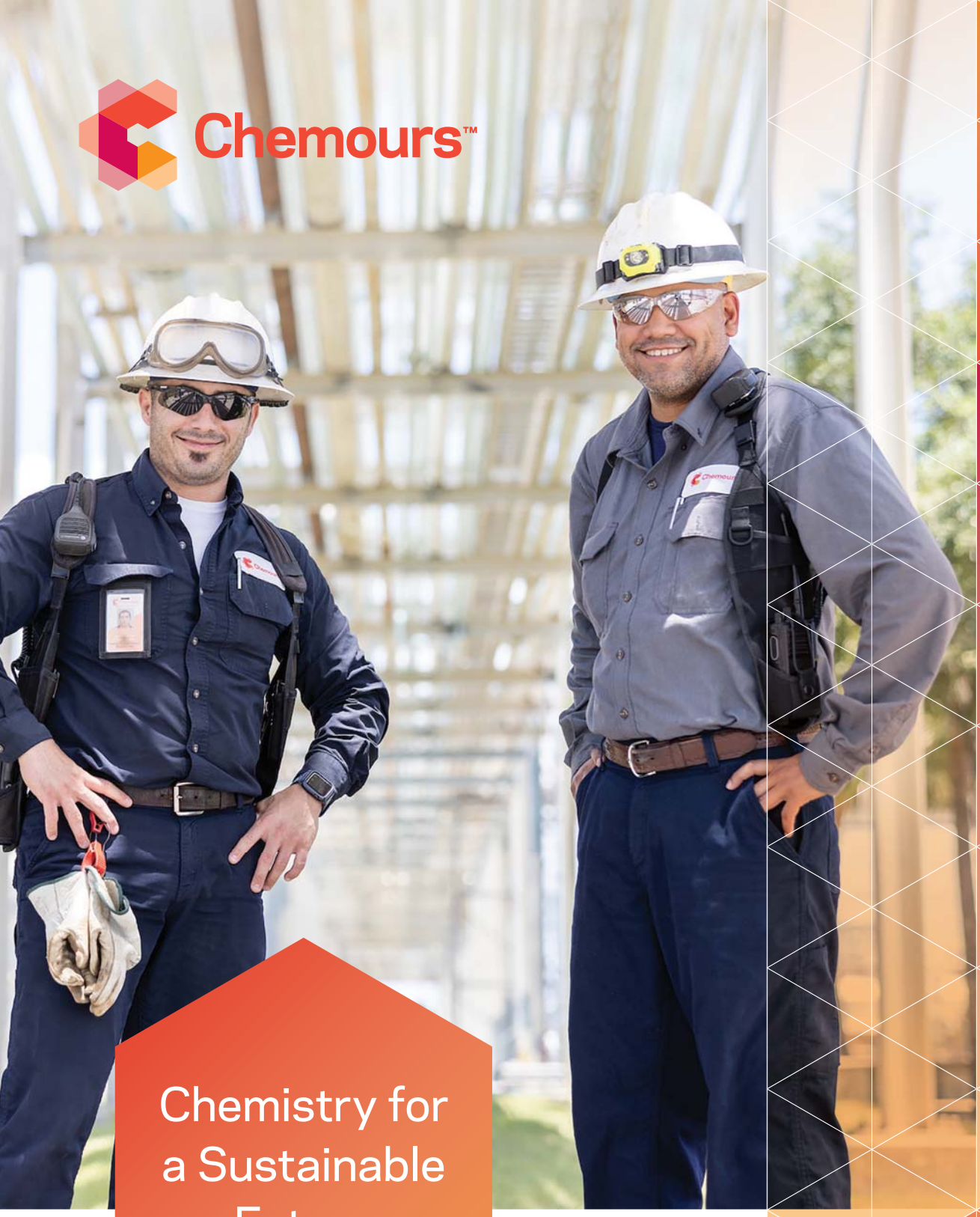
Chemours™



Chemistry for a Sustainable Future

THE CHEMOURS COMPANY

2022 | ANNUAL REPORT





Dear Chemours Stakeholders,

Courage and agility - words that best describe the drive our team showed in delivering strong performance in 2022, and we're just getting started realizing the full potential of our innovation. Despite significant challenges, including geopolitical volatility, supply chain disruptions and rising inflation, we delivered improved financial performance and accelerated changes that positioned us well for 2023 and beyond.

Importantly, we stepped up our focus on sustainable growth through announced investments in the hydrogen economy and lower global warming potential refrigerants, while redoubling our efforts in responsible manufacturing.

That performance is illustrated by our financial results:*

- Net Sales of $6.8 billion, up 7% year over year
- Net Income of $578 million with EPS of $3.65, up $0.05 year over year
- Adjusted EBITDA of $1.36 billion, up 4% year over year
- Free Cash Flow of over $447 million—delivering over $1.5 billion in FCF in the past three years
- Returned $649 million to shareholders—$495 million in share repurchases and $154 million in dividends—while continuing to strengthen our balance sheet
- Demonstrated resilience of our Titanium Technologies (TT) business model in meeting customer needs in the face of ore shortages during a strong first half and pivoting to address much weaker demand in Europe and Asia in the second half of the year
- Achieved record Net Sales and Adjusted EBITDA in both Thermal and Specialized Solutions (TSS) and Advanced Performance Materials (APM).

Among the milestones achieved in 2022 were record revenue and earnings by the TSS and APM segments, marking the first time since our founding that the combined performance of the TSS and APM segments became the primary driver of Chemours' results. This was a result of our focus on innovation and secular growth strategies and we're just getting started realized their full potential.

TITANIUM TECHNOLOGIES

Our TT business had a challenging year holding year-over-year revenues relatively flat at $3.4 billion but with Adjusted EBITDA declining 25% to $601 million. The team demonstrated a special degree of resilience and agility in meeting key contracted customer needs in the face of TiO2 ore constraints and higher raw materials and energy costs and then pivoting to address much lower demand in Europe and Asia in the second half.

With a strong book of contracted customers—through continued execution of our Ti-Pure™ Value Stabilization (TVS) strategy—we are committed to improving the quality of segment earnings through TiO2 cycles and growing with strategic customers. We're just getting started with our ambition to become the most sustainable TiO2 enterprise in the world.

THERMAL & SPECIALIZED SOLUTIONS

TSS delivered the highest revenue and earnings growth across our segments with Net Sales up 34% to $1.7 billion and Adjusted EBITDA up 50% to $603 million. These results reflect improved pricing achieved on legacy refrigerants, aided by the implementation of the American Innovation and Manufacturing (AIM) Act in the US and volume growth from the adoption of our lower global warming potential (GWP) Opteon™ refrigerants, propellants and foaming agents.

We announced an $80 million investment in our Corpus Christi, Texas plant, which will enable a 40% expansion in Opteon™ YF capacity by 2025. With this investment, and our enhanced focus on product innovation, TSS is well-positioned to drive top-line growth at attractive margins in the years to come as it delivers more sustainable thermal management and specialized solutions in a regulatory environment that promotes the use of low GWP products.

*See the definitions and reconciliations of all non-Generally Accepted Accounting Principles (GAAP) to their most comparable financial measures calculated in accordance with GAAP starting on page 64 of Form 10-K. Forward Looking Statements are subject to risk, uncertainties and assumptions, all of which are described in our public filings.

ADVANCED PERFORMANCE MATERIALS

Our APM segment delivered record-setting results in 2022, with an increase in Net Sales of 16% to $1.6 billion and Adjusted EBITDA up 29% to $367 million. APM continues to accelerate organic and inorganic growth initiatives in clean energy and advanced electronics. In addition to our recently announced $200 million investment in Nafion™ ionomer capacity and expanded membrane capabilities at our Villers-Saint-Paul, France site, we are expanding Teflon™ PFA capacity to meet the needs of the global semiconductor supply chain.

Beyond our significant organic expansion in the hydrogen economy, we announced the formation of a joint venture with Fumatech BWT on heavy-duty fuel cell membranes, were selected as a principal partner of the Appalachian Regional Clean Hydrogen Hub (ARCH2) and recently unveiled the Center for Clean Hydrogen, a public-private partnership between the U.S. Department of Defense, the University of Delaware, Chemours, Plug, and the National Renewable Energy Laboratory (NREL). We are just getting started in innovating and expanding to meet the explosive growth and technical challenges of clean energy and advanced electronics applications where responsibly made fluoropolymers are essential.

CRCs DRIVE PURPOSE AND PERFORMANCE

Our vision of creating a better world through the power of our chemistry is placing our Corporate Responsibility Commitments (CRCs) at the heart of everything we do. Since the publishing of our fifth CRC report which highlighted achievements like filling 33% of all director-level positions with women against our goal of 50%, we have continued to deliver in reducing overall GHG emissions through the completion of critical emissions control work at our Louisville site, a major contributor toward our goal of 60% reduction in GHG emissions by 2030 and net zero emissions by 2050. We are also pursuing a Science Based Target Initiative (SBTi) to include Scope 1, 2 and 3 emissions in our climate goals.

We have made significant progress in reducing fluorinated organic compound (FOC) emissions since our last report and are working to accelerate the timeline for achieving greater than 99% reduction.

Now 47% of our revenue is derived from product offerings that contribute to UN Sustainable Development Goals on our way to over 50%.

We continue to invest in our communities, committing 36% of the $50 million investment in our Vibrant Communities STEM, safety and environmental programs.

At Chemours, we recognize that our people are the key to realizing our vision and delivering strong purpose-driven financial performance. That is why we continue our efforts to make Chemours the greatest place to work, where every person can be their true and best self. Our progress is reflected in the significant improvements in our Great Place to Work® scores—especially among front-line employees. In 2022, Chemours was certified as a Great Place to Work®— in 10 countries which represent 90% of our workforce. Those countries include Belgium, Brazil, China, India, Japan, Korea, Mexico, Spain, Switzerland, and the United States. We are proud of this progress and will continue working to make Chemours the greatest place to work for all employees.

While 2022 was a formative and productive year for Chemours, we are just getting started in realizing the full potential of our innovative chemistries. We remain focused on carrying this momentum into 2023 and beyond. From our plant sites and labs to our offices around the globe, Chemours team members are collaborating to solve the world's most challenging problems. They are also deeply engaged in their communities, not just manufacturing our products responsibly but also investing in the future – in the people and places we call home. Our goal is to create greater opportunity for all through STEM education, with emphasis on helping underprivileged youth to unlock the brighter, more sustainable future that education can offer.

We want to thank all our stakeholders and shareholders. Our teams are energized and ready to seize every opportunity and take on any challenge that 2023 may bring as we continue to build this company to its full potential. We're just getting started and working together, we will realize our vision of creating a better world through the power of our chemistry.

Sincerely,



Mark E. Newman
President & CEO



Dawn L. Farrell
Chair, Board of Directors

Business Highlights

Our 6,600 employees helped to drive strong performance across our priority segments and position the company to take advantage of future secular growth.

NET SALES

$6.8B

+7% YoY

ADJUSTED EBITDA

$1.36B

+4% YoY

FREE CASH FLOW

$447M

RETURNED TO SHAREHOLDERS

$649M

TITANIUM TECHNOLOGIES

Titanium Technologies (TT) had a challenging year, reporting year-over-year revenues that were relatively flat at $3.4 billion, but with Adjusted EBITDA declining 25%. The business demonstrated agility and resilience in the face of higher raw material and energy costs and ore constraints during a strong first half and a sharp dislocation in demand in Europe and Asia in the second half of the year. We remain confident in our Ti-Pure™ Value Stabilization (TVS) strategy and our unique value proposition to customers as we work to become the most sustainable TiO2 enterprise in the world.

THERMAL & SPECIALIZED SOLUTIONS

Thermal & Specialized Solutions (TSS) delivered record Net Sales and Adjusted EBITDA in 2022. The segment delivered Net Sales up 34% to $1.7 billion with growth driven by improved pricing of legacy refrigerants and the implementation of the American Innovation and Manufacturing (AIM) Act in the US. We announced an $80 million investment at our Corpus Christi plant which will enable a 40% expansion in Opteon™ YF capacity by 2025.

ADVANCED PERFORMANCE MATERIALS

Advanced Performance Materials (APM) achieved record Net Sales, Adjusted EBITDA and Adjusted EBITDA Margins. Segment Net Sales grew by 16% to $1.6 billion, with Adjusted EBITDA up 29%. The team continues to accelerate growth initiatives in clean energy and advanced electronics with strong growth potential. We announced capacity expansions to meet the needs of the semiconductor and hydrogen markets and strategic partnerships to accelerate growth.

CHEMICAL SOLUTIONS

Chemical Solutions continued work to optimize the potential of its glycolic acid portfolio and to increase uptake of Glyclean™ D, the more effective, efficient, and environmentally friendly solution to clean and disinfect.





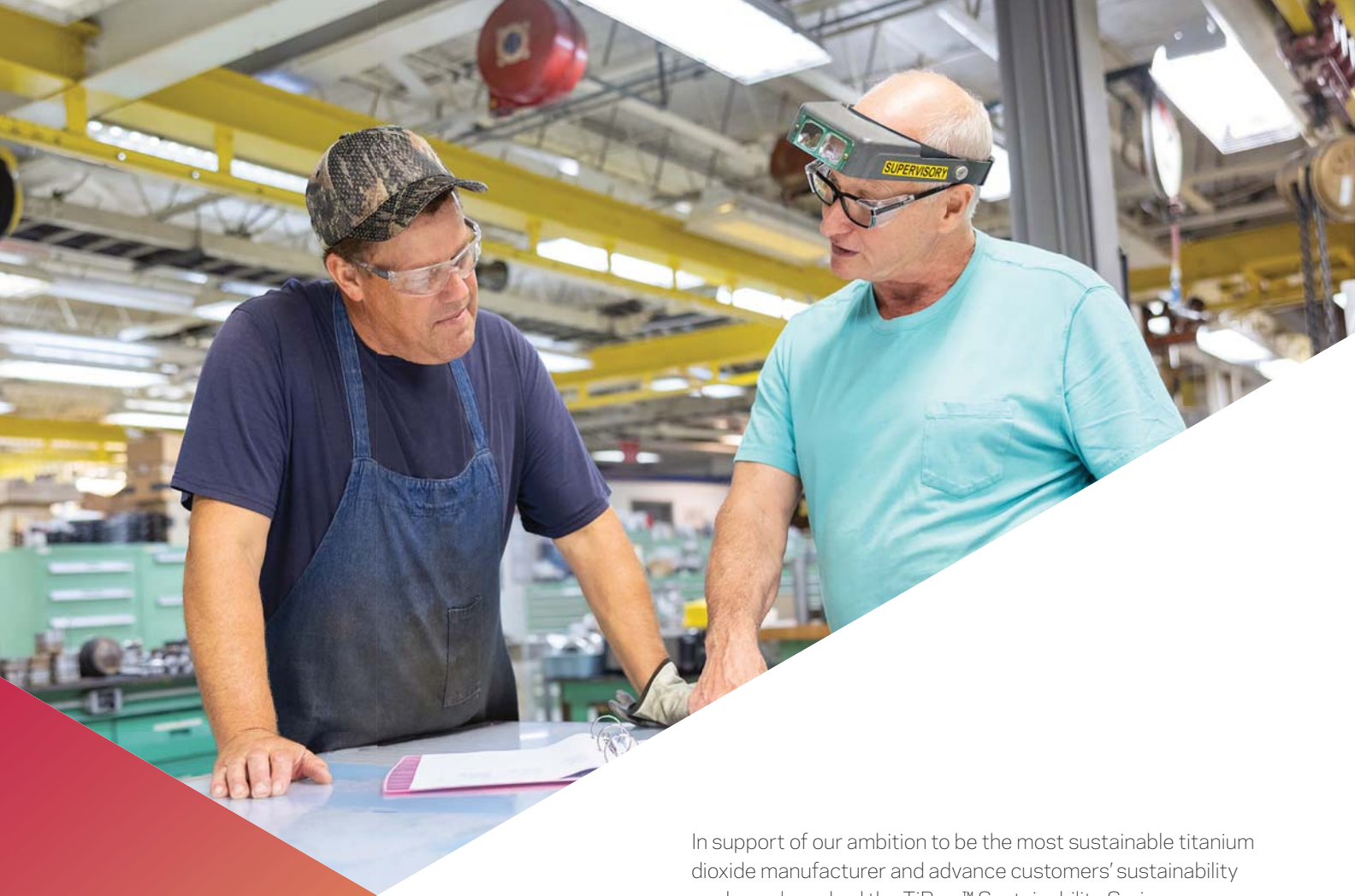
Innovative and Responsible

When it comes to sustainability and innovation, Chemours continues to be at the leading edge of our industry driving change, delivering for customers, and attracting partners. Together, we're working to define the approaches and technologies of the future.

The strength of our customer centered value was recognized again this year as Chemours received multiple honors from our customers. We're delighted to receive the Entegris Excellent Supplier Award, the Gold Seal Award from Freudenberg-NOK Sealing Technologies (FNST), and a LyondellBasell Award for Innovation.

Our chemistries are at the heart of a clean energy future and continue to attract partners and collaborators. With our Nafion™ ion exchange membrane at the heart of water electrolyzers and fuel cells for hydrogen we announced the formation of a joint venture with Fumatech BWT on heavy-duty fuel cell membranes. We also codeveloped the Center for Clean Hydrogen with the University of Delaware as part of the Clean Hydrogen Partnership, a public-private partnership between the U.S. Department of Defense, the University of Delaware, Chemours, Plug, and U.S. Department of Energy's National Renewable Energy Laboratory.

Our continued leadership in delivering high-performance low global warming potential (GWP) refrigerants serves as the basis for our collaboration with BOHN de Mexico to innovate the cold food chain, launching the first low GWP solution in the Americas based on A2L technology. We also launched a pilot with Honeywell to reclaim and recycle Opteon™ XP40 HFO refrigerant blends in Europe in support of a circular economy, while we continue to explore more innovative approaches to thermal management in heat pump, electric vehicle and data center technologies.





In support of our ambition to be the most sustainable titanium dioxide manufacturer and advance customers' sustainability goals, we launched the TiPure™ Sustainability Series, a new family of pigment offerings designed to advance sustainability, minimize climate impact, and maximize resource efficiency. The first in the product series is supported by a environmental footprint calculator to help customers quantify the environmental impact reduction of the grade.

We are committed to making chemistry as responsible as it is essential through our emissions control work. In 2022 we completed the Louisville HFC-23 emissions reduction project representing ~ 25% of our total baseline GHG emissions. We've also made progress on energy reduction and securing renewably sourced energy with 100,000 MWh executed in 2022 at our Louisville, KY, Starke, FL and New Johnsonville, TN sites, with several other renewable initiatives in progress. We committed to setting official science-based targets for approval by the Science-based Targets Initiative (SBTi) and are honored to receive a Gold level sustainability rating from Ecovadis for 2022. Chemours continues to empower our communities through programs like our school partnerships, ChemFEST, and other STEM educational and environmental programs. Since inception, we have distributed 36% of our $50 million investment in our Vibrant Communities.

Board of Directors



Dawn L. Farrell
Chair



Mark E. Newman
President and CEO



Curtis V. Anastasio
Director



Mary B. Cranston
Director



Curtis J. Crawford
Director



Erin N. Kane
Director



Sean D. Keohane
Director



Guillaume Pepy
Director



Sandra Phillips Rogers
Director

Chemours Leadership Team



Mark E. Newman
President and CEO



Alisha Bellezza
President, Thermal & Specialized Solutions



Denise Dignam
President, Advanced Performance Materials



Susan Kelliher
Senior Vice President, People



Jonathan S. Lock
Senior Vice President, Chief Development Officer



Sameer Ralhan
Senior Vice President, Chief Financial Officer



Alvenia Scarborough
Senior Vice President, Corporate Communications and Chief Brand Officer



Kristine Wellman
Senior Vice President, General Counsel and Corporate Secretary



Ed Sparks
President, Titanium Technologies and Chemical Solutions

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

FORM 10-K

☒ **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**

Commission File Number 001-36794



The Chemours Company
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**46-4845564**
(State or other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

1007 Market Street, Wilmington, Delaware 19801
(Address of Principal Executive Offices)

Registrant's Telephone Number: **(302) 773-1000**

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

Title of Each Class	Trading Symbol(s)	Name of Exchange on Which Registered
Common Stock ($0.01 par value)	CC	New York Stock Exchange

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. 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 electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

Indicate by check mark whether the registrant 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. ☒

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

The aggregate market value of common stock held by non-affiliates of the registrant as of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $5.0 billion. As of February 6, 2023, 148,335,834 shares of the company's common stock, $0.01 par value, were outstanding.

Documents Incorporated by Reference

Portions of the registrant's definitive proxy statement relating to its 2023 annual meeting of shareholders (the "2023 Proxy Statement") are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. The 2023 Proxy Statement will be filed with the U. S. Securities and Exchange Commission within 120 days after the end of the fiscal year to which this report relates.

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Forward-looking Statements

This section and other parts of this Annual Report on Form 10-K contain forward-looking statements, within the meaning of the federal securities laws, that involve risks and uncertainties. Forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. The words "believe", "expect", "anticipate", "plan", "estimate", "target", "project", and similar expressions, among others, generally identify "forward-looking statements", which speak only as of the date the statements were made. The matters discussed in these forward-looking statements are subject to risks, uncertainties, and other factors that could cause actual results to differ materially from those set forth in the forward-looking statements. Factors that could cause or contribute to these differences include, but are not limited to, the risks, uncertainties, and other factors discussed below and within *Item 1A – Risk Factors* in this Annual Report on Form 10-K.

Forward-looking statements are based on certain assumptions and expectations of future events that 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:

- fluctuations in energy and raw materials pricing;
- failure to develop and market new products and applications, and optimally manage product life cycles;
- increased competition, and increasing consolidation of our core customers;
- significant litigation and environmental matters, including indemnifications we were required to assume and cost-sharing arrangements into which we have entered;
- significant or unanticipated expenses, including, but not limited to, litigation or legal settlement expenses;
- our ability to manage and complete capital projects and/or planned expansions, including the start-up of capital projects;
- changes in relationships with our significant customers and suppliers;
- failure to manage process safety and product stewardship issues appropriately;
- global economic and capital markets conditions, such as inflation, interest and currency exchange rates, and commodity prices, as well as regulatory requirements;
- the effects of pandemics on customer demand for our products, our manufacturing operations, our supply chain effectiveness and efficiencies, the broader financial markets, and our financial results;
- currency-related risks;
- our current indebtedness and availability of borrowing facilities, including access to our revolving credit facilities;
- business or supply disruptions and security threats, such as acts of sabotage, terrorism or war, weather events, and natural disasters;
- uncertainty regarding the availability of additional financing in the future, and the terms of such financing;
- negative rating agency actions;
- changes in laws and regulations or political conditions;
- our ability to protect, defend, and enforce our intellectual property rights;
- our ability to predict, identify, and address changes in consumer preference and demand;
- our ability to complete potential divestitures or acquisitions and our ability to realize the expected benefits of divestitures or acquisitions if they are completed;
- our ability to meet our growth expectations and outlook;
- our ability to pay a dividend and the amount of any such dividend declared; and,
- disruptions in our information technology networks and systems.

Additionally, there may be other risks and uncertainties that we are unable to identify at this time or that we do not currently expect to have a material impact on our business. We assume no obligation to revise or update any forward-looking statement for any reason, except as required by law.

Unless the context otherwise requires, references herein to "The Chemours Company", "Chemours", "the Company", "our company", "we", "us", and "our" refer to The Chemours Company and its consolidated subsidiaries. References herein to "EID" refer to EIDP, Inc., formerly known as E.I. du Pont de Nemours and Company, which is our former parent company and is now a subsidiary of Corteva, Inc. ("Corteva"), a Delaware corporation, unless the context otherwise requires. References herein to "DuPont" refer to DuPont de Nemours, Inc., a Delaware Corporation.

PART I

Item 1. BUSINESS

Overview

The Chemours Company (herein referred to as "we", "us", or "our") is a leading, global provider of performance chemicals that are key inputs in end-products and processes in a variety of industries. We deliver customized solutions with a wide range of industrial and specialty chemicals products for markets, including coatings, plastics, refrigeration and air conditioning, transportation, semiconductor and consumer electronics, general industrial, and oil and gas. Our principal products include titanium dioxide ("TiO_2") pigment, refrigerants, industrial fluoropolymer resins, and performance chemicals and intermediates. We manage and report our operating results through three reportable segments: Titanium Technologies, Thermal & Specialized Solutions, and Advanced Performance Materials. Our Titanium Technologies segment is a leading, global provider of TiO_2 pigment, a premium white pigment used to deliver whiteness, brightness, opacity, durability, efficiency, and protection across a variety of applications. Our Thermal & Specialized Solutions segment is a leading, global provider of refrigerants, thermal management solutions, propellants, blowing agents, and specialty solvents. Our Advanced Performance Materials segment is a leading, global provider of high-end polymers and advanced materials that deliver unique attributes, including low friction coefficients, extreme temperature resistance, weather resistance, ultraviolet and chemical resistance, and electrical insulation. The Other Segment includes our Performance Chemicals and Intermediates business and Mining Solutions business (prior to the business sale in 2021).

We operate 29 major production facilities located in nine countries and serve approximately 2,900 customers across a wide range of end-markets in approximately 120 countries. Many of our commercial and industrial relationships span decades. Our customer base includes a diverse set of companies, many of which are leaders in their respective industries. Our sales are not materially dependent on any single customer. As of December 31, 2022, no one individual customer represented more than 10% of our consolidated net sales, and one customer represented approximately 8% of our total outstanding accounts and notes receivables balance.

We are a different kind of chemistry company, driven by our vision to create a better world through the power of our chemistry. Our world-class product portfolio brings everyday convenience to virtually everything people touch in their daily lives, making our products and the solutions they enable both vital and essential. We are committed to creating value for our customers and stakeholders around the world through innovative and sustainable solutions, environmental leadership, community impact and making Chemours the greatest place to work for every employee. Our global workforce, renowned for its deep and unmatched expertise, brings our chemistry to life, guided by five core values that form the bedrock foundation for how we operate: (i) ***Customer Centricity*** – driving customer growth, and our own, by understanding our customers' needs and building long-lasting relationships with them; (ii) ***Refreshing Simplicity*** – cutting complexity by investing in what matters, and getting results faster; (iii) ***Collective Entrepreneurship*** – empowering our employees to act like they own our business, while embracing the power of inclusion and teamwork; (iv) ***Safety Obsession*** – living our steadfast belief that a safe workplace is a profitable workplace; and, (v) ***Unshakable Integrity*** – doing what's right for our customers, colleagues, and communities – always.

Our core values, together with our company purpose and vision, underpin our commitment to our stakeholders to make chemistry as responsible as it is essential. Our Corporate Responsibility Commitment ("CRC") is embedded within our growth strategy as a company. Central to our CRC are 10 ambitious goals that we aim to achieve by 2030, built on the pillars of Inspired People, Shared Planet, and an Evolved Portfolio. In April 2021, we announced an update to our climate goals to better align our climate commitment with the Paris Accord and set us on a path to achieve net zero greenhouse gas emissions ("GHG") from our operations by 2050. In August 2022, we announced our signed commitment with the Science Based Targets initiative ("SBTi") to establish science-based targets for scopes 1, 2, and 3 GHG emissions. These goals are designed to promote accountability to our commitment and position us for sustainable, long-term earnings growth. While we utilize environmental, social, and governance ("ESG") issue prioritization and a defined governance framework to manage our CRC, our goal is to embed our CRC into our organization and our business managing processes. We understand that maintaining safe, sustainable operations has an impact on us, our communities, the environment, and our collective future. With this focus, we invest in research and development ("R&D") in order to develop safer, cleaner, and more efficient products and processes that enable our operations, customers, and consumers to reduce both their GHG emissions, carbon footprint, and overall environmental footprint. We value collaboration to drive change and commit to continue working with policymakers, our value chain, and other organizations to encourage collective action to reduce GHG emissions and encourage lower-carbon forms of energy.

Corporate History

We began operating as an independent company on July 1, 2015 (the "Separation Date") after separating from EID (the "Separation"). The Separation was completed pursuant to a separation agreement and other agreements with EID, including an employee matters agreement, a tax matters agreement, a transition services agreement, and an intellectual property cross-license agreement. These agreements govern the relationship between us and EID following the Separation and provided for the allocation of various assets, liabilities, rights, and obligations at the Separation Date. On August 31, 2017, EID completed a merger with The Dow Chemical Company ("Dow"). Following their merger, EID and Dow engaged in a series of reorganization steps and, in 2019, separated into three publicly-traded companies named Dow Inc., DuPont, and Corteva. EID is now a subsidiary of Corteva, and, at this time, any agreements related to our Separation are between us and EID, Corteva, and DuPont. Effective January 1, 2023, E.I. du Pont de Nemours changed its name to EIDP, Inc.

Segments

In our Titanium Technologies segment, we are a leading, global provider of TiO_2 pigment, and aspire to be the most sustainable TiO_2 enterprise in the world. Guided by decades of innovation, we are one of the largest global producers of TiO_2 pigment, using our proprietary chloride technology, our low-cost network of manufacturing facilities allows us to efficiently and cost-effectively serve our global customer base. We believe we are well-positioned to remain one of the lowest-cost, high-quality TiO_2 pigment producers. At the same time, our unique go-to-market strategy, Ti-Pure™ Value Stabilization ("TVS"), provides our customers with three differentiated channels to buy Ti-Pure™ TiO_2. This combination of technology, strength, and commercial innovation allows us to continue to meet our customers' needs around the world.

In our Thermal & Specialized Solutions segment, we are a leading, global provider of refrigerants, thermal management solutions, propellants, foam blowing agents, and specialty solvents. Our Thermal & Specialized Solutions segment has held a leading position in the refrigerants market since the commercial introduction of Freon™ in 1930. We are currently a leader in the development of sustainable technologies like Opteon™, one of the world's lowest global warming potential ("GWP") refrigerant brands, as governments around the world pass laws and regulations that make the use of low GWP refrigerants a requirement. In 2022, we announced our plan to expand our Opteon™ capacity at our Corpus Christi, Texas facility by approximately 40% to help meet customer needs as they continue to transition to lower GWP refrigerants.

In our Advanced Performance Materials segment, we are a leading, global provider of high-end polymers and advanced materials that deliver unique attributes, including chemical inertness, thermal stability, low friction, weather and corrosion resistance, extreme temperature stability, and unique di-electric properties. Our Advanced Performance Materials segment has a diversified offering of products that includes various specialty product solutions, membranes, industrial resins, and coatings. These product offerings position the business to serve a breadth of markets, segments, and applications, including electronics, communications, transportation, wire and cable, energy, oil and gas, and medical, among others, and our product offerings are fundamental to the future of clean energy and advanced electronics. In 2022, in support of the hydrogen economy, we announced our plan to increase capacity and advance technology for Nafion™ ion exchange materials, which will be located at our manufacturing facility in Villers St. Paul, France.

Additional information on our segments can be found in *Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations* and "Note 29 – Geographic and Segment Information" to the *Consolidated Financial Statements*.

Titanium Technologies Segment

Segment Overview

Our Titanium Technologies segment is a leading, global manufacturer of high-quality TiO_2 pigment and aspires to be the most sustainable TiO_2 supplier. This premium white pigment is used to deliver whiteness, brightness, opacity, durability, efficiency, and protection in applications, including architectural and industrial coatings, flexible and rigid plastic packaging, polyvinylchloride ("PVC"), laminate papers used for furniture and building materials, coated paper, and coated paperboard used for packaging. We sell our TiO_2 pigment under the Ti-Pure™ brand name. We operate four TiO_2 pigment production facilities: two in the U.S., one in Mexico, and one in Taiwan. In total, we have a TiO_2 pigment nameplate capacity of approximately 1.25 million metric tons per year. In addition, we have a large-scale repackaging and distribution facility in Belgium. We also operate mineral sands mining and/or separation operations in Starke, Florida, Nahunta, Georgia, Jesup, Georgia and Offerman, Georgia.

We are one of a limited number of manufacturers operating a chloride process to produce TiO_2 pigment. We believe that our proprietary chloride technology enables us to operate plants at a much higher capacity than other chloride technology-based TiO_2 pigment producers, as we uniquely utilize a broad spectrum of titanium-bearing ore feedstocks to achieve one of the highest TiO_2 pigment unit margins in our industry. This technology, which is in use at all of our production facilities, provides us with one of the industry's lowest manufacturing cost positions. Our R&D efforts focus on improving production processes, developing TiO_2 pigment grades that help our customers achieve optimal cost and product performance to enhance total end-user value and meeting our sustainability goals in relation to the United Nations Sustainability Development Goals.

We sell over 20 different grades of TiO_2 pigment, with each grade tailored for targeted applications, including our latest Ti-Pure™ Sustainability (TS) series, a suite of products designed to advance sustainability. Our full portfolio of premium performance TiO_2 pigment grades provide end-users with benefits beyond opacity, such as brighter colors, increased product durability and lifespan, improved efficiency for direct and downstream customers, and the brilliant whites achievable only through chloride-manufactured pigment.

We have operated a titanium mine in Starke, Florida since 1949. Additionally, in 2019, we acquired a titanium mine in Nahunta, Georgia, from which we source ore feedstock to be processed at its associated mineral sands separation facility in Offerman, Georgia, and in August 2020 we commenced mining operations at our surface mine in Jesup, Georgia to expand the flexibility and scalability of our internally sourced ore. Our mines provide us with low-cost, high-quality domestic ilmenite ore feedstock and currently supply less than 10% of our ore feedstock needs, with expansion options that could further increase our in-sourced raw material base. Co-products of our mining operations, which comprised less than 5% of our total net sales in Titanium Technologies during 2022, include zircon (zirconium silicate) and staurolite minerals. We are a major supplier of high-quality calcined zircon in North America, primarily focused on the precision investment casting industry, foundry, specialty applications, and ceramics. Our staurolite blasting abrasives are used in a variety of surface preparation applications, including steel preparation and maintenance and paint removal.

Industry Overview and Competitors

The overall demand for TiO_2 pigment is highly correlated to growth in the global residential housing, commercial construction, and packaging markets. In the long-run, industry demand for TiO_2 pigment is generally expected to grow proportionately with global GDP growth. We continue to experience customers' preference for high-quality Ti-Pure™ offerings. After above-GDP trend TiO_2 demand growth in 2016 and 2017, the TiO_2 pigment market contracted below the GDP trend in 2018 and 2019. In 2020, the TiO_2 pigment market expanded, while global GDP contracted during the novel coronavirus disease ("COVID-19") pandemic. In 2021, the TiO_2 pigment market again grew at greater-than-global GDP growth rates. We saw robust demand in the first half of 2022, followed by a rapid market decline in the second half of 2022 as the pigment demand declined below the long-term GDP trend. In the longer-term, we expect global TiO_2 pigment demand to resume its historical correlation with global GDP growth rates.

We estimate that the worldwide demand for TiO_2 pigment in 2022 was approximately 6.8 million metric tons, of which approximately 60% was for premium performance pigments. Worldwide nameplate capacity in 2022 was estimated to be approximately 8.9 million metric tons. The products manufactured on this global capacity base are not fully substitutable due to pigment quality consistency and pigment product design. We believe that the utilization of the manufacturing capacity base for premium performance pigments is considerably higher than that for general purpose, lower-performance pigments. As future customer demand grows, we have the ability to incrementally increase our production capacity by approximately 10% through technology-enabled de-bottlenecking processes. We believe that unlocking this additional 10% of capacity is in line with our stated intention to grow with our customers' needs over the long-term. This new capacity is expected to provide the equivalent of a new production line, while requiring a fraction of the capital investment. Our increased pigment production capacity will be supported by investments to extend our ilmenite mines and through long-term ore feedstock contracts with our suppliers.

Competition in the TiO_2 pigment market is based primarily on product performance (both product design and quality consistency), supply capability, technical service, and price. Our major competitors within higher-performance pigments include Tronox Holdings plc, LB Group Co. Ltd., Venator Materials plc, Kronos Worldwide, Inc., and INEOS AG.

Raw Materials

The primary raw materials used in the manufacture of TiO_2 pigment are titanium-bearing ores, chlorine, calcined petroleum coke, and energy. We source titanium-bearing ores from a number of suppliers around the globe, who are primarily located in Australia and Africa. To ensure proper supply volume and to minimize pricing volatility, we generally enter into contracts in which volume is requirement-based and pricing is determined by a range of mechanisms structured to help us achieve competitive cost position. We typically enter into a combination of long-term and medium-term supply contracts and source our raw materials from multiple suppliers across different regions and from multiple sites per supplier. Furthermore, we typically purchase multiple grades of ore from each supplier to limit our exposure to any single supplier for any single grade of ore in any given time period. Historically, we have not experienced any problems renewing such contracts for raw materials or securing our supply of titanium-bearing ores.

We play an active role in ore source development around the globe, especially for those ores which can only be used by us, given the capability of our unique process technology. Supply chain flexibility allows for ore purchase and use optimization to manage short-term demand fluctuations and provide a long-term competitive advantage. Our process technology and ability to use lower-grade ilmenite ore gives us the flexibility to alter our ore mix to low-cost configuration based on sales, demand, and projected ore pricing. Lastly, we have taken steps to optimize routes for ore distribution within our manufacturing asset base and increase storage capacity at our production facilities.

Chlorine is also a key raw material input to our process. Price and availability of chlorine are subject to cyclicality and regional market dynamics. In addition, transporting chlorine can be costly. To reduce our need to transport chlorine, we have a chlor-alkali production facility run by a third party that is co-located at our New Johnsonville, Tennessee site. Calcined petroleum coke is another important raw material input to our process. We source calcined petroleum coke from well-established suppliers in North America and China, typically under contracts that run multiple years to facilitate materials and logistics planning through the supply chain. Raw materials distribution efficiency is enhanced through the use of bulk ocean, barge, and rail transportation modes. Energy is a key input cost in the TiO_2 pigment manufacturing process, representing approximately 10% of the production cost. We have access to natural gas-based energy at our U.S. and Mexico TiO_2 pigment production facilities and our Florida and Georgia minerals plants, supporting advantaged energy costs given the low cost of natural gas in the U.S relative to most of the other parts of the world.

Sales, Marketing, and Distribution

We sell the majority of our products through a direct sales force. In 2018, we launched our TVS strategy, which we believe to be foundational to maintaining and growing our Titanium Technologies business. Our TVS strategy establishes a commercial framework that allows us to focus on enhancing durable, value-oriented customer relationships, while providing customers access to a predictable and reliable supply of high-quality TiO_2. Customers can purchase Ti-Pure™ TiO_2 either through long-term contracts or through Ti-Pure™ Flex. Launched in 2019, Ti-Pure™ Flex is an innovative channel that provides customers the unique ability to purchase Ti-Pure™ TiO_2 via our web-based portal, the first of its kind in the industry. To further expand our reach beyond these sales channels, we also utilize third-party sales agents and distributors.

TiO_2 pigment represents a significant raw material cost for our direct customers, and as a result, purchasing decisions are often made by our customers' senior management teams. TiO_2 pigment, however, is only a small fraction of the cost when considering certain end-use applications, especially in segments with larger value chain players, such as specialty coatings, plastics, and laminates applications. Our sales organization works to develop and maintain close relationships with key decision makers in our value chain. In addition to close purchasing relationships, our sales and technical service teams work together to develop relationships with all layers of our customers' organizations to ensure that we meet our customers' commercial and technical requirements. When appropriate, we collaborate closely with customers to solve formulation or application problems by modifying product characteristics or developing new product grades.

To ensure efficient distribution, we have a large fleet of railcars, which are predominantly used for outbound distribution of products in the U.S. and Canada. A dedicated logistics team, along with external partners, continually optimizes the assignment of our transportation equipment for each product line and geographic region to maximize utilization and maintain an efficient supply chain.

Customers

Globally, we serve approximately 500 customers through our Titanium Technologies segment. In 2022, our 10 largest Titanium Technologies customers accounted for approximately 39% of the segment's net sales, and one Titanium Technologies customer represented more than 10% of the segment's net sales. Our larger customers are typically served through direct sales and tend to have medium-term to long-term contracts. We serve our small-size and mid-size customers through a combination of our direct sales and distribution network. Our direct customers in the Titanium Technologies segment are producers of decorative coatings, automotive and industrial coatings, polyolefin masterbatches, PVC, engineering polymers, laminate paper, coatings paper, and coated paperboard. We focus on developing long-term partnerships with key market participants in each of these sectors. We also deliver a high level of technical service to satisfy our customers' specific needs, which helps us maintain strong customer relationships.

Seasonality

The demand for TiO_2 pigment is subject to seasonality due to the influence of weather conditions and holiday seasons on some of our applications, such as decorative coatings. As a result, our TiO_2 pigment sales volume is typically lowest in the first quarter, highest in the second and third quarters, and moderate in the fourth quarter. This pattern applies to the entire TiO_2 pigment market, but may vary by region, country, or application. The impacts of seasonality on demand for TiO_2 pigment may also be altered by economic factors, such as changes in global GDP, global supply chain and logistics issues, and other factors.

Thermal & Specialized Solutions Segment

Segment Overview

Our Thermal & Specialized Solutions segment is a leading, global provider of refrigerants, thermal management solutions, propellants, foam blowing agents, and specialty solvents. We have an industry-leading safety culture and apply world-class R&D and technical expertise to ensure that our operations run safely and reliably, and to improve our process technology.

Our Thermal & Specialized Solutions segment has held a leading position in the fluorochemicals market since the commercial introduction of Freon™ in 1930. Since the original chlorofluorocarbons ("CFC")-based product was introduced, Thermal & Specialized Solutions has been at the forefront of new technology research for lower GWP and lesser ozone-depleting potential products, leading to the development of hydrochlorofluorocarbons ("HCFC") and hydrofluorocarbons ("HFC"). We have a leading position in HFC refrigerants under the brand name Freon™, and we are a leader in the development of sustainable technologies like Opteon™, a line of low GWP hydrofluoroolefin ("HFO") refrigerants, which also have a near-zero ozone-depletion footprint. Opteon™ was initially developed in response to the European Union's ("EU") Mobile Air Conditioning Directive. Today, our Opteon™-branded portfolio of products is used in a broad range of applications, including automotive, air conditioning, commercial refrigeration, and foam blowing agents. This patented technology offers similar functionality to current HFC products, but meets or betters currently-mandated environmental standards and, in some cases, provides energy efficiency benefits.

Our Thermal & Specialized Solutions segment led the industry in the Montreal Protocol-driven transition in 1987 from CFCs to the lesser ozone-depleting HCFCs and non-ozone-depleting HFCs and, in 1988, committed to cease production of CFCs. Starting in the early 1990s, Thermal & Specialized Solutions began manufacturing non-ozone-depleting HFCs. Driven by the emerging megatrends of Climate Change, Decarbonization, and Energy Efficiency, together with environmental legislation being enacted across the U.S., Europe, Latin America, and Japan, we commercialized Opteon™ in 2016. We will continue to invest in R&D to meet the increasing regulatory requirements of the industry and meet our customers' needs as regulations change. Growth in our Thermal & Specialized Solutions segment is supported in part by the adoption of the American Innovation and Manufacturing Act ("AIM Act") in the US. In 2022, we announced our plan to expand our Opteon™ capacity at our Corpus Christi, Texas facility by approximately 40% to help meet customer needs as they continue to transition to lower GWP refrigerants.

Industry Overview and Competitors

Our Thermal & Specialized Solutions segment competes against a broad variety of global manufacturers, as well as regional manufacturers in Asia Pacific. We have a leadership position in fluorine chemistry and materials science, a broad scope and scale of operations, market-driven applications development capabilities, and deep customer knowledge. Key competitors for the Thermal & Specialized Solutions segment include Honeywell International, Inc., Arkema S.A., Orbia, and Daikin Industries, Ltd, and, to a certain extent, other industrial gasses could add to competition.

Thermal & Specialized Solutions' demand growth has generally been in line with global GDP growth. Growth may be higher than GDP in situations where, for environmental reasons, regulatory drivers constrain the market or drive the market toward lower GWP alternatives. Developed markets represent the largest consumers of fluorochemicals today. Global middle class growth and the increasing demand for automobiles, refrigeration, and air conditioning are all key drivers of increased demand for various fluorochemicals.

Raw Materials

The primary raw materials required to support the Thermal & Specialized Solutions segment are fluorspar, sulfur, ethylene, chlorinated organics, chlorine, and hydrogen fluoride. These are available in many countries and are not concentrated in any particular region. We pursue maximum competitiveness in our global supply chains through competitive, flexible, and diversified sourcing of key raw materials. Our contracts typically include terms that span from two to ten years. Qualified fluorspar sources have fixed contract prices or freely-negotiated, market-based pricing. We diversify our sourcing through multiple geographic regions and suppliers to ensure a diversified and cost competitive supply.

Sales, Marketing, and Distribution

With approximately 90 years of innovation and development in fluorine science, our technical, marketing, and sales teams around the world have deep expertise in our products and their end-uses. We work with customers to select the appropriate solutions to meet their technical performance needs. We sell our products through direct channels and through resellers. Selling agreements vary by product line and markets served and include both spot-pricing arrangements and multi-year contracts with varying durations.

Our Thermal & Specialized Solutions segment maintains a large fleet of railcars, tank trucks, and containers to deliver our products and support our supply chain needs. For the portion of the fleet that is leased, the related lease terms are usually staggered, which provides us with a competitive cost position, as well as the ability to adjust the size of our fleet in response to changes in market conditions. A dedicated logistics team, along with external partners, works to optimize the assignment of our transportation equipment for each product line and geographic region to maximize utilization and flexibility of the supply chain.

Customers

Our Thermal & Specialized Solutions segment serves approximately 900 customers and distributors globally, and, in many instances, these commercial relationships have been in place for decades. No single Thermal & Specialized Solutions customer represented more than 10% of the segment's net sales in 2022.

Seasonality

Thermal & Specialized Solutions' refrigerant sales fluctuate by season, as sales in the first half of the year are generally higher than sales in the second half of the year due to increased demand for residential, commercial, and automotive air conditioning in the spring, which peaks in the summer months, and then declines in the fall and winter in the northern hemisphere. Mobile air conditioning demand is slightly higher in the first half of the year due to the timing of automotive production shutdowns in the second half of the year.

Advanced Performance Materials Segment

Segment Overview

Our Advanced Performance Materials segment draws on vast experience in fluoropolymer chemistry as a leading, global provider of performance solutions and advanced materials that solve challenging problems in emerging technologies and deliver unique capabilities in products and applications that people around the world use every day. The segment's diversified portfolio includes various specialty product solutions, membranes, industrial resins, and coatings. These product offerings position the business to serve a broad range of markets, including consumer electronics, semiconductors, digital communications, transportation, energy, oil and gas, and medical, among others.

Our products set the standard in a number of performance categories, including chemical inertness, thermal stability, low friction, weather and corrosion resistance, and di-electric properties. These performance advantages make our polymers a material of choice, especially in complex applications and extreme environmental conditions. Our performance solutions portfolio includes differentiated offerings such as those that are critical to many emerging technology areas, including hydrogen production and fuel cells, emerging battery technologies, advanced semi-conductor infrastructure, 5G data delivery, and connected electronic devices. Our advanced materials portfolio provides products which are essential to established technologies across a diverse range of markets and applications, including consumer goods, transportation and chemical processing.

Our Advanced Performance Materials products are sold under the brand names Teflon™, Viton™, Krytox™, and Nafion™. Teflon™ coatings, resins, additives, and films serve as the key underpinning for a variety of industrial and commercial applications, including semiconductor infrastructure. Viton™ fluoroelastomers are used in automotive, consumer electronics, chemical processing, oil and gas, petroleum refining and transportation, and aircraft and aerospace applications. Our Krytox™-branded lubricants are used in a broad range of industrial applications, including bearings, automotive friction management, and electric motors. Nafion™ membranes are critical components in chlor-alkali processing and flow batteries, as well as the hydrogen electrolyzers and fuel cells which underpin the hydrogen economy. In anticipation of significant growth in the hydrogen economy through 2030, in 2022, we announced our plan to increase capacity and advance technology for Nafion™ ion exchange materials, which will be located at our manufacturing facility in Villers St. Paul, France.

Our Advanced Performance Materials segment uses a market-back approach to drive technology development. Our innovations are underpinned by deep technical knowledge and experience in fluoropolymer chemistry. We leverage our state-of-the-art R&D facilities at our 312,000-square-foot R&D facility on the Science, Technology, and Advanced Research campus of the University of Delaware in Newark, Delaware ("Chemours Discovery Hub") to drive faster development on a global scale. We also participate in a broad array of industry consortia and collaborate with leading academics across a variety of disciplines to drive fundamental R&D in the materials space.

The segment is well positioned to capture future growth through the combination of our unique product capabilities and market-driven product development process. Advanced Performance Materials will benefit long-term from secular growth in clean energy and advanced electronics.

Industry Overview and Competitors

Our Advanced Performance Materials segment competes against a broad variety of global manufacturers, as well as regional manufacturers in Asia Pacific. We have a leadership position in fluorine chemistry and materials science, a broad scope and scale of operations, a strong applications development competency, and deep customer knowledge. Key competitors for this segment include Daikin Industries, Ltd., 3M Company, Solvay, S.A., AGC Inc., and Dongyue Group Co., Ltd.

Demand growth for products in our Advanced Performance Materials segment overall has generally been in line with global GDP growth. However, with growing demand for cleaner and faster technologies, demand for products in the performance solutions portfolio is expected to grow at a rate faster than GDP, driven by global middle-class growth and alignment between our market-driven product technology development process and emerging market technologies, such as 5G, fuel cells and electrolyzers, electronics, communications, and transportation. Demand for products in the advanced materials portfolio is exposed to more economically sensitive industrial, chemical processing, consumer goods, and transportation end markets.

Raw Materials

The primary raw materials required for the Advanced Performance Materials segment are chlorinated organics, hydrogen fluoride, and vinylidene fluoride. These are available in many countries and are not concentrated in any particular region. We pursue maximum competitiveness in our global supply chains through competitive, flexible, and diversified sourcing of key raw materials. Our contracts typically include terms that span from two to five years. We diversify our sourcing through multiple geographic regions and suppliers to ensure a diversified and cost competitive supply.

Sales, Marketing, and Distribution

With approximately 90 years of innovation and development in fluorine science, our technical, marketing, and sales teams around the world have deep expertise in our products and their end-uses. We work with customers to select the appropriate fluoropolymers or other advanced performance materials to meet their technical performance needs based on their intended performance-in-use requirements. We sell our products through direct and indirect channels, and the duration of our selling agreements vary by product line and markets served.

Our Advanced Performance Materials segment maintains a limited fleet of railcars, tank trucks, containers, and totes to deliver our products and support our supply chain needs. For the portion of the fleet that is leased, the related lease terms are usually staggered, which provides us with a competitive cost position, as well as the ability to adjust the size of our fleet in response to changes in market conditions. We manage our fleet to ensure it is appropriately sized to meet market demand while maintaining flexibility. A dedicated logistics team, along with external partners, works to optimize the assignment of our transportation equipment for each product line and geographic region to maximize utilization and flexibility of the supply chain.

Customers

Our Advanced Performance Materials segment serves approximately 1,300 customers and distributors globally and, in many instances, these commercial relationships have been in place for decades. No single Advanced Performance Materials customer represented more than 10% of the segment's net sales in 2022.

Seasonality

The Advanced Performance Materials segment has historically seen some seasonal effects with lower sales in the fourth quarter, with planned maintenance activities at our own sites and at certain customers typically occurring during this period.

Intellectual Property

Intellectual property, including trade secrets, certain patents, trademarks, copyrights, know-how, and other proprietary rights, is a critical part of maintaining our technology leadership and competitive edge. Our business strategy is to file patent and trademark applications globally for proprietary new product and application development technologies, and we work actively on a global basis to create, protect, and enforce our intellectual property rights.

Our Titanium Technologies segment relies upon unpatented proprietary knowledge, continuing technological innovation, and other trade secrets to develop and maintain our competitive position in this sector. Within this segment, we hold significant intellectual property in the form of trade secrets, and, while we believe that no single trade secret is material in relation to our combined business as a whole, we believe that our trade secrets are material in the aggregate. Our proprietary chloride production process is an important part of our technology, and our business could be harmed if our trade secrets are not maintained in confidence. Within our Titanium Technologies segment's intellectual property portfolio, we consider our Ti-Pure™ trademark to be a valuable asset. We have registered the Ti-Pure™ trademark in a number of countries.

Our Thermal & Specialized Solutions segment is a technology leader in the markets in which it participates. We maintain a large fluorochemicals patent portfolio. We consider our Opteon™ and Freon™ trademarks used in the Thermal & Specialized Solutions segment to be valuable assets.

Our Advanced Performance Materials segment possesses extensive know-how and trade secrets related to manufacturing technologies for a broad range of specialized fluoropolymers, as well as application development technology for fluoropolymers based on comprehensive knowledge of customer applications. We hold patents relating to manufacturing for certain products with high quality, specifications and purity as required by the electronics, communications, automotive, wire and cable, and other industries. Additionally, our Advanced Performance Materials segment is a leader in and holds patents relating to non-fluorinated materials for use as durable water repellants for garments and other uses. In our Advanced Performance Materials segment's intellectual property portfolio, we consider our Teflon™, Viton™, Nafion™, and Krytox™ trademarks to be valuable assets.

The protections afforded under our patents and trademarks vary based on country, scope of individual patent, and trademark coverage, as well as the availability of legal remedies in each country. Our patents, in the aggregate, are believed to be of material importance to our business. However, although certain proprietary intellectual property rights are important to our success, we do not believe that we are materially dependent on any single patent (or group of related patents) or trademark. We believe that securing our intellectual property is critical to maintaining our technology leadership and our competitive position, especially with respect to new technologies or the extensions of existing technologies. Our proprietary process technology can be a source of incremental income through licensing arrangements.

Environmental and Regulatory Matters

Information related to environmental matters is included in several areas of this Annual Report on Form 10-K, including: (i) *Item 1A – Risk Factors*; (ii) *Item 3 – Legal Proceedings*, under the heading "Environmental Proceedings"; (iii) *Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations*; and, (iv) "Note 3 – Summary of Significant Accounting Policies" and "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*.

Climate Change

Central to our CRC are our ten goals that we aim to achieve by 2030 that map to the United Nations Sustainable Development Goals. These goals fall into three pillars: Inspired People, Shared Planet, and Evolved Portfolio.

The Shared Planet pillar of our CRC underlines our commitment to deliver essential solutions responsibly, without causing harm to the Earth. With a focus on the responsible treatment of climate, water, and waste, our shared planet 2030 goals are comprised of the following:

- Reduce absolute operations Scope 1 and Scope 2 GHG emissions by 60%;
- Reduce air and water process emissions of fluorinated organic chemicals by 99% or more; and,
- Reduce our landfill volume intensity by 70%.

In April 2021, we announced an update to our climate goals to better align our climate commitment with the Paris Accord and set us on a path to achieve net zero greenhouse gas emissions from our operations by 2050. In August 2022, we announced our signed commitment with the SBTi to establish science-based targets for scopes 1, 2, and 3 GHG emissions.

As part of the Evolved Portfolio pillar of our CRC, we are reimagining our portfolio to offer solutions that are also safer, healthier, and more resilient for a world that demands more. We believe that climate change is an important global issue that presents both opportunities and challenges for our company, our partners, our customers, and our communities. Climate change matters for our company are likely to be driven by changes in physical and transition risk, such as regulations and/or public policy, and changes in technology and product demand. Our operations and business results are increasingly subject to evolving climate-related legislation and regulations, inclusive of restrictions on GHG emissions, cap and trade emissions trading systems, and taxes on GHG emissions, fuel, and energy, among other provisions. Such regulatory matters have led, and are expected to continue to lead, to subsequent developments in product technology and demand. This helps guide our investment decisions and drive growth in demand for low-carbon and energy-efficient products, manufacturing technologies, and services that facilitate adaptation to a changing climate. Our business segments conduct market trend impact assessments, continuously evaluate opportunities for existing and new products and are well-positioned to take advantage of opportunities that may arise from increased consumer demand for and/or legislation mandating or incentivizing the use of products and technologies necessary to achieve a low-carbon economy.

In our Thermal and Specialized Solutions segment, global regulations driving the phase-down of HFCs, including the EU's Fluorinated-Gas ("F-Gas") Directive, the EU's Mobile Air Conditioning Directive, and the recently enacted AIM Act, promote the adoption and sale of our high performing Opteon™ products, which have lower GWP and zero ozone-depletion footprint. Our Opteon™ portfolio has been developed to meet global regulations while maintaining or improving performance compared to the products they replace in refrigeration and cooling applications, such as food transportation, food and pharmaceutical/medical storage, food manufacturing and retail, automotive air conditioning, and residential and commercial building air conditioning. By the year 2025, we estimate that our low GWP products will eliminate an estimated 325 million tons of carbon dioxide equivalents on a global basis.

We are a proponent of the recently passed bipartisan AIM Act, that went into effect in 2022, and will begin the national phase-down of hydrofluorocarbons. In 2021, we announced the implementation of an improvement project to significantly reduce emissions of HFC-23 at our Louisville, Kentucky manufacturing site. The project includes the design, custom-build and installation of proprietary technology to capture at least 99% of HFC-23 process emissions from the site. This project was operational as of October 2022 and we are completing compliance validation of the system under an extension granted by the EPA.

In our Advanced Performance Materials segment, our growth prospects in fluoropolymers are also enhanced by regulation driving the increasing demand for electric vehicles and high-performance, low-emission vehicles. Our fluoropolymers are critical to delivering high performance over a wide range of harsh operating conditions, enhancing passenger safety, improving emission controls and fuel economy, and enabling vehicle electrification and the shift to hydrogen-powered vehicles. We expect the use of our fluoropolymers in vehicles to increase, driven by the automotive industry's trends toward energy efficiency and clean energy due to evolving emissions performance regulations and increasing adoption of electric vehicles.

In our Titanium Technologies business, we recently unveiled our new Ti-Pure™ Sustainability ("TS") product series, designed to advance our customers' and company's sustainability goals through TiO_2 innovation. The product series includes enhanced product sustainability designations—including climate impact, circularity, resource efficiency, and health and wellness. The business is aligning its new product development pipeline to the same categories, ensuring all innovations align with critical customer and societal challenges, enable at-a-glance product sustainability comparisons, and ultimately help customers advance their sustainability goals. New TS innovations will be launched across market segments in 2023.

As an energy and emissions intensive company, our costs of complying with complex environmental laws and regulations, as well as internal and external voluntary programs, are significant and will continue to be significant for the foreseeable future. These laws and regulations may change and could become more stringent over time, which could result in significant additional compliance costs, increased costs of purchased energy or other raw materials, increased transportation costs, investments in, or restrictions on, our operations, installation or modification of GHG-emitting equipment, or additional costs associated with GHG emissions. Additionally, significant regional or national differences in approaches to the imposition of such regulations and restrictions could present competitive challenges or opportunities in a global marketplace. Currently, most of our global operating facilities are required to monitor and report their GHG emissions but may or may not be subject to programs requiring trading or emission controls. The EU Emission Trading System applies to our operating sites in that region. Furthermore, U.S. political administration could lead to additional federal regulation with respect to GHG emissions limits and/or other legislation that could impact our operations. By tracking and taking action to reduce our GHG emissions footprint through energy efficiency programs, increased use of renewable energy and focused GHG emissions reduction programs, we can decrease the potential future impact of these regulatory matters.

Human Capital

Meeting our commitment to responsible chemistry depends on our ability to create a vibrant workplace culture that attracts and retains the best and brightest in their fields to come work at Chemours. Our success depends on our ability to attract and retain key employees, and to identify and develop talented personnel to succeed our senior management and other key employees. This success depends on creating a diverse, inclusive, equitable and thriving workplace culture – one that holds a multiplicity of viewpoints, stems from a variety of backgrounds, and brings an abundance of different life experiences to work. We believe our global workforce should reflect the viewpoints and diversity of the communities in which we operate. That combination of excellence and diversity is essential to continuing our strong track record of uncovering and delivering the innovative solutions society needs.

Diverse and Inclusive Leadership and Workforce

Our board of directors is comprised of nine individuals with diverse experience and credentials, selected for their acumen and ability to challenge and add value to management. Our directors have held significant leadership positions and bring a depth of experience across a wide variety of industries, providing the company with unique insights and fresh perspectives. The demographics of our board of directors include 44% women and 33% ethnically diverse individuals. Refer to *Item 10 – Directors, Executive Officers, and Corporate Governance* for further information related to our board of directors. Management of the Company is led by our President and Chief Executive Officer ("CEO") and 8 of his direct reports, which comprise our Chemours Executive Team ("CET"). The demographics of our CET include 56% women and 44% ethnically diverse individuals. Further information related to our CET is included under the caption "Information About Our Executive Officers" within this Part I of our Annual Report on Form 10-K.

At December 31, 2022, we had approximately 6,600 employees globally, nearly all of which were full-time employees. Our employees' global demographics consisted of approximately 77% male employees and approximately 23% female employees, and, in the U.S., approximately 23% of our employees were considered to be ethnically diverse. At December 31, 2022, we had approximately 74% of our employees in the Americas (66% of whom are in the United States), 15% in Europe, and 11% in Asia Pacific (4% are in China). Approximately 11% of our employees are represented by unions or works councils. Management believes that its relations with employees and labor organizations are good.

In addition to Chemours employees, our total global workforce also includes contract workers who are available to support our manufacturing sites. Our number of contract workers varies throughout the year due to business needs and seasonal plant activities. These on-site contract workers provide services for facility maintenance, engineering services and construction support, operations, research and logistics support, equipment service and maintenance, custodial services, and site security services. Management believes that its relations with contract workers are good.

Corporate Responsibility Commitment

Our CRC's Inspired People pillar underlines our commitment to creating and sustaining a diverse, inclusive, and safe workplace. With a focus on creating a vibrant workplace culture that attracts, retains, and empowers the best and brightest in their fields, the following table sets forth our 2030 Inspired People goals and our relative progress at December 31, 2022.

Inspired People Goal (1)	At December 31, 2022
Fill 50% of director level positions and above with women globally	Approximately 33% of director level positions and above are filled with women globally
Fill 35% of all positions globally with women	Approximately 23% of all global positions are filled with women
Fill 30% of all U.S. positions with ethnically diverse employees	Approximately 23% of all U.S. positions are filled with ethnically diverse employees
Improve employee, contractor, process, and distribution safety performance by at least 75%	For our most recent fiscal year (2,3): - Our employee total recordable incident rate ("TRIR") was 0.27; - Our contractor TRIR was 0.23; - Our process safety tier 1 rate was 0.03; - We had 3 distribution incidents
Invest $50 million in our communities to improve lives by increasing access to science, technology, engineering, and math (“STEM”) skills, safety initiatives, and sustainable environment programs	Approximately $18 million has been invested to improve lives by increasing access to STEM skills, safety initiatives, and sustainable environment programs within the communities in which we operate

(1) Inspired People goals are targeted for completion by December 31, 2030.

(2) Rate is defined as number of events per 100 workers per year.

(3) Our 2018 baseline metrics are as follows: employee TRIR of 0.28, contractor TRIR of 0.23, process safety tier 1 rate of 0.04, and 3 distribution incidents.

In support of our goals and commitment to foster a diverse and inclusive environment where all employees can contribute, thrive and grow, we have several Employee Resource Groups (“ERGs”): Chemours Asian Group, Chemours Black Employee Network, Chemours Latin American Resource Organization, Chemours Pride Network, Chemours Women’s Network, Early Career Network, and VetNet. The objectives of these ERGs are to help foster a diverse, inclusive workplace by educating and building awareness across the Company on challenges underrepresented groups often face, how to be more inclusive, supporting career development efforts, and leading community outreach efforts. We also facilitate additional educational programs, workshops and discussions on a variety of diversity and inclusion topics for global, regional, and local employee groups. We continue to further our CRC goals through a range of tactics. To recruit top talent and broaden our local workforce pipeline, we virtually attended fairs at various universities, including events at Historically Black Colleges and Universities ("HBCUs"). Meanwhile, our manufacturing sites partnered with local trade schools and community colleges to create apprenticeship opportunities and develop degree programs that teach students the unique skills needed for a career in operations. We also created an Inclusion, Diversity, and Equity ("ID&E") Council in 2020, sponsored by our CEO, complete with diverse leaders from numerous functions and businesses including representatives from our ERGs. To achieve our 2030 goals, the team continues to upgrade our inclusion and diversity strategy and define discrete objectives designed to hit key interim milestones.

Ultimately, we believe that our efforts towards achieving each of these goals result in a company culture that views our individual differences, safety-focused mentality, and talent development initiatives as sources of competitive strength.

Safety Obsession

Responsible chemistry begins with our focus on the safety and health of people all along our value chain, including our own workforce. Our Safety Obsession is deeply rooted in our responsible chemistry ethos and is one of our five core values, emphasizing our steadfast belief that a safe workplace is a profitable workplace. Our safety commitment extends beyond ourselves and our manufacturing sites, and we make ongoing, upfront investments in our people, our facilities, and our processes to protect the safety and well-being of our workforce, our business partners, and the communities in which we operate.

Our Safety Obsession culture requires and encourages our global workforce to seek out training opportunities to increase safety literacy and capability at our sites. We offer computer-based learning, classroom-style learning, hands-on training and demonstration for proficiency, and mentoring and apprenticeship training for skill development. Our course content ranges from general safety awareness training to specialized training, covering topics such as hazardous materials, electrical safety, and so forth. Our training programs are tailored to individual employee roles, promoting the safety of our workforce while simultaneously providing the knowledge and skills necessary to maintain operational performance at our complex manufacturing facilities. In measuring the safety performance of our workforce, we monitor several metrics, including those set forth in our Inspired People goals above.

Chemours continues to focus on safety beyond physical safety to include the emotional and psychological aspects of employee safety and well-being, a concept we refer to as holistic safety. Emotional and psychological safety exists when team members feel accepted and respected, allowing them to bring their authentic selves to work without fear of negative consequences to self-image, workplace status, or career opportunities. Holistic safety and business performance are interconnected, as an environment lacking emotional and psychological safety creates distraction, which may lead to workplace missteps and can result in physical accidents. At Chemours, the way in which we work is grounded in our Safety Obsession, which encompasses the physical, emotional, and psychological dimensions of safety. Holistic safety also acknowledges our aspiration to be a diverse, equitable, and inclusive company, where every employee is fully engaged and actively contributing to business results. As part of this effort, Chemours has created a growing set of employee resources, as well as employee training, on holistic safety.

In 2022, we continued to promote the health, safety, and well-being of our workforce during the COVID-19 pandemic. We continue to surveille the evolving COVID-19 virus, track the risk from the COVID-19 variants in each of the communities in which we operate facilities, and to practice differential COVID-19 risk management mitigations accordingly. We have also increased employee opportunities to participate in webinar sessions focused on challenges, such as mental and financial health, that may be experienced during trying times related to COVID-19.

Professional Development

We encourage and support our employees to own their careers by taking the lead in their respective professional development journeys. We actively support our employees in their professional development, providing multiple learning opportunities and trainings. We encourage and support employee participation in industry associations, professional organizations and other external resources to develop their skills and experience. We also provide our employees with the necessary tools and resources to develop and produce the next generation of innovative chemistry products, most notably, our Chemours Discovery Hub. Given our focus on experiential learning, we leverage special projects, short-term assignments, and cross-functional job rotations to further develop talent and support employees in meeting their professional aspirations. Semi-annual performance reviews, combined with annual career development planning and ongoing feedback, provide support in performance and development and help our people know where they excel and how they can improve.

Equitable Employee Compensation

We provide a total compensation package that is targeted to be competitive with the markets in which we compete for talent, while allowing individual employee pay to vary equitably based on performance, skills, and experience. Our compensation programs are globally aligned, and, where possible, our total rewards plans include base salary, incentives (short- and long-term), financial, physical, and mental well-being programs, and monetary and social recognition. We routinely review our total rewards practices in the markets in which we compete to ensure our plans allow us to recruit and retain the diverse talent we need to be successful. We are firmly committed to paying our employees in a fair and equitable manner, regardless of race or gender, and we have implemented global total rewards tools to promote equitable remuneration. To ensure we deliver on this commitment, we periodically engage with independent third-party consultants to review our compensation practices and recommend pay actions.

Additionally, we believe in pay transparency. We began our journey this year by calibrating our market pay alignment. Over the next several years, we will share elements of our total rewards practices with our employees. The extent to which we share will vary based on local country norms, but may include market position, base salary ranges, bonus and equity targets.

Employee Attraction and Retention

We believe that our workplace culture, as reinforced by our CRC, corporate values, professional development opportunities, and competitive employee compensation, is critical in attaining a high offer acceptance rate and maintaining low levels of attrition, thereby enabling us to attract talented employees and retain and recognize the benefits of our investments in our employees' technical manufacturing capabilities, safety acumen, and professional development. For the year ended December 31, 2022, our voluntary attrition percentage was approximately 7%.

Available Information

We are subject to the reporting requirements under the Securities Exchange Act of 1934 (the "Exchange Act"). Consequently, we are required to file reports and information with the U.S. Securities and Exchange Commission ("SEC"), including reports on the following forms: Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act.

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports are also accessible on our website at http://www.chemours.com by clicking on the section labeled "Investor Relations", then on "Financials" and "SEC Filings". These reports are made available, without charge, as soon as it is reasonably practicable after we file or furnish them electronically with the SEC at http://www.sec.gov.

Item 1A. RISK FACTORS

Our operations could be affected by various risks, many of which are beyond our control. Based on current information, we believe that the following identifies the material risk factors that could affect our business, results of operations, or financial condition. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. Refer to our "Forward-looking Statements" for more details.

Risks Related to Legal Matters, Environmental Sustainability, and Regulations

Our results of operations could be adversely affected by litigation and other commitments and contingencies.

We face risks arising from various unasserted and asserted legal claims, investigations, and litigation matters, such as product liability claims, patent infringement claims, anti-trust claims, and claims for third-party property damage or personal injury stemming from alleged environmental actions (which may concern regulated or unregulated substances) or other torts. We have noted a nationwide trend in purported mass tort and class actions against chemical manufacturers generally seeking relief, such as medical monitoring, property damages, off-site remediation, and punitive damages arising from alleged environmental actions (which may concern regulated or unregulated substances) or other torts without claiming present personal injuries. We also have noted a trend in public and private nuisance suits being filed on behalf of states, counties, cities, and utilities alleging harm to the general public and damages to natural resources. Various factors or developments in these nationwide trends or in the actions could result in future charges that could have a material adverse effect on us. An adverse outcome in any one or more of these matters could be material to our financial results, liquidity, and/or stock price, and could adversely impact the value of any of our brands that are associated with any such matters. As discussed below, we are a named defendant and/or cost-sharing and defending DuPont, Corteva, and EID (together, the "DuPont Indemnitees") in litigation related to the production and use of perfluorooctanoic acids and its salts, including the ammonium salt ("PFOA"); hexafluoropropylene oxide dimer acid ("HFPO Dimer Acid", sometimes referred to as "GenX" or "C3 Dimer Acid"); Aqueous Film Forming Foam ("AFFF"); per- and polyfluoroalkyl substances ("PFAS"); and other compounds.

We have received inquiries, government investigations, directives, multiple lawsuits, and other actions related to PFOA, HFPO Dimer Acid, AFFF, and PFAS. These or other governmental inquiries or lawsuits could lead to us incurring liability for damages or other costs, a criminal or civil proceeding, the imposition of fines and penalties, and/or other remedies, as well as restrictions on or added costs for our business operations going forward, including in the form of restrictions on discharges at our sites, such as the Fayetteville Works site in Fayetteville, North Carolina ("Fayetteville") or otherwise. Additional lawsuits or inquiries also could be instituted related to these or other compounds in the future. Accordingly, the existing lawsuits and inquiries, and any such additional litigation, relating to our existing operations, PFOA, HFPO Dimer Acid, AFFF, PFAS, or other compounds associated with our products or operations could result in us incurring additional costs and liabilities, which may be material to our financial position and results of operations.

In the ordinary course of business, we may make certain commitments, including representations, warranties, and indemnities relating to current and past operations, including those related to divested businesses, and issue guarantees of third-party obligations. Additionally, we may be required to indemnify EID with regard to liabilities allocated to, or assumed by, us under each of the separation agreement, the employee matters agreement, the tax matters agreement, and the intellectual property cross-license agreement that were executed prior to the Separation. These indemnification obligations to date have included defense costs associated with certain litigation matters, as well as certain damages awards, settlements, and penalties. In January 2021, we and the DuPont Indemnitees entered into a binding Memorandum of Understanding (the "MOU") addressing certain PFAS matters and costs. Disputes with or among the DuPont Indemnitees and others which may arise with respect to the MOU and PFAS matters, including disputes based on matters of law or contract interpretation, could materially adversely affect our results of operations, financial condition, and cash flows.

Refer to "Note 22 - Commitments and Contingent Liabilities" to the *Consolidated Financial Statements* for further details related to these matters.

We are subject to extensive environmental and health and safety laws and regulations that may result in unanticipated loss or liability related to our current and past operations, and that may result in significant additional compliance costs or obligations, which in either case, could reduce our profitability or liquidity.

Our operations and production facilities are dependent upon attainment and renewal of requisite operating permits and are subject to extensive environmental and health and safety laws, regulations, and enforcements at national, international, and local levels in numerous jurisdictions, relating to pollution, protection of the environment, climate change, transporting and storing raw materials and finished products, storing and disposing of hazardous wastes, and product content and other safety concerns. Such laws include, but are not limited to:

- U.S.-based regulations, such as the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA", often referred to as "Superfund"), the Resource Conservation and Recovery Act ("RCRA") and similar state and global laws for management and remediation of hazardous materials, the Clean Air Act ("CAA") and Clean Water Act ("CWA") and similar state and global laws for the protection of air and water resources, and the Toxic Substances Control Act ("TSCA");
- Foreign-based chemical control regulations, such as the Registration, Evaluation, Authorization, and Restriction of Chemicals ("REACH") in the EU, the Chemical Substances Control Law ("CSCL") in Japan, MEP Order No. 7 in China, and the Toxic Chemical Substance Control Act ("TCSCA") in Taiwan for the production and distribution of chemicals in commerce and reporting of potential adverse effects;
- The EU Emissions Trading System and similar local and global laws for regulating GHG emissions; and,
- Numerous local, state, federal, and foreign laws, regulations, and enforcements governing materials transport and packaging.

If we are found to be in violation of these laws, regulations, or enforcements, which may be subject to change based on legislative, scientific, or other factors, we may incur substantial costs, including fines, damages, criminal or civil sanctions, remediation costs, reputational harm, loss of sales or market access, or experience interruptions in our operations. Our operations and production may also be subject to changes based on increased regulation or other changes to, or restrictions imposed by, any such additional regulations. Any operational interruptions or plant shutdowns may result in delays in production or may cause us to incur additional costs to develop redundancies in order to avoid interruptions in our production cycles. In addition, the manner in which adopted regulations (including environmental and safety regulations) are ultimately implemented may affect our products, the demand for and public perception of our products, the reputation of our brands, our market access, and our results of operations. In the event of a catastrophic incident involving any of the raw materials we use or chemicals we produce, we could incur material costs as a result of addressing the consequences of such event and future reputational costs associated with any such event.

Our costs of complying with complex environmental laws and regulations, as well as internal and external voluntary programs, are significant and will continue to be significant for the foreseeable future. These laws and regulations may change and could become more stringent over time, which could result in significant additional compliance costs, increased costs of purchased energy or other raw materials, increased transportation costs, investments in, or restrictions on, our operations, installation or modification of emission control equipment, or additional costs associated with emissions control equipment. As a result of our current and historic operations, including the operations of divested businesses and certain discontinued operations, we also expect to continue to incur costs for environmental investigation and remediation activities at a number of our current or former sites and third-party disposal locations. However, the ultimate costs under environmental laws and the timing of these costs are difficult to accurately predict. While we establish accruals in accordance with U.S. generally accepted accounting principles ("GAAP"), the ultimate actual costs and liabilities may vary from the accruals because the estimates on which the accruals are based depend on a number of factors (many of which are outside of our control), including the nature of the matter and any associated third-party claims, the complexity of the site, site geology, the nature and extent of contamination, the type of remedy, the outcome of discussions with regulatory agencies and other Potentially Responsible Parties ("PRPs") at multi-party sites, and the number and financial viability of other PRPs. Refer to "Environmental Matters" within *Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations* and "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements* for further information. We also could incur significant additional costs as a result of additional contamination that is discovered or remedial obligations imposed in the future.

As discussed in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*, we continue to have active dialogue with the North Carolina Department of Environmental Quality ("NC DEQ") and other stakeholders regarding potential remedies that are both economically and technologically feasible to achieve the objectives of the Consent Order ("CO") and Addendum ("Addendum") related to the discharge of HFPO Dimer Acid and PFAS from Fayetteville into the Cape Fear River, site surface water, groundwater, and air emissions. The Addendum establishes the procedure to implement specified remedial measures for reducing PFAS loadings from Fayetteville to the Cape Fear River, including construction of a barrier wall with a groundwater extraction system. The estimated liabilities of achieving the CO and Addendum objectives consist of several components, each of which may vary significantly and may exceed the recorded reserve estimates. The final costs of the barrier wall and groundwater treatment system will depend primarily on permitting, timely completion of construction based on the approved design, and actual labor and material costs. Unanticipated schedule delays or other factors beyond our control could lead to further increases in the cost of the barrier wall and groundwater treatment system, which could be material.

There is also a risk that one or more of our manufacturing processes, key raw materials, or products may be found to have, or be characterized or perceived as having, a toxicological or health-related impact on the environment or on our customers or employees or unregulated emissions, which could potentially result in us incurring liability in connection with such characterization and the associated effects of any toxicological or health-related impact. If such a discovery or characterization occurs, we may incur increased costs in order to comply with new regulatory requirements or as a result of litigation. In addition, the relevant materials or products, including products of our customers incorporating our materials or products, may be recalled, phased-out, or banned. Changes in laws, science, or regulations, or their interpretations, and our customers' perception of such changes or interpretations may also affect the marketability of certain of our products.

In June 2019, the Member States Committee of the European Chemicals Agency ("ECHA") also voted to list HFPO Dimer Acid as a Substance of Very High Concern. The vote was based on Article 57(f) – equivalent level of concern having probable serious effects to the environment. This identification does not impose immediate regulatory restriction or obligations, but may lead to a future authorization or restriction of the substance, which could have an adverse effect on our results of operations, financial condition, and cash flows. In September 2019, we filed an application with the EU Court of Justice for the annulment of the decision of ECHA to list HFPO Dimer Acid as a Substance of Very High Concern. In February 2022, the General Court dismissed the annulment action and we have appealed such decision.

In May 2020, five European countries began an initiative to restrict the manufacture, placing on the market and use of PFAS in the EU. In this regulatory process, more than 4,000 substances, including F-gases and fluoropolymers are being considered as part of this broad regulatory action. On July 15, 2021, the countries submitted their restriction proposal, which informed ECHA of the intent to prepare a PFAS restriction dossier for fluorinated substances within a defined structural formula scope, including branched fluoroalkyl groups and substances containing ether linkages, fluoropolymers and side chain fluorinated polymers. The restriction dossier was submitted to ECHA in January 2023, and in February 2023 ECHA published a report and supporting annexes on the restriction proposal, which includes identified concerns for in-scope PFAS and their degradation products and the proposed restriction of a full ban with certain use-specific time-limited derogation periods. The restriction dossier will be reviewed by the ECHA committees Risk Assessment Committee ("RAC") and Socio-economic Analysis Committees ("SEAC") and proposals submitted to the EU Commission in 2023. The estimated entry into force of restrictions is 2025. The impacts of restrictions and regulatory measures could lead to adverse effects on our results of operations, financial condition, and cash flows.

In October 2021, the U.S. Environmental Protection Agency ("EPA") released its PFAS Strategic Roadmap, identifying a comprehensive approach to addressing PFAS. The PFAS Strategic Roadmap sets timelines by which EPA plans to take specific actions through 2024, including establishing a national primary drinking water regulation for PFOA and perfluorooctanesulfonic acid ("PFOS") and taking Effluent Limitations Guidelines actions to regulate PFAS discharges from industrial categories among other actions. As provided under its roadmap, EPA also released on the same day its National PFAS Testing Strategy, under which the agency will identify and select certain PFAS compounds for which it will require PFAS manufacturers to conduct testing pursuant to TSCA orders. EPA has indicated that we will receive orders for certain of such compounds, including seven of the testing orders will be issued for PFAS compounds alleged to be associated with Fayetteville. In June 2022, EPA issued its first TSCA Section 4(a)(2) order under this program to five recipients, including us and EID, and we met with the agency in July 2022 to discuss the order and respond to it. In January 2023, EPA issued a second TSCA Section 4(a)(2) order under this program to four recipients, including us and EID. The timing of the remaining TSCA orders is not determinable at this time. Additional costs could be incurred in connection with EPA's actions, which could be material.

Also in October 2021, EPA published a final toxicity assessment for GenX compounds that decreased the draft reference dose for GenX compounds based on EPA's review of new studies and analyses. On March 18, 2022, we filed a petition to EPA requesting it withdraw and correct its toxicity assessment for GenX compounds, and this petition was denied by EPA on June 14, 2022. The next day, on June 15, 2022, EPA released health advisories for four PFAS, including interim updated lifetime drinking water health advisories for PFOA and PFOS, and final health advisories for GenX compounds, including HFPO Dimer Acid and another PFAS compound (PFBS). On July 13, 2022, we filed a Petition for Review of the GenX compounds health advisory. Depending on the ultimate outcome of EPA's actions, our estimated environmental remediation liabilities and accrued litigation could increase to meet any new drinking water standards, which could have a material adverse effect on our results of operations, financial condition, and cash flows.

In connection with our Separation, we were required to assume, and indemnify EID for, certain liabilities. As we may be required to make payments pursuant to these indemnities or under the cost-sharing provisions of the MOU, we may need to divert cash to meet those obligations, and our liquidity or financial results could be negatively affected. In addition, the obligations of EID to indemnify us and/or the obligation of the DuPont Indemnitees to share costs for certain liabilities may not be sufficient to insure us against the full amount of the applicable liabilities for which it will be allocated responsibility, and EID and/or the DuPont Indemnitees may not be able to satisfy their obligations in the future.

Pursuant to the separation agreement, the employee matters agreement, the tax matters agreement, and the intellectual property cross-license agreement we entered into with EID prior to the Separation, we were required to assume, and indemnify EID for, certain liabilities. These indemnification obligations to date have included, among other items, defense costs associated with certain litigation matters, as well as certain damages awards, settlement amounts, and penalties. In January 2021, we and the DuPont Indemnitees entered into a binding MOU addressing certain PFAS matters and costs.

Disputes with the DuPont Indemnitees and others, which may arise with respect to the MOU, PFAS matters, indemnification, and/or cost-sharing matters, including disputes based on matter of law or contract interpretation, could materially adversely affect our business, financial condition, results of operations, and cash flows. Multiple lawsuits have been filed by third parties containing allegations that EID's separation of Chemours was a fraudulent transfer.

Third parties could also seek to hold us responsible for any of the liabilities of the EID businesses. EID has agreed to indemnify us for such liabilities, but such indemnity from EID may not be sufficient to protect us against the full amount of such liabilities, and EID may not be able to fully satisfy its indemnification obligations. Moreover, even if we ultimately succeed in recovering from EID any amounts for which we are held liable, we may be temporarily required to bear these losses ourselves. Each of these risks could negatively affect our business, financial condition, results of operations, and cash flows.

Refer to "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements* for further information.

In connection with our Separation, we were required to enter into numerous Separation-related and commercial agreements with our former parent company, EID, which may not reflect optimal or commercially beneficial terms to us.

Commercial agreements we entered into with EID prior to the Separation were formed in the context of the Separation while we were still a wholly-owned subsidiary of EID. Accordingly, during the period in which the terms of those agreements were formed, we did not have an independent board of directors or management independent of EID. Certain commercial agreements, having long terms and commercially-advantageous cancellation and assignment rights to EID, may not include adjustments for changes in industry and market conditions. There is a risk that the pricing and other terms under these agreements may not be commercially beneficial or able to be changed in the future. The terms relate to, among other things, the allocation of assets, liabilities, rights, and obligations, including the provision of products and services and the sharing and operation of property, manufacturing, office, and laboratory sites, and other commercial rights and obligations between us and EID.

If the distribution, in connection with the Separation, together with certain related transactions, were to fail to qualify for non-recognition treatment for U.S. federal income tax purposes, then we could be subject to significant tax and indemnification liability and stockholders receiving our common stock in the distribution could be subject to significant tax liability.

Generally, taxes resulting from the failure of the Separation and distribution or certain related transactions to qualify for non-recognition treatment under U.S. federal, state, and/or local tax law, and/or foreign tax law, would be imposed on EID or EID's stockholders and, under the tax matters agreement that we entered into with EID prior to the Separation, EID is generally obligated to indemnify us against such taxes to the extent that we may be jointly, severally, or secondarily liable for such taxes. However, under the terms of the tax matters agreement, we are also generally responsible for any taxes imposed on EID that arise from the failure of the distribution to qualify as tax-free for U.S. federal income tax purposes within the meaning of Section 355 of the Internal Revenue Code ("IRC") or the failure of such related transactions to qualify for tax-free treatment, to the extent such failure to qualify is attributable to actions, events, or transactions relating to our or our affiliates' stock, assets, or business, or any breach of our or our affiliates' representations, covenants, or obligations under the tax matters agreement (or any other agreement we enter into in connection with the Separation and distribution), the materials submitted to the U.S. Internal Revenue Service ("IRS") or other governmental authorities in connection with the request for the IRS Ruling or other tax rulings or the representation letter provided to counsel in connection with the tax opinion. Events triggering an indemnification obligation under the agreement include events occurring after the distribution that cause EID to recognize a gain under Section 355(e) of the IRC. Such tax amounts could be significant. To the extent we are responsible for any liability under the tax matters agreement, there could be a material adverse impact on our financial condition, results of operations, and cash flows in future reporting periods.

Our failure to comply with the anti-corruption laws of the U.S. and various international jurisdictions could negatively impact our reputation and results of operations.

Doing business on a global basis requires us to comply with the laws and regulations of the U.S. government and those of various international and sub-national jurisdictions, and our failure to successfully comply with these rules and regulations may expose us to liabilities. These laws and regulations apply to companies, individual directors, officers, employees, and agents, and may restrict our operations, trade practices, investment decisions, and partnering activities. In particular, our international operations are subject to U.S. and foreign anti-corruption laws and regulations, such as the U.S. Foreign Corrupt Practices Act ("FCPA"), the U.K. Bribery Act 2010 ("Bribery Act"), and other anti-corruption laws of the various jurisdictions in which we operate. The FCPA, the Bribery Act, and other laws prohibit us and our officers, directors, employees, and agents acting on our behalf from corruptly offering, promising, authorizing, or providing anything of value to foreign officials for the purposes of influencing official decisions or obtaining or retaining business or otherwise obtaining favorable treatment. Our global operations may expose us to the risk of violating, or being accused of violating, the foregoing or other anti-corruption laws. Such violations could be punishable by criminal fines, imprisonment, civil penalties, disgorgement of profits, injunctions, and exclusion from government contracts, as well as other remedial measures. Investigations of alleged violations can be very expensive, disruptive, and damaging to our reputation. Although we have implemented anti-corruption policies and procedures, there can be no guarantee that these policies, procedures, and training will effectively prevent violations by our employees or representatives in the future. Additionally, we face a risk that our distributors and other business partners may violate the FCPA, the Bribery Act, or similar laws or regulations. Such violations could expose us to FCPA and Bribery Act liability, and/or our reputation may potentially be harmed by their violations and resulting sanctions and fines.

Risks Related to Our Business Performance

Operating as a multi-national corporation presents risks associated with global and regional economic downturns and global capital market conditions, as well as risks resulting from changes to regional regulatory requirements (including environmental standards).

Our business and operating results may in the future be adversely affected by global and regional economic conditions, including instability in credit markets, declining consumer and business confidence, fluctuating commodity prices and interest rates, volatile exchange rates, and other challenges, such as tariffs on international trade, border adjustments for certain products, strikes or labor disruptions, and a changing financial regulatory environment that could affect the global economy. Such global and regional economic conditions may be further affected by physical risks that stem from a number of root causes, including natural disasters, climate change, and/or travel-based restrictions that may be driven by geo-political activities, military actions, terrorism, and the spread of pandemics, such as the COVID-19 pandemic.

Our customers may experience deterioration of their businesses, shortages in cash flows, and difficulty obtaining financing. As a result, existing or potential customers may delay or cancel plans to purchase products and may not be able to fulfill their obligations to us in a timely fashion. Further, suppliers could experience similar conditions, which could impact their ability to supply materials or otherwise fulfill their obligations to us. Because we have significant international operations, there are a large number of currency transactions that result from our international sales, purchases, investments, and borrowings. Future weakness in the global economy and failure to manage these risks could adversely affect our results of operations, financial condition, and cash flows in future periods.

In addition to the general risks associated with operating in the global economy, our revenue and profitability are largely dependent on the TiO_2 pigment industry and the industries that are the end-users of our refrigerants and fluoropolymers. TiO_2 pigment, refrigerants, and fluoropolymers are used in many "quality of life" products for which demand historically has been linked to global, regional, and local GDP and discretionary spending, which can be negatively impacted by regional and world events or economic conditions. Such events, which may or may not impact all of our businesses at the same time or to the same degree, are likely to cause a decrease in the demand for our products and, as a result, may have an adverse effect on our results of operations and financial condition. The future profitability of our operations, and cash flows generated by those operations, will also be affected by the available supply of our products in the market. Further, our future demand growth may be below average global GDP growth rates if our sales into developed markets outpace our sales into emerging markets. In addition, because demand for certain of our products is driven in part by industry needs to comply with certain environmental regulations (such as markets for refrigerants and foams with low GWP), changes in, the elimination of, or lack of enforcement of such environmental regulations in the U.S., the EU, or other jurisdictions can also negatively impact demand for such products and, as a result, our results of operations and financial condition.

The businesses in which we compete are highly competitive. If our intellectual property were compromised or copied by competitors, or if our competitors were to develop similar or superior intellectual property or technology, our results of operations could be negatively affected.

Each of the businesses in which we operate is highly competitive. Competition in the performance chemicals industry is based on a number of factors, such as price, product quality, and service. We face significant competition from major international and regional competitors. Some of our competitors in the Titanium Technologies segment have announced plans to expand their chloride capacity. Additionally, our Titanium Technologies business competes with numerous regional producers, including producers in China, who have expanded their readily available production capacity. The risk of substitution of these Chinese producers by our customers could increase as these Chinese producers expand their use of chloride production technology. Similarly, we compete with various producers in our Thermal & Specialized Solutions and Advanced Performance Materials businesses, and the risk of substitution of these producers by our customers could increase if these producers develop better capabilities to manufacture products similar to our specialty products.

Intellectual property rights, including patents, trade secrets, confidential information, trademarks, and tradenames are important to our business. We endeavor to protect our intellectual property rights in key jurisdictions in which our products are produced or used and in jurisdictions into which our products are imported. Our success depends to a significant degree upon our ability to protect and preserve our intellectual property rights. However, we may be unable to obtain protection for our intellectual property in key jurisdictions. Although we own and have applied for numerous patents and trademarks throughout the world, we may have to rely on judicial enforcement of our patents and other proprietary rights. Our patents and other intellectual property rights may be challenged, invalidated, circumvented, and rendered unenforceable or otherwise compromised. A failure to protect, defend, or enforce our intellectual property could have an adverse effect on our financial condition and results of operations. Similarly, third parties may assert claims against us and our customers and distributors, alleging our products infringe upon third-party intellectual property rights.

We also rely upon unpatented proprietary technology, know-how, and other trade secrets to maintain our competitive position. While we maintain policies to enter into confidentiality agreements with our employees and third parties to protect our proprietary expertise and other trade secrets, these agreements may not be enforceable or, even if legally enforceable, we may not have adequate remedies for breaches of such agreements. We also may not be able to readily detect breaches of such agreements. The failure of our patents or confidentiality agreements to protect our proprietary technology, know-how, or trade secrets could result in significantly lower revenues, reduced profit margins, or loss of market share.

If we must take legal action to protect, defend, or enforce our intellectual property rights, any suits or proceedings could result in significant costs and diversion of resources and management's attention, and we may not prevail in any such suits or proceedings. A failure to protect, defend, or enforce our intellectual property rights could have an adverse effect on our financial condition and results of operations.

Effects of price fluctuations in energy and raw materials, our raw materials contracts, and our inability to renew such contracts, could have a significant impact on our earnings.

Our manufacturing processes consume significant amounts of raw materials and energy, the costs of which may be subject to worldwide supply and demand factors, global trade regulations and tariffs, GHG emissions-based regulations, and other factors beyond our control. Variations in the cost of energy, which primarily reflect market prices for oil and natural gas, and for raw materials may significantly affect our operating results from period to period. Additionally, to the extent climate change regulations and restrictions are not stringently imposed in the countries in which our competitors operate, our competitors could gain cost or other competitive advantages. Consolidation in the industries providing our raw materials may also have an impact on the cost and availability of such materials. 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.

When possible, we have purchased, and we plan to continue to purchase, raw materials, including titanium-bearing ores and fluorspar, through negotiated medium-term or long-term contracts to minimize the impact of price fluctuations. To the extent that we have been able to achieve favorable pricing in our existing negotiated long-term contracts, we may not be able to renew such contracts at the current prices, or at all, and this may adversely impact our profitability and cash flows from operations. However, to the extent that the prices of the raw materials that we utilize significantly decline, we may be bound by the terms of our existing long-term contracts and obligated to purchase such raw materials at higher prices as compared to other market participants.

We attempt to offset the effects of higher raw materials and energy costs through selling price increases, productivity improvements, and cost reduction programs. However, the outcome of these efforts is largely determined by existing competitive and economic conditions, and may be subject to a time delay between the increase in our raw materials costs and our ability to increase prices, which could vary significantly depending on the market served. If we are not able to fully offset the effects of higher energy or raw materials costs, there could be a material adverse effect on our financial results.

Our reported results and financial condition could be adversely affected by currency exchange rates and currency devaluation could impair our competitiveness.

Due to our international operations, we transact in many foreign currencies, including, but not limited to, the euro, the Mexican peso, the Chinese yuan, and the Japanese yen. As a result, we are subject to the effects of changes in foreign currency exchange rates. During times of a strengthening U.S. dollar, our reported net sales and operating income will be reduced because the local currency will be translated into fewer U.S. dollars. During periods of local economic crisis, local currencies may be devalued significantly against the U.S. dollar, potentially reducing our margin. For example, depreciation of the euro against the U.S. dollar has historically negatively impacted our results of operations. We also have certain indebtedness and payables denominated in the euro, and, during times of a strengthening euro relative to the U.S. dollar, our overall debt obligations and payables in U.S. dollars equivalent will increase.

We enter into certain of our qualifying foreign currency forward contracts under a cash flow hedge program to mitigate the risks associated with fluctuations in the euro against the U.S. dollar for forecasted U.S. dollar-denominated purchases for certain of our international subsidiaries. There can be no assurance that any hedging action will lessen the adverse impact of a variation in currency rates. Also, actions to recover margins may result in lower volume and a weaker competitive position, which may have an adverse effect on our profitability. For example, in our Titanium Technologies segment, a substantial portion of our manufacturing is located in the U.S. and Mexico, while our TiO_2 pigment is delivered to customers around the world. Furthermore, our ore cost is principally denominated in U.S. dollars. Accordingly, in periods when the U.S. dollar or Mexican peso strengthen against other local currencies, such as the euro, our costs are higher relative to some of our competitors who operate largely outside of the U.S. and Mexico, and the benefits we realize from having lower costs associated with our manufacturing process are reduced, impacting our profitability.

If we are unable to innovate and successfully introduce new products, or new technologies or processes reduce the demand for our products or the price at which we can sell products, our profitability could be adversely affected.

Our industries and the end-use markets into which we sell our products experience periodic technological changes and product improvements, as well as changes in mandates on or regulation of products and services. Our future growth will depend on our ability to gauge the direction of commercial and technological progress in key end-use markets, our ability to fund and successfully develop, manufacture, and market products in such changing end-use markets, and our ability to adapt to changing regulations including climate change related regulations. We must continue to develop lower-emission manufacturing technologies and identify, develop, and market innovative products or enhance existing products on a timely basis to maintain our profit margins and our competitive position. We may be unable to develop new products or technologies, 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 on a competitive basis, including with respect to innovation related to the development of alternative uses for, or application of, products developed that utilize such end-use products, our financial condition and results of operations 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, customer behaviors and demands, competitive environments, and laws, regulations, or enforcements. We cannot anticipate market acceptance of new products or future products. In addition, we may not achieve the expected benefits associated with new products developed to meet new laws, regulations, or enforcements if the implementation of such laws, regulations, or enforcements is delayed, and we may face competition from illegal or counterfeit products in regulated markets.

If our long-lived assets become impaired, we may be required to record a significant charge to earnings.

We have a significant amount of long-lived assets on our consolidated balance sheets. Under GAAP, we review our long-lived assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Factors that may be considered a change in circumstances, indicating that the carrying value of our long-lived assets may not be recoverable, include, but are not limited to, changes in the industrial, economic, political, social, and physical landscapes in which we operate, as well as competition or other factors leading to a reduction in expected long-term sales or profitability. We may be required to record a significant non-cash charge in our financial statements during the period in which any impairment of our long-lived assets is determined, negatively impacting our results of operations.

We could be subject to changes in our tax rates and the adoption of tax legislation or exposure to additional tax liabilities that may adversely affect our results of operations, financial condition, and cash flows.

We are subject to taxes in the U.S. and non-U.S. jurisdictions where our subsidiaries are organized. Due to economic and political conditions, tax rates in various jurisdictions may be subject to significant change. Our future effective tax rates could be affected by and may fluctuate because of changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in tax laws or their interpretations, and taxes associated with the repatriation of our non-U.S. earnings. Our tax returns and other tax matters are subject to examination by local tax authorities and governmental bodies. Additionally, we and our subsidiaries are engaged in intercompany transactions across multiple tax jurisdictions. Although we believe we have clearly reflected the economics of these transactions with proper local transfer pricing documentation in place, tax authorities could propose and sustain adjustments. We regularly assess the likelihood of an adverse outcome resulting from these examinations to determine the adequacy of our provision for taxes. There can be no assurance as to the outcome of these examinations. If our effective tax rates were to increase, or if the ultimate determination of the taxes owed by us is for an amount in excess of amounts previously accrued, our operating results, financial condition, and cash flows could be adversely affected.

The Organization of Economic Cooperation and Development, which represents a coalition of member countries globally, is supporting changes to numerous long-standing tax principles through its base erosion and profit shifting ("BEPS") project. The BEPS project is focused on a number of issues, including the shifting of profits among affiliated entities located in different tax jurisdictions and a global minimum corporate income tax. Given the scope of our international operations and uncertainty surrounding the impact of future legislation, it is difficult to assess how any changes in tax laws arising from BEPS would impact our income tax expense.

We are subject to continuing contingent tax-related liabilities of EID.

There are other significant areas where the liabilities of EID may become our obligations. For example, under the IRC and the related rules and regulations, each corporation that was a member of EID's consolidated tax reporting group during any taxable period or portion of any taxable period ending on or before the effective time of the distribution is jointly and severally liable for the U.S. federal income tax liability of the entire consolidated tax reporting group for such taxable period. In connection with the Separation and distribution, we entered into a tax matters agreement with EID that allocates the responsibility for prior period taxes of EID's consolidated tax reporting group between us and EID. If EID were unable to pay any prior period taxes for which it is responsible, however, we could be required to pay the entire amount of such taxes, and such amounts could be significant. Other provisions of federal, state, local, or foreign law may establish similar liability for other matters, including laws governing tax-qualified pension plans, as well as other contingent liabilities.

We are a holding company that is dependent on cash flows from our operating subsidiaries to fund our debt obligations, MOU escrow funding requirements, capital expenditures, and ongoing operations.

All of our operations are conducted, and all of our assets are owned, by our operating companies, which are our subsidiaries. We intend to continue to conduct our operations at the operating companies and any future subsidiaries. Consequently, our cash flows and our ability to meet our obligations, including our debt obligations, MOU escrow funding requirements, or make cash distributions depends upon the cash flows of our operating companies and any future subsidiaries, as well as the ability of our operating companies and any future subsidiaries to transfer funds in the form of dividends or otherwise.

Our debt is generally the exclusive obligation of The Chemours Company and our guarantor subsidiaries, as described in "Note 20 – Debt" to the *Consolidated Financial Statements*. Because a significant portion of our operations are conducted by non-guarantor subsidiaries, our cash flows and our ability to service indebtedness, including our ability to pay the interest on our debt when due and principal of such debt at maturity, are dependent to a large extent upon cash dividends and distributions or other transfers from such non-guarantor subsidiaries. Any payment of dividends, distributions, loans, or advances by our non-guarantor subsidiaries to us could be subject to restrictions on dividends or repatriation of earnings under applicable local law, monetary transfer restrictions, and foreign currency exchange regulations in the jurisdictions in which our subsidiaries operate, and any restrictions imposed by the current and future debt instruments of our non-guarantor subsidiaries.

Our subsidiaries are separate legal entities and, except for our guarantor subsidiaries, have no obligation, contingent or otherwise, to pay any amounts due on our debt or to make any funds available for those amounts, whether by dividends, loans, distributions, or other payments, and do not guarantee the payment of interest on, or principal of, our debt. Any right that we have to receive any assets of any of our subsidiaries that are not guarantors upon the liquidation or reorganization of any such subsidiary, and the consequent right of holders of the outstanding notes to realize proceeds from the sale of their assets, will be structurally subordinated to the claims of that subsidiary's creditors, including trade creditors and holders of debt issued by that subsidiary.

The ability of our operating companies and any future subsidiaries to make any payments to us depends on their earnings, the terms of their indebtedness, including the terms of any credit facilities, and legal restrictions regarding the transfer of funds.

Failure to meet some or all of our key financial and non-financial targets could negatively impact the value of our business and adversely affect our stock price.

From time to time, we may announce certain key financial and non-financial targets that are expected to serve as benchmarks for our performance for a given time period, including goals for our future net sales growth, adjusted earnings before interest, taxes, depreciation, and amortization, adjusted earnings per share, free cash flows, return on invested capital, net leverage ratio, corporate responsibility commitments, and/or sustainability commitments. Our failure to meet one or more of these key targets may negatively impact our results of operations, stock price, and stockholder returns. The factors influencing our ability to meet these key targets include, but are not limited to, changes in the global economic environment, changes in our competitive landscape, including our relationships with new or existing customers, our ability to introduce new products, applications, or technologies, our undertaking of an acquisition, joint venture, or other strategic arrangement, the outcome of any new or existing litigation, our failure to comply with new or existing laws or regulations, and other factors described within this *Item 1A – Risk Factors*, many of which are beyond our control.

A pandemic, epidemic, or other outbreak of infectious disease may have a material adverse effect on our business operations, results of operations, financial condition, and cash flows.

Our operational and financial condition may be negatively impacted by the widespread outbreak of any illnesses or communicable diseases, as well as any associated public health crises that may ensue, such as the COVID-19 pandemic. To minimize transmission, social and economic restrictions have been or may be imposed in the U.S. and abroad, including travel bans, quarantines, restrictions on public gatherings, shelter-in-place orders, and/or safer-at-home orders. These restrictions, while necessary and important for public health, can have negative implications for our business and the U.S. and global economies.

Since 2020, the COVID-19 pandemic has negatively impacted the global economy, disrupting global supply chains and creating significant uncertainty and volatility in financial markets. While we experienced minimal disruption in our operations and business-related processes, we are continuously monitoring the continuing effects of the COVID-19 pandemic on all aspects of our business, including its adverse impacts on our employees, customers, suppliers, vendors, business partners, and supply and distribution channels, as well as our ability to execute our business strategies and objectives. As a multi-national corporation, we are also continuously monitoring the operational and financial impacts of evolving restrictive local and national laws and regulations.

The widespread outbreak of any illness or communicable disease could result in, and in the instance of the COVID-19 pandemic has resulted in, a significant health crisis that adversely affects local and global economies and financial markets. The effects of the COVID-19 pandemic remain highly uncertain and subject to change, continue to evolve, and have the potential to have a material adverse impact on our business operations, results of operations, financial condition, and cash flows, and may also exacerbate our other risks, as described within this *Item 1A – Risk Factors*, any of which could have a material effect on us, including among other things, risks associated with our indebtedness, such as available capacity and compliance with debt covenants, risks related to the adequacy of our cash flows and earnings or other conditions which may affect our liquidity, and risks related to our ongoing ability to pay dividends and repurchase common stock. As the situation continues to evolve, additional impacts of which we are not currently aware may also arise.

Risks Related to Our Operations

Our ability to make future strategic decisions regarding our manufacturing operations are subject to regulatory, environmental, political, legal, and economic risks, and to a certain extent may be subject to consents or cooperation from EID under the agreements entered into between us and EID as part of the Separation. These could adversely affect our ability to execute our future strategic decisions and our results of operations and financial condition.

One of the ways we may improve our business is through the expansion or improvement of our facilities. Construction of additions or modifications to facilities involves numerous regulatory, environmental, political, legal, and economic uncertainties that are beyond our control and are subject to various start-up risks and consent to operate. Difficulties in obtaining any of the requisite licenses, permits, and authorizations from governmental or regulatory authorities could increase the total cost, delay, jeopardize, or prevent the construction or opening of such facilities. Our expansion or improvement projects may also require the expenditure of significant amounts of capital, and financing may not be available on economically acceptable terms, or at all. As a result, these projects may not be completed on schedule, at the budgeted cost, or at all, which may adversely affect our results of operations, financial condition, and cash flows. Moreover, our revenue may not increase immediately upon the expenditure of funds on a particular project or may be negatively impacted by regulatory or other developments relating to the chemicals we use or manufacture. As a result, we may not be able to realize our expected investment return, which could also adversely affect our results of operations, financial condition, and cash flows.

We periodically assess our manufacturing operations in order to manufacture and distribute our products in the most efficient manner and to minimize the potential impacts of climate-related physical risks on our operations. Based on our assessments, we may make strategic decisions regarding our manufacturing operations, such as capital improvements to modernize certain units and/or improve structural resilience, move manufacturing or distribution capabilities from one plant or facility to another plant or facility, discontinue manufacturing or distributing certain products, or close or divest all or part of a manufacturing plant or facility, some of which have significant shared services and lease agreements with EID. These agreements may adversely impact our ability to make these strategic decisions regarding our manufacturing operations. Further, if such agreements are terminated or revised, we would have to assess and potentially adjust our manufacturing operations, the closure or divestiture of all or part of a manufacturing plant or facility that could result in future charges that could be significant.

Hazards associated with chemical manufacturing, storage, containment, and transportation could adversely affect our results of operations.

There are hazards associated with chemical manufacturing and the related storage, containment, and transportation of raw materials, products, and wastes. These hazards could lead to an interruption or suspension of operations and have an adverse effect on the productivity and profitability of a particular manufacturing facility or on us as a whole. While we endeavor to provide adequate protection for the safe-handling of these materials, issues could be created by various events, including unforeseen accidents or defects, natural disasters, severe weather events, acts of sabotage, military actions, terrorism, and performance by third parties, including tenants at certain of our manufacturing facilities, and, as a result, we could face the following potential hazards:

- piping and storage tank leaks and ruptures;
- mechanical failure;
- employee exposure to hazardous substances;
- fires and explosions; and,
- chemical spills and other discharges or releases of toxic or hazardous substances or gases.

These hazards may cause personal injury and loss of life, damage to property, contamination of the environment, and damage to natural resources, which could lead to government fines and penalties, remedial obligations, work stoppage injunctions, claims and lawsuits by injured persons, damage to our public reputation and brands, loss of sales and market access, customer dissatisfaction, and diminished product acceptance. If such actions are determined adversely to us or there is an associated economic impact to our business, we may have inadequate insurance or cash flows to offset any associated costs. Such outcomes could adversely affect our financial condition and results of operations.

Our results of operations and financial condition could be seriously impacted by business disruptions and security breaches, including cybersecurity incidents.

Business and/or supply chain disruptions, plant downtime, power outages, and/or information technology system and network disruptions, regardless of cause, including acts of sabotage, employee error or other actions, geo-political activity, military actions, and terrorism (including cyberterrorism) could seriously harm our operations, as well as the operations of our customers and suppliers. Further, the nature of our business dictates that we maintain significant concentrations of physical assets in geographic locations which may be vulnerable to the impacts of climate change, including significant changes in storm patterns and intensities, water shortages, increasing atmospheric and water temperatures, and rising sea levels. Such events could also seriously harm our operations, as well as the operations of our customers and suppliers, and accordingly, we continue to study the long-term implications of changing climate parameters on plant siting, operational issues, and water availability. Any of the aforementioned disruptions and/or events could have a negative impact on our business, results of operations, financial condition, and cash flows.

Failure to effectively prevent, detect, and recover from security breaches, including attacks on information technology and infrastructure by hackers, viruses, breaches due to employee error or other actions, or other disruptions, could result in misuse of our assets, business disruptions, loss of property including trade secrets and confidential business information, legal claims or proceedings, reporting errors, processing inefficiencies, negative media attention, loss of sales, and interference with regulatory compliance. Such risks are particularly relevant in consideration of remote working arrangements utilized by our workforce where practicable. Like most major corporations, we have been, and expect to be, the target of industrial espionage, including cyberattacks, from time to time. We have determined that these attacks have resulted, and could result in the future, in unauthorized parties gaining access to certain confidential business information, and have included the obtaining of trade secrets and proprietary information related to the chloride manufacturing process for TiO_2 pigment by third parties. Although we do not believe that we have experienced any material losses to date related to these breaches, there can be no assurance that we will not suffer any such losses in the future. We plan to actively manage the risks within our control that could lead to business disruptions and security breaches. As these threats continue to evolve, particularly around cybersecurity, we may be required to expend significant resources to enhance our control environment, processes, practices, and other protective measures. Despite these efforts, such events could materially adversely affect our business, financial condition, or results of operations.

Our information technology is provided by a combination of internal and external services and service providers, and we rely on information technology in many aspects of our business, including internal and external communications, and the management of our accounting, finance, and supply chain functions. Further, our business involves the use, storage, and transmission of information about customers, suppliers, and employees. As we become more dependent on information technology to conduct our business, and as the number and sophistication of cyberattacks increases, the risks associated with cybersecurity, information security, and data privacy also increases. In response to such risks, we provide our employees with cyber and information security training on a periodic and an annual basis. We have a comprehensive approach to cyber security which includes a robust cyber security education program focused on cyber risk and prevention measures, using online situational awareness training and continuous phishing simulations. Failure to maintain effective internal control over our information technology and infrastructure could materially adversely affect our business, financial condition, or results of operations, and/or have a material adverse impact on our stock price.

Preparedness plans pertaining to the physical- and cyber-related aspects of our business have been developed with detailed actions needed in the event of unforeseen events or severe weather. We also engineer our facilities to better withstand these events and hold insurance coverage to protect against losses from physical damages and business interruptions. These measures have historically been in place, and such activities and associated costs are driven by normal operational preparedness. However, there can be no assurance that such measures will be effective for a particular event that we may experience.

Our operations could be materially impacted in the event of a failure of our information technology infrastructure.

We currently use an enterprise resource planning ("ERP") software platform that is no longer supported; however, we pay for extended, customer-specific support, which is costly. Any systems failure, accident, or security breach could result in significant costs or disruptions to our operations, which could have a material adverse effect on our business. Further, such improvements and upgrades are often complex, costly, and time-consuming. Any attempt to upgrade could result in outages, a disruption to our operations, and our ability to serve our customers.

The implementation of a new ERP software platform could cause disruption to our operations and have a material adverse effect on our results of operations, financial condition, and cash flows.

We are currently in the evaluation process of a multi-year transition to a new ERP software platform, which will replace most of our core financial systems. If the implementation of the new ERP software platform under evaluation does not proceed as expected, it could impede our ability to accurately maintain financial records and share financial data across the company, and we could incur significant costs. Failure to successfully implement the ERP software platform as planned, or if the ERP software platform does not operate as intended, could negatively impact the effectiveness of our internal control over financial reporting. We may also experience challenges integrating the new ERP software platform with our existing technology systems, or may uncover problems with our existing technology systems, that could disrupt our operations and our ability to serve our customers. Any of these types of disruptions could have a negative effect on our business, operating results, financial condition, and/or damage our reputation. In addition, implementing a new ERP software platform may require significant resources and refinement to fully realize the expected benefits of the system.

Risks Related to Our Indebtedness

Our current level of indebtedness could adversely affect our financial condition, and we could have difficulty fulfilling our obligations under our indebtedness, which may have a material adverse effect on us.

As of December 31, 2022, we had approximately $3.6 billion of indebtedness. At December 31, 2022, together with the guarantors, we had approximately $1.1 billion of indebtedness outstanding under our senior secured credit facilities, and a $900 million revolving credit facility ("Revolving Credit Facility") capacity, which would be senior secured indebtedness, if drawn (collectively, the "Senior Secured Credit Facilities"). Our current level of indebtedness increases the risk that we may be unable to generate cash sufficient to pay amounts due in respect of our indebtedness. The level of our indebtedness could have other important consequences on our business, including:

- making it more difficult for us to satisfy our obligations with respect to indebtedness;
- increasing our vulnerability to adverse changes in general economic, industry, and competitive conditions;
- requiring us to dedicate a significant portion of our cash flows from operations to make payments on our indebtedness, thereby reducing the availability of our cash flows to fund working capital and other general corporate purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- restricting us from capitalizing on business opportunities;
- placing us at a competitive disadvantage compared to our competitors that have less debt;
- limiting our ability to borrow additional funds for working capital, acquisitions, debt service requirements, execution of our business strategy, or other general corporate purposes;
- requiring us to provide additional credit support, such as letters of credit or other financial guarantees, to our customers, suppliers, or regulators, thereby limiting our availability of funds under our Revolving Credit Facility;
- limiting our ability to enter into certain commercial arrangements because of concerns of counterparty risks; and,
- limiting our ability to adjust to changing market conditions and placing us at a competitive disadvantage compared to our competitors that have less debt.

The occurrence of any one or more of these circumstances could have a material adverse effect on us.

Our ability to make scheduled payments on and to refinance our indebtedness, including on our outstanding notes, depends on and is subject to our financial and operating performance, which in turn is affected by general and regional economic, financial, competitive, business, and other factors (many of which are beyond our control), including the availability of financing in the international banking and capital markets. We cannot be certain that our business will generate sufficient cash flows from operations or that future borrowings will be available to us in an amount sufficient to enable us to service our debt, including the outstanding notes, to refinance our debt, or to fund our other liquidity needs.

If we are unable to meet our debt service obligations or to fund our other liquidity needs, we will need to restructure or refinance all or a portion of our debt, including the outstanding notes. Failure to successfully restructure or refinance our debt could cause us to default on our debt obligations and would impair our liquidity. Our ability to restructure or refinance our debt will depend on the condition of the capital markets and our financial condition at such time. Any refinancing of our indebtedness could be at higher interest rates and may require us to comply with more onerous covenants that could further restrict our business operations.

Moreover, in the event of a default of our debt service obligations, if not cured or waived, the holders of the applicable indebtedness, including holders of our outstanding notes and the Senior Secured Credit Facilities, could elect to declare all the funds borrowed to be due and payable, together with accrued and unpaid interest. We cannot be certain that our assets or cash flows would be sufficient to fully repay borrowings under our outstanding debt instruments if accelerated upon an event of default. First, a default in our debt service obligations in respect of the outstanding notes would result in a cross-default under the Senior Secured Credit Facilities. The foregoing would permit the lenders under the Revolving Credit Facility to terminate their commitments thereunder and cease making further loans, and would allow the lenders under the Senior Secured Credit Facilities to declare all loans immediately due and payable and to institute foreclosure proceedings against their collateral. Second, any event of default or declaration of acceleration under the Senior Secured Credit Facilities or certain other agreements relating to our outstanding indebtedness could also result in an event of default under the indenture governing the outstanding notes, and any event of default or declaration of acceleration under any other of our outstanding indebtedness may also contain a cross-default provision. Any such default, event of default if not cured or waived, or declaration of acceleration could force us into bankruptcy, reorganization, insolvency, or liquidation.

Refer to "Note 20 – Debt" to the *Consolidated Financial Statements* for further discussion related to our indebtedness.

Despite our current level of indebtedness, we may incur substantially more debt and enter into other transactions, which could further exacerbate the risks to our financial condition described above.

Notwithstanding our current level of indebtedness, we may incur significant additional indebtedness in the future, including additional secured indebtedness (including the $900 million maximum capacity under the Revolving Credit Facility) that would be effectively senior to our outstanding notes. Although the indenture that governs the outstanding notes and the credit agreement that governs the Senior Secured Credit Facilities contain restrictions on our ability to incur additional indebtedness and to enter into certain types of other transactions, these restrictions are subject to a number of significant qualifications and exceptions. Additional indebtedness incurred in compliance with these restrictions, including additional secured indebtedness, could be substantial. These restrictions also do not prevent us from incurring obligations, such as trade payables, that do not constitute indebtedness as defined under our debt instruments. To the extent such new debt is added to our current debt levels, the substantial leverage risks described in the immediately preceding risk factor would increase.

We may need additional capital in the future and may not be able to obtain it on favorable terms.

Our industry is capital intensive, and we may require additional capital in the future to finance our growth and development, implement further marketing and sales activities, fund ongoing R&D activities, make investments driven by environmental compliance, and meet general working capital needs. 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 R&D projects, and the status and timing of these developments, as well as the general availability of capital from debt and/or equity markets. However, debt or equity financing may not be available to us on terms we find acceptable, if at all. If we are unable to raise additional capital when needed, our financial condition could be materially and adversely affected.

Additionally, our failure to maintain the credit ratings on our debt securities, including the outstanding notes, could negatively affect our ability to access capital and could increase our interest expense on future indebtedness. We expect the credit rating agencies to periodically review our capital structure and the quality and stability of our earnings, including ESG-related impacts. Deterioration in our capital structure or the quality and stability of our earnings could result in a downgrade of our overall credit ratings and our debt securities. Any negative rating agency actions could constrain the capital available to us, reduce or eliminate available borrowing to us, and could limit our access to and/or increase the cost of funding our operations. If, as a result, our ability to access capital when needed becomes constrained, our interest costs could increase, which could have material adverse effect on our results of operations, financial condition, and cash flows.

The agreements governing our indebtedness restrict our current and future operations, particularly our ability to respond to changes or to take certain actions.

The agreements governing our indebtedness, including the outstanding notes, contain, and the agreements governing future indebtedness and future debt securities may contain, significant restrictive covenants and, in the case of the Revolving Credit Facility, financial maintenance and negative covenants that will limit our operations, including our ability to engage in activities that may be in our long-term best interests. These restrictive covenants may limit us, and our restricted subsidiaries, from taking, or give rights to the holders of our indebtedness in the event of, the following actions:

- incurring additional indebtedness and guaranteeing indebtedness and other obligations;
- paying dividends or making other distributions in respect of, or repurchasing or redeeming, our capital stock;
- making acquisitions or other investments;
- prepaying, redeeming, or repurchasing certain indebtedness;
- selling or otherwise disposing of assets;
- selling stock of our subsidiaries;
- incurring liens;
- entering into transactions with affiliates;
- entering into agreements restricting our subsidiaries' ability to pay dividends;
- entering into transactions that result in a change of control of us; and,
- consolidating, merging, or selling all or substantially all of our assets.

Our failure to comply with those covenants could result in an event of default that, if not cured or waived, could result in the acceleration of some or all of our indebtedness, which could lead us to bankruptcy, reorganization, or insolvency.

Our variable rate indebtedness subjects us to interest rate risk, which could cause our indebtedness service obligations to increase significantly.

Our borrowings under the Senior Secured Credit Facilities are at variable rates and expose us to interest rate risk. As a result, if interest rates increase, our debt service obligations under the Senior Secured Credit Facilities or other variable rate debt would increase, even though the amount borrowed would remain the same, and our net income and cash flows, including cash available for servicing our indebtedness, would correspondingly decrease. We may use, from time to time, derivative instruments to mitigate interest rate risk. However, there is no guarantee that derivative contracts may be available to us and/or if such contracts will provide the desired results. As of December 31, 2022, we had approximately $1.1 billion of our outstanding debt under the Senior Secured Credit Facilities at variable interest rates.

Refer to "Note 26 – Financial Instruments" to the *Consolidated Financial Statements* for further details regarding our interest rate swaps designated as a cash flow hedge.

General Risk Factors

Our stock price could become more volatile and investments could lose value.

The market price for our common stock may be affected by a number of factors, including, but not limited to:

- our quarterly or annual earnings, or those of other companies in our industry;
- actual or anticipated fluctuations in our operating results;
- changes in earnings estimates by securities analysts or our ability to meet those estimates or our earnings guidance;
- anticipated or actual outcomes or resolutions of legal or other contingencies;
- the operating and stock price performance of other comparable companies;
- a change in our dividend or stock repurchase activities;
- changes in applicable rules and regulations and the reputation of our business;
- the announcement of new products by us or our competitors;
- overall market fluctuations and domestic and worldwide economic conditions; and,
- other factors described within this *Item 1A – Risk Factors*, and elsewhere within this Annual Report on Form 10-K.

A significant drop or rise in our stock price could expose us to costly and time-consuming litigation, which could result in substantial costs and divert management's attention and resources, resulting in an adverse effect on our business.

We cannot guarantee the timing or amount of our dividends and/or our share repurchases, which are subject to a number of uncertainties that may affect the price of our common stock.

The declaration, payment, and amount of any dividends, and/or the decision to purchase common stock under our share repurchase programs, are subject to the sole discretion of our board of directors and, in the context of our financial policy and capital allocation strategy, will depend upon many factors, including our financial condition, operating results, cash flows, and relevant prospects, our capital requirements and access to capital markets, covenants associated with certain of our debt obligations, legal requirements, and other factors that our board of directors may deem relevant, and there can be no assurances that we will continue to pay a dividend or repurchase our common shares in the future.

The reduction or elimination of our dividends or share repurchase programs could adversely affect the price of our common stock. Additionally, any repurchases of our common stock will reduce the amount of our common stock outstanding. There can be no assurances that any share repurchase activity will increase stockholder value due to market fluctuations in the price of our common stock, which may reduce the price of our common stock to levels below the repurchase price. Although our share repurchase programs are designed to enhance long-term shareholder value, short-term fluctuations in the market price of our common stock could reduce the program's overall effectiveness.

A stockholder's percentage of ownership in us may be diluted in the future.

A stockholder's percentage ownership in our common stock may be diluted because of equity issuances for acquisitions, capital market transactions, or otherwise, including, without limitation, equity awards that we may be granting to our directors, officers, and employees. Such issuances may have a dilutive effect on our earnings per share, which could adversely affect the market price of our common stock.

In addition, our amended and restated certificate of incorporation authorizes us to issue, without the approval of our stockholders, one or more classes or series of preferred stock having such designation, powers, preferences, and relative participating, optional, and other special rights, including preferences over our common stock with respect to dividends and distributions, as our board of directors generally may determine. The terms of one or more classes or series of preferred stock could dilute the voting power or reduce the value of our common stock. For example, we could grant the holders of preferred stock the right to elect some number of our directors in all events or on the happening of specified events or to veto specified transactions. Similarly, the repurchase or redemption rights or liquidation preferences we could assign to holders of preferred stock could affect the residual value of our common stock.

Certain provisions in our amended and restated certificate of incorporation and amended and restated by-laws, and of Delaware law, may prevent or delay an acquisition of us, which could decrease the trading price of the common stock.

Our amended and restated certificate of incorporation and amended and restated by-laws contain, and Delaware law contains, provisions that are intended to deter coercive takeover practices and inadequate takeover bids by making such practices or bids unacceptably expensive to the bidder and to encourage prospective acquirers to negotiate with our board of directors rather than to attempt a hostile takeover. These provisions include, among others:

- the inability of our stockholders to act by written consent;
- the limited ability of our stockholders to call a special meeting;
- rules regarding how stockholders may present proposals or nominate directors for election at stockholder meetings;
- the right of our board of directors to issue preferred stock without stockholder approval;
- the ability of our directors, and not stockholders, to fill vacancies (including those resulting from an enlargement of the board of directors) on our board of directors; and,
- the requirement that stockholders holding at least 80% of our voting stock are required to amend certain provisions in our amended and restated certificate of incorporation and our amended and restated by-laws.

In addition, we are subject to Section 203 of the Delaware General Corporations Law ("DGCL"). Section 203 of the DGCL provides that, subject to limited exceptions, persons that (without prior board of directors approval) acquire, or are affiliated with a person that acquires, more than 15% of the outstanding voting stock of a Delaware corporation shall not engage in any business combination with that corporation, including by merger, consolidation, or acquisitions of additional shares, for a three-year period following the date on which that person or its affiliate becomes the holder of more than 15% of the corporation's outstanding voting stock.

We believe these provisions will protect our stockholders from coercive or otherwise unfair takeover tactics by requiring potential acquirers to negotiate with our board of directors and by providing our board of directors with more time to assess any acquisition proposal. These provisions are not intended to make us immune from takeovers. However, these provisions will apply even if an acquisition proposal or offer may be considered beneficial by some stockholders and could delay or prevent an acquisition that our board of directors determines is not in our and/or our stockholders' best interests. These provisions may also prevent or discourage attempts to remove and replace incumbent directors.

Several of the agreements that we have entered into with EID require EID's consent to any assignment by us of our rights and obligations, or a change of control of us, under the agreements. The consent rights set forth in these agreements might discourage, delay, or prevent a change of control that a stockholder may consider favorable.

Our success depends on our ability to attract and retain key employees, and to identify and develop talented personnel to succeed our senior management and other key employees.

Our success depends on the performance of our key employees, including our senior management team. If we are unable to identify, attract, retain, and develop a talented, diverse set of leaders, whether due to technical, geographical, social, or other differences, our results of operations, financial condition, and cash flows could be adversely affected. Further, if we are unable to effectively plan for the succession of our senior management team, our results of operations, financial condition, and cash flows could be adversely affected, as we may be unable to realize our business strategy. While our ongoing personnel practices identify a succession process for our key employees, we cannot guarantee the effectiveness of this process, the continuity of highly-qualified individuals serving in all of our key positions at particular moments in time, and/or the completeness of any knowledge transfer at the time of succession, including its impacts on our general operations and on our internal controls over our financial reporting.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

Our Production Facilities and Technical Centers

Our corporate headquarters is located in Wilmington, Delaware, and we maintain a global network of production facilities and technical centers located in cost-effective and strategic locations. We also use contract manufacturing and joint venture partners in order to provide regional access or to lower manufacturing costs, as appropriate.

The following chart sets forth our production facilities at December 31, 2022.

	Production Facilities				
Region	Titanium Technologies	Thermal & Specialized Solutions	Advanced Performance Materials	Other Segment	Shared Locations
North America	DeLisle, Mississippi New Johnsonville, Tennessee Jesup, Georgia (Mine) (1) Nahunta, Georgia (Mine) (1) Offerman, Georgia (Mineral Separation) Starke, Florida (Mine & Mineral Separation)	Corpus Christi, Texas El Dorado, Arkansas (1) LaPorte, Texas (1) Louisville, Kentucky (1)	Deepwater, New Jersey Elkton, Maryland (1) Fayetteville, North Carolina Louisville, Kentucky Parlin, New Jersey (1) Washington, West Virginia		Belle, West Virginia (3)
Europe, the Middle East, and Africa			Mechelen, Belgium Villers St. Paul, France (1)		Dordrecht, Netherlands (4)
Latin America	Altamira, Mexico	Barueri, Brazil (1) Manaus, Brazil (1) Monterrey, Mexico (1)			
Asia Pacific	Kuan Yin, Taiwan	Chiba, Japan (2)	Shimizu, Japan (2) Sichuan, China (2)		Changshu, China (2,4)

(1) Site is leased from a third party.

(2) Site with joint venture equity affiliates.

(3) Shared site between the Thermal & Specialized Solutions and Other segments.

(4) Shared site between the Thermal & Specialized Solutions and Advanced Performance Materials segments.

We have technical centers and R&D facilities located at a number of our production facilities. We also maintain stand-alone technical centers to serve our customers and provide technical support.

The following chart sets forth our stand-alone technical centers at December 31, 2022.

	Technical Centers				
Region	Titanium Technologies	Thermal & Specialized Solutions	Advanced Performance Materials	Other Segment	Shared Locations
North America					Newark, Delaware (1,4) Wilmington, Delaware (1,3)
Europe, the Middle East, and Africa	Kallo, Belgium (1)				Meyrin, Switzerland (1,3)
Latin America	Mexico City, Mexico (1)				
Asia Pacific			Shimizu, Japan (2)		Shanghai, China (1,4)

(1) Site is leased from a third party.

(2) Site with joint venture equity affiliates.

(3) Shared site between the Thermal & Specialized Solutions and Advanced Performance Materials segments.

(4) Shared site between the Titanium Technologies, Thermal & Specialized Solutions, and Advanced Performance Materials segments.

Our plants and equipment are maintained in good operating condition. We believe that we have sufficient production capacity for our primary products to meet demand in 2023. Our properties are primarily owned by us; however, certain properties are leased, as noted in the preceding tables.

We recognize that the security and safety of our operations are critical to our employees and communities, as well as our future. Physical security measures have been combined with process safety measures, administrative procedures, and emergency response preparedness into an integrated security plan. We conduct vulnerability assessments at our operating facilities in the U.S., as well as high-priority sites worldwide, and as a result, identify and implement the appropriate measures to protect these facilities from physical and cyberattacks. We also maintain preparedness plans that detail actions needed to recover from acute severe weather events, natural disasters, or other events that could disrupt our business. We engineer our facilities to better withstand these events and hold insurance coverage to protect against losses from physical damages and business interruptions. These measures have historically been in place, and these activities and associated costs are driven by normal operational preparedness.

Item 3. LEGAL PROCEEDINGS

Legal Proceedings

We are subject to various legal proceedings, including, but not limited to, product liability, intellectual property, personal injury, commercial, contractual, employment, governmental, environmental and regulatory, anti-trust, and other such matters that arise in the ordinary course of business. In addition, we, by virtue of our status as a subsidiary of EID prior to the Separation, are subject to or required under the Separation-related agreements executed prior to the Separation to indemnify EID against various pending legal proceedings. Information regarding certain of these matters is set forth below and in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*. In the foregoing, we have excluded matters that we expect to result in sanctions of less than $1 million, if any.

Litigation

PFOA and PFAS: Environmental and Litigation Proceedings

For purposes of this report, the term "PFOA" means, collectively, perfluorooctanoic acid and its salts, including the ammonium salt, and does not distinguish between the two forms. The term "PFAS" means per- and polyfluoroalkyl substances. Information related to these and other litigation matters is included in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*.

Fayetteville, North Carolina

Actions related to Fayetteville, other than those by the State of North Carolina, as discussed in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements,* are shown below.

In the U.S. District Court for the Eastern District of North Carolina:

- *Carey et al. vs. E. I. DuPont de Nemours and Company* (7:17-cv-00189-D; 7:17-cv-00197-D; and, 7:17-cv-00201-D);
- *Cape Fear Public Utility Authority vs. The Chemours Company FC, LLC et al. and Brunswick County v. DowDuPont et al.* (7:17-cv-00195-D and 7:17-cv-00209-D);
- *Dew et al. vs. E. I. DuPont de Nemours and Company et al.* (17:18-cv-00030-D);
- *O'Brien et al. vs. E. I. DuPont de Nemours and Company et al.* (5:20-cv-00208-D); and,
- *Priselac vs. The Chemours Company et al.* (20-CVS-499).

In Bladen County, North Carolina:

- *Kinlaw et al. vs. The Chemours Company et al.* (20-CVS-497); and,
- *Lohr et al. vs. The Chemours Company et al.* (20-CVS-498).

Environmental Proceedings

Dordrecht, Netherlands

In May 2020, we were notified of an alleged criminal offense related to the Netherlands' Environmental Management Act and the Working Conditions Decree, regarding the use of PFOA during the pre-spin time period of June 1, 2008 to December 31, 2012. The investigation was initiated in the first quarter of 2016 by a public prosecutor. We believe that we have complied with all relevant laws, and we are in contact with the prosecutor.

In addition, in March 2022, the public prosecutor in The Netherlands has raised a matter related to an alleged infraction of Regulation (EU) 517/2014. Due to a reporting error, our Dordrecht Works facility exceeded its allocated or transferred quota of hydrofluorocarbons within the European market over several years. We implemented improvements to our reporting procedures and operated within the allocated quota. We paid a fine in the fourth quarter of 2022 and are in contact with the prosecutor regarding the matter.

Fayetteville, North Carolina

In February 2019, we received a Notice of Violation ("NOV") from EPA alleging certain TSCA violations at Fayetteville. Matters raised in the NOV could have the potential to affect operations at Fayetteville. For this NOV, we responded to EPA in March 2019 and at this time management does not believe that a loss is probable related to this NOV. We have also received NOVs from NC DEQ following entry of the CO, including in April 2020, January 2021, and August 2021, alleging violations relating to Fayetteville. We have responded to these matters and in April 2022 entered into a settlement agreement with NC DEQ with respect to the August 2021 NOV. We do not believe that a loss is probable related to the matters in the other NOVs. Further discussion related to these matters is included under the heading "Fayetteville Works, Fayetteville, North Carolina" in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*.

Item 4. MINE SAFETY DISCLOSURES

Information regarding mine safety and other regulatory actions at our surface mines and/or mineral sands separation facilities in Starke, Florida, Jesup, Georgia, Nahunta, Georgia, and Offerman, Georgia, are included in *Exhibit 95* to this Annual Report on Form 10-K.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following list sets forth our executive officers and a summary of their professional experience.

Mark E. Newman, age 59, serves as our President and CEO. Mr. Newman was appointed President and CEO in July 2021, prior to which time he had served as our Senior Vice President and Chief Operating Officer ("COO") since June 2019 and our Senior Vice President and Chief Financial Officer ("CFO") from November 2014 to June 2019. Mr. Newman joined Chemours in November 2014 from SunCoke Energy, Inc. ("SunCoke"), where he was SunCoke's Senior Vice President and CFO and led its financial, strategy, business development, and information technology functions. Mr. Newman joined SunCoke's leadership team in March 2011 to help drive SunCoke's separation from its parent company, Sunoco, Inc. He led SunCoke through an initial public offering and championed a major restructuring of SunCoke, which resulted in the initial public offering of SunCoke Energy Partners, L.P. in January 2013, creating the first coke-manufacturing master limited partnership. Prior to joining SunCoke, Mr. Newman served as Vice President – Remarketing and Managing Director of SmartAuction, Ally Financial Inc. (previously, the General Motors Acceptance Corporation). Mr. Newman began his career at the General Motors Company in 1986 as an Industrial Engineer and progressed through several financial and operational leadership roles within the global automaker, including Vice President and CFO of Shanghai General Motors Limited; Assistant Treasurer of General Motors Corporation; and, Vice President – North America and CFO. Mr. Newman served on the board of Altria Group, Inc. from February 2018 through January 2022.

Sameer Ralhan, age 49, serves as our Senior Vice President and CFO. Mr. Ralhan was appointed Senior Vice President and CFO in June 2019. Mr. Ralhan joined Chemours in November 2014 and has held several positions of increasing responsibility in strategy, mergers and acquisitions ("M&A"), finance, and treasury. He served as Vice President, Business Finance and Treasurer from 2018 to 2019, retaining his responsibilities as Treasurer until August 2020, and Vice President, Business Finance and Head of M&A from 2016 to 2018. He also served as Treasurer and Head of M&A from 2015 to 2016, and Head of M&A from 2014 to 2015. Prior to joining Chemours, Mr. Ralhan served as a Managing Director in the Global Natural Resources Group of Goldman Sachs & Co. During his tenure at Goldman Sachs & Co., from 2007 to 2014, he advised companies in the chemicals, industrials, and basic materials sectors on M&A, portfolio transformations, corporate finance matters, and capital markets transactions. Mr. Ralhan also served as an associate in the investment banking group of Bank of America Securities, LLC from 2004 to 2007. Mr. Ralhan began his career as a Chemical Engineer and brings chemicals industry operating experience from his time (1998 – 2002) at Aspen Technology, Inc., where, as an advanced process control engineer, he executed manufacturing process improvement and operational enhancement initiatives for several global chemical and petrochemical companies.

Edwin C. Sparks, age 49, serves as our President – Titanium Technologies and President – Chemical Solutions. Mr. Sparks was appointed to these roles in March 2021 and April 2018, respectively. Previously, he served as President – Fluoroproducts (comprised of Thermal & Specialized Solutions and Advanced Performance Materials) from October 2019 to March 2021. Additionally, Mr. Sparks served as Director of Corporate Strategy from 2017 to 2018 and Global Planning Director – Titanium Technologies from 2016 to 2017. He also served as the Asia Pacific Regional Business Director – Titanium Technologies from 2015 to 2016, based in Singapore. Prior to joining Chemours, he held leadership positions of increasing scope in the EID Titanium Technologies business, with responsibilities including sales, marketing, operations, strategy, and technology. Mr. Sparks joined EID in 1994 as a process engineer.

Alisha Bellezza, age 47, serves as our President – Thermal & Specialized Solutions. Ms. Bellezza was appointed to this role in March 2021, having led the business since July 2020. Ms. Bellezza joined Chemours in 2015 to launch the investor relations function, before becoming our Vice President, Treasurer and Head of Investor Relations from 2016 to 2018. More recently, she held the position of Vice President, Global Sales, Commercial Operations & Supply Chain in the Titanium Technologies segment from 2018 to 2020. Prior to Chemours, Ms. Bellezza held positions with increasing responsibility in Investor Relations, Corporate Strategy & Development, and Finance at FMC Corporation in the Agricultural Products Group and at the Corporate level from 2006 to 2015. She began her career as a financial analyst in banking at Bank One corporation and First Bank & Trust, holding progressive leadership positions before joining Verizon Communications in 2003 to 2006.

Denise Dignam, age 57, serves as our President – Advanced Performance Materials Ms. Dignam was appointed to this role in March 2021. Ms. Dignam joined Chemours in 2015 and has served as our Vice President of Global Operations – Fluoroproducts, from 2019 to 2021; Global Senior Business Director – Fluoropolymers, from 2016 to 2019; and North American Business Director – Diversified Technologies and Industrial Resins, from 2015 to 2016. Previously, she worked at EID in various roles, including Director of Global Supply Chain – Fluoroproducts, from 2013 to 2014; Global Business Manager of Sulfur Products, from 2009 to 2013; and Global Sales Manager of Clean Technologies from 2007 to 2009. Ms. Dignam joined EID in 1988 as a design engineer.

Kristine Wellman, age 53, serves as our Senior Vice President, General Counsel and Corporate Secretary. Ms. Wellman was appointed Senior Vice President, General Counsel & Corporate Secretary in October 2022. Ms. Wellman joined Chemours in December 2014 and has held several positions within the company throughout her tenure. Ms. Wellman served as Associate General Counsel and Assistant Corporate Secretary from July 2015 through February 2019, and a Vice President from March 2018 through February 2019. Ms. Wellman joined business operations for the Fluoroproducts business in March 2019, serving as Plant Manager, Chambers Works, from March 2019 through November 2020. From December 2020 through November 2021, Ms. Wellman served as Vice President, Advanced Performance Materials, Sustainability. She next was appointed to Vice President, Strategic Planning until September 30, 2022. Prior to joining Chemours, Ms. Wellman held legal leadership positions at several financial institutions, including Senior Vice President and Chief Counsel, Capital One, from February 2012 through November 2014, General Counsel ING Bank, fsb, a U.S. subsidiary of ING Group, N.V., from August 2010 through February 2012, and positions of increasing responsibility within the legal department of Branch Banking & Trust Company (BBT) from June 2006 through July 2010, including Senior Vice President and Deputy General Counsel, July 2008 through July 2010. In 1995, Ms. Wellman began her legal career in private practice focusing on M&A, corporate and securities law, and corporate governance.

Susan M. Kelliher, age 56, serves as our Senior Vice President, Human Resources and Health Services. Ms. Kelliher joined Chemours in 2017 from Albemarle Corporation ("Albemarle"), where she served as Senior Vice President – Human Resources for the global specialty chemical company. Prior to Albemarle, she served as Vice President – Human Resources at Hewlett Packard, where she held a number of leadership positions on global teams including Imaging and Printing and Global Sales & Enterprise Marketing from 2007 to 2012. Before joining Hewlett Packard, Ms. Kelliher served as Vice President – Human Resources for Cymer, Inc. ("Cymer"), where she led the people function. She joined Cymer from The Home Depot where, from 2004 to 2007, she was the Vice President – Human Resources for the growth engines of the company – Business Development, and Home Services including responsibility for due diligence and integration for the company's acquisitions. From 2000 to 2004, Ms. Kelliher served as Senior Director of Human Resources for Corporate Business Development and International Operations for the Raytheon Company ("Raytheon"). Prior to Raytheon, she served as the Director of Human Resources – Western Region for YUM! Brands, Pizza Hut division from 1995 to 2000. Ms. Kelliher started her career at Mobil Oil, where her career progressed through a variety of assignments including support for new ventures in Europe, Russia, and Africa from 1990 to 1995.

Alvenia Scarborough, age 49, serves as our Senior Vice President, Corporate Communications and Chief Brand Officer. Ms. Scarborough was appointed to this role in October 2020, after serving as Senior Director of Corporate Communications and Brand Marketing since July 2015. Prior to Chemours, Ms. Scarborough held a variety of corporate communications and marketing communications positions with increasing responsibility across brand development, corporate reputation, media relations, employee communications, and digital marketing. Ms. Scarborough brings over two decades of communications experience with leading multinational companies, including: EID, where she served as the Corporate Leader, Brand Management, Protection and Licensing from 2013 to 2015 and Global Director, Business Communications and Brand Marketing from 2011 to 2013; Newell Rubbermaid, where she served as the Director, Business Communications and Brand Marketing, Global Technology Brands from 2009 to 2010; and Kodak Alaris, where she served as Director of Marketing & Communications, Consumer Imaging from 2000 to 2009, where she spent several years as a product management commercial leader. Ms. Scarborough's unique experience and modern approach to communications have resulted in multiple industry awards and recognition for breakthrough social media and advertising campaigns.

Jonathan S. Lock, age 42, serves as our Senior Vice President and Chief Development Officer. Mr. Lock leads our Corporate Strategy, M&A, Investor Relations, Sustainability and Regulatory Affairs functions. Mr. Lock was appointed to this role in November 2021. Mr. Lock joined Chemours in April 2018 as Vice President, Corporate Development and Investor Relations with oversight for Corporate Strategy, M&A, and Investor Relations. Prior to Chemours, Mr. Lock led corporate strategy and investor relations for SunCoke Energy and its Master Limited Partnership, SunCoke Energy Partners, from 2013 to 2018, where he helped the company expand and grow following its spin-out from Sunoco. Prior to SunCoke, Mr. Lock was a leader in the industrials practice at Marakon Associates where he advised Global 500 companies on growth and portfolio issues first from 2004 to 2008 and again from 2011 to 2013. From 2001 to 2004 Jonathan was a member of the Technology Labs group at Accenture.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES

Market for Registrant's Common Equity and Related Stockholder Matters

Our common stock is listed on the New York Stock Exchange ("NYSE") under the symbol, "CC". The number of record holders of our common stock was 38,680 at February 6, 2023. Holders of our common stock are entitled to receive dividends when they are declared by our board of directors, and dividends are generally declared and paid on a quarterly basis. Our stock transfer agent and registrar is Computershare Trust Company, N.A.

Unregistered Sales of Equity Securities

None.

Issuer Purchases of Equity Securities

2018 Share Repurchase Program

In August 2018, our board of directors approved a share repurchase program authorizing the purchase of shares of our issued and outstanding common stock in an aggregate amount not to exceed $750 million, plus any associated fees or costs in connection with our share repurchase activity (the "2018 Share Repurchase Program"). In February 2019, our board of directors increased the authorization amount of the 2018 Share Repurchase Program from $750 million to $1.0 billion. Under the 2018 Share Repurchase Program, shares of our common stock can be purchased in the open market from time to time, subject to management's discretion, as well as general business and market conditions. On May 19, 2022, we completed the aggregate $1.0 billion in authorized purchases of our issued and outstanding common stock under the 2018 Share Repurchase Program, which amounted to a cumulative 28,603,784 shares purchased at an average price of $34.96 per share.

2022 Share Repurchase Program

On April 27, 2022, our board of directors approved a share repurchase program authorizing the purchase of shares of our issued and outstanding common stock in an aggregate amount not to exceed $750 million, plus any associated fees or costs in connection with our share repurchase activity (the "2022 Share Repurchase Program"). Under the 2022 Share Repurchase Program, shares of our common stock can be purchased in the open market from time to time, subject to management's discretion, as well as general business and market conditions. Our 2022 Share Repurchase Program became effective on April 27, 2022 and is scheduled to continue through the earlier of its expiration on December 31, 2025 or the completion of repurchases up to the approved amount. The program may be suspended or discontinued at any time.

Through December 31, 2022, we purchased a cumulative 8,234,314 shares of our issued and outstanding common stock under the 2022 Share Repurchase Program, which amounted to $241 million at an average share price of $29.24 per share. The aggregate amount of our common stock that remained available for purchase under the 2022 Share Repurchase Program at December 31, 2022 was $509 million.

The following table sets forth the purchases of our issued and outstanding common stock under the programs for the three months ended December 31, 2022.

(Dollars in millions, except per share amounts)

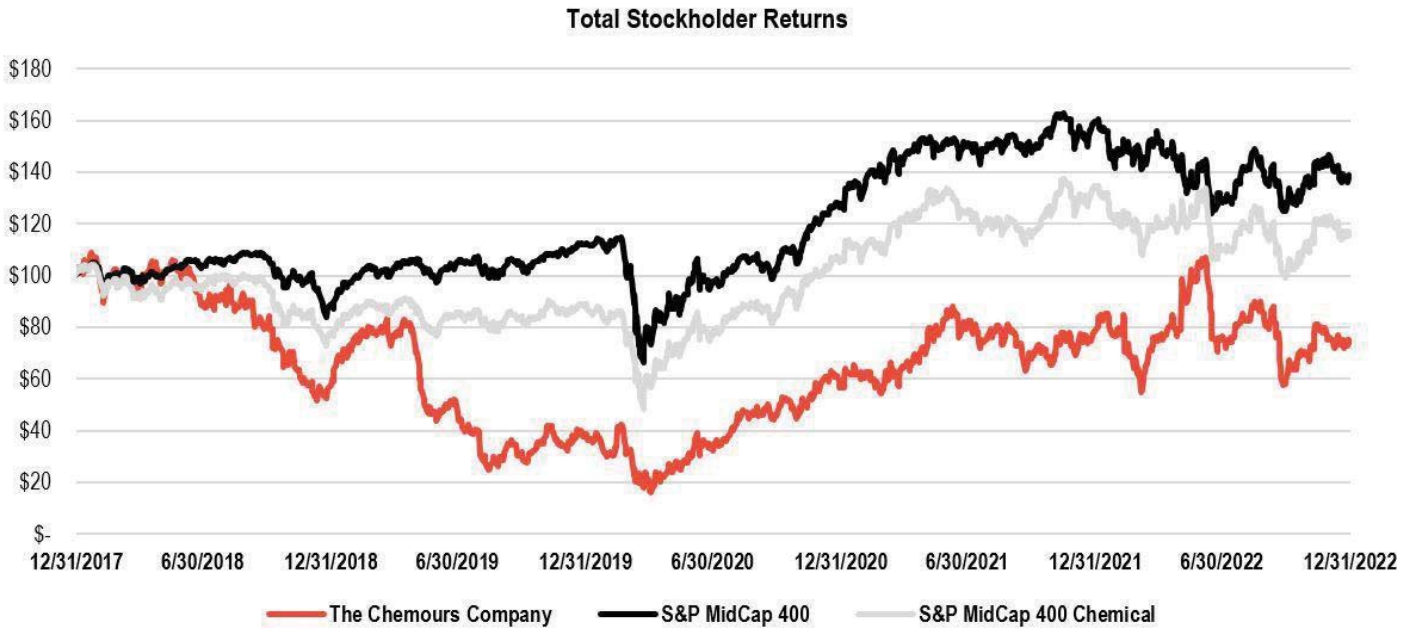
Period	Total Number of Shares Purchased (1)	Average Price Paid per Share (2)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet be Purchased Under the Plans or Programs (2)
Month ended October 31, 2022	3,750,977	$ 27.87	3,750,977	$ 540
Month ended November 30, 2022	727,634	29.52	727,634	518
Month ended December 31, 2022	293,522	30.66	293,522	509
Total	4,772,133	$ 28.29	4,772,133	$ 509

(1) The total number of shares purchased under the share repurchase program is determined using trade dates for the related transactions.

(2) The average price paid per share and approximate dollar value of shares that may yet be purchased under the share repurchase program exclude fees, commissions, and other charges for the related transactions.

Stock Performance Graph

The following graph presents the five-year cumulative total stockholder returns for our common stock compared with the Standard & Poor's ("S&P") MidCap 400 and the S&P MidCap 400 Chemical indices.



The graph assumes that the values of our common stock, the S&P MidCap 400 index, and the S&P MidCap 400 Chemical index were each $100 on December 31, 2017, and that all dividends were reinvested.

Item 6. RESERVED

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") supplements the Consolidated Financial Statements and the related notes thereto included elsewhere herein to help provide an understanding of our financial condition, changes in our financial condition, and the results of our operations for the periods presented. For the year ended December 31, 2020, and changes from the year ended December 31, 2020 to the year ended December 31, 2021, management's discussion and analysis pertaining to our financial condition, changes in our financial condition, and the results of our operations have been omitted from this MD&A and may be found in Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations as included in our Annual Report on Form 10-K for the year ended December 31, 2021. Beginning with reports filed in the first quarter of 2022, we changed our methodology used to allocate certain corporate function expenses to our operating segments, and accordingly, we recast prior year segment information to conform with current year presentation. The change did not have a material impact to management's discussion and analysis pertaining to prior year financial condition, changes in financial condition, and the results of operations included in our Annual Report on Form 10-K for the year ended December 31, 2021. This MD&A should be read in conjunction with the Consolidated Financial Statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K.

Our forward-looking statements are based on certain assumptions and expectations of future events that may not be accurate or realized. These statements, as well as our historical performance, are not guarantees of future performance. Forward-looking statements also involve risks and uncertainties that are beyond our control. Additionally, there may be other risks and uncertainties that we are unable to identify at this time or that we do not currently expect to have a material impact on our business. Factors that could cause or contribute to these differences include, but are not limited to, the risks, uncertainties, and other factors discussed within Item 1A – Risk Factors in this Annual Report on Form 10-K.

Overview

We are a leading, global provider of performance chemicals that are key inputs in end-products and processes in a variety of industries. We deliver customized solutions with a wide range of industrial and specialty chemical products for markets, including coatings, plastics, refrigeration and air conditioning, transportation, semiconductor and consumer electronics, general industrial, and oil and gas. Our principal products include titanium dioxide ("TiO_2") pigment, refrigerants, industrial fluoropolymer resins, sodium cyanide (prior to the Mining Solutions business sale), and performance chemicals and intermediates. We manage and report our operating results through three reportable segments: Titanium Technologies, Thermal & Specialized Solutions, and Advanced Performance Materials. Our Titanium Technologies segment is a leading, global provider of TiO_2 pigment, a premium white pigment used to deliver whiteness, brightness, opacity, and protection in a variety of applications. Our Thermal & Specialized Solutions segment is a leading, global provider of refrigerants, thermal management solutions, propellants, blowing agents, and specialty solvents. Our Advanced Performance Materials segment is a leading, global provider of high-end polymers and advanced materials that deliver unique attributes, including low friction coefficients, extreme temperature resistance, weather resistance, ultraviolet and chemical resistance, and electrical insulation. Our Performance Chemicals and Intermediates business and our Mining Solutions business (prior to the business sale in 2021) are presented under Other Segment.

Results of Operations and Business Highlights

Results of Operations

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

(Dollars in millions, except per share amounts)	Year Ended December 31, 2022	2021
Net sales	$ 6,794	$ 6,345
Cost of goods sold	5,178	4,964
Gross profit	1,616	1,381
Selling, general, and administrative expense	710	592
Research and development expense	118	107
Restructuring, asset-related, and other charges	16	6
Total other operating expenses	844	705
Equity in earnings of affiliates	55	43
Interest expense, net	(163)	(185)
Gain (loss) on extinguishment of debt	7	(21)
Other income, net	70	163
Income before income taxes	741	676
Provision for income taxes	163	68
Net income	578	608
Net income attributable to Chemours	$ 578	$ 608
Per share data		
Basic earnings per share of common stock	$ 3.72	$ 3.69
Diluted earnings per share of common stock	3.65	3.60

Net Sales

The following table sets forth the impacts of price, volume, currency, and portfolio changes on our net sales for the year ended December 31, 2022.

Change in net sales from prior period	Year Ended December 31, 2022
Price	19%
Volume	(5)%
Currency	(3)%
Portfolio	(4)%
Total change in net sales	7%

Our net sales increased by $449 million (or 7%) to $6.8 billion for the year ended December 31, 2022, compared with net sales of $6.3 billion for the same period in 2021. The increase in our net sales for the year ended December 31, 2022 was primarily attributable to an increase in price of 19%, partially offset by a decrease in volume of 5%, and portfolio change of 4% driven by the sale of our Mining Solutions business in 2021. Price increased across all our reportable segments and volume increased in our Thermal & Specialized Solutions and Advanced Performance Materials segments. Unfavorable currency movements in all our reportable segments added a headwind of 3% to our net sales.

The drivers of these changes for each of our reportable segments are discussed further under the “Segment Reviews” section within this *MD&A*.

Cost of Goods Sold

Our cost of goods sold ("COGS") increased by $214 million (or 4%) to $5.2 billion for the year ended December 31, 2022, compared with COGS of $5 billion for the same period in 2021. Despite the decreases in sales volume and portfolio change as mentioned above, our COGS increased for the year ended December 31, 2022, primarily attributable to higher raw material costs due to inflation, as well as supply constraints and higher distribution, freight, and logistics expenses. Raw material inflation impact on COGS increased as the year progressed and was more pronounced in the second half of the year relative to the first half of the year. In addition, we recognized a payroll tax credit under the Employee Retention Credit of the Coronavirus Aid, Relief, and Economic Security Act during 2021 that did not recur in 2022. The increase for the year ended December 31, 2022 was partially offset by lower on-site remediation costs incurred at our Fayetteville Works site in Fayetteville, North Carolina ("Fayetteville") of approximately $124 million during 2022 as compared to 2021 and approximately $22 million of higher Qualified Spend recovery from DuPont and Corteva recognized during 2022 as compared to 2021.

Selling, General, and Administrative Expense

Our selling, general, and administrative ("SG&A") expense increased by $118 million (or 20%) to $710 million for the year ended December 31, 2022, compared with SG&A expense of $592 million for the same period in 2021. The increase in our SG&A expense for the year ended December 31, 2022 was primarily attributable to increased off-site environmental remediation costs of approximately $125 million at Fayetteville during 2022 as compared to 2021, largely due to an increase in liabilities to meet drinking water compliance requirements contained in the Consent Order with the North Carolina Department of Environmental Quality ("NC DEQ"). SG&A expense in 2021 included a $25 million charge incurred in connection with our portion of the settlement agreement with the State of Delaware.

Research and Development Expense

Our research and development ("R&D") expense increased by $11 million (or 10%) to $118 million for the year ended December 31, 2022, compared with R&D expense of $107 million for the same period in 2021. The increase in our R&D expense for the year ended December 31, 2022 was primarily attributable to growth initiatives in the current year and our increased focus on product development in our Advanced Performance Materials segment.

Restructuring, Asset-related, and Other Charges

Our restructuring, asset-related, and other charges increased by $10 million (or over 100%) to $16 million for the year ended December 31, 2022, compared with $6 million for the same period in 2021.

For the year ended December 31, 2022, our restructuring, asset-related, and other charges were primarily attributable to $5 million of asset charges resulting from the conflict between Russia and Ukraine and our decision to suspend business with Russian entities, and $9 million of employee separation charges incurred in connection with our 2022 severance programs.

For the year ended December 31, 2021, our restructuring, asset-related, and other charges were primarily attributable to $12 million of decommissioning and dismantling related charges in connection with our decision to exit the Aniline business and stop production at our Pascagoula, Mississippi manufacturing plant, partially offset by a net $9 million gain from contract termination with a third-party services provider at our previously owned Mining Solutions facility in Gomez Palacio, Durango, Mexico. This facility was sold as part of the sale of our Mining Solutions business in 2021.

Equity in Earnings of Affiliates

Our equity in earnings of affiliates increased by $12 million (or 28%) to $55 million for the year ended December 31, 2022, compared with equity in earnings of affiliates of $43 million for the same period in 2021. The increase in our equity in earnings of affiliates for the year ended December 31, 2022 was primarily attributable to increased pricing and demand for our investees' products.

Interest Expense, Net

Our interest expense, net decreased by $22 million (or 12%) to $163 million for the year ended December 31, 2022, compared with interest expense, net of $185 million for the same period in 2021. The decrease in our interest expense, net for the year ended December 31, 2022 was primarily attributable to a reduction in associated interest rates following the refinancing of our 7.000% senior notes due May 2025 ("2025 Notes") in August of 2021 as well reduction in outstanding debt obligations as a result of open market repurchases in the third quarter 2022 and higher interest income from rate increases in 2022, partially offset by higher interest on our variable interest rate debt.

Gain (Loss) on Extinguishment of Debt

For the year ended December 31, 2022, we recognized a net gain on extinguishment of debt of $7 million in connection with the open market repurchases of various portions of our senior unsecured notes.

For the year ended December 31, 2021, we recognized a loss on extinguishment of debt of $21 million primarily in connection with our tender offer and make-whole call to purchase any and all of our 2025 Notes.

Other Income, Net

Our other income, net decreased by $93 million (or 57%) to $70 million for the year ended December 31, 2022, compared with other income, net of $163 million for the same period in 2021. The decrease in our other income, net for the year ended December 31, 2022 was primarily attributable to a net pre-tax gain on sale of $112 million associated with the sale of the Mining Solutions business in 2021, compared to net pre-tax gain on sale recorded in 2022 of $5 million and $18 million associated with the sale of our land related to the Beaumont former operating site (the "Beaumont Transaction") and the stock sale of certain of our wholly-owned subsidiaries and the remaining assets at our former Aniline business facilities in Pascagoula, Mississippi (the "Pascagoula Transaction"), respectively. In addition, we incurred losses in foreign currency exchange in 2022 driven by the depreciation of the Argentina peso and Asia Pacific currencies. These decreases in other income, net were partially offset by settlement of a patent infringement matter relating to certain copolymer patents associated with our Advanced Performance Materials segment in 2022.

Provision for Income Taxes

We have a provision for income taxes of $163 million and $68 million for the years ended December 31, 2022 and 2021, respectively. Our provision for income taxes represented effective tax rates of 22% and 10% for the years ended December 31, 2022 and 2021, respectively.

The $95 million increase in our provision for income taxes for the year ended December 31, 2022, when compared with the same period in 2021, was primarily attributable to $36 million of income tax expense related to a reserve on transfer pricing positions recorded during the fourth quarter of 2022 and changes to non-recurring items in prior periods, including an $11 million tax benefit associated with a 2012 income tax refund received in a foreign subsidiary and a $16 million benefit associated with a reversal of a valuation allowance of a certain foreign subsidiary's deferred tax assets in relation to the sale of our Mining Solutions business on December 1, 2021. These increases were partially offset by $21 million of income tax expense related to the gain realized from the sale of our Mining Solutions business in 2021, which also did not reoccur in 2022. Changes in geographic mix of earnings and underlying profitability are responsible for the remaining increase in tax expense.

Segment Reviews

Beginning with reports filed in the first quarter of 2022, we changed our methodology used to allocate certain corporate function expenses to our operating segments to provide our Chief Operating Decision Maker ("CODM") with a more meaningful representation of segment profitability. This allocation methodology change reflects corporate function resource usage by each operating segment based on certain commercial drivers, in addition to the cost drivers, as well as consideration of our recent sale of the Mining Solutions business in 2021. The historical segment information, including adjusted earnings before interest, taxes, depreciation, and amortization ("Adjusted EBITDA"), has been recast to conform to the current segment presentation.

Adjusted EBITDA is the primary measure of segment profitability used by our CODM and is defined as income (loss) before income taxes, excluding the following:

- interest expense, depreciation, and amortization;
- non-operating pension and other post-retirement employee benefit costs, which represents the non-service component of net periodic pension (income) costs;
- exchange (gains) losses included in other income (expense), net;
- restructuring, asset-related, and other charges;
- (gains) losses on sales of assets and businesses; and,
- other items not considered indicative of our ongoing operational performance and expected to occur infrequently, including Qualified Spend reimbursable by DuPont and/or Corteva as part of our cost-sharing agreement under the terms of the Memorandum of Understanding ("MOU") that were previously excluded from Adjusted EBITDA.

A reconciliation of net income (loss) attributable to Chemours to Adjusted EBITDA for the years ended December 31, 2022 and 2021 is included in the "Non-GAAP Financial Measures" section of this *MD&A*.

The following table sets forth our Adjusted EBITDA by segment for the years ended December 31, 2022 and 2021.

	Year Ended December 31,	
(Dollars in millions)	2022	2021
Titanium Technologies	$ 601	$ 799
Thermal & Specialized Solutions	603	401
Advanced Performance Materials	367	284
Other Segment	2	49
Corporate and Other	(212)	(220)
Total Adjusted EBITDA	$ 1,361	$ 1,313

Titanium Technologies

The following table sets forth the net sales, Adjusted EBITDA, and Adjusted EBITDA margin amounts for our Titanium Technologies segment for the years ended December 31, 2022 and 2021.

	Year Ended December 31,	
(Dollars in millions)	**2022**	**2021**
Segment net sales	$ 3,380	$ 3,355
Adjusted EBITDA	601	799
Adjusted EBITDA margin	18%	24%

The following table sets forth the impacts of price, volume, currency, and portfolio changes on our Titanium Technologies segment's net sales for the year ended December 31, 2022.

Change in segment net sales from prior period	**Year Ended December 31, 2022**
Price	17%
Volume	(14)%
Currency	(2)%
Portfolio	—%
Total change in segment net sales	1%

Segment Net Sales

Our Titanium Technologies segment's net sales were largely unchanged at $3.4 billion for the years ended December 31, 2022 and 2021. The slight increase in segment net sales for the year ended December 31, 2022 was attributable to an increase in price of 17%, largely offset by a decrease in volume of 14%. Price increases were due to contractual price changes, as well as price increases with our Flex customers and Distribution partners. Volume decreases were driven by constraints in output due to ore shortages in the first half of the year and demand weakness in the second half of the year. Demand weakness, particularly in Europe and Asia, started in the third quarter of 2022 and weakened further in the fourth quarter of 2022. Unfavorable currency movements added a 2% headwind to the segment's net sales during the year ended December 31, 2022.

Adjusted EBITDA and Adjusted EBITDA Margin

Segment Adjusted EBITDA decreased by $198 million (or 25%) to $601 million and segment Adjusted EBITDA margin decreased by approximately 600 basis points to 18% for the year ended December 31, 2022, compared with segment Adjusted EBITDA of $799 million and segment Adjusted EBITDA margin of 24% for the same period in 2021. The decrease in Adjusted EBITDA and segment Adjusted EBITDA margin was primarily attributable to the lower fixed cost absorption due to higher ore costs due to ore supply disruption in the first half of 2022, lower operating rates because of aforementioned decrease in sales volumes, and higher other raw material and energy costs.

Thermal & Specialized Solutions

The following table sets forth the net sales, Adjusted EBITDA, and Adjusted EBITDA margin amounts for our Thermal & Specialized Solutions segment for the years ended December 31, 2022 and 2021.

	Year Ended December 31,	
(Dollars in millions)	**2022**	**2021**
Segment net sales	$ 1,680	$ 1,257
Adjusted EBITDA	603	401
Adjusted EBITDA margin	36%	32%

The following table sets forth the impacts of price, volume, currency, and portfolio changes on our Thermal & Specialized Solutions segment's net sales for the year ended December 31, 2022.

Change in segment net sales from prior period	**Year Ended December 31, 2022**
Price	28%
Volume	8%
Currency	(2)%
Portfolio	—%
Total change in segment net sales	34%

Segment Net Sales

Our Thermal & Specialized Solutions segment's net sales increased by $423 million (or 34%) to $1.7 billion for the year ended December 31, 2022, compared with segment net sales of $1.3 billion for the same period in 2021. The increase in segment net sales for the year ended December 31, 2022 was primarily attributable to an increase in price of 28% and an increase in volume of 8%. Prices increased in most markets across the business due to changing market and regulatory dynamics and steady value-based pricing growth within our refrigerants portfolio. Volume increased due to continued adoption of Opteon™ and other specialized solutions. Unfavorable currency movements added a 2% headwind to the segment's net sales during the year ended December 31, 2022.

Adjusted EBITDA and Adjusted EBITDA Margin

Segment Adjusted EBITDA increased by $202 million (or 50%) to $603 million and segment Adjusted EBITDA margin increased by approximately 400 basis points to 36% for the year ended December 31, 2022, compared with segment Adjusted EBITDA of $401 million and segment Adjusted EBITDA margin of 32% for the same period in 2021. The increase in segment Adjusted EBITDA and segment Adjusted EBITDA margin for the year ended December 31, 2022 was primarily attributable to the aforementioned increase in price, including favorable product mix, and sales volumes, partially offset by higher raw material and logistics costs.

Advanced Performance Materials

The following table sets forth the net sales, Adjusted EBITDA, and Adjusted EBITDA margin amounts for our Advanced Performance Materials segment for the years ended December 31, 2022 and 2021.

	Year Ended December 31,	
(Dollars in millions)	2022	2021
Segment net sales	$ 1,618	$ 1,397
Adjusted EBITDA	367	284
Adjusted EBITDA margin	23%	20%

The following table sets forth the impacts of price, volume, currency, and portfolio changes on our Advanced Performance Materials segment's net sales for the year ended December 31, 2022.

Change in segment net sales from prior period	Year Ended December 31, 2022
Price	18%
Volume	2%
Currency	(4)%
Portfolio	—%
Total change in segment net sales	16%

Segment Net Sales

Our Advanced Performance Materials segment's net sales increased by $221 million (or 16%) to $1.6 billion for the year ended December 31, 2022, compared with segment net sales of $1.4 billion for the same period in 2021. The increase in segment net sales for the year ended December 31, 2022 was primarily attributable to an increase in price of 18% and an increase in volume of 2%. Global average selling price increased due to increasing sales in high-value end-markets, including advanced electronics, semiconductors, and clean energy, as well as customer level pricing actions to offset increased raw material and energy costs. Volume increased due to high global customer demand across key markets, partially offset by supply chain challenges and lower demand in non-strategic end-markets where volume fade has been anticipated given our strategy to drive higher value, differentiated product offerings. Unfavorable currency movements added a 4% headwind to the segment's net sales during the year ended December 31, 2022.

Adjusted EBITDA and Adjusted EBITDA Margin

Segment Adjusted EBITDA increased by $83 million (or 29%) to $367 million and segment Adjusted EBITDA margin increased by approximately 300 basis points to 23% for the year ended December 31, 2022, compared with segment Adjusted EBITDA of $284 million and segment Adjusted EBITDA margin of 20% for the year ended December 31, 2021. The increases in segment Adjusted EBITDA and segment Adjusted EBITDA margin for the year ended December 31, 2022 were primarily attributable to the aforementioned increase in sales volume, favorable product mix and pricing actions, partially offset by higher raw material, energy costs, particularly in Europe, logistics costs and costs related to growth investments.

The segment's operating results for the years ended December 31, 2022 and 2021 included $16 million and $15 million, respectively, of costs for process-related waste water treatment at Fayetteville. We expect to continue to incur these costs as we work with the NC DEQ to reauthorize discharge of such wastewater under our National Pollutant Discharge Elimination System ("NPDES") permit.

Corporate and Other

Corporate and Other reflects certain legacy-related legal and environmental expenses (net of applicable MOU benefit), stock-based compensation expenses and other corporate costs.

Corporate and Other costs decreased by $8 million (or 4%) to $212 million for the year ended December 31, 2022, compared with Corporate and Other costs of $220 million for the same period in 2021. The decrease in Corporate and Other costs for the year ended December 31, 2022 was primarily attributable to lower performance-related compensation and higher Qualified Spend recovery from DuPont and Corteva, partially offset by higher legacy environmental costs and other corporate initiatives.

2023 Outlook

Our 2023 results will be driven by the following expectations in each of our reportable segments:

- **Titanium Technologies** – Demand to slowly start improving in EMEA and China, but expect pace and timing of overall demand recovery through the year to remain uncertain given uneven macroeconomic conditions in different geographies;
- **Thermal & Specialized Solutions** – Improved customer demand for our refrigerants with typical seasonality and continued Opteon™ adoption in mobile and stationary applications, paired with uncertainty in automotive and construction end-market demand recovery and headwinds from raw material inflation; and
- **Advanced Performance Materials** – Improved customer demand for high-value, differentiated products in the performance solutions portfolio, offset by weak demand for products in the advanced materials portfolio which serves economically sensitive end-markets, demand softening in non-strategic markets, paired with raw material inflation and EU energy costs volatility.

We expect that our capital expenditures will be approximately $400 million, with approximately $200 million for growth capital expenditures and approximately $200 million for run and maintain, and sustainability.

Our outlook for 2023 reflects our current visibility and expectations based on market factors, such as currency movements, macro-economic factors, and end-market demand. In particular, end-market demand may be impacted by factors beyond our control, including the ongoing Russia-Ukraine conflict. Our ability to meet our expectations are subject to numerous risks, including, but not limited to, those described in *Item 1A – Risk Factors*.

Liquidity and Capital Resources

Our primary sources of liquidity are cash generated from operations and available cash, along with our receivables securitization and borrowings under our debt financing arrangements, both of which are described in further detail in “Note 20 – Debt” to the *Consolidated Financial Statements*. Our operating cash flow generation is driven by, among other things, the general global economic conditions at any point in time and their resulting impacts on demand for our products, raw materials and energy prices, and industry-specific issues, such as production capacity and utilization. We have generated strong operating cash flows through various past industry and economic cycles, evidencing the underlying operating strength of our businesses. We anticipate that our cash generated from operations, available cash, receivables securitization, and existing debt financing arrangements will provide us with sufficient liquidity through at least February 2024.

At December 31, 2022, we had total cash and cash equivalents of $1.1 billion, of which $587 million was held by our foreign subsidiaries. All cash and cash equivalents held by our foreign subsidiaries are readily convertible into currencies used in our operations, including the U.S. dollar. During the year ended December 31, 2022, we received approximately $581 million of net cash in the U.S. through intercompany loans and dividends. Traditionally, the cash and earnings of our foreign subsidiaries have generally been used to finance their operations and capital expenditures, and it is our intention to indefinitely reinvest the historical pre-2018 earnings of our foreign subsidiaries. However, beginning in 2018, management asserts that only certain foreign subsidiaries are indefinitely reinvested. For further information related to our income tax positions, refer to “Note 9 – Income Taxes” to the *Consolidated Financial Statements*. Management believes that sufficient liquidity is available in the U.S. through at least February 2024, which includes borrowing capacity under our revolving credit facility.

Over the course of the next 12 months and beyond, we anticipate making significant cash payments for known contractual and other obligations, which we expect to fund through cash generated from operations, available cash, receivables securitization, and our existing debt financing arrangements. Such obligations include:

- **Principal and interest obligations on long-term debt** – We are required to make quarterly principal payments related to our Senior Secured Credit Facilities, with the balance due at maturity. Principal payments are also due at maturity for our 4.000% senior unsecured notes due May 2026, which are denominated in euros, the 5.375% senior unsecured notes due May 2027, the 5.750% senior unsecured notes due November 2028, and the 4.625% senior unsecured notes due November 2029 (collectively, the "Notes"). The earliest maturity date of our outstanding debt is scheduled in 2025. For a schedule of our debt principal maturities for the next five years and thereafter, refer to "Note 20 – Debt" to the *Consolidated Financial Statements*. Our interest obligations under our Senior Secured Credit Facilities may be paid monthly or quarterly, and our interest obligations in connection with the Notes are paid semi-annually in arrears on May 15 and November 15 of each year. We anticipate that our scheduled interest payments will be approximately $185 million each for the years ended December 31, 2023 and 2024, subject to changes in variable interest rates. In 2025 and 2026, we anticipate that our scheduled interest payments will be approximately $135 million and $110 million, respectively, subject to changes in variable interest rates.
- **Operating and finance leases** – We lease certain office space, laboratory space, equipment, railcars, tanks, barges, tow boats, and warehouses. The majority of our lease population pertains to operating leases, and the remaining terms on our total lease population varies, extending up to 24 years. For a schedule of our lease payments for the next five years and thereafter, refer to "Note 14 – Leases" to the *Consolidated Financial Statements*.
- **Purchase obligations** – As part of our normal, recurring operations, we enter into enforceable and legally-binding agreements to purchase goods and/or services that specify fixed or minimum quantities, fixed minimum or variable price provisions, and the approximate timing of the agreement. These agreements primarily pertain to our purchases of raw materials and utilities costs and may span multiple years. Based upon our currently executed agreements, we anticipate that our contractually obligated cash payments for raw materials and utilities will approximate $265 million for the year ending December 31, 2023, $240 million for the year ending December 31, 2024, and $200 million annually for each of the three years thereafter. Renewal, modification, or execution of additional agreements for future purchasing obligations may increase or decrease these amounts in future years.
- **Environmental remediation** – We, due to the terms of our Separation-related agreements with EID, are subject to contingencies pursuant to environmental laws and regulations that in the future may require further action to correct the effects on the environment of prior disposal practices or releases of chemical substances, which are attributable to EID's activities before our spin-off. Much of this liability results from the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), the Resource Conservation and Recovery Act ("RCRA"), and similar federal, state, local, and foreign laws. These laws may require us to undertake certain investigative, remediation, and restoration activities at sites where we conduct or EID once conducted operations or at sites where waste generated by us or EID was disposed. At December 31, 2022, our consolidated balance sheets include $668 million for environmental remediation liabilities, of which $194 million was classified as current, and a portion is subject to recovery under the MOU. Of the current environmental remediation liabilities of $194 million, $139 million relates to Fayetteville. Pursuant to the binding MOU that we entered into with DuPont, Corteva, and EID in January 2021, costs related to potential future legacy PFAS liabilities arising out of pre-July 1, 2015 conduct will be shared until the earlier to occur of: (i) December 31, 2040; (ii) the day on which the aggregate amount of Qualified Spend is equal to $4.0 billion; or, (iii) a termination in accordance with the terms of the MOU. The parties have agreed in the MOU that, during the term of the cost-sharing arrangement, we will bear half of the cost of such future potential legacy PFAS liabilities, and DuPont and Corteva will collectively bear the other half of the cost of such future potential legacy PFAS liabilities. After the term of this arrangement, our indemnification obligations under the Separation Agreement would continue unchanged, subject in each case to certain exceptions set out in the MOU. Through December 31, 2022, aggregate Qualified Spend including settlements, by us, DuPont, and Corteva under the MOU amounted to $314 million. Refer to the "Environmental Matters" section within this *MD&A* for the anticipated environmental remediation payments over the next three years. Refer to "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements* for further discussion of the MOU and Qualified Spend.

- **PFAS escrow funding requirements** – Pursuant to the binding MOU that we entered into with DuPont, Corteva, and EID in January 2021, the parties have agreed to establish an escrow account in order to support and manage the payments for potential future PFAS liabilities. The MOU provides that: (i) no later than each of September 30, 2021 and September 30, 2022, we shall deposit $100 million into an escrow account and DuPont and Corteva shall together deposit $100 million in the aggregate into an escrow account, and (ii) no later than September 30 of each subsequent year through and including 2028, we shall deposit $50 million into an escrow account and DuPont and Corteva shall together deposit $50 million in the aggregate into an escrow account. Subject to the terms and conditions set forth in the MOU, each party may be permitted to defer funding in any year (excluding 2021). Additionally, if on December 31, 2028, the balance of the escrow account (including interest) is less than $700 million, we will make 50% of the deposits and DuPont and Corteva together will make 50% of the deposits necessary to restore the balance of the escrow account to $700 million. Such payments will be made in a series of consecutive annual equal installments commencing on September 30, 2029 pursuant to the escrow account replenishment terms as set forth in the MOU. Any funds that remain in escrow at termination of the MOU will revert to the party that deposited them. As such, future payments made by us into the escrow account will remain an asset of Chemours, and such payments will be reflected as a transfer to restricted cash on our consolidated balance sheets. No withdrawals are permitted from the escrow account before January 2026, except for funding mutually agreed-upon third-party settlements in excess of $125 million. Starting in January 2026, withdrawals may be made from the escrow account to fund Qualified Spend if the parties' aggregate Qualified Spend in that particular year is greater than $200 million. Starting in January 2031, the amounts in the escrow account can be used to fund any Qualified Spend. Future payments from the escrow account for potential future PFAS liabilities will be reflected on our consolidated statement of cash flows at that point in time. Refer to "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements* for further discussion.
- **Purchases of property, plant, and equipment** – As further discussed under the "Capital Expenditures" section within this *MD&A*, our operations are capital intensive, requiring ongoing investment to upgrade or enhance existing operations and to meet environmental and operational regulations. For the years ended December 31, 2022 and 2021, our purchases of property, plant, and equipment amounted to $307 million and $277 million, respectively. For the year ending December 31, 2023, we expect that our capital expenditures will be approximately $400 million. Our capital expenditures do not include the estimated future spend at Fayetteville, which is included in our environmental remediation liabilities, as noted in the "Environmental Liabilities" section of "Liquidity and Capital Resources" within this *MD&A*.

We continue to believe our sources of liquidity are sufficient to fund our planned operations and to meet our interest, dividend, income taxes, and contractual obligations through at least February 2024. Our financial policy seeks to: (i) selectively invest in organic and inorganic growth to enhance our portfolio, including certain strategic capital investments; (ii) maintain appropriate leverage by using free cash flows to repay outstanding borrowings; and, (iii) return cash to shareholders through dividends and share repurchases. Specific to our objective to return cash to shareholders, in recent quarters, we have previously announced dividends of $0.25 per share, amounting to approximately $155 million per year, and, on February 6, 2023, we announced our quarterly cash dividend of $0.25 per share for the first quarter of 2023. Under our 2022 Share Repurchase Program, as further discussed in *Item 5 – Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities* in this Annual Report on Form 10-K, we also have remaining authority to repurchase $509 million of our outstanding common stock. Subject to approval by our board of directors, we may raise additional capital or borrowings from time to time, or seek to refinance our existing debt. There can be no assurances that future capital or borrowings will be available to us, and the cost and availability of new capital or borrowings could be materially impacted by market conditions. Further, the decision to refinance our existing debt is based on a number of factors, including general market conditions and our ability to refinance on attractive terms at any given point in time. Any attempts to raise additional capital or borrowings or refinance our existing debt could cause us to incur significant charges. Such charges could have a material impact on our financial position, results of operations, or cash flows.

Cash Flows

The following table sets forth a summary of the net cash provided by (used for) our operating, investing, and financing activities for the years ended December 31, 2022 and 2021.

	Year Ended December 31,	
(Dollars in millions)	2022	2021
Cash provided by operating activities	$ 754	$ 820
Cash (used for) provided by investing activities	(284)	220
Cash used for financing activities	(685)	(560)

Operating Activities

We generated $754 million and $820 million in cash flows from our operating activities during the years ended December 31, 2022 and 2021, respectively.

The decrease in our operating cash inflows for the year ended December 31, 2022 was primarily attributable to changes in working capital, primarily related to changes in inventory due to higher unit costs, impact of timing of payment on accounts payable and collection of our accounts receivable, higher payments related to environmental remediation at Fayetteville, and payment of the $25 million settlement with the State of Delaware.

Investing Activities

We used $284 million in cash flows from our investing activities during the year ended December 31, 2022. Our investing cash outflows were primarily attributable to purchases of property, plant, and equipment amounting to $307 million, partially offset by cash proceeds of $17 million related to the Beaumont Transaction and $16 million related to the Pascagoula Transaction during the year ended December 31, 2022. For further information related to the capital projects driving our year-over-year increase in purchases of property, plant, and equipment, refer to the “Capital Expenditures” section within this MD&A.

We generated $220 million in cash flows from our investing activities during the year ended December 31, 2021. Our investing cash inflows were primarily attributable to $508 million of cash proceeds, which are net of $13 million cash divested, from the sale of our Mining Solutions business. Our investing cash inflows were partially offset by purchases of property, plant, and equipment, amounting to $277 million and $12 million of cash used for the settlement of certain foreign currency contracts. Purchases of property, plant, and equipment for the year ended December 31, 2021 included $22 million of assets acquired in exchange for the termination of a contract with a third-party service provider at our previously owned Mining Solutions facility in Gomez Palacio, Durango, Mexico.

Financing Activities

We used $685 million in cash flows for our financing activities during the year ended December 31, 2022. Our financing cash outflows were primarily attributable to our capital allocation activities, resulting in $495 million in purchases of our issued and outstanding common stock under our 2022 Share Repurchase Program and our 2018 Share Repurchase Program, $154 million of cash dividends, $68 million in debt repayments including open market repurchases, partially offset by $51 million of cash received from stock option exercises.

We used $560 million in cash flows for our financing activities during the year ended December 31, 2021. Our financing cash outflows were primarily attributable to $854 million in debt repayments, comprised of the $750 million 2025 Notes refinancing and $104 million Senior Secured Term Loan repurchases and repayments. These debt repayments were partially offset by $650 million of proceeds from the issuance of the 2029 Notes, which was used, together with cash on hand to repay the 2025 Notes and related fees. Financing cash outflows also include $173 million in purchases of our issued and outstanding common stock under our 2018 Share Repurchase Program, $164 million of cash dividends, and $18 million in premium payments to purchase and redeem the 2025 Notes.

The lower cash dividends paid in 2022, when compared to prior year, was due to the decrease in our outstanding common stock following the share repurchases completed throughout the year.

Current Assets

The following table sets forth the components of our current assets at December 31, 2022 and 2021.

	December 31,	
(Dollars in millions)	2022	2021
Cash and cash equivalents	$ 1,102	$ 1,451
Accounts and notes receivable, net	626	720
Inventories	1,404	1,099
Prepaid expenses and other	82	75
Total current assets	$ 3,214	$ 3,345

Our accounts and notes receivable, net decreased by $94 million (or 13%) to $626 million at December 31, 2022, compared with accounts and notes receivable, net of $720 million at December 31, 2021. The decrease in our accounts and notes receivable, net at December 31, 2022 was primarily attributable to lower net sales in the fourth quarter of 2022 when compared to the same period in 2021, as well as the timing of collections from our customers.

Our inventories increased by $305 million (or 28%) to $1.4 billion at December 31, 2022, compared with inventories of $1.1 billion at December 31, 2021. The increase in our inventories at December 31, 2022 was primarily attributable to build-up of our finished product inventories, along with an increase in the value of our raw material inventories due to higher raw material costs.

Our prepaid expenses and other assets increased by $7 million (or 9%) to $82 million at December 31, 2022, compared with prepaid expenses and other assets of $75 million at December 31, 2021. The increase in our prepaid expenses and other current assets at December 31, 2022 was primarily attributable to an increase in our income taxes receivable due to higher estimated income tax payments made during the year in several jurisdictions where we operate.

Current Liabilities

The following table sets forth the components of our current liabilities at December 31, 2022 and 2021.

(Dollars in millions)	December 31, 2022	December 31, 2021
Accounts payable	$ 1,251	$ 1,162
Compensation and other employee-related costs	121	173
Short-term and current maturities of long-term debt	25	25
Current environmental remediation	194	173
Other accrued liabilities	300	325
Total current liabilities	$ 1,891	$ 1,858

Our accounts payable increased by $89 million (or 8%) to $1.3 billion at December 31, 2022, compared with accounts payable of $1.2 billion at December 31, 2021. The increase in our accounts payable at December 31, 2022 was primarily attributable to higher raw material prices and the timing of payments to our vendors.

Our compensation and other employee-related costs decreased by $52 million (or 30%) to $121 million at December 31, 2022 compared with compensation and other employee-related costs of $173 million at December 31, 2021. The decrease in our compensation and other employee-related costs at December 31, 2022 was primarily attributable to decreased accruals for employee benefits and performance-based compensation.

Our current environmental remediation increased by $21 million (or 12%) to $194 million at December 31, 2022, compared with current environmental remediation of $173 million at December 31, 2021. The increase in our current environmental remediation at December 31, 2022 was primarily attributable to increased accruals for construction of the barrier wall at Fayetteville, as well as off-site groundwater testing and water treatment system installations at qualifying third-party properties primarily in Bladen and Cumberland counties surrounding Fayetteville and for the assessment and for sampling related to potential PFAS contamination of groundwater and supply, alternative drinking water, and mitigation in New Hanover and three other counties downstream from Fayetteville.

Our other accrued liabilities decreased by $25 million (or 8%) to $300 million at December 31, 2022, compared with other accrued liabilities of $325 million at December 31, 2021. The decrease in our other accrued liabilities at December 31, 2022 was primarily attributable to a decrease in accrued litigation following the payment of the $25 million settlement with the State of Delaware, as well as a decrease in income taxes payable following higher estimated income tax payments made during the year. The decrease in other accrued liabilities was partially offset by the $20 million accrual for our portion of the potential loss in the single matter not included in the Leach settlement. For more information regarding this matter, refer to "PFOA" within this "Note 22 - Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*.

Credit Facilities and Notes

Refer to "Note 20 – Debt" to the *Consolidated Financial Statements* for a discussion of our credit facilities and notes.

Guarantor Financial Information

The following disclosures set forth summarized financial information and alternative disclosures in accordance with Rule 13-01 of Regulation S-X ("Rule 13-01"). These disclosures have been made in connection with certain subsidiaries' guarantees of the 4.000% senior unsecured notes due May 2026, which are denominated in euros and the 5.375% senior unsecured notes due May 2027 (collectively, the "Registered Notes"), which are registered under the Securities Act of 1933, as amended. Each series of the Registered Notes was issued by The Chemours Company (the "Parent Issuer"), and was fully and unconditionally guaranteed, jointly and severally, on a senior unsecured basis by the existing and future domestic subsidiaries of the Parent Issuer (together, the "Guarantor Subsidiaries"), subject to certain conditions as set forth in "Note 20 – Debt" to the *Consolidated Financial Statements*. The assets, liabilities, and operations of the Guarantor Subsidiaries primarily consist of those attributable to The Chemours Company FC, LLC, our primary operating subsidiary in the United States, as well as certain U.S.-based operating subsidiaries included in *Exhibit 22* to this Annual Report on Form 10-K. Each of the Guarantor Subsidiaries is 100% owned by the Company. None of our other subsidiaries, either direct or indirect, guarantee the Registered Notes (together, the "Non-Guarantor Subsidiaries"). Pursuant to the indentures governing the Registered Notes, the Guarantor Subsidiaries will be automatically released from those guarantees upon the occurrence of certain customary release provisions.

Our summarized financial information is presented on a combined basis, consisting of the Parent Issuer and Guarantor Subsidiaries (collectively, the "Obligor Group"), in accordance with the requirements under Rule 13-01, and is presented after the elimination of: (i) intercompany transactions and balances among the Parent Issuer and Guarantor Subsidiaries, and (ii) equity in earnings from and investments in the Non-Guarantor Subsidiaries.

(Dollars in millions)	Year Ended December 31, 2022
Net sales	$ 4,423
Gross profit	854
Income before income taxes	316
Net income	233
Net income attributable to Chemours	233

(1) Net sales includes intercompany sales to the Non-Guarantor Subsidiaries.

	December 31,	
(Dollars in millions)	2022	2021
Assets		
Current assets (1,2,3)	$ 1,553	$ 1,554
Long-term assets (4)	3,485	3,720
Liabilities		
Current liabilities (2)	$ 1,554	$ 1,504
Long-term liabilities	4,528	4,497

(1) Current assets includes $514 million and $525 million of cash and cash equivalents at December 31, 2022 and 2021, respectively.

(2) Current assets includes $326 million and $407 million of intercompany accounts receivable from the Non-Guarantor Subsidiaries at December 31, 2022 and 2021, respectively. Current liabilities includes $318 million and $328 million of intercompany accounts payable to the Non-Guarantor Subsidiaries at December 31, 2022 and 2021, respectively.

(3) As of December 31, 2022 and 2021, $46 million and $76 million of accounts receivable generated by the Obligor Group, respectively, remained outstanding with one of the Non-Guarantor Subsidiaries under the Securitization Facility.

(4) Long-term assets includes $303 million and $729 million of intercompany notes receivable from the Non-Guarantor Subsidiaries at December 31, 2022 and 2021, respectively.

There are no significant restrictions that may affect the ability of the Guarantor Subsidiaries in guaranteeing the Parent Issuer's obligations under our debt financing arrangements. While the Non-Guarantor Subsidiaries do not guarantee the Parent Issuer's obligations under our debt financing arrangements, we may, from time to time, repatriate post-2017 earnings from certain of these subsidiaries to meet our financing obligations, as well.

Supplier Financing

We maintain supply chain finance programs with several financial institutions. The programs allow our suppliers to sell their receivables to one of the participating financial institutions at the discretion of both parties on terms that are negotiated between the supplier and the respective financial institution. Our obligations to our suppliers, including the amounts due and scheduled payment dates, are not impacted by our suppliers' decisions to sell their receivables under this program. At December 31, 2022 and 2021, the total amounts outstanding under these programs were $158 million and $153 million, respectively. Pursuant to their agreement with a financial institution, certain suppliers may elect to be paid early at their discretion. The available capacity under these programs can vary based on the number of investors and/or financial institutions participating in these programs at any point in time.

Off-Balance Sheet Arrangements

Information with respect to guarantees, including our securitization program, are included in "Note 20 - Debt" to the *Consolidated Financial Statements*. Historically, we have not made any payments to satisfy guarantee obligations; however, we believe we have the financial resources to satisfy these guarantees in the event required.

Capital Expenditures

Our operations are capital intensive, requiring ongoing investment to upgrade or enhance existing operations and to meet environmental and operational regulations. Our capital requirements have consisted, and are expected to continue to consist, primarily of:

- ongoing capital expenditures, such as those required to maintain equipment reliability, maintain the integrity and safety of our manufacturing sites, comply with environmental regulations, and meet our Corporate Responsibility Commitments;
- investments in our existing facilities to help support the introduction of new products and de-bottleneck to expand capacity and grow our business; and,
- investments in projects to reduce future operating costs and enhance productivity.

The following table sets forth our ongoing and expansion capital expenditures, including certain environmental capital expenditures, for the years ended December 31, 2022 and 2021.

	Year Ended December 31,	
(Dollars in millions)	2022	2021
Titanium Technologies	$ 149	$ 104
Thermal & Specialized Solutions	30	26
Advanced Performance Materials	115	103
Other Segment	6	39
Corporate and Other	7	5
Total purchases of property, plant, and equipment	$ 307	$ 277

Our capital expenditures increased by $30 million (or 11%) to $307 million for the year ended December 31, 2022, compared with capital expenditures of $277 million for the same period in 2021. The increase in our capital expenditures for the year ended December 31, 2022 was primarily attributable to higher capital investment in Titanium Technologies related to mining operations in Florida, investments in Advanced Performance Materials segment related to growth in performance solutions business, partially offset by decrease in capital expenditures in Other Segment due to the divestiture of the Mining Solutions business.

Critical Accounting Policies and Estimates

Our significant accounting policies are more fully described in "Note 3 – Summary of Significant Accounting Policies" to the *Consolidated Financial Statements*. Management believes that the application of these policies on a consistent basis enables us to provide the users of our financial statements with useful and reliable information about our operating results and financial condition.

The preparation of our consolidated financial statements in conformity with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts, including, but not limited to, receivable and inventory valuations, impairment of tangible and intangible assets, long-term employee benefit obligations, income taxes, restructuring liabilities, environmental matters, and litigation. Management's estimates are based on historical experience, facts, and circumstances available at the time, and various other assumptions that are believed to be reasonable. We review these matters and reflect changes in estimates as appropriate. Management believes that the following represents some of the more critical judgment areas in the application of our accounting policies, which could have a material effect on our financial position, results of operations, or cash flows.

Provision for (Benefit from) Income Taxes

The provision for (benefit from) income taxes is determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. The provision for (benefit from) income taxes represents income taxes paid or payable for the current year, plus the change in deferred taxes during the year. Deferred taxes result from differences between the financial and tax bases of our assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. Valuation allowances are recorded to reduce deferred tax assets when it is more-likely-than-not that a tax benefit will not be realized. In evaluating the ability to realize deferred tax assets, we rely on, in order of increasing subjectivity, taxable income in prior carryback years, the future reversals of existing taxable temporary differences, tax planning strategies, and forecasted taxable income using historical and projected future operating results.

The breadth of our operations and the global complexity of tax regulations require assessments of uncertainties and judgments in estimating the taxes that we will ultimately pay. The final taxes paid are dependent upon many factors, including negotiations with taxing authorities in various jurisdictions, outcomes of tax litigation, and resolutions of disputes arising from federal, state, and international tax audits in the normal course of business. A liability for unrecognized tax benefits is recorded when management concludes that the likelihood of sustaining such positions upon examination by taxing authorities is less than more-likely-than-not. It is our policy to include accrued interest related to unrecognized income tax positions and income tax-related penalties in the provision for (benefit from) income taxes.

We account for the tax impacts of new provisions based on interpretation of existing statutory law, including proposed regulations issued by the U.S. Treasury and the IRS. While there can be no assurances as to the effect of any final regulations on our provision for (benefit from) income taxes, we will continue to evaluate the impacts as any issued regulations become final and adjust our estimates, as appropriate.

Refer to "Note 9 – Income Taxes" to the *Consolidated Financial Statements* for further information related to our income tax positions.

Long-lived Assets

We evaluate the carrying value of our long-lived assets to be held and used when events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. For the purposes of recognition or measurement of an impairment charge, the assessment is performed on the asset or asset group at the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. To determine the level at which the assessment is performed, we consider factors such as revenue dependency, shared costs, and the extent of vertical integration. The carrying value of a long-lived asset is considered impaired when the total projected undiscounted cash flows from the use and eventual disposition of the asset or asset group are separately identifiable and are less than its carrying value. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair value of the long-lived asset. The fair value methodology used is an estimate of fair market value, which is made based on prices of similar assets or other valuation methodologies, including present value techniques. Long-lived assets to be disposed of other than by sale are classified as held for use until their disposal. Long-lived assets to be disposed of by sale are classified as held for sale and are reported at the lower of their carrying amount or fair market value, less the estimated costs to sell. Depreciation and amortization are ceased for a disposal group upon it being classified as held for sale.

The testing for potential impairment of these assets is significantly dependent on numerous assumptions and reflects management's best estimates at a particular point in time. The dynamic economic environments in which our segments operate, and key economic and business assumptions with respect to projected selling prices, market growth, and inflation rates, can significantly impact the outcome of our impairment tests. Estimates based on these assumptions may differ significantly from actual results. Changes in the factors and assumptions used in assessing potential impairments can have a significant impact on the existence and magnitude of impairments, as well as the time in which such impairments are recognized. In addition, we continually review our diverse portfolio of assets to ensure that they are achieving their greatest potential and are aligned with our growth strategy. Strategic decisions involving a particular group of assets may trigger an assessment of the recoverability of the related assets. Such an assessment could result in impairment losses. We did not recognize material impairment charges on our long-lived assets during the years ended December 31, 2022 and 2021.

Goodwill

The excess of the purchase price over the estimated fair value of the net assets acquired in a business combination, including any identified intangible assets, is recorded as goodwill. We test our goodwill for impairment at least annually on October 1; however, these tests are performed more frequently when events or changes in circumstances indicate that the asset may be impaired. Goodwill is evaluated for impairment at the reporting unit level, which is an operating segment or one level below an operating segment. A reporting unit is the level at which discrete financial information is available and reviewed by business management on a regular basis. An impairment exists when the carrying value of a reporting unit exceeds its fair value. The amount of impairment loss recognized in the consolidated statements of operations is equal to the excess of a reporting unit's carrying value over its fair value, which is limited to the total amount of goodwill allocated to the reporting unit.

The fair values of our reporting units were determined by using a combination of income-based and/or market-based valuation techniques. These valuation models incorporated a number of assumptions and judgments surrounding general market and economic conditions, short- and long-term revenue growth rates, gross margins, and prospective financial information surrounding future cash flows of the reporting units. Projections are based on internal forecasts of future business performance and are based on growth assumptions, which exclude business growth opportunities not yet fully realized. Discount rate and market multiple assumptions were determined based on relevant peer companies in the chemicals sector.

As of October 1, 2022, we performed our annual goodwill impairment tests for all reporting units. Based upon the results of our annual goodwill impairment tests, no impairments to the carrying value of goodwill were necessary during the year ended December 31, 2022. We have one reporting unit with goodwill of $56 million, where the fair value exceeds the book value by between 20% and 50%. The fair value exceeds the book value of all other reporting units by over 150% with goodwill aggregating to $46 million. Accordingly, we do not believe that any of our reporting units are at risk of failing step one of the annual goodwill impairment test.

Employee Benefits

The amounts recognized in our consolidated financial statements related to pension and other long-term employee benefits plans are determined from actuarial valuations. Inherent in these valuations are assumptions including, but not limited to, the expected returns on plan assets, discount rates at which liabilities are expected to be settled, rates of increase in future compensation levels, and mortality rates. These assumptions are updated annually and are disclosed in "Note 27 – Long-term Employee Benefits" to the *Consolidated Financial Statements*. In accordance with GAAP, actual results that differed from the assumptions are accumulated and amortized over future periods and, therefore, affect expense recognized and obligations recorded in future periods.

We use discount rates that are developed by matching the expected cash flows of each benefit plan to various yield curves constructed from a portfolio of high-quality, fixed income instruments provided by the plan's actuary as of the measurement date. As of December 31, 2022, the weighted-average discount rate was 3.6%.

The expected long-term rates of return on plan assets are determined by performing a detailed analysis of historical and expected returns based on the strategic asset allocation of the underlying asset class applicable to each country. We also consider our historical experience with the pension funds' asset performance. The expected long-term rates of return on plan assets are assumptions and not what is expected to be earned in any one particular year. The weighted-average long-term rates of return on plan assets assumptions used for determining our net periodic pension cost for 2022 was 1%.

A 50 basis point increase in the discount rate would result in a decrease of $3 million to the net periodic benefit cost for 2023, while a 50 basis point decrease in the discount rate would result in an increase of approximately $3 million. A 50 basis point increase in the expected return on plan assets assumption would result in a decrease of approximately $2 million to the net periodic benefit cost for 2023, while a 50 basis point decrease in the expected return on plan assets assumption would result in an increase of approximately $2 million.

Litigation

Litigation liabilities and expenditures included in our consolidated financial statements include litigation matters that are liabilities of EID and its subsidiaries, which we may be required to indemnify pursuant to the Separation-related agreements executed prior to the Separation. Disputes between us and EID may arise with respect to indemnification of these matters, including disputes based on matters of law or contract interpretation. If, and to the extent these disputes arise, they could materially adversely affect our results of operations. We are also involved in various claims and legal proceedings. We regularly review the status of each significant matter and assess its potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. When a material loss contingency is reasonably possible, but not probable, we do not record a liability, but instead disclose the nature of the matter and an estimate of the loss or range of loss, to the extent such estimate can be made. Significant judgment is required in both the determination of probability and whether an exposure is reasonably estimable. Our judgments are subjective based on the status of the legal or regulatory proceedings, the merits of our defenses and consultation with in-house and outside legal counsel. Because of uncertainties related to these matters, accruals are based on the best information available at the time. As additional information becomes available, we reassess the potential liability related to pending claims and litigation and may revise our estimates accordingly. Due to the inherent uncertainties of the legal and regulatory process in the multiple jurisdictions in which we operate, our judgments may be materially different than the actual outcomes. Legal costs such as outside counsel fees and expenses are charged to expense in the period services are rendered.

Environmental Liabilities and Expenditures

We accrue for environmental remediation costs when it is probable that a liability has been incurred and a reasonable estimate of the liability can be made. Where the available information is sufficient to estimate the amount of liability, that estimate has been used. Where the information is only sufficient to establish a range of probable liability, and no point within the range is more likely than any other, the lower end of the range has been used. Estimated liabilities are determined based on existing remediation laws and technologies and our planned remedial responses, which are derived from environmental studies, sampling, testing, and other analyses. Inherent uncertainties exist in such evaluations, primarily due to unknown environmental conditions, changing governmental regulations regarding liability, and emerging remediation technologies. These accruals are adjusted periodically as remediation efforts progress and as additional technology, regulatory, and legal information become available.

Environmental liabilities and expenditures include claims for matters that are liabilities of EID and its subsidiaries, which we may be required to indemnify pursuant to the Separation-related agreements executed prior to the Separation. These accrued liabilities are undiscounted and do not include claims against third parties.

Costs related to environmental remediation are charged to expense in the period that the associated liability is accrued. Other environmental costs are also charged to expense in the period incurred, unless they increase the value of the property or reduce or prevent contamination from future operations, in which case they are capitalized and amortized.

Recent Accounting Pronouncements

Refer to “Note 3 – Summary of Significant Accounting Policies” to the *Consolidated Financial Statements* for a discussion about recent accounting pronouncements.

Environmental Matters

Consistent with our values and our *Environment, Health, Safety, and Corporate Responsibility* policy, we are committed to preventing releases to the environment at our manufacturing sites to keep our people and communities safe, and to be good stewards of the environment. We are also subject to environmental laws and regulations relating to the protection of the environment. We believe that, as a general matter, our policies, standards, and procedures are properly designed to prevent unreasonable risk of harm to people and the environment, and that our handling, manufacture, use, and disposal of hazardous substances are in accordance with applicable environmental laws and regulations.

Environmental Expenditures

We incur costs for pollution abatement activities, including waste collection and disposal, installation and maintenance of air pollution controls and waste water treatment, emissions testing and monitoring, and obtaining permits. Annual expenses charged to current operations include environmental operating costs and increases in remediation accruals, if any, during the period reported.

Our environmental remediation expenditures are subject to considerable uncertainty and may fluctuate significantly. In the U.S., additional capital expenditures associated with ongoing operations (as described below) are expected to be required over the next decade for treatment, storage, and disposal facilities for solid and hazardous waste and for compliance with the Clean Air Act ("CAA"). Until all these regulatory requirements are established and known, considerable uncertainty will remain regarding estimates for our future capital and remediation expenditures.

Environmental Capital Expenditures

For the years ended December 31, 2022 and 2021, we spent $43 million and $69 million, respectively, on environmental capital projects that were either required by law or necessary to meet our internal environmental objectives. The decrease in our environmental capital expenditures for the year ended December 31, 2022, when compared with the same period in 2021, was primarily attributable to our Advanced Performance Materials segment where higher spend in 2021 relative to 2022 is driven by the timing of projects focused on the reduction of water emissions in line with our Corporate Responsibility Commitment.

We expect our future capital expenditures for environmental matters will continue to vary, based on the success of our deployed solutions, changes in our operations, technological advancements, developments in environmental requirements, and stakeholder expectations.

Environmental Remediation

In large part, because of past operations, operations of predecessor companies, or past disposal practices, we, like many other similar companies, have clean-up responsibilities and associated remediation costs, and are subject to claims by other parties, including claims for matters that are liabilities of EID and its subsidiaries that we may be required to indemnify pursuant to the Separation-related agreements executed prior to the Separation.

We accrue for clean-up activities consistent with the policy described under "Critical Accounting Policies and Estimates" discussed within this *MD&A* and in "Note 3 – Summary of Significant Accounting Policies" to the *Consolidated Financial Statements*. Our environmental liabilities include estimated costs, including certain accruable costs associated with on-site capital projects. The accruable costs relate to a number of sites for which it is probable that environmental remediation will be required, whether or not subject to enforcement activities, as well as those obligations that result from environmental laws such as CERCLA, RCRA, and similar federal, state, local, and foreign laws. These laws may require certain investigative, remediation, and restoration activities at sites where we conduct or EID once conducted operations or at sites where our generated waste was disposed. At December 31, 2022 and 2021, our consolidated balance sheets include environmental remediation liabilities of $668 million and $562 million, respectively, relating to these matters, which, as discussed in further detail below, include $465 million and $359 million, respectively, for Fayetteville.

The following table sets forth the activities related to our environmental remediation liabilities for the years ended December 31, 2022 and 2021.

(Dollars in millions)	December 31, 2022	December 31, 2021
Balance at January 1,	$ 562	$ 390
Increase in remediation accrual	269	269
Remediation payments (1)	(159)	(97)
Divestitures	(4)	—
Balance at December 31,	$ 668	$ 562

(1) Remediation payments do not include Qualified Spend that we have been reimbursed for by DuPont and/or Corteva as part of our cost-sharing agreement under the terms of the MOU.

Our estimated liability for environmental remediation covered 211 sites at December 31, 2022 and 2021.

The following table sets forth our environmental remediation liabilities by site category.

(Dollars in millions)	December 31, 2022		December 31, 2021	
Site Category	**Number of Sites**	**Remediation Accrual**	**Number of Sites**	**Remediation Accrual**
Chemours-owned	21	$ 589	23	$ 486
Multi-party Superfund/non-owned (1)	88	79	86	76
Closed or settled	102	—	102	—
Total sites	211	$ 668	211	$ 562

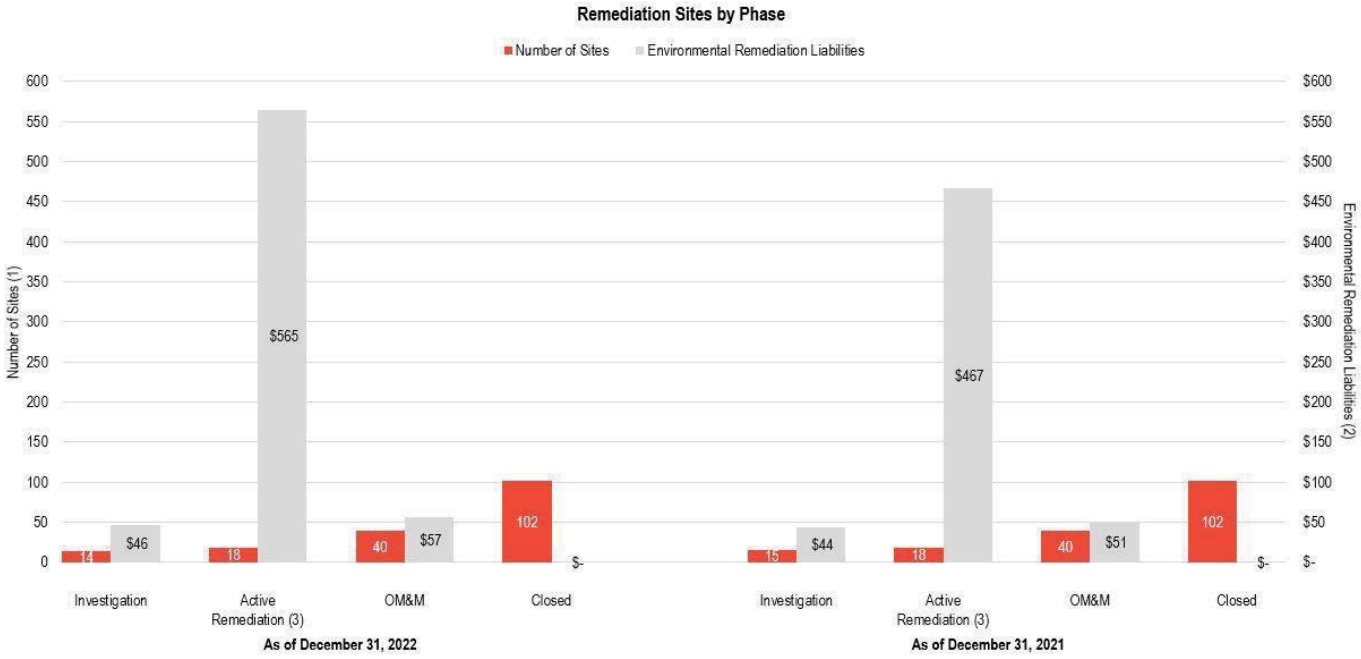
(1) Sites not owned by Chemours, including sites previously owned by EID or Chemours, where remediation obligations are imposed by environmental remediation laws, such as CERCLA, RCRA, or similar state laws.

As part of our legacy as a former subsidiary of EID, we are cleaning-up historical impacts to soil and groundwater that have occurred in the past at the 21 sites that we own. These Chemours-owned sites make up approximately 88% of our environmental remediation liabilities at December 31, 2022.

We were also assigned numerous clean-up obligations from EID, which pertain to 88 sites previously owned by EID and/or us, as well as sites that we or EID never owned or operated. We are meeting our obligations to clean up those sites. The majority of these non-owned sites are multi-party Superfund sites that we, through EID, have been notified of potential liability under CERCLA, RCRA, or similar state laws and which, in some cases, may represent a small fraction of the total waste that was allegedly disposed of at a site. These sites represent approximately 12% of our environmental remediation liabilities at December 31, 2022. Included in the 88 sites are 37 inactive sites for which there has been no known investigation, clean-up, or monitoring activity, and no remediation obligation is imposed or required; as such, no remediation liabilities are recorded.

The remaining 102 sites, which are Superfund sites and other sites not owned by us, are either already closed or settled, or sites for which we do not believe we have clean-up responsibility based on current information.

The following graph sets forth the number of remediation sites by site clean-up phase and our environmental remediation liabilities by site clean-up phase as of December 31, 2022 and 2021.



(1) Number of sites does not include the 37 and 36 inactive sites for which there has been no known investigation, clean-up, or monitoring activities as of December 31, 2022 and 2021, respectively.

(2) Dollars in millions.

(3) As of December 31, 2022 and 2021, Active Remediation included $465 million and $359 million, respectively, for on-site remediation and off-site groundwater remediation at Fayetteville.

As remediation efforts progress, sites move from the investigation phase ("Investigation") to the active clean-up phase ("Active Remediation"), and as construction is completed at Active Remediation sites, those sites move to the operation, maintenance, and monitoring ("OM&M"), or closure phase. As final clean-up activities for some significant sites are completed over the next several years, we expect our annual expenses related to these active sites to decline over time. The time frame for a site to go through all phases of remediation (Investigation and Active Remediation) may take about 15 to 20 years, followed by several years of OM&M activities. Remediation activities, including OM&M activities, vary substantially in duration and cost from site to site. These activities, and their associated costs, depend on the mix of unique site characteristics, evolving remediation technologies, and diverse regulatory requirements, as well as the presence or absence of other Potentially Responsible Parties ("PRPs"). In addition, for claims that we may be required to indemnify EID pursuant to the Separation-related agreements, we and EID may have limited available information for certain sites or are in the early stages of discussions with regulators. For these sites, there may be considerable variability between the clean-up activities that are currently being undertaken or planned and the ultimate actions that could be required. Therefore, considerable uncertainty exists with respect to environmental remediation costs, and, under adverse changes in circumstances, we currently estimate the potential liabilities may range up to approximately $730 million above the amount accrued at December 31, 2022. This estimate is not intended to reflect an assessment of our maximum potential liability. The estimated liabilities are determined based on existing remediation laws and technologies and our planned remedial responses, which are derived from environmental studies, sampling, testing, and analyses. Inherent uncertainties exist in such evaluations, primarily due to unknown environmental conditions, changing governmental regulations regarding liability, and emerging remediation technologies. We will continue to evaluate as new or additional information becomes available in the determination of our environmental remediation liability.

In general, uncertainty is greatest and the range of potential liability is widest in the Investigation phase, narrowing over time as regulatory agencies approve site remedial plans. As a result, uncertainty is reduced, and sites ultimately move into OM&M, as needed. As more sites advance from Investigation to Active Remediation to OM&M or closure, the upper end of the range of potential liability is expected to decrease over time. Some remediation sites will achieve site closure and will require no further action to protect people and the environment and comply with laws and regulations. At certain sites, we expect that there will continue to be some level of remediation activity due to ongoing OM&M of remedial systems. In addition, portfolio changes, such as an acquisition or divestiture, or notification as a PRP for a multi-party Superfund site, could result in additional remediation activity and potentially additional accrual.

Management does not believe that any loss, in excess of amounts accrued, related to remediation activities at any individual site will have a material impact on our financial position or cash flows for any given year, as such obligation can be satisfied or settled over many years.

Significant Environmental Remediation Sites

While there are many remediation sites that contribute to our total accrued environmental remediation liabilities at December 31, 2022 and 2021, the following table sets forth the liabilities of the five sites that are deemed the most significant and together with the aggregate liabilities of the 67 other sites represent the 72 sites with environmental remediation.

	December 31,	
(Dollars in millions)	2022	2021
Chambers Works, Deepwater, New Jersey	$ 30	$ 27
Fayetteville Works, Fayetteville, North Carolina	465	359
Pompton Lakes, New Jersey	41	42
USS Lead, East Chicago, Indiana	17	24
Washington Works, West Virginia	17	11
All other sites	98	99
Total environmental remediation	$ 668	$ 562

The five sites listed above represent 85% and 82% of our total accrued environmental remediation liabilities at December 31, 2022 and 2021, respectively. For these five sites, we expect to spend, in the aggregate, $246 million over the next three years. For all other sites, we expect to spend $99 million over the next three years.

Chambers Works, Deepwater, New Jersey ("Chambers Works")

The Chambers Works complex is located on the eastern shore of the Delaware River in Deepwater, Salem County, New Jersey. The site comprises the former Carneys Point Works in the northern area and the Chambers Works manufacturing area in the southern area. Site operations began in 1892 when the former Carneys Point smokeless gunpowder plant was constructed at the northern end of Carneys Point. Site operations began in the manufacturing area around 1914 and included the manufacture of dyes, aromatics, elastomers, chlorofluorocarbons, and tetraethyl lead. We continue to manufacture a variety of fluoropolymers and finished products at Chambers Works. In addition, two tenants operate processes at Chambers Works. As a result of over 100 years of continuous industrial activity, site soils and groundwater have been impacted by chemical releases.

In response to identified groundwater contamination, a groundwater interceptor well system ("IWS") was installed in 1970, which was designed to contain contaminated groundwater and restrict off-site migration. Additional remediation is being completed under a federal RCRA Corrective Action permit. The site has been studied extensively over the years, and more than 25 remedial actions have been completed to date and engineering and institutional controls put in place to ensure protection of people and the environment. In 2017, a site perimeter sheet pile barrier intended to more efficiently contain groundwater was completed.

Remaining work beyond continued operation of the IWS and groundwater monitoring includes completion of various targeted studies on site and in adjacent water bodies to close investigation data gaps, as well as selection and implementation of final remedies under RCRA Corrective Action for various solid waste management units and areas of concern not yet addressed through interim measures. Discussions are ongoing with the EPA and the New Jersey Department of Environmental Protection (the "NJ DEP") relating to such remaining work as well as the scope of remedial programs and investigation relating to the Chambers Works site historic industrial activity as well as ongoing remedial programs.

Fayetteville Works, Fayetteville, North Carolina

Fayetteville is located southeast of the City of Fayetteville in Cumberland and Bladen counties, North Carolina. The facility encompasses approximately 2,200 acres, which were purchased by EID in 1970, and are bounded to the east by the Cape Fear River and to the west by North Carolina Highway 87. Currently, the Company manufactures fluorinated monomers, fluorinated vinyl ethers, Nafion™ membranes and dispersions, and fluoropolymer processing aids at the site. A former manufacturing area, which was sold in 1992, produced nylon strapping and elastomeric tape. EID sold its Butacite® and SentryGlas® manufacturing units to Kuraray America, Inc. in September 2014. In July 2015, upon our Separation from EID, we became the owner of the Fayetteville land assets along with fluoromonomers, Nafion™ membranes, and the related polymer processing aid manufacturing units. A polyvinyl fluoride resin manufacturing unit remained with EID.

Beginning in 1996, several stages of site investigation were conducted under oversight by NC DEQ, as required by the facility's hazardous waste permit. In addition, the site has voluntarily agreed to agency requests for additional investigations of the potential release of "PFAS" (perfluoroalkyl and polyfluoroalkyl substances) beginning with "PFOA" (collectively, perfluorooctanoic acids and its salts, including the ammonium salt) in 2006. As a result of detection of GenX in on-site groundwater wells during our investigations in 2017, NC DEQ issued a Notice of Violation ("NOV") in September 2017 alleging violations of North Carolina water quality statutes and requiring further response. Since that time, and in response to three additional NOVs issued by NC DEQ and pursuant to the Consent Order ("CO"), (as discussed below), we have worked cooperatively with the agency to investigate and address releases of PFAS to on-site and off-site groundwater and surface water.

As discussed in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*, we, along with NC DEQ and Cape Fear River Watch ("CFRW"), a non-profit organization, have filed a final CO that comprehensively addressed various issues, NOVs, and court filings made by NC DEQ regarding Fayetteville and resolved litigations filed by NC DEQ and CFRW. In connection with the CO, a thermal oxidizer ("TO") became fully operational at the site in December 2019 to reduce aerial PFAS emissions from Fayetteville. The CO requires us to provide permanent replacement drinking water supplies, via connection to public water supply, whole building filtration units and/or reverse osmosis units, to qualifying surrounding residents, businesses, schools, and public buildings with private drinking water wells.

In August 2020, we, along with NC DEQ and CFRW, reached agreement on the terms of an addendum to the CO (the "Addendum"). The Addendum establishes the procedure to implement specified remedial measures for reducing PFAS loadings from Fayetteville to the Cape Fear River, including construction of a barrier wall with groundwater extraction system to be completed by March 15, 2023, or an extended date in accordance with the Addendum. After a period of public comment, the Addendum was approved by the North Carolina Superior Court for Bladen County in October 2020.

Further discussion related to Fayetteville is included under the heading "Fayetteville Works, Fayetteville, North Carolina" in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*.

Pompton Lakes, New Jersey

During the 20th century, blasting caps, fuses, and related materials were manufactured at Pompton Lakes, Passaic County, New Jersey. Operating activities at the site were ceased in the mid-1990s. The primary contaminants in the soil and sediments are lead and mercury. Groundwater contaminants include volatile organic compounds. Under the authority of EPA and NJ DEP, remedial actions at the site are focused on investigating and cleaning-up the area. Groundwater monitoring at the site is ongoing, and we have installed and continue to install vapor mitigation systems at residences within the groundwater plume. In addition, we are further assessing groundwater conditions. In September 2015, EPA issued a modification to the site's RCRA permit that requires us to dredge mercury contamination from a 36-acre area of the lake and remove sediment from two other areas of the lake near the shoreline. The remediation activities commenced when permits and implementation plans were approved in May 2016, and work on the lake dredging project is now complete. In April 2019, we submitted a revised Corrective Measures Study ("CMS") proposing actions to address on-site soils impacted from past operations that exceed applicable clean-up criteria. We received comments on the CMS from EPA and NJ DEP in March 2020, and we responded to their comments in June 2020 and continue to seek resolution with EPA.

U.S. Smelter and Lead Refinery, Inc., East Chicago, Indiana

The U.S. Smelter and Lead Refinery, Inc. (“USS Lead”) Superfund site is located in the Calumet neighborhood of East Chicago, Lake County, Indiana. The site includes the former USS Lead facility along with nearby commercial, municipal, and residential areas. The primary compounds of interest are lead and arsenic which may be found in soils within the impacted area. The EPA is directing and organizing remediation on this site, and we are one of a number of parties working cooperatively with EPA on the safe and timely completion of this work. EID’s former East Chicago manufacturing facility was located adjacent to the site, and EID assigned responsibility for the site to us in the Separation Agreement.

The USS Lead Superfund site was listed on the National Priorities List in 2009. To facilitate negotiations with PRPs, EPA divided the residential part of the USS Lead Superfund site into three zones, referred to as Zone 1, Zone 2, and Zone 3. The division into three zones resulted in Atlantic Richfield Co. (“Atlantic Richfield”) and EID entering into an agreement in 2014 with EPA and the State of Indiana to reimburse EPA’s costs to implement clean-up in Zone 1 and Zone 3. In March 2017, we and three other parties – Atlantic Richfield, EID, and the U.S. Metals Refining Co. (“U.S. Metals”) – entered into an administrative order on consent to reimburse EPA’s costs to clean-up a portion of Zone 2. In March 2018, EPA issued a Unilateral Administrative Order for the remainder of the Zone 2 work to five parties, including us, Atlantic Richfield, EID, U.S. Metals, and USS Lead Muller Group, and these parties entered into an interim allocation agreement to perform that work. As of the end of 2019, the required work in Zone 3 had been completed, and Zone 2 was nearly complete by the end of 2020. The determination of a final allocation for Zone 2 and/or the other Zones is ongoing, and additional PRPs may be identified.

The environmental accrual for USS Lead includes completion of the remaining obligations under the 2012 Record of Decision (“ROD”) and Statement of Work, which principally encompasses completion of Zone 1. The EPA released a proposed amendment to the 2012 ROD (the “ROD Amendment”) for a portion of Zone 1 in December 2018 (following its August 2018 Feasibility Study Addendum), with its recommended option based on future residential use. The EPA’s ROD Amendment for modified Zone 1 was released in March 2020, and selects as the preferred remedy one which requires a clean-up to residential standards based on the current applicable residential zoning. The ROD Amendment for modified Zone 1 also sets forth a selected contingent remedy which requires clean-up to commercial/industrial standards if the future land use becomes commercial/industrial. In November 2019, a Letter of Intent was executed by the City of East Chicago, Indiana and Industrial Development Advantage, LLC ("IDA"), relating to modified Zone 1 development, and EPA has indicated that it is “more likely” that future land use in this area will be commercial/industrial and not residential.

In 2021, we resolved the claims asserted by EPA related to past indirect costs associated with the 2012 ROD as amended, and the 2014 agreement entered into with EPA and the State of Indiana. In September 2022, EPA confirmed the selection of remedial actions for modified Zone 1 and provided notice to all relevant parties, including IDA, to cause the agreements between EPA, DOJ, the State of Indiana, Chemours and other PRPs to become effective. We expect that our future costs relating to the USS Lead site will be contingent on implementation of these agreements, resolution of EPA’s costs as well as any final allocation between PRPs.

Washington Works, Parkersburg, West Virginia (“Washington Works”)

The Washington Works complex is located on the eastern shore of the Ohio River south of Parkersburg, West Virginia. The facility encompasses approximately 400 acres, which were purchased by EID in the late 1940’s. Other nearby land parcels purchased by EID included Blennerhassett Island, and three separate properties where West Virginia Department of Environmental Protection ("WV DEP") permitted landfills were operated. Site operations began in 1948 and included the manufacture of nylon, filaments, and acrylics. In 1949, fluoropolymer manufacturing began, and in 1959, Delrin production was started. Landfill operations occurred from the 1960’s through the early 2000’s when all three were closed according to WV DEP approved closure plans. Through 2014, EID used PFOA as a processing aid to manufacture some fluoropolymer resins at Washington Works.

In July 2015, upon our separation from EID, we became the owner of the Washington Works complex. The site has implemented environmental investigations, including Verification Investigation in 1992 and RCRA Facility Investigation ("RFI") in 1999 pursuant to corrective action requirements of its RCRA Part B and HSWA Permit under EPA and the West Virginia Department of Natural Resources oversight. The RFI was approved in 2012 and a CMS was completed in 2015 that recommended certain remedial actions, including capping of the former on-site landfill and ponds, which had already been completed, sitewide groundwater hydraulic control, drinking water supply well treatment via granular activated carbon, and long-term groundwater monitoring. These actions were memorialized in a RCRA final remedy implementation plan approved by the agencies in 2018 and integrated into the updated RCRA permit in August 2020.

The remedial actions required by the RCRA final remedy implementation plan have been completed or are part of routine operations, maintenance and monitoring. Landfill post closure care include systems to treat surface water, leachate or groundwater, landfill cover or cap maintenance, monitoring and reporting. Additionally, upgrades to the Local landfill cover are being developed. Accruals related to these remedial actions were $17 million and $11 million as of December 31, 2022 and 2021, respectively.

Chemours Washington Works discharges, through outfalls at the site, wastewater and stormwater pursuant to a NPDES permit issued by the WV DEP. In connection with actions being taken by us to comply with certain NPDES effluent limits, including for PFOA and hexafluoropropylene oxide dimer acid, we submitted a permit modification to WV DEP relating to groundwater abatement for certain process water used at the facility, a temperature reduction project and realigning discharge flows to certain outfalls. In July 2021, EPA provided a specific objection to the draft modification based on Clean Water Act ("CWA") regulations and requirements. In August 2021, WV DEP issued a NPDES permit modification to provide for the start-up of an abatement unit at the facility and to extend compliance dates for certain limits to December 2021 due to delays from the COVID-19 pandemic. In September 2021, WV DEP issued a further NPDES modification, including for the operation of an abatement unit from the site's Ranney Well, and the site is taking additional actions to reduce PFAS discharges associated with wet weather flows and continuing to assess future stormwater discharges and permitting.

Pursuant to an Order on Consent ("OC"), entered into by EID with EPA since 2006, Chemours provides alternate drinking water supplies, via granular activated carbon ("GAC") treatment or other approved supply, to residential well owners and local public drinking water systems near the Washington Works complex whose PFOA concentration exceeds 70 parts per trillion. We also provide regular sampling and GAC change outs activities as per OC requirements. Accruals related to this matter were $15 million and $14 million as of December 31, 2022 and 2021, respectively, and were included in Accrued Litigation liability in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements.*

New Jersey Department of Environmental Protection Directives and Litigation

In March 2019, NJ DEP issued two Directives, one being a state-wide PFAS Directive, and filed four lawsuits against us and other defendants, including allegations relating to clean-up and removal costs at four sites including Chambers Works. In December 2021, a consolidated order was entered in the lawsuits granting, in part, and denying, in part a motion to dismiss or strike parts of the Second Amended Complaints. In January 2022, NJ DEP filed a motion for a preliminary injunction requiring EID and us to establish a remediation funding source ("RFS") in the amount of $943 million for Chambers Works, the majority of which is for non-PFAS remediation items. Further discussion related to these matters is included in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*.

PFOA

See our discussion under the heading "PFOA" in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*.

GenX

In June 2019, the Member States Committee of the European Chemicals Agency ("ECHA") voted to list HFPO Dimer Acid as a Substance of Very High Concern. The vote was based on Article 57(f) – equivalent level of concern having probable serious effects to the environment. This identification does not impose immediate regulatory restriction or obligations, but may lead to a future authorization or restriction of the substance. On September 24, 2019, Chemours filed an application with the EU Court of Justice for the annulment of the decision of ECHA to list HFPO Dimer Acid as a Substance of Very High Concern. In February 2022, the General Court dismissed the annulment action and we have appealed such decision.

PFAS

Refer to our discussion under the heading “PFAS” in “Note 22 – Commitments and Contingent Liabilities” to the *Consolidated Financial Statements*.

In May 2020, ECHA announced that five Member States (Germany, the Netherlands, Norway, Sweden, and Denmark) launched a call for evidence to inform a PFAS restriction proposal to restrict the manufacture, placing on the market and use of PFAS in the EU. In this regulatory process, more than 4,000 substances, including fluorinated-gases ("F-gases") and fluoropolymers are being considered as part of this broad regulatory action. Companies producing or using PFAS, as well as selling mixture or products containing PFAS, were invited to provide input. This call for evidence closed July 31, 2020. Thousands of substances meet the definition of PFAS as outlined in the call for evidence. This very broad definition covers substances with a variety of physical and chemical properties, health and environmental profiles, uses, and benefits. We submitted information on the substances covered by the call for evidence to the Member State competent authority for Germany, which is the Federal Institute for Occupational Safety and Health (“BAuA”). On July 15, 2021, the countries submitted their restriction proposal, which informs ECHA of the intent to prepare a PFAS restriction dossier for fluorinated substances within a defined structural formula scope, including branched fluoroalkyl groups and substances containing ether linkages, fluoropolymers and side chain fluorinated polymers. The restriction dossier was submitted to ECHA in January 2023, and in February 2023 ECHA published a report and supporting annexes on the restriction proposal, which includes identified concerns for in-scope PFAS and their degradation products and the proposed restriction of a full ban with certain use-specific time-limited derogation periods. The restriction dossier will be reviewed by the ECHA committees Risk Assessment Committee ("RAC") and Socio-economic Analysis Committees (“SEAC”) and proposals submitted to the EU Commission in 2023. The estimated entry into force of restrictions is 2025.

In October 2021, EPA released its PFAS Strategic Roadmap, identifying a comprehensive approach to addressing PFAS. The PFAS Strategic Roadmap sets timelines by which EPA plans to take specific actions through 2024, including establishing a national primary drinking water regulation for PFOA and perfluorooctanesulfonic acid (“PFOS”) and taking Effluent Limitations Guidelines actions to regulate PFAS discharges from industrial categories among other actions. As provided under its roadmap, EPA also released on the same day its National PFAS Testing Strategy, under which the agency will identify and select certain PFAS compounds for which it will require PFAS manufacturers to conduct testing pursuant to the Toxic Substances Control Act (“TSCA”) orders. EPA has indicated that we will receive orders for certain of such compounds, including seven of the testing orders that will be issued for PFAS compounds alleged to be associated with Fayetteville. In June 2022, EPA issued its first TSCA Section 4(a)(2) order under this program to five recipients, including us and EID, and we met with the agency in July 2022 to discuss the order and respond to it. In January 2023, EPA issued a second TSCA Section 4(a)(2) order under this program to four recipients, including us and EID. The timing of the remaining TSCA orders is not determinable at this time.

Also in October 2021, EPA published a final toxicity assessment for GenX compounds that decreased the draft reference dose for GenX compounds based on EPA’s review of new studies and analyses. On March 18, 2022, we filed a petition to EPA requesting it withdraw and correct its toxicity assessment for GenX compounds, and this petition was denied by EPA on June 14, 2022. The next day, on June 15, 2022, EPA released health advisories for four PFAS, including interim updated lifetime drinking water health advisories for PFOA and PFOS, and final health advisories for GenX compounds, including HFPO Dimer Acid and another PFAS compound (PFBS). On July 13, 2022, we filed a Petition for Review of the GenX compounds health advisory. We continue to evaluate the impact of EPA’s June 15th health advisories and the PFAS Strategic Roadmap. It is reasonably possible that additional costs could be incurred in connection with EPA’s actions, however, we cannot estimate the potential impact or additional cost at this time, due in part to the uncertainties on EPA’s development of maximum contaminant levels for PFOA and PFOS and the implementation of the June 15th health advisories. The environmental remediation liabilities and accrued litigation, as applicable, recorded for Fayetteville, Washington Works, Parkersburg, West Virginia and Chambers Works, Deepwater, New Jersey as of December 31, 2022 are based upon the existing Consent Orders, agreements and/or voluntary commitments with EPA, state and other local regulators and depending on the ultimate outcome of EPA’s actions, could require adjustment to meet any new drinking water standards. Refer to our discussion under the heading “Fayetteville Works, Fayetteville, North Carolina” in “Note 22 – Commitments and Contingent Liabilities” to the *Consolidated Financial Statements*.

Delaware Chancery Court Lawsuit

In May 2019, we filed a lawsuit in Delaware Chancery Court (“Chancery Court”) against DuPont, Corteva, and EID concerning EID’s contention that it is entitled to unlimited indemnity from us for specified liabilities that EID assigned to us in the spin-off. The lawsuit requested a declaratory judgment limiting EID’s indemnification rights against us and the transfer of liabilities to us to the actual “high-end (maximum) realistic exposures” it stated in connection with the spin-off, or, in the alternative, requiring the return of the approximate $4.0 billion dividend EID extracted from us in connection with the spin-off. In March 2020, the Chancery Court granted EID’s Motion to Dismiss, placing the matter in non-public binding arbitration. The dismissal was affirmed by the Delaware Supreme Court. In January 2021, the parties entered into a binding MOU, addressing the allegations in the lawsuit and arbitration. Pursuant to the MOU, the parties have agreed to dismiss the arbitration. Many of the potential litigation liabilities discussed in “Note 22 – Commitments and Contingent Liabilities” to the *Consolidated Financial Statements* are included in the MOU.

Non-GAAP Financial Measures

We prepare our consolidated financial statements in accordance with GAAP. To supplement our financial information presented in accordance with GAAP, we provide the following non-GAAP financial measures – Adjusted EBITDA, Adjusted Net Income, Adjusted Earnings per Share ("EPS"), Free Cash Flows ("FCF"), Return on Invested Capital ("ROIC"), and Net Leverage Ratio – in order to clarify and provide investors with a better understanding of our performance when analyzing changes in our underlying business between reporting periods and provide for greater transparency with respect to supplemental information used by management in its financial and operational decision-making. We utilize Adjusted EBITDA as the primary measure of segment profitability used by our CODM.

Adjusted EBITDA is defined as income (loss) before income taxes, excluding the following:

- interest expense, depreciation, and amortization;
- non-operating pension and other post-retirement employee benefit costs, which represents the non-service component of net periodic pension (income) costs;
- exchange (gains) losses included in other income (expense), net;
- restructuring, asset-related, and other charges;
- (gains) losses on sales of assets and business; and,
- other items not considered indicative of our ongoing operational performance and expected to occur infrequently, including Qualified Spend reimbursable by DuPont and/or Corteva as part of our cost-sharing agreement under the terms of the MOU that were previously excluded from Adjusted EBITDA.

Adjusted Net Income is defined as our net income (loss), adjusted for items excluded from Adjusted EBITDA, except interest expense, depreciation, amortization, and certain provision for (benefit from) income tax amounts. Adjusted EPS is calculated by dividing Adjusted Net Income by the weighted-average number of our common shares outstanding. Diluted Adjusted EPS accounts for the dilutive impact of our stock-based compensation awards, which includes unvested restricted shares. FCF is defined as our cash flows provided by (used for) operating activities, less purchases of property, plant, and equipment as shown in our consolidated statements of cash flows. ROIC is defined as Adjusted Earnings before Interest and Taxes ("Adjusted EBIT"), divided by the average of our invested capital, which amounts to our net debt, or debt less cash and cash equivalents, plus equity. Net Leverage Ratio is defined as our total debt principal outstanding less cash and cash equivalents, divided by Adjusted EBITDA.

We believe the presentation of these non-GAAP financial measures, when used in conjunction with GAAP financial measures, is a useful financial analysis tool that can assist investors in assessing our operating performance and underlying prospects. This analysis should not be considered in isolation or as a substitute for analysis of our results as reported under GAAP. In the future, we may incur expenses similar to those eliminated in this presentation. Our presentation of Adjusted EBITDA, Adjusted Net Income, Adjusted EPS, FCF, ROIC, and Net Leverage Ratio should not be construed as an inference that our future results will be unaffected by unusual or infrequently occurring items. The non-GAAP financial measures we use may be defined differently from measures with the same or similar names used by other companies. This analysis, as well as the other information provided in this Annual Report on Form 10-K, should be read in conjunction with the *Consolidated Financial Statements* and notes thereto included in this report.

The following table sets forth a reconciliation of our net income (loss) attributable to Chemours to Adjusted Net Income, Adjusted EBITDA, and Adjusted EPS for the years ended December 31, 2022 and 2021.

(Dollars in millions, except per share amounts)	Year Ended December 31, 2022	2021
Net income attributable to Chemours	$ 578	$ 608
Non-operating pension and other post-retirement employee benefit income	(5)	(9)
Exchange losses (gains), net	15	(3)
Restructuring, asset-related, and other charges (1)	15	6
(Gain) loss on extinguishment of debt	(7)	21
Gain on sales of assets and businesses (2)	(21)	(115)
Natural disasters and catastrophic events (3)	—	21
Transaction costs (4)	—	4
Qualified spend recovery (5)	(58)	(20)
Legal and environmental charges, net (6,7)	227	230
Adjustments made to income taxes (8)	30	(27)
Benefit from income taxes relating to reconciling items (9)	(36)	(42)
Adjusted Net Income	738	674
Interest expense, net	163	185
Depreciation and amortization	291	317
All remaining provision for income taxes	169	137
Adjusted EBITDA	$ 1,361	$ 1,313
Weighted-average number of common shares outstanding - basic	155,359,361	164,943,575
Dilutive effect of our employee compensation plans	2,943,646	3,754,864
Weighted-average number of common shares outstanding - diluted	158,303,007	168,698,439
Per share data		
Basic earnings per share of common stock (10)	$ 3.72	$ 3.69
Diluted earnings per share of common stock (10)	3.65	3.60
Adjusted basic earnings per share of common stock (10)	4.75	4.09
Adjusted diluted earnings per share of common stock (10)	4.66	4.00

(1) In 2022, restructuring, asset-related, and other charges primarily includes asset charges and write-offs resulting from the conflict between Russia and Ukraine and our decision to suspend our business with Russian entities. In 2021, restructuring, asset-related, and other charges primarily includes a net $9 million gain resulting from contract termination with a third-party services provider at our previously owned Mining Solutions facility in Gomez Palacio, Durango, Mexico.

(2) Refer to "Note 8 – Other Income (Expense), Net" to the *Consolidated Financial Statements* for further details.

(3) In 2021, natural disasters and catastrophic events pertains to the total cost of plant repairs and utility charges in excess of historical averages caused by Winter Storm Uri.

(4) 2021 includes costs associated with our accounting, legal, and bankers' transaction costs incurred in connection with the sale of the Mining Solutions business.

(5) Qualified spend recovery represents costs and expenses that were previously excluded from Adjusted EBITDA, reimbursable by DuPont and/or Corteva as part of our cost-sharing agreement under the terms of the MOU which is discussed in further detail in "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements*.

(6) Legal charges pertains to litigation settlements, PFOA drinking water treatment accruals, and other legal charges which are discussed in further detail in "Note 22 – Commitments and Contingent Liabilities" to the Consolidated Financial Statements. For the year ended December 31, 2022, legal charges primarily include proceeds from a settlement in a patent infringement matter relating to certain copolymer patents associated with our Advanced Performance Materials segment and $20 million associated with our portion of the potential loss in the single matter not included in the Leach settlement. For the year ended December 31, 2021, legal charges primarily include $25 million associated with our portion of the costs to enter into a Settlement Agreement, Limited Release, Waiver and Covenant Not to Sue reflecting Chemours, DuPont, Corteva, EID and the State of Delaware's agreement to settle and fully resolve claims alleged against the companies. Refer to "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements* for further details.

(7) Environmental charges pertains to management's assessment of estimated liabilities associated with certain environmental remediation expenses at various sites. For the years ended December 31, 2022 and 2021, environmental charges primarily include $196 million and $169 million, respectively, related to on-site and off-site remediation costs at Fayetteville. Refer to "Note 22 – Commitments and Contingent Liabilities" to the *Consolidated Financial Statements* for further details.

(8) Includes the removal of certain discrete income tax impacts within our provision for income taxes, such as certain uncertain tax position adjustments related to prior years, shortfalls and windfalls on share-based payments, certain return-to-accrual adjustments, valuation allowance adjustments, unrealized gains and losses on foreign exchange rate changes, and other discrete income tax items.

(9) The income tax impacts included in this caption are determined using the applicable rates in the taxing jurisdictions in which income or expense occurred and represent both current and deferred income tax expense or benefit based on the nature of the non-GAAP financial measure.

(10) Figures may not recalculate exactly due to rounding. Basic and diluted earnings per share are calculated based on unrounded numbers.

The following table sets forth a reconciliation of our cash flows provided by (used for) operating activities to FCF for the years ended December 31, 2022 and 2021.

	Year Ended December 31,	
(Dollars in millions)	2022	2021
Cash provided by operating activities	$ 754	$ 820
Less: Purchases of property, plant, and equipment (1)	(307)	(277)
Free Cash Flows	$ 447	$ 543

(1) The year ended December 31, 2021 includes $22 million related to construction-in-progress assets acquired in exchange for the termination of a contract with a third-party service provider at our under-construction Mining Solutions facility in Gomez Palacio, Durango, Mexico. In December 2021, the assets at the Mining Solutions facility in Gomez Palacio, Durango, Mexico were sold as part of the divestiture of our Mining Solutions Business.

The following table sets forth a reconciliation of Adjusted EBIT and average invested capital, and their nearest respective GAAP measures, to ROIC for the periods presented.

	Year Ended December 31,	
(Dollars in millions)	2022	2021
Adjusted EBITDA (1)	$ 1,361	$ 1,313
Less: Depreciation and amortization (1)	(291)	(317)
Adjusted EBIT	$ 1,070	$ 996

	As of December 31,	
(Dollars in millions)	2022	2021
Total debt (2)	$ 3,615	$ 3,749
Total equity	1,107	1,082
Less: Cash and cash equivalents	(1,102)	(1,451)
Invested capital, net	$ 3,620	$ 3,380
Average invested capital (3)	$ 3,607	$ 3,705
Return on Invested Capital	30%	27%

(1) Reconciliations of net income (loss) attributable to Chemours to Adjusted EBITDA are provided on a quarterly basis. Refer to the preceding table for the reconciliation of net income (loss) attributable to Chemours to Adjusted EBITDA for the years ended December 31, 2022 and 2021.

(2) Total debt principal minus unamortized issue discounts of $4 million and $5 million and debt issuance costs of $22 million and $28 million at December 31, 2022 and 2021, respectively.

(3) Average invested capital is based on a five-quarter trailing average of invested capital, net.

The following table sets forth a reconciliation of our total debt principal, cash and cash equivalents, and Adjusted EBITDA to Net Leverage Ratio.

	As of December 31,	
(Dollars in millions)	2022	2021
Total debt principal	$ 3,641	$ 3,782
Less: Cash and cash equivalents	(1,102)	(1,451)
Total debt principal, net	$ 2,539	$ 2,331

	Year Ended December 31,	
(Dollars in millions)	2022	2021
Adjusted EBITDA (1)	$ 1,361	$ 1,313
Net Leverage Ratio	1.9x	1.8x

(1) Reconciliations of net income (loss) attributable to Chemours to Adjusted EBITDA are provided on a quarterly basis. Refer to the preceding table for the reconciliation of net income (loss) attributable to Chemours to Adjusted EBITDA for the years ended December 31, 2022 and 2021.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to changes in foreign currency exchange rates because of our global operations. As a result, we have assets, liabilities, and cash flows denominated in a variety of foreign currencies. We also have variable rate indebtedness, which subjects us to interest rate risk. Additionally, we are also exposed to changes in the prices of certain commodities that we use in production. Changes in these rates and commodity prices may have an impact on our future cash flows and earnings. We manage these risks through our normal operating and financing activities and, when deemed appropriate, through the use of derivative financial instruments. We do not enter into derivative financial instruments for trading or speculative purposes.

By using derivative financial instruments, we are subject to credit and market risk. The fair values of the derivative financial instruments are determined by using valuation models whose inputs are derived using market observable inputs, and reflect the asset or liability position as of the end of each reporting period. When the fair value of a derivative contract is positive, the counterparty owes us, thus creating a receivable risk for us. We are exposed to counterparty credit risk in the event of non-performance by counterparties to our derivative agreements. We minimize counterparty credit (or repayment) risk by entering into transactions with major financial institutions of investment grade credit ratings.

Our risk management programs and the underlying exposures are closely correlated, such that the potential loss in value for the risk management portfolio described above would be largely offset by the changes in the value of the underlying exposures. Refer to “Note 26 – Financial Instruments” to the *Consolidated Financial Statements* for further information.

Foreign Currency Risks

We enter into foreign currency forward contracts to minimize the volatility in our earnings related to foreign exchange gains and losses resulting from remeasuring our monetary assets and liabilities that are denominated in non-functional currencies, and any gains and losses from the foreign currency forward contracts are intended to be offset by any gains or losses from the remeasurement of the underlying monetary assets and liabilities. These derivatives are stand-alone and, except as described below, have not been designated as a hedge. At December 31, 2022, we had 9 foreign currency forward contracts outstanding with an aggregate gross notional U.S. dollar equivalent of $180 million, the fair value of which amounted to negative $1 million. At December 31, 2021, we had 12 foreign currency forward contracts outstanding with an aggregate gross notional U.S. dollar equivalent of $254 million, the fair value of which amounted to less than negative $1 million. We recognized a net gain of $2 million, a net loss of $15 million, and a net gain of $29 million for the years ended December 31, 2022, 2021 and 2020, respectively, within other income (expense), net related to our non-designated foreign currency forward contracts.

We enter into certain qualifying foreign currency forward contracts under a cash flow hedge program to mitigate the risks associated with fluctuations in the euro against the U.S. dollar for forecasted U.S. dollar-denominated inventory purchases in certain of our international subsidiaries that use the euro as their functional currency. At December 31, 2022, we had 153 foreign currency forward contracts outstanding under our cash flow hedge program with an aggregate notional U.S. dollar equivalent of $180 million, the fair value of which amounted to negative $2 million. At December 31, 2021, we had 175 foreign currency forward contracts outstanding under our cash flow hedge program with an aggregate notional U.S. dollar equivalent of $195 million, the fair value of which amounted to $5 million. We recognized a pre-tax gain of $17 million, a pre-tax gain of $10 million, and a pre-tax loss of $4 million for the years ended December 31, 2022, 2021 and 2020, respectively, within accumulated other comprehensive loss. For the years ended December 31, 2022, 2021, and 2020, $19 million of gain, $2 million of loss, and $3 million of gain was reclassified to the cost of goods sold from accumulated other comprehensive loss., respectively.

We designated our euro-denominated debt as a hedge of our net investment in certain of our international subsidiaries that use the euro as their functional currency in order to reduce the volatility in stockholders’ equity caused by changes in foreign currency exchange rates of the euro with respect to the U.S. dollar. We recognized a pre-tax gain of $53 million, a pre-tax gain of $73 million, and a pre-tax loss of $88 million for the years ended December 31, 2022, 2021 and 2020, respectively, on our net investment hedge within accumulated other comprehensive loss.

Interest Rate Risk

We entered into interest rate swaps, to mitigate the volatility in our cash payments for interest due to fluctuations in the London Interbank Offered Rate ("LIBOR"), as is applicable to the portion of our senior secured term loan facility denominated in U.S. dollars. At December 31, 2021, we had three interest rate swaps outstanding under our cash flow hedge program with an aggregate notional U.S. dollar equivalent of $400 million, the fair value of which amounted to less than $1 million. In September 2022, we terminated all of our outstanding interest rate swaps, which resulted in cash settlement of $8 million. We recognized a pre-tax gain of $8 million, a pre-tax gain of $2 million and a pre-tax loss of $4 million for the years ended December 31, 2022, 2021 and 2020 within accumulated other comprehensive loss, respectively. For the years ended December 31, 2022, 2021 and 2020, gain of $5 million, loss of $2 million and loss of less than $1 million were reclassified to interest expense, net from accumulated other comprehensive loss, respectively.

Concentration of Credit Risk

Our sales are not materially dependent on any single customer. At December 31, 2022 and 2021, one individual customer balance represented approximately 8% and 6% of our total outstanding accounts and notes receivable balance, respectively. Any credit risk associated with our accounts and notes receivable balance is representative of the geographic, industry, and customer diversity associated with our global businesses. As a result of our customer base being widely dispersed, we do not believe our exposure to credit-related losses related to our business as of December 31, 2022 and 2021 was material.

We also maintain strong credit controls in evaluating and granting customer credit. As a result, we may require that customers provide some type of financial guarantee in certain circumstances. The length of terms for customer credit varies by industry and region.

Commodities 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 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 materials costs through timely price increases and formula price contracts to transfer or share commodity price risk. We did not have any commodity derivative financial instruments in place as of December 31, 2022 and 2021.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements and supplementary data required by this *Item 8 – Financial Statements and Supplementary Data* is incorporated by reference herein as set forth in *Item 15(a)(1) – Consolidated Financial Statements*.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to provide reasonable assurance that the information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934 (the "Exchange Act") is recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the U.S. Securities and Exchange Commission ("SEC"). These controls and procedures also provide reasonable assurance that information required to be disclosed in such reports is accumulated and communicated to management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), to allow timely decisions regarding required disclosures.

As of December 31, 2022, our CEO and CFO, together with management, conducted an evaluation of the effectiveness of our disclosure controls and procedures as defined in Rule 13a-15(e) under the Exchange Act. Based on that evaluation, the CEO and CFO have concluded that these disclosure controls and procedures are effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the year ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

We have completed an evaluation of our internal control over financial reporting and have concluded that our internal control over financial reporting was effective as of December 31, 2022 (refer to "Management's Report on Internal Control over Financial Reporting" on page F-2 to the *Consolidated Financial Statements*). The effectiveness of our internal control over financial reporting as of December 31, 2022 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein (refer to the "Report of Independent Registered Public Accounting Firm" on page F-3 to the *Consolidated Financial Statements*).

Item 9B. OTHER INFORMATION

None.

Item 9C. DISCLOSURE REGARDING FOREIGN JURSIDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

Except for information concerning executive officers, which is included in Part I of this Annual Report on Form 10-K under the caption "Information About Our Executive Officers", the information about our directors required by this *Item 10 – Directors, Executive Officers, and Corporate Governance* is contained under the caption "Proposal 1 – Election of Directors" in the 2023 Proxy Statement, which we anticipate filing with the SEC within 120 days after the end of the fiscal year to which this report relates, and is incorporated herein by reference.

Information regarding our audit committee and our code of ethics is contained in the 2023 Proxy Statement under the captions "Corporate Governance" and "Board Structure and Committee Composition" and is incorporated herein by reference.

Item 11. EXECUTIVE COMPENSATION

The information required by this *Item 11 – Executive Compensation* is contained in the 2023 Proxy Statement under the captions "Executive Compensation", "Director Compensation", and "Compensation and Leadership Development Committee" and is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this *Item 12 – Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters* and not otherwise set forth below is contained in the 2023 Proxy Statement under the caption "Security Ownership of Certain Beneficial Owners and Management" and is incorporated herein by reference.

Securities authorized for issuance under equity compensation plans

(Shares in thousands)

	December 31, 2022		
Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants, and Rights (1)	Weighted-average Exercise Price of Outstanding Options, Warrants, and Rights (2)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (3)
Equity compensation plans approved by security holders	6,523	$ 23.61	10,000

(1) Includes the approximate number of outstanding stock options, restricted stock units ("RSUs"), and performance share units ("PSUs").

(2) Represents the weighted-average exercise price of outstanding stock options only. RSUs and PSUs do not have associated exercise prices.

(3) Reflects the approximate shares available for issuance pursuant to The Chemours Company 2017 Equity and Incentive Plan (the "Equity Plan"), which was approved by our stockholders in 2017 and replaces The Chemours Company Equity and Incentive Plan. On April 28, 2021, stockholders approved an amendment and restatements of the Equity Plan to increase the number of shares reserved for issuance by 3,050,000. Following the amendment and restatement, the maximum number of shares of stock reserved for the grant or settlement of awards under the Equity Plan is 22,050,000.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this *Item 13 – Certain Relationships and Related Transactions, and Director Independence* is contained in the 2023 Proxy Statement under the captions "Director Independence" and "Certain Relationships and Transactions" and is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this *Item 14 – Principal Accounting Fees and Services* is contained in the 2023 Proxy Statement under the captions "Proposal 3 – Ratification of Selection of Independent Registered Public Accounting Firm", "Fees Paid to Independent Registered Public Accounting Firm", and "Audit Committee's Pre-Approval Policies and Procedures" and is incorporated herein by reference.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)(1) Consolidated Financial Statements

Refer to the "Index to the *Consolidated Financial Statements*" commencing on page F-1 of this Annual Report on Form 10-K.

The report of our independent registered public accounting firm with respect to the above-referenced financial statements and their report on internal control over financial reporting is included on page F-3. Their consent appears as Exhibit 23 of this Form 10-K.

(a)(2) Financial Statement Schedule

Schedules not listed herein have been omitted because they are not required, not applicable, or the required information is otherwise included in the consolidated financial statements or notes thereto.

(a)(3) Exhibits

Refer to the "Exhibit Index" beginning on page 72 of this Annual Report on Form 10-K.

Item 16. FORM 10-K SUMMARY

None.

EXHIBIT INDEX

Exhibit Number	Description
2.1	Separation Agreement by and between E. I. du Pont de Nemours and Company and the Chemours Company (incorporated by reference to Exhibit 2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
2.1(1)	Amendment No. 1, dated August 24, 2017, to the Separation Agreement, dated as of July 1, 2015, by and between E. I. du Pont de Nemours and Company and The Chemours Company (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on August 25, 2017).
2.2	Purchase and Sale Agreement, dated as of July 26, 2021, by and between The Chemours Company and Manchester Acquisition Sub LLC (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 26, 2021).
3.1	Company's Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
3.2	Company's Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
4.1	Indenture (for senior debt securities), dated as of May 23, 2017, by and between The Chemours Company and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on May 23, 2017).
4.1(1)	First Supplemental Indenture, dated as of May 23, 2017, by and among The Chemours Company, the guarantors named therein and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on May 23, 2017).
4.1(2)	Second Supplemental Indenture, dated as of June 6, 2018, among The Chemours Company, the Guarantors named therein, U.S. Bank National Association, as trustee, Elavon Financial Services DAC, UK Branch, as paying agent, and Elavon Financial Services DAC, as registrar and transfer agent (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on June 6, 2018).
4.1(3)	Specimen 5.375% Senior Note due 2027 (incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on May 23, 2017).
4.1(4)	Specimen 4.000% Senior Note Due 2026 (included in Exhibit 4.2(2)).
4.2	Indenture, dated as of November 27, 2020, between The Chemours Company and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on November 27, 2020).
4.2(1)	First Supplemental Indenture, dated as of November 27, 2020, among The Chemours Company, the guarantors named therein, and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on November 27, 2020).
4.2(2)	Second Supplemental Indenture, dated as of August 18, 2021, among The Chemours Company, the guarantors party thereto and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on August 18, 2021).
4.2(3)	Specimen 5.750% Senior Notes Due 2028 (included in Exhibit 4.3(1)).
4.2(4)	Specimen 4.625% Senior Notes Due 2029 (included in Exhibit 4.3(2)).
4.2(5)	Instrument of Resignation, Appointment and Acceptance, dated as of August 1, 2022, between the Chemours Company, U.S. Bank National Association, as Retiring Trustee, and Deutsche Bank Trust Company Americas, as Successor Trustee (incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on October 26, 2022).
4.3	Description of common stock (incorporated by reference to Exhibit 4.3 to the Company's Annual Report on Form 10-K for the year ended December 31, 2019).
10.1	Second Amended and Restated Transition Services Agreement by and between E. I. du Pont de Nemours and Company and The Chemours Company (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
10.2	Tax Matters Agreement by and between E. I. du Pont de Nemours and Company and The Chemours Company (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
10.3	Employee Matters Agreement by and between E. I. du Pont de Nemours and Company and The Chemours Company (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
10.4	Third Amended and Restated Intellectual Property Cross-License Agreement by and among E. I. du Pont de Nemours and Company, The Chemours Company FC and The Chemours Company TT, LLC (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
10.14(1)	Amended and Restated Credit Agreement, dated as of April 3, 2018, among The Chemours Company, the Lenders and Issuing Banks party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on April 3, 2018).
10.14(2)	Amendment No. 1 to the Amended and Restated Credit Agreement, dated as of April 3, 2018, among The Chemours Company, the Lenders and Issuing Banks party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on October 8, 2021).
10.16*	The Chemours Company Equity and Incentive Plan (incorporated by reference to Exhibit 4.1 to the Company's Form S-8 (File No. 333-205391, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
10.17*	The Chemours Company Retirement Savings Restoration Plan (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 1, 2015).

Exhibit Number	Description
10.18*	The Chemours Company Management Deferred Compensation Plan (incorporated by reference to Exhibit 4.1 to the Company's Form S-8 (File No. 333-205393), as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
10.19(1)*	The Chemours Company Stock Accumulation and Deferred Compensation Plan for Directors (incorporated by reference to Exhibit 4.1 to the Company's Form S-8 (File No. 333-205392), as filed with the U.S. Securities and Exchange Commission on July 1, 2015).
10.19(2)*	The Chemours Company Stock Accumulation and Deferred Compensation Plan for Directors (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on May 4, 2018).
10.20*	The Chemours Company Senior Executive Severance Plan (incorporated by reference to Exhibit 10.20 to the company's Amendment No. 3 to Form 10, as filed with the U.S. Securities and Exchange Commission on May 13, 2015).
10.21*	Form of Option Award Terms under the Company's Equity and Incentive Plan (incorporated by reference to Exhibit 10.21 to the company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2015).
10.22*	Form of Restricted Stock Unit Terms under the Company's Equity and Incentive Plan (incorporated by reference to Exhibit 10.22 to the company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2015).
10.23*	Form of Stock Appreciation Right Terms under the Company's Equity and Incentive Plan (incorporated by reference to Exhibit 10.23 to the company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2015).
10.24(1)*	Form of Restricted Stock Unit Terms for Non-Employee Directors under the Company's Equity Incentive Plan (incorporated by reference to Exhibit 10.24 to the company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2015).
10.24(2)*	Form of Deferred Stock Unit Terms for Non-Employee Directors under the Company's Equity and Incentive Plan (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on May 4, 2018).
10.25*	Form of Performance-Based Restricted Stock Unit Terms for August 2015 (incorporated by reference to Exhibit 10.25 to the company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2015).
10.26*	Form of Performance Share Unit Award Terms under the Company's Equity and Incentive Plan (incorporated by reference to Exhibit 10.26 to the company's Annual Report on Form 10-K for the year ended December 31, 2015).
10.27*	Form of Cash Performance Award Terms under the Company's Equity and Incentive Plan (incorporated by reference to Exhibit 10.27 to the company's Annual Report on Form 10-K for the year ended December 31, 2015).
10.28*	Form of Indemnification Agreement for officers and directors (incorporated by reference to Exhibit 10.28 to the company's Annual Report on Form 10-K for the year ended December 31, 2015).
10.30	Letter Agreement dated January 28, 2016 by and between The Chemours Company and E. I. du Pont de Nemours and Company (incorporated by reference to Item 10.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on February 23, 2016).
10.31*	Form of Option Award Terms under the Company's Equity Incentive Plan for grantees located in the U.S. (incorporated by reference to Exhibit 10.31 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.32*	Form of Option Award Terms under the Company's Equity Incentive Plan for grantees located outside the U.S. (incorporated by reference to Exhibit 10.32 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.33*	Form of Award Terms of Time-Vested Restricted Stock Units under the Company's Equity Incentive Plan for grantees located in the U.S. (incorporated by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.34*	Form of Award Terms of Time-Vested Restricted Stock Units under the Company's Equity Incentive Plan for grantees located outside the U.S. (incorporated by reference to Exhibit 10.34 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.35*	Form of Award Terms of Performance Share Units under the Company's Equity Incentive Plan (incorporated by reference to Exhibit 10.35 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.36*	The Chemours Company 2017 Equity and Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on May 1, 2017).
10.37	Memorandum of Understanding, dated January 22, 2021, by and among The Chemours Company, Corteva, Inc., E. I. du Pont de Nemours and Company and DuPont de Nemours, Inc. (f/k/a DowDuPont Inc.) (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on January 22, 2021).
10.38*	Separation Agreement and Release between E. Bryan Snell and the Company effective March 1, 2021, dated March 1, 2021 (incorporated by reference in Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on March 2, 2021).
10.39*	Employment Transition Agreement between Mark Vergnano and the Company, dated as of June 2, 2021 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on June 3, 2021).
10.40	Settlement Agreement, Limited Release, Waiver and Covenant Not to Sue, dated July 13, 2021, by and among The Chemours Company, Corteva, Inc., E.I. du Pont De Nemours and Company, DuPont de Nemours, Inc, and the State of Delaware (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on July 13, 2021).
10.41*	Special Employment and Separation Agreement and Release between David C. Shelton and the Company, dated as of August 19, 2022 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on August 19, 2022).
21	Subsidiaries of the Registrant.
22	List of Guarantor Subsidiaries.
23	Consent of Independent Registered Public Accounting Firm.

Exhibit Number	Description
31.1	Rule 13a-14(a)/15d-14(a) Certification of the Company's Principal Executive Officer.
31.2	Rule 13a-14(a)/15d-14(a) Certification of the Company's Principal Financial Officer.
32.1	Section 1350 Certification of the Company's Principal Executive Officer. The information contained in this Exhibit shall not be deemed filed with the Securities and Exchange Commission nor incorporated by reference in any registration statement filed by the registrant under the Securities Act of 1933, as amended.
32.2	Section 1350 Certification of the Company's Principal Financial Officer. The information contained in this Exhibit shall not be deemed filed with the Securities and Exchange Commission nor incorporated by reference in any registration statement filed by the registrant under the Securities Act of 1933, as amended.
95	Mine Safety Disclosures.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
104	The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2022, which has been formatted in Inline XBRL and included within Exhibit 101.

* Management contract or compensatory plan or arrangement.

SIGNATURES

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

THE CHEMOURS COMPANY
(Registrant)

Date: February 10, 2023

By: /s/ Sameer Ralhan
Sameer Ralhan
Senior Vice President, Chief Financial Officer
(As Duly Authorized Officer and Principal Financial Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated:

Signature	Title(s)	Date
/s/ Mark E. Newman Mark E. Newman	President, Chief Executive Officer, and Director (Principal Executive Officer)	February 10, 2023
/s/ Sameer Ralhan Sameer Ralhan	Senior Vice President, Chief Financial Officer (Principal Financial Officer)	February 10, 2023
/s/ Camela T. Wisel Camela T. Wisel	Vice President and Controller (Principal Accounting Officer)	February 10, 2023
/s/ Dawn L. Farrell Dawn L. Farrell	Chairperson of the Board	February 10, 2023
/s/ Curtis V. Anastasio Curtis V. Anastasio	Director	February 10, 2023
/s/ Mary B. Cranston Mary B. Cranston	Director	February 10, 2023
/s/ Curtis J. Crawford Curtis J. Crawford	Director	February 10, 2023
/s/ Erin N. Kane Erin N. Kane	Director	February 10, 2023
/s/ Sean D. Keohane Sean D. Keohane	Director	February 10, 2023
/s/ Sandra Phillips Rogers Sandra Phillips Rogers	Director	February 10, 2023
/s/ Guillaume Pepy Guillaume Pepy	Director	February 10, 2023

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The Chemours Company

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The 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. The Company's internal control over financial reporting includes those policies and procedures that:

(i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;

(ii) 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 authorization of management and directors of the Company; and,

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisitions, uses, or dispositions 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.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2022, based on criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control - Integrated Framework* (2013). Based on its assessment and those criteria, management concluded that the Company maintained effective internal control over financial reporting as of December 31, 2022.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2022, as stated in its report, which is presented on the following page.

/s/ Mark E. Newman
Mark E. Newman
President and
Chief Executive Officer

/s/ Sameer Ralhan
Sameer Ralhan
Senior Vice President,
Chief Financial Officer

February 10, 2023

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of The Chemours Company

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of The Chemours Company and its subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations, of comprehensive income, of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited 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 (COSO).

In our opinion, the consolidated financial statements referred to above 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. Also 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 the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, 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 opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accrued Liabilities Associated with the Fayetteville Works On-site Surface Water and Groundwater Remediation Activities, and Off-site Replacement Drinking Water Supplies

As described in Note 22 to the consolidated financial statements, the Company is cooperating with a variety of ongoing inquiries and investigations from federal, state, and local authorities, regulators, and other governmental entities with respect to the discharge of hexafluoropropylene oxide dimer acid ("HFPO Dimer Acid," sometimes referred to as "GenX" or "C3 Dimer Acid") and other per- and polyfluoroalkyl substances ("PFAS") from the Company's Fayetteville Works site in North Carolina ("Fayetteville") to the Cape Fear River and on-site surface water and groundwater. The Company's accrued liabilities for the on-site surface water and groundwater remediation activities, and off-site replacement drinking water supplies related to PFAS at Fayetteville were $465 million as of December 31, 2022. The Company's estimated liability for the on-site surface water and groundwater remediation activities that are probable and estimable is based on the Consent Order ("CO") and the related addendum with the North Carolina Department of Environmental Quality (the "Addendum"), the Corrective Action Plan ("CAP"), regulatory directives, and management's assessment of the current facts and circumstances, which is subject to various assumptions including the transport pathways (being pathways by which PFAS reaches the Cape Fear River) which will require remedial actions, the types of interim and permanent site surface water and on-site remedies and treatment systems selected and implemented, the estimated cost of such potential remedies and treatment systems, any related operation, maintenance, and monitoring ("OM&M") requirements, and other charges contemplated by the CO and the Addendum. The Company's estimated liability for off-site replacement drinking water supplies is based on management's assessment of the current facts and circumstances for this matter, which is subject to various assumptions that include, but are not limited to, the number of affected surrounding properties, response rates to the Company's offer, the timing of expiration of offers made to the property owners, the type of water treatment systems selected, the cost of the selected water treatment systems, and any related OM&M requirements, fines and penalties, and other charges contemplated by the CO. Management, from time to time, may engage third parties (management's specialists) to assist in obtaining and/or evaluating relevant data and assumptions when estimating remediation liabilities.

The principal considerations for our determination that performing procedures relating to the accrued liabilities associated with the Fayetteville on-site surface water and groundwater remediation activities, and off-site replacement drinking water supplies is a critical audit matter are the significant judgment by management, including the use of management's specialists, in estimating the accrued liabilities associated with the Fayetteville on-site surface water and groundwater remediation activities, and off-site replacement drinking water supplies based on the CO, including the Addendum, CAP, certain regulatory directives, and management's assessment of the current facts and circumstances. This in turn led to significant auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to transport pathways which will require remedial actions, the types of interim and permanent site surface water and on-site remedies and treatment systems selected and implemented, the estimated cost of such potential remedies and treatment systems, and any related OM&M requirements for on-site surface water and groundwater remediation activities, the number of affected surrounding properties, the type of water treatment systems selected, the cost of the selected water treatment systems, and any related OM&M requirements for off-site replacement drinking water supplies. Additionally, the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's determination and valuation of the accrued liabilities associated with the Fayetteville on-site surface water and groundwater remediation activities, and off-site replacement drinking water supplies, as well as the related financial statement disclosures. These procedures also included, among others (i) testing management's process for estimating the accrued liabilities associated with the Fayetteville on-site surface water and groundwater remediation activities, and off-site replacement drinking water supplies; (ii) testing the reasonableness of management's significant assumptions related to the transport pathways which will require remedial actions, the types of interim and permanent site surface water and on-site remedies and treatment systems selected and implemented, the estimated cost of such potential remedies and treatment systems, and any related OM&M requirements for on-site surface water and groundwater remediation activities, and the type of water treatment systems selected, the cost of the selected water treatment systems, and any related OM&M requirements for off-site replacement drinking water supplies, which involved comparing the cost estimates developed by management to third party evidence, and comparing actual and historical costs used to develop the estimates, as applicable; (iii) obtaining and evaluating responses to letters of audit inquiry from legal counsel; and (iv) evaluating the sufficiency of the Company's disclosures related to the matter. The work of management's specialists was used in performing the procedures to evaluate the reasonableness of the number of affected surrounding properties. As a basis for using this work, the specialists' qualifications were understood and the Company's relationship with the specialists was assessed. The procedures performed also included evaluation of the methods and assumptions used by the specialists, tests of the completeness and accuracy of the data used by the specialists, and an evaluation of the specialists' findings. Professionals with specialized skill and knowledge were used to assist in evaluating the estimated costs resulting from the CO, including the Addendum, CAP, certain regulatory directives, and management's assessment of the current facts and circumstances.

/s/ PricewaterhouseCoopers LLP

New York, New York
February 10, 2023

We have served as the Company's auditor since 2014.

The Chemours Company
Consolidated Statements of Operations
(Dollars in millions, except per share amounts)

	Year Ended December 31,		
	2022	2021	2020
Net sales	$ 6,794	$ 6,345	$ 4,969
Cost of goods sold	5,178	4,964	3,902
Gross profit	1,616	1,381	1,067
Selling, general, and administrative expense	710	592	527
Research and development expense	118	107	93
Restructuring, asset-related, and other charges	16	6	80
Total other operating expenses	844	705	700
Equity in earnings of affiliates	55	43	23
Interest expense, net	(163)	(185)	(210)
Gain (loss) on extinguishment of debt	7	(21)	(22)
Other income, net	70	163	21
Income before income taxes	741	676	179
Provision for (benefit from) income taxes	163	68	(40)
Net income	578	608	219
Net income attributable to Chemours	$ 578	$ 608	$ 219
Per share data			
Basic earnings per share of common stock	$ 3.72	$ 3.69	$ 1.33
Diluted earnings per share of common stock	3.65	3.60	1.32

See accompanying notes to the consolidated financial statements.

The Chemours Company
Consolidated Statements of Comprehensive Income
(Dollars in millions)

	Year Ended December 31,								
	2022			2021			2020		
	Pre-tax	Tax	After-tax	Pre-tax	Tax	After-tax	Pre-tax	Tax	After-tax
Net income			$ 578			$ 608			$ 219
Other comprehensive income (loss):									
Hedging activities:									
Unrealized gain (loss) on net investment hedge	$ 53	$ (13)	40	$ 73	$ (18)	55	$ (88)	$ 22	(66)
Unrealized gain (loss) on cash flow hedge	25	(4)	21	12	(2)	10	(8)	1	(7)
Reclassifications to net income - cash flow hedge	(24)	4	(20)	4	(1)	3	(3)	—	(3)
Hedging activities, net	54	(13)	41	89	(21)	68	(99)	23	(76)
Cumulative translation adjustment	(32)	—	(32)	(116)	—	(116)	111	—	111
Defined benefit plans:									
Additions to accumulated other comprehensive income (loss):									
Net (loss) gain	(2)	1	(1)	(22)	6	(16)	4	(1)	3
Prior service benefit (cost)	2	—	2	—	—	—	(1)	—	(1)
Curtailment gain	—	—	—	—	—	—	4	(1)	3
Effect of foreign exchange rates	7	—	7	6	—	6	(9)	—	(9)
Reclassifications to net income:									
Amortization of actuarial loss	8	(2)	6	7	(2)	5	9	(2)	7
Amortization of prior service gain	(2)	—	(2)	(2)	—	(2)	(3)	—	(3)
Settlement loss	—	—	—	1	—	1	5	(1)	4
Defined benefit plans, net	$ 13	$ (1)	12	$ (10)	$ 4	(6)	$ 9	$ (5)	4
Other comprehensive income (loss)			21			(54)			39
Comprehensive income			599			554			258
Comprehensive income attributable to Chemours			$ 599			$ 554			$ 258

See accompanying notes to the consolidated financial statements.

The Chemours Company
Consolidated Balance Sheets
(Dollars in millions, except per share amounts)

	December 31,	
	2022	2021
Assets		
Current assets:		
Cash and cash equivalents	$ 1,102	$ 1,451
Accounts and notes receivable, net	626	720
Inventories	1,404	1,099
Prepaid expenses and other	82	75
Total current assets	3,214	3,345
Property, plant, and equipment	9,387	9,232
Less: Accumulated depreciation	(6,216)	(6,078)
Property, plant, and equipment, net	3,171	3,154
Operating lease right-of-use assets	240	227
Goodwill	102	102
Other intangible assets, net	13	6
Investments in affiliates	175	169
Restricted cash and restricted cash equivalents	202	100
Other assets	523	447
Total assets	$ 7,640	$ 7,550
Liabilities		
Current liabilities:		
Accounts payable	$ 1,251	$ 1,162
Compensation and other employee-related cost	121	173
Short-term and current maturities of long-term debt	25	25
Current environmental remediation	194	173
Other accrued liabilities	300	325
Total current liabilities	1,891	1,858
Long-term debt, net	3,590	3,724
Operating lease liabilities	198	179
Long-term environmental remediation	474	389
Deferred income taxes	61	49
Other liabilities	319	269
Total liabilities	6,533	6,468
Commitments and contingent liabilities		
Equity		
Common stock (par value $0.01 per share; 810,000,000 shares authorized; 195,375,810 shares issued and 148,504,030 shares outstanding at December 31, 2022; 191,860,159 shares issued and 161,046,732 shares outstanding at December 31, 2021)	2	2
Treasury stock, at cost (46,871,780 shares at December 31, 2022; 30,813,427 shares at December 31, 2021)	(1,738)	(1,247)
Additional paid-in capital	1,016	944
Retained earnings	2,170	1,746
Accumulated other comprehensive loss	(343)	(364)
Total Chemours stockholders' equity	1,107	1,081
Non-controlling interests	—	1
Total equity	1,107	1,082
Total liabilities and equity	$ 7,640	$ 7,550

See accompanying notes to the consolidated financial statements.

The Chemours Company
Consolidated Statements of Stockholders' Equity
(Dollars in millions, except per share amounts)

	Common Stock		Treasury Stock		Additional	Retained	Accumulated Other Comprehensive	Non-controlling	
	Shares	Amount	Shares	Amount	Paid-in Capital	Earnings	(Loss) Income	Interests	Total Equity
Balance at January 1, 2020	188,893,478	$ 2	25,319,235	$ (1,072)	$ 859	$ 1,249	$ (349)	$ 6	$ 695
Common stock issued - compensation plans	222,665	—	—	—	1	(1)	—	—	—
Exercise of stock options	1,123,740	—	—	—	16	—	—	—	16
Stock-based compensation expense	—	—	—	—	16	—	—	—	16
Cancellation of unissued stock awards withheld to cover taxes	—	—	—	—	(2)		—	—	(2)
Net income	—	—	—	—	—	219	—	—	219
Dividends declared on common shares ($1.00 per share)	—	—	—	—	—	(164)	—	—	(164)
Dividends to non-controlling interests	—	—	—	—	—	—	—	(4)	(4)
Other comprehensive income	—	—	—	—	—	—	39	—	39
Balance at December 31, 2020	190,239,883	2	25,319,235	(1,072)	890	1,303	(310)	2	815
Common stock issued - compensation plans	264,908	—	(39,554)	2	(1)	(1)	—	—	—
Exercise of stock options	1,355,368	—	—	—	23	—	—	—	23
Purchases of treasury stock, at cost	—	—	5,533,746	(177)	—				(177)
Stock-based compensation expense	—	—	—	—	34	—	—	—	34
Cancellation of unissued stock awards withheld to cover taxes	—	—	—	—	(2)	—	—	—	(2)
Net income	—	—	—	—	—	608	—	—	608
Dividends declared on common shares ($1.00 per share)	—	—	—	—	—	(164)	—	—	(164)
Dividends to non-controlling interests	—	—	—	—	—	—	—	(1)	(1)
Other comprehensive loss	—	—	—	—	—	—	(54)	—	(54)
Balance at December 31, 2021	191,860,159	2	30,813,427	(1,247)	944	1,746	(364)	1	1,082
Common stock issued - compensation plans	474,730	—	—	—	—	—	—	—	—
Exercise of stock options	3,040,921	—	—	—	51	—	—	—	51
Purchases of treasury stock, at cost	—	—	16,058,353	(492)	—	—	—	—	(492)
Stock-based compensation expense	—	—	—	1	27	—	—	—	28
Cancellation of unissued stock awards withheld to cover taxes	—	—	—	—	(6)	—	—	—	(6)
Net income	—	—	—	—	—	578	—	—	578
Dividends declared on common shares ($1.00 per share)	—	—	—	—	—	(154)	—	—	(154)
Dividends to non-controlling interests	—	—	—	—	—	—	—	(1)	(1)
Other comprehensive income	—	—	—	—	—	—	21	—	21
Balance at December 31, 2022	195,375,810	$ 2	46,871,780	$ (1,738)	$ 1,016	$ 2,170	$ (343)	$ —	$ 1,107

See accompanying notes to the consolidated financial statements.

The Chemours Company
Consolidated Statements of Cash Flows
(Dollars in millions)

	Year Ended December 31,		
	2022	2021	2020
Cash flows from operating activities			
Net income	$ 578	$ 608	$ 219
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	291	317	320
Gain on sales of assets and businesses, net	(21)	(115)	(8)
Equity in earnings of affiliates, net	(22)	(11)	—
(Gain) loss on extinguishment of debt	(7)	21	22
Amortization of debt issuance costs and issue discounts	9	9	9
Deferred tax provision (benefit)	20	(77)	(120)
Asset-related charges	5	—	22
Stock-based compensation expense	27	34	16
Net periodic pension cost	9	6	14
Defined benefit plan contributions	(10)	(17)	(21)
Other operating charges and credits, net	(21)	18	(22)
Decrease (increase) in operating assets:			
Accounts and notes receivable	91	(225)	175
Inventories and other operating assets	(390)	(202)	126
(Decrease) increase in operating liabilities:			
Accounts payable and other operating liabilities	195	454	55
Cash provided by operating activities	754	820	807
Cash flows from investing activities			
Purchases of property, plant, and equipment	(307)	(277)	(267)
Proceeds from sales of assets and businesses, net of cash divested	33	508	5
Foreign exchange contract settlements, net	3	(12)	27
Other investing activities	(13)	1	1
Cash (used for) provided by investing activities	(284)	220	(234)
Cash flows from financing activities			
Proceeds from issuance of debt	—	650	800
Proceeds from accounts receivable securitization facility	—	—	12
Repayments on accounts receivable securitization facility	—	—	(122)
Proceeds from revolving loan	—	—	300
Repayments on revolving loan	—	—	(300)
Debt repayments	(68)	(854)	(943)
Payments related to extinguishment of debt	—	(18)	(16)
Payments of debt issuance costs	(1)	(11)	(10)
Payments on finance leases	(11)	(10)	(6)
Deferred acquisition-related consideration	—	—	(10)
Purchases of treasury stock, at cost	(495)	(173)	—
Proceeds from exercised stock options	51	23	16
Payments related to tax withheld on vested stock awards	(6)	(2)	(2)
Payments of dividends to the Company's common shareholders	(154)	(164)	(164)
Distributions to non-controlling interest shareholders	(1)	(1)	(4)
Cash used for financing activities	(685)	(560)	(449)
Effect of exchange rate changes on cash, cash equivalents, restricted cash and restricted cash equivalents	(32)	(34)	38
(Decrease) increase in cash, cash equivalents, restricted cash and restricted cash equivalents	(247)	446	162
Cash, cash equivalents, restricted cash, and restricted cash equivalents at January 1,	1,551	1,105	943
Cash, cash equivalents, restricted cash, and restricted cash equivalents at December 31,	$ 1,304	$ 1,551	$ 1,105
Supplemental cash flows information			
Cash paid during the year for:			
Interest, net of amounts capitalized	$ 164	$ 180	$ 208
Income taxes, net of refunds	131	149	78
Non-cash investing and financing activities:			
Purchases of property, plant, and equipment included in accounts payable	$ 79	$ 89	$ 31
Non-cash financing arrangements	—	—	16
Treasury stock repurchased, not settled	1	4	—

See accompanying notes to the consolidated financial statements.

Note 1. Background and Description of the Business

The Chemours Company ("Chemours", or the "Company") is a leading, global provider of performance chemicals that are key inputs in end-products and processes in a variety of industries. The Company delivers customized solutions with a wide range of industrial and specialty chemical products for markets, including coatings, plastics, refrigeration and air conditioning, transportation, semiconductor and consumer electronics, general industrial, and oil and gas. The Company's principal products include titanium dioxide ("TiO_2") pigment, refrigerants, industrial fluoropolymer resins, and performance chemicals and intermediates. Chemours manages and reports its operating results through its three reportable segments: Titanium Technologies, Thermal & Specialized Solutions, and Advanced Performance Materials. The Titanium Technologies segment is a leading, global provider of TiO_2 pigment, a premium white pigment used to deliver whiteness, brightness, opacity, durability, efficiency and protection across a variety of applications. The Thermal & Specialized Solutions segment is a leading, global provider of refrigerants, thermal management solutions, propellants, blowing agents, and specialty solvents. The Advanced Performance Materials segment is a leading, global provider of high-end polymers and advanced materials that deliver unique attributes, including low friction coefficients, extreme temperature resistance, weather resistance, ultraviolet and chemical resistance, and electrical insulation. The Other Segment includes the Performance Chemicals and Intermediates business and Mining Solutions business (prior to the business sale in 2021).

Chemours has manufacturing facilities, sales centers, administrative offices, and warehouses located throughout the world. Chemours' operations are primarily located in the U.S., Canada, Mexico, Brazil, the Netherlands, Belgium, China, Taiwan, Japan, Switzerland, Singapore, Hong Kong, India, and France. At December 31, 2022, the Company operated 29 major production facilities globally, of which eight were dedicated to Titanium Technologies, eight were dedicated to Thermal & Specialized Solutions, 10 were dedicated to Advanced Performance Materials, and three supported multiple segments.

Chemours began operating as an independent company on July 1, 2015 (the "Separation Date") after separating from E.I. DuPont de Nemours and Company ("EID") (the "Separation"). The Separation was completed pursuant to a separation agreement and other agreements with EID, including an employee matters agreement, a tax matters agreement, a transition services agreement, and an intellectual property cross-license agreement. These agreements govern the relationship between Chemours and EID following the Separation and provided for the allocation of various assets, liabilities, rights, and obligations at the Separation Date. On August 31, 2017, EID completed a merger with The Dow Chemical Company ("Dow"). Following their merger, EID and Dow engaged in a series of reorganization steps and, in 2019, separated into three publicly-traded companies named Dow Inc., DuPont de Nemours, Inc. ("DuPont"), and Corteva, Inc. ("Corteva"). Effective January 1, 2023, EID changed its name to EIDP, Inc.

Unless the context otherwise requires, references herein to "The Chemours Company", "Chemours", "the Company", "our Company", "we", "us", and "our" refer to The Chemours Company and its consolidated subsidiaries. References herein to "EID" refer to EIDP, Inc., formerly known as EID, which is Chemours' former parent company and is now a subsidiary of Corteva.

Note 2. Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). In the opinion of management, all adjustments (consisting of normal, recurring adjustments) considered necessary for a fair presentation of the Company's financial position and results of operations have been included for the periods presented herein. The notes that follow are an integral part of the Company's consolidated financial statements.

Certain prior period amounts have been reclassified to conform to the current period presentation, the effect of which was not material to the Company's consolidated financial statements.

Note 3. Summary of Significant Accounting Policies

Preparation of Financial Statements

The consolidated financial statements have been prepared in conformity with GAAP, which requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Management's estimates are based on historical experiences, facts, and circumstances available at the time and various other assumptions that management believes are reasonable. Actual results could differ from those estimates.

Principles of Consolidation

The consolidated financial statements include the accounts of Chemours and its subsidiaries, as well as entities in which a controlling interest is maintained. For those consolidated subsidiaries in which the Company's ownership is less than 100%, the outside shareholders' interests are shown as non-controlling interests. Investments in companies in which Chemours, directly or indirectly, owns 20% to 50% of the voting stock, or has the ability to exercise significant influence over the operating and financial policies of the investee, are accounted for using the equity method of accounting. As a result, Chemours' share of the earnings or losses of such equity affiliates is included in the consolidated statements of operations, and Chemours' share of such equity affiliates' equity is included in the consolidated balance sheets.

The Company assesses the requirements related to the consolidation of any variable interest entity ("VIE"), including a qualitative assessment of power and economics that considers which entity has the power to direct the activities that most significantly impact the VIE's economic performance, and has the right to receive any benefits or the obligation to absorb any losses of the VIE. No such VIE was consolidated by the Company for the periods presented