

Our pension plan assets are managed by outside investment managers. The investment managers value our plan assets using quoted market prices, other observable inputs or unobservable inputs. For certain assets, the investment managers obtain third-party appraisals at least annually, which use valuation techniques and inputs specific to the applicable property, market or geographic location. We have established target allocations for each asset category. Venator's pension plan assets are periodically rebalanced based upon our target allocations.

In December 2022, we entered into an insurance buy-in contract for the U.K. Tioxide defined benefit plan which was funded from existing pension plan assets with no adjustment made to the benefit obligations. Under the terms of the contract, which is issued by a third-party insurance company with no affiliation to us, the insurer is liable to pay the benefits to the plan, but the plan still retains full legal responsibility to pay the benefits to plan participants using the insurance payments. The buy-in contract will be treated as an asset of the plan, and has been classified as a Level 3 "Fixed Income" asset.

The fair value of plan assets for the pension plans was \$656 million and \$1,028 million at December 31, 2022 and 2021, respectively. The following plan assets are measured at fair value on a recurring basis:

Asset Category	December 31, 2022	Fair Value Amounts Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Pension plans:				
Equities	\$ 33	\$ 4	\$ 29	\$ —
Fixed income	574	28	51	495
Real estate/other	20	—	8	12
Cash and cash equivalents	29	29	—	—
Total pension plan assets	\$ 656	\$ 61	\$ 88	\$ 507

Asset Category	December 31, 2021	Fair Value Amounts Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Pension plans:				
Equities	\$ 42	\$ 15	\$ 27	\$ —
Fixed income	919	26	886	7
Real estate/other	42	—	17	25
Cash and cash equivalents	25	25	—	—
Total pension plan assets	\$ 1,028	\$ 66	\$ 930	\$ 32

		Real Estate/Other Year ended December 31,	
		2022	2021
Fair Value Measurements of Plan Assets Using Significant Unobservable Inputs (Level 3)			
Balance at the beginning of the period		\$ 25	\$ 28
Return on pension plan assets		(2)	(1)
Purchases, sales and settlements		(11)	(2)
Transfers (out of) into Level 3		—	—
Balance at the end of the period		\$ 12	\$ 25

		Fixed Income Year ended December 31,	
		2022	2021
Fair Value Measurements of Plan Assets Using Significant Unobservable Inputs (Level 3)			
Balance at the beginning of the period		\$ 7	\$ 7
Return on pension plan assets		(22)	—
Purchases, sales and settlements		510	—
Transfers (out of) into Level 3		—	—
Balance at the end of the period		\$ 495	\$ 7

Based upon historical returns, the expectations of our investment committee and outside advisors, the weighted average expected long-term rate of return on the pension assets is estimated to be between 2.99% and 4.03% . The asset allocation for our pension plans at December 31, 2022 and 2021 and the target allocation for 2022, by asset category, are as follows:

Asset category	Target allocation 2022	Allocated at December 31, 2022	Allocated at December 31, 2021
Pension plans:			
Equities	6 %	5 %	4 %
Fixed income	86 %	88 %	89 %
Real estate/other	3 %	3 %	4 %
Cash	5 %	4 %	3 %
Total pension plans	100 %	100 %	100 %

Equity securities in Venator's pension plans did not include any equity securities of Huntsman Corporation or Venator and its affiliates at the end of 2022.

Non-U.S. Defined Contribution Plans

We have defined contribution plans in a variety of non-U.S. locations. Venator's combined expense for these defined contribution plans for the years ended December 31, 2022, 2021 and 2020 was \$10 million, \$11 million and \$12 million, respectively, primarily related to the U.K. Pension Plan.

All U.K. associates are eligible to participate in the U.K. Pension Plan, a contract-based arrangement with a third party. Company contributions vary by business during a 5 year transition period. Plan participants elect to make voluntary contributions to this plan up to a specified amount of their compensation. We contribute a matching amount not to exceed 12% of the participant's salary for new hires and 15% of the participant's salary for all other participants.

U.S. Defined Contribution Plans

We have a salary deferral plan covering substantially all U.S. employees. Plan participants may elect to make voluntary contributions to this plan up to a specified amount of their compensation. New hires are provided a defined contribution plan with a non-discretionary employer contribution of 6% of pay and a company match of up to 4% of pay, for a total company contribution of up to 10% of pay.

Our total combined expense for the above defined contribution plans was \$2 million for the years ended December 31, 2022, 2021 and 2020.

Other U.S. Postretirement Benefit Plans

Our U.S. employees participate in a postretirement benefit plan that provides a fully insured Medicare Part D plan including prescription drug benefits affected by the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the "Act"). Venator has not determined whether the medical benefits provided by these postretirement benefit plans are actuarially equivalent to those provided by the Act. Venator does not collect a subsidy, and our net periodic postretirement benefits cost, and related benefit obligation, do not reflect an amount associated with the subsidy.

Note 21. Related Party Transactions

Transactions with Huntsman

We are party to a variety of transactions and agreements with Huntsman, our former parent and former largest shareholder.

On August 11, 2017, we entered into a separation agreement with Huntsman to effect the separation and to provide a framework for the relationship with Huntsman. This agreement governs the relationship between Venator and Huntsman subsequent to the completion of the separation and provides for the allocation between Venator and Huntsman of assets, liabilities and obligations attributable to periods prior to the separation. Pursuant to the separation agreement and other agreements with Huntsman, we agreed to indemnify Huntsman for certain liabilities, including those related to the operation of our business while it was still owned by Huntsman. Because these agreements were entered into in the context of a related party transaction, the terms may not be comparable to terms that would be obtained in a transaction between unaffiliated parties.

See description of our tax matters arrangement with Huntsman as part of the separation in "Note 19. Income Taxes."

SK Capital Share Acquisition

In December 2020, funds advised by SK Capital purchased just under 40% of Venator's outstanding shares from Huntsman Corporation. We transact with other entities under common ownership by SK Capital in the ordinary course of business. Purchases and sales with these entities since becoming affiliates were immaterial to our consolidated statements of operations. Accounts receivable and accounts payable with these affiliates were immaterial to our consolidated balance sheets.

Other Related Party Transactions

We conduct transactions in the normal course of business with other parties under common ownership. Sales of raw materials to LPC as part of a sourcing arrangement were \$124 million, \$84 million and \$81 million for the years ended December 31, 2022, 2021 and 2020, respectively. Proceeds from this arrangement are recorded as a reduction of cost of goods sold in Venator's consolidated statements of operations. Related to this same arrangement, purchases of finished goods

from LPC were \$226 million, \$189 million and \$168 million for the years ended December 31, 2022, 2021 and 2020, respectively. The related accounts receivable from affiliates and accounts payable to affiliates as of December 31, 2022 and 2021 are recognized in the consolidated balance sheets.

Note 22. Commitments and Contingencies

Purchase Commitments

We have various purchase commitments extending through 2030 for materials, supplies and services entered into in the ordinary course of business. Certain contracts allow for changes in minimum required purchase volumes in the event of a temporary or permanent shutdown of a facility. The contractual purchase prices for substantially all of these contracts are variable based upon market prices, subject to annual negotiations. We have a limited number of contracts which require a minimum payment even if no volume is purchased. We expect to incur the following payments for unconditional purchase obligations recognized on our consolidated balance sheet as of December 31, 2022:

Year ended December 31,	Amount
2023	\$ 16
2024	19

Legal Proceedings

Overview

We accrue liabilities related to legal matters when they are either known or considered probable and can be reasonably estimated. Legal matters are inherently unpredictable and subject to significant uncertainties, and significant judgment is required to determine both probability and the estimated amount. Some of these uncertainties include the stage of litigation, available facts, uncertainty as to the outcome of any legal proceedings or settlement discussions, and any novel legal issues presented.

In addition to the matters discussed below, we are a party to various other proceedings instituted by private plaintiffs, governmental authorities and others arising under provisions of applicable laws, including various environmental, products liability and other laws. Except as otherwise disclosed in these consolidated financial statements, we do not believe that the outcome of any of these matters will have a material effect on our financial condition, results of operations or liquidity.

Tronox Litigation

On April 26, 2019, we acquired intangible assets related to the European paper laminates product line from Tronox. A separate agreement with Tronox entered into on July 14, 2018 requires that Tronox promptly pay us a “break fee” of \$75 million upon the consummation of Tronox’s merger with The National Titanium Dioxide Company Limited (“Cristal”) once the sale of the European paper laminates business to us was consummated, if the sale of Cristal’s Ashtabula manufacturing complex to us was not completed.

On May 14, 2019, we commenced a lawsuit in the Delaware Superior Court against Tronox arising from Tronox's breach of its obligation to pay the break fee. We sought a judgment for \$75 million, plus pre- and post-judgment interest, and reasonable attorneys' fees and costs. On April 6, 2022, the Superior Court granted judgment as a matter of law in Venator’s favor for \$75 million plus interest, and rejected Tronox’s counterclaim for damages. On April 18, 2022, we and Tronox entered into a settlement agreement and release pursuant to which each party agreed to settle and release its claims against the other party in the Delaware Superior Court and pursuant to which Tronox agreed to pay Venator \$85 million, which payment was made on April 25, 2022, and recorded to Other income, net in our consolidated statements of operations.

Neste Engineering Services Matter

We were party to an arbitration proceeding initiated by Neste Engineering Services Oy (“NES”) on December 19, 2018 for payment of invoices allegedly due of approximately €14 million in connection with the delivery of services by NES to the Company in respect of the Pori site rebuild project.

A settlement agreement regarding all claims and the counterclaim in the arbitration, without admission of liability by either party, was reached on July 3, 2022, pursuant to which NES’s outstanding invoices allegedly due, for which we previously accrued, are deemed to have been discharged in full and NES was required to make a payment to Venator of approximately \$13 million in connection with Venator’s counterclaim. Payment was received on July 14, 2022. We recognized \$10 million of

income in Other operating (income) expense on our consolidated statements of operations as a result of the settlement with NES during the second quarter of 2022 and we recognized a further approximately \$13 million in the third quarter of 2022 upon receipt of the payment from NES.

Calais Pipeline Matter

The Region Hauts-de-France (the “Region”) has issued two duplicate title perception demands against us requiring repayment of €12 million, or \$13 million using exchange rates at December 31, 2022. This sum was previously paid to us by the Region under a settlement agreement, pursuant to which we were required to move an effluent pipeline at our Calais site. We filed claims with the Administrative Court in Lille, France on February 14, 2018 and April 12, 2018, requesting orders that the demands be set aside, which suspended enforcement of the demands. On July 12, 2018, the court set aside the first demand. On July 15, 2022, the court set aside the second demand and determined the original settlement agreement to be null and void. The judgement did not include a requirement for Venator to make any payments and was subject to appeal by both parties. Venator filed an appeal against the July 15, 2022 judgement on September 14, 2022. No date has been set for the appeal hearing.

Four new title perception demands were issued by the Region dated November 30, 2022, requiring payment of a total of €12 million. Venator filed a claim with the Administrative Court in Lille on January 27, 2023 requesting an order that the new demands be set aside, which will suspend enforcement of the demands.

At this stage we are unable to determine the likelihood of an unfavorable outcome to both the appeal and also to the set-aside request. We have accrued \$2 million related to this matter.

Scarlino Gypsum Developments

Our Scarlino, Italy TiO₂ manufacturing facility generates gypsum from the manufacturing process, which has been landfilled on-site and also transported for use in a reclamation project at Montioni, a nearby former quarry owned and operated by third parties. Venator Italy Srl, the quarry operator and site management are subjects of an investigation by the Italian Public Prosecutor’s Office concerning whether our Scarlino site and the quarry operator are in full compliance with applicable laws and permits with regard to the use of gypsum for reclamation at the quarry.

In the second quarter of 2021, we requested regional approval for a project for the use of gypsum in a specified on-site area on our Scarlino site. Following a review with relevant regional representatives, we submitted a revised request for regional approval in the first quarter of 2022. Following its determination that a preliminary (or screening) environmental impact assessment would be required, in November 2022 the Tuscany Region issued a further decree requiring a full environmental impact assessment before the project can be approved. We currently expect to submit the additional requested information to the Region by the end of the first quarter of 2023.

We continue to suspend TiO₂ production from two of the three calciner streams at the facility to reduce the rate at which the remaining gypsum capacity both on-site and in the Montioni reclamation project is consumed. At the current one-stream operating rate, we will soon not have sufficient capacity for the gypsum produced and as a consequence expect to stop production during the second quarter of 2023. If we do not receive approvals for additional gypsum storage capacity by the end of the first quarter of 2023, we may permanently close the site and subsequently incur associated site closure costs.

Should we receive timely approvals, and we continue to operate the facility, we intend to continue to pursue longer-term options, including operational changes to reduce the volume of gypsum produced in our process and developing new business opportunities for the sale of gypsum for commercial use. However, in January 2023, we concluded, due to our inability to obtain required approvals from regulatory authorities for various options for gypsum disposal thus far and our assessment of the likelihood of obtaining these approvals prior to the end of the first quarter, that the useful life of the Scarlino property, plant and equipment should be reduced to the end of the second quarter of 2023. Adjustments to depreciation will be accounted for prospectively.

In September 2022, Venator was the successful bidder in an auction to purchase the La Vallina quarry in Tuscany. Venator successfully completed the purchase of the quarry on January 19, 2023. If our Scarlino facility remains operational and we receive the required approvals from regional authorities to operate the quarry as a landfill, at a future point the La Vallina quarry could be used as a landfill to provide longer-term disposal capacity for gypsum we produce at the Scarlino site.

Gasum Matter

On November 15, 2022, Gasum LNG Oy initiated an arbitration proceeding seeking the full and immediate payment of a total of €33 million plus interest from October 14, 2022 for all amounts allegedly owed under a natural gas supply agreement that we entered into with Skangas Oy (predecessor to Gasum) in 2015 to supply natural gas to our Pori, Finland manufacturing facility.

Under the agreement, we were required to purchase a minimum annual quantity, subject to a mechanism for making up shortfalls. The minimum annual quantity could be reduced (even to zero) in the event of a "Force Majeure Event." We declared that the fire at our Pori facility in January 2017 was a Force Majeure Event under the agreement, reducing the minimum annual quantity to the actual quantity purchased. Gasum alleged that this Force Majeure Event subsequently ceased to apply after an initial period following the fire and that we were thereafter again obliged to purchase the minimum annual quantities and filed arbitration proceedings seeking declaratory relief to require us to "take or pay" for the minimum annual quantities of natural gas. On August 6, 2021, the arbitration tribunal issued its decision in the matter, ruling that we were obligated to continue to purchase the minimum annual quantity under the supply agreement until termination of the supply agreement, which subsequently occurred on August 31, 2022.

We dispute that any sums are yet due and outstanding other than a €3 million termination fee as of October 13, 2022. In the current arbitration proceeding, each party has nominated one member for the arbitral panel, but a chairman has not yet been agreed. We have accrued \$35 million related to this matter of which \$16 million is current and has been included in accrued liabilities on our consolidated balance sheet at December 31, 2022.

Note 23. Environmental, Health and Safety Matters

Environmental, Health and Safety Capital Expenditures

We may incur future costs for capital improvements and general compliance under EHS laws, including costs to acquire, maintain and repair pollution control equipment. For the years ended December 31, 2022, 2021 and 2020, our capital expenditures for EHS matters totaled \$14 million, \$20 million and \$13 million, respectively. Because capital expenditures for these matters are subject to evolving regulatory requirements and depend, in part, on the timing, promulgation and enforcement of specific requirements, our capital expenditures for EHS matters have varied significantly from year to year and we cannot provide assurance that our recent expenditures are indicative of future amounts we may spend related to EHS and other applicable laws.

Environmental Liabilities

We accrue liabilities relating to anticipated environmental cleanup obligations, site reclamation and closure costs, and known penalties. Liabilities are recorded when potential liabilities are either known or considered probable and can be reasonably estimated. Our liability estimates are based upon requirements placed upon us by regulators, available facts, existing technology, and past experience. The environmental liabilities do not include amounts recorded as asset retirement obligations. As of December 31, 2022 and 2021, we had environmental liabilities of \$4 million and \$10 million, respectively. We may incur additional losses for environmental remediation.

Environmental Matters

We have incurred, and we may in the future incur, liabilities to investigate and clean up waste or contamination at our current or former facilities or facilities operated by third parties at which we may have disposed of waste or other materials. Similarly, we may incur costs for the cleanup of waste that was disposed of prior to the purchase of our businesses. Under some circumstances, the scope of our liability may extend to damages to natural resources.

In the EU, the Environmental Liability Directive (Directive 2004/35/EC) has established a framework based on the "polluter pays" principle for the prevention and remediation of environmental damage, which establishes measures to prevent and remedy environmental damage. The directive defines "environmental damage" as damage to protected species and natural habitats, damage to water and damage to soil. Operators carrying out dangerous activities listed in the Directive are strictly liable for remediation, even if they are not at fault or negligent.

Under EU Directive 2010/75/EU on industrial emissions, permitted facility operators may be liable for significant pollution of soil and groundwater over the lifetime of the activity concerned. We are in the process of plant closures at facilities in the EU and liability to investigate and clean up waste or contamination may arise during the surrender of operators' permits at

these locations under the directive and associated legislation such as the Water Framework Directive (Directive 2000/60/EC) and the Groundwater Directive (Directive 2006/118/EC).

Under CERCLA and similar state laws, a current or former owner or operator of real property in the U.S. may be liable for remediation costs regardless of whether the release or disposal of hazardous substances was in compliance with law at the time it occurred or whether it owned or operated the facility at the time of the release. Outside the U.S., analogous contaminated property laws, such as those in effect in France, can hold past owners and/or operators liable for remediation at former facilities. We have not been notified by third parties of claims against us for cleanup liabilities at former facilities or third-party sites, including, but not limited to, sites listed under CERCLA.

Under RCRA in the U.S. and similar state laws, we may be required to remediate contamination originating from waste disposed of at our properties. Similar laws exist in a number of locations in which we currently operate, or previously operated, manufacturing facilities. Some of our manufacturing sites have an extended history of industrial chemical manufacturing and use, including on-site waste disposal and we have made accruals for related remediation activity. We are aware of soil, groundwater or surface contamination from past operations at some of our sites and have made accruals for related remediation activity, and we may find contamination at other sites in the future.

Recent developments in climate change related policy and regulations include the Green Deal in the EU; mandatory TCFD disclosures in the U.K. and the U.K. commitment to becoming carbon neutral by 2050. Other nations have made or indicated a desire to make similar policy changes and commitments, including the Corporate Governance Improvement and Investor Protection Act in the U.S. These changes could affect us in a number of ways including potential requirements to decarbonize manufacturing processes and increased costs of GHG allowances. We are currently monitoring these developments closely while investigating appropriate climate change strategies to enable us to comply with the new regulations and conform to new disclosure requirements, including TCFD. We expect that our facilities will be subject to additional regulation related to climate change and climate change itself may also have some impact on our operations. However, these impacts are currently uncertain and we cannot predict the nature and scope of these impacts.

Scarlino Investigation

Our Scarlino, Italy TiO₂ manufacturing facility generates gypsum from the manufacturing process, which has been landfilled on-site and also transported for use in a reclamation project at Montioni, a nearby former quarry owned and operated by third parties. Venator Italy Srl, the quarry operator and Scarlino site management are subjects of an investigation by the Italian Public Prosecutor's Office concerning whether our Scarlino site and the quarry operator are in full compliance with applicable laws and permits with regard to the use of gypsum for reclamation at the quarry. Additional environmental investigations were carried out in the fourth quarter of 2022 and we have requested a meeting with the Prosecutor to discuss the current status of the investigation.

Harrisburg Remediation

We are engaged in source removal and groundwater remediation at our facility in Harrisburg, NC, under a corrective action plan agreed with the North Carolina Department of Environmental Quality. The agreed interim corrective measures include the removal of a settlement lagoon and the relining of lagoons and containment areas prior to risk based remediation of groundwater. We have environmental reserves of \$2 million at December 31, 2022 for this remediation obligation however the risk-based remediation of the groundwater following the remediation of the lagoons and containment areas cannot be reliably estimated at this stage, and these costs could be material to our consolidated financial statements.

Calais Remediation

Following the closure of our manufacturing facility in Calais, France we are engaged in a site assessment and a remediation assessment. We have reserves of less than \$1 million at December 31, 2022 related to decontamination of structures on the site. We have not otherwise set environmental reserves for this remediation obligation as the risk-based targets for remediation and the extent of any required remediation are yet to be agreed with regulators and cannot be reliably estimated. However, these costs could be material to our consolidated financial statements.

Duisburg Remediation

We are engaged in the assessment of metals in the groundwater and the hydrogeological nature of the groundwater beneath our Duisburg, Germany facility. Following a risk assessment we performed regarding the status of the groundwater body, in February 2023 we informed local residents in accordance with the Federal Soil Protection Act that we had, in cooperation with the City of Duisburg, carried out investigations and analysis which found groundwater contamination with

heavy metals at a depth of between approximately seven and twelve meters below ground level. Venator's investigations concluded that the presence of heavy metals in the groundwater was caused prior to our acquisition of the facility in 2014.

We are commencing an assessment of available remediation techniques to determine the technical solution which could be used to treat the impacted groundwater. This assessment will be completed in 2023.

We have reserves of \$1 million at December 31, 2022 for investigation into environmental contamination. Any remediation of the plume has not been demonstrated to be required and is not reliably estimable at this stage and will require further technical assessment and regulatory agreement, but these costs could be material to our consolidated financial statements.

Note 24. Other Comprehensive Loss

Other comprehensive loss consisted of the following:

	Foreign currency translation adjustment ⁽¹⁾	Pension and other postretirement benefits adjustments, net of tax ⁽²⁾	Other comprehensive income of unconsolidated affiliates	Hedging instruments	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Venator
Beginning balance, January 1, 2021	(19)	(306)	(5)	1	(329)	—	(329)
Other comprehensive (loss) income before reclassifications	(37)	40	—	(1)	2	—	2
Tax expense	—	—	—	—	—	—	—
Amounts reclassified from accumulated other comprehensive loss, gross ⁽³⁾	—	13	—	—	13	—	13
Tax expense	—	—	—	—	—	—	—
Net current-period other comprehensive (loss) income	(37)	53	—	(1)	15	—	15
Ending balance, December 31, 2021	(56)	(253)	(5)	—	(314)	—	(314)
Other comprehensive income (loss) before reclassifications	(92)	11	3	(2)	(80)	—	(80)
Tax expense	—	—	—	—	—	—	—
Amounts reclassified from accumulated other comprehensive loss, gross ⁽³⁾	—	3	—	—	3	—	3
Tax expense	—	—	—	—	—	—	—
Net current-period other comprehensive (loss) income	(92)	14	3	(2)	(77)	—	(77)
Ending balance, December 31, 2022	\$ (148)	\$ (239)	\$ (2)	\$ (2)	\$ (391)	\$ —	\$ (391)

(1) Amounts are net of tax of nil each as of January 1, 2021, December 31, 2021 and 2022.

(2) Amounts are net of tax of \$50 million as of January 1, 2021, December 31, 2021 and 2022, respectively.

(3) See table below for details about the amounts reclassified from accumulated other comprehensive loss.

	Year ended December 31,		Affected line item in the statement where net income is presented
	2022	2021	
Details about Accumulated Other Comprehensive Loss Components:			
Amortization of pension and other postretirement benefits:			
Actuarial loss	\$ 2	\$ 12	(a)
Prior service cost	1	1	(a)
Total before tax	3	13	
Income tax expense	—	—	Income tax (expense) benefit
Total reclassifications for the period, net of tax	\$ 3	\$ 13	

(a) These accumulated other comprehensive loss components are included in the computation of net periodic pension costs. See "Note 20. Employee Benefit Plans."

Note 25. Operating Segment Information

We derive our revenues, earnings and cash flows from the manufacture and sale of a wide variety of chemical products. We have reported our operations through our two segments, Titanium Dioxide and Performance Additives, and organized our business and derived our operating segments around differences in product lines.

The major product groups of each reportable operating segment are as follows:

Segment	Product Group
Titanium Dioxide	titanium dioxide
Performance Additives	functional additives, color pigments, and timber treatment

Sales between segments are generally recognized at external market prices and are eliminated in consolidation. Adjusted EBITDA is presented as a measure of the financial performance of our global business units and for reporting the results of our operating segments. The revenues and adjusted EBITDA for each of the two reportable operating segments are as follows:

	Year ended December 31,		
	2022	2021	2020
Revenues:			
Titanium Dioxide	\$ 1,597	\$ 1,665	\$ 1,431
Performance Additives	576	547	507
Total	\$ 2,173	\$ 2,212	\$ 1,938
Adjusted EBITDA⁽¹⁾:			
Titanium Dioxide	\$ 43	\$ 165	\$ 127
Performance Additives	53	65	55
	96	230	182
Corporate and other	(43)	(50)	(46)
Total	\$ 53	\$ 180	\$ 136
Reconciliation of adjusted EBITDA to net loss:			
Interest expense	(76)	(71)	(64)
Interest income	15	12	12
Income tax benefit (expense)	(63)	31	(12)
Depreciation and amortization	(107)	(119)	(114)
Net income attributable to noncontrolling interests	7	3	7
Other adjustments:			
Business acquisition and integration expense	(1)	(1)	(1)
Separation (expense) gain, net	(2)	(3)	10
Gain (loss) on disposition of businesses/assets	40	(9)	5
Certain legal expenses/ settlements	81	(5)	(6)
Amortization of pension and postretirement actuarial losses	(2)	(11)	(13)
Net plant incident costs, net	16	(13)	(7)
Restructuring, impairment and plant closing and transition costs	(142)	(68)	(58)
Net loss	\$ (181)	\$ (74)	\$ (105)
Depreciation and Amortization:			
Titanium Dioxide	\$ 83	\$ 89	\$ 85
Performance Additives	24	29	26
Corporate and other	—	1	3
Total	\$ 107	\$ 119	\$ 114

	Year ended December 31,		
	2022	2021	2020
Capital Expenditures:			
Titanium Dioxide	\$ 52	\$ 61	\$ 60
Performance Additives	17	12	9
Total	\$ 69	\$ 73	\$ 69
Total Assets:			
Titanium Dioxide	\$ 1,480	\$ 1,614	
Performance Additives	195	481	
Assets held for sale	198	—	
Corporate and other	196	269	
Total	\$ 2,069	\$ 2,364	

- (1) Our management uses adjusted EBITDA to assess financial performance. Adjusted EBITDA is defined as net income/loss before interest income/expense, net, income tax expense/benefit, depreciation and amortization, and net income attributable to noncontrolling interests, as well as eliminating the following adjustments: (a) business acquisition and integration expense/credits; (b) separation gain/expense, net; (c) loss/gain on disposition of businesses/assets; (d) certain legal expenses/settlements; (e) amortization of pension and postretirement actuarial losses/gains; (f) net plant incident costs/credits; and (g) restructuring, impairment, and plant closing and transition costs/credits. We believe that net income is the performance measure calculated and presented in accordance with GAAP that is most directly comparable to adjusted EBITDA.

By Geographic Area	Year ended December 31,		
	2022	2021	2020
Revenues⁽¹⁾:			
United States	\$ 622	\$ 511	\$ 476
Germany	189	227	214
Italy	133	129	101
United Kingdom	97	117	105
India	92	76	54
China	91	108	103
Spain	86	92	76
France	79	83	76
Other nations	784	869	733
Total	\$ 2,173	\$ 2,212	\$ 1,938
Long Lived Assets:			
Germany	\$ 221	\$ 242	
United Kingdom	145	174	
Italy	87	147	
United States	27	91	
Malaysia	68	79	
Other nations	92	115	
Total	\$ 640	\$ 848	

- (1) Geographic information for revenues is based upon countries into which product is sold.

VENATOR MATERIALS PLC AND SUBSIDIARIES
Schedule II—Valuation and Qualifying Accounts

Description	Balance at beginning of period	Additions		Deductions	Balance at end of period
		Charges to cost and expenses	Charged to other accounts		
Allowance for doubtful accounts:					
Year ended December 31, 2022	\$ 5	\$ —	\$ —	\$ (2)	\$ 3
Year ended December 31, 2021	5	—	—	—	5
Year ended December 31, 2020	4	1	—	—	5

ITEM 19. EXHIBITS

(a) Documents filed with this report.

(1) Consolidated Financial Statements

i. All financial statements of the Company as set forth under Item 18 of this annual report on Form 20-F

(1) Exhibits – The exhibits to this report are listed on the Exhibit Index below.

EXHIBIT INDEX

Each exhibit identified below is filed as a part of this annual report. Exhibits designated with an "*" are filed as an exhibit to this annual report on Form 20-F and exhibits designated with an "***" are furnished as an exhibit to this annual report on Form 20-F. Exhibits designated with a "+" are identified as management contracts or compensatory plans or arrangements. Exhibits previously filed as indicated below are incorporated by reference.

Exhibit Number	Description	Incorporated by Reference		
		Schedule Form	Exhibit	Filing Date
1.1	Amended and Restated Articles of Association of Venator Materials PLC	8-K	3.1	June 19, 2020
2.1	Description of Securities	20-F	2.1	February 22, 2022
2.2	Form of Certificate evidencing Ordinary Shares.	S-1	4.1	June 30, 2017
2.3	Registration Rights Agreement, dated August 8, 2017, by and among Venator Materials PLC, Huntsman International LLC and Huntsman (Holdings) Netherlands B.V.	8-K	10.4	August 11, 2017
2.4	Indenture for 5.75% Senior Notes due 2025.	S-1/A	4.3	July 14, 2017
2.5	Form of 5.75% Senior Note due 2025.	S-1/A	4.3	July 14, 2017
2.6	Supplemental Indenture, dated August 8, 2017, by and among Venator Finance S.à r.l., Venator Materials LLC, the guarantors party thereto and Wilmington Trust, National Association.	8-K	10.8	August 11, 2017
2.7	Indenture, dated as of May 22, 2020, by and among Venator Finance S.à r.l., Venator Materials LLC, the guarantors party thereto and Wilmington Trust, National Association, as trustee and notes collateral agent	8-K	4.1	May 22, 2020
2.8	First Supplemental Indenture, dated as of August 19, 2020, by and among the guarantors party thereto and Wilmington Trust, National Association, as trustee and notes collateral agent	8-K	4.1	August 19, 2020
2.9	Second Supplemental Indenture, dated as of August 19, 2020, by and between the guarantor party thereto and Wilmington Trust, National Association, as trustee and notes collateral agent	8-K	4.2	August 19, 2020
4.1	Separation Agreement dated August 7, 2017, by and among Venator Materials PLC and Huntsman Corporation.	8-K	2.1	August 11, 2017
4.2	Tax Matters Agreement, dated August 7, 2017, by and Among Venator Materials PLC and Huntsman International LLC.	8-K	10.2	August 11, 2017
4.3	ABL Facility Agreement, dated August 8, 2017, by and among Venator Materials LLC, the borrowers party thereto, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative and collateral agent.	8-K	10.5	August 11, 2017
4.4	Term Loan Credit Agreement, dated August 8, 2017, by and among Venator Materials PLC, Venator Finance S.à r.l. and Venator Materials LLC, as borrowers, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative and collateral agent.	8-K	10.6	August 11, 2017
4.5	First Incremental Amendment to Revolving Credit Agreement, dated as of June 20, 2019, by and among Venator Materials PLC, the borrowers and guarantors party thereto, the incremental lenders party thereto, and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent.	8-K	10.1	June 24, 2019
4.6	Purchase Agreement, dated May 8, 2020, by and among Venator Finance S.à r.l., Venator Materials LLC, the guarantors party thereto and J.P. Morgan Securities LLC, as representative of the initial purchasers listed in Schedule I thereto	8-K	10.1	May 8, 2020
4.7	Amended and Restated Venator Materials 2017 Stock Incentive Plan	8-K	10.1	June 19, 2020

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4.8	<u>Amendment and Restatement Agreement, dated as of October 15, 2021, by and among Venator Materials PLC, the borrowers and guarantors party thereto, the lenders party thereto, and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, which amends and restates that certain Revolving Credit Agreement, dated as of August 8, 2017 (as amended, restated, amended and restated, supplemented and/or otherwise modified prior to October 15, 2021)</u>	6-K	10.1	October 21, 2021
4.9	<u>Share Purchase Agreement dated as of November 14, 2022 between Venator Materials PLC and certain of its subsidiaries and Cathay Pigments Holdings Limited</u>	6-K	2.1	November 18, 2022
8.1*	<u>List of Subsidiaries</u>			
12.1*	<u>Certification by Chief Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Exchange Act Rules, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>			
12.2*	<u>Certification by Chief Financial Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Exchange Act Rules, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>			
13.1*	<u>Certifications by Chief Executive Officer and Chief Financial Officer pursuant to Title 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of Sarbanes-Oxley Act of 2002</u>			
15.1*	<u>Consent of Deloitte & Touche LLP</u>			
101.INS *	Inline XBRL Instance Document			
101.SC H*	Inline XBRL Taxonomy Extension Schema Document			
101.CA L*	Inline XBRL Taxonomy Extension Calculation Linkbase Document			
101.DE F*	Inline XBRL Taxonomy Definition Linkbase Document			
101.LA B*	Inline XBRL Taxonomy Extension Labels Linkbase Document			
101.PR E*	Inline XBRL Taxonomy Extension Presentation Linkbase Document			
104*	The cover page to this Annual Report on Form 20-F, formatted in Inline XBRL and contained in Exhibit 101			

* Filed herewith.

SIGNATURE

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Dated: February 21, 2023

VENATOR MATERIALS PLC

By: /s/ Kurt D. Ogden
Kurt D. Ogden
Executive Vice President and Chief Financial Officer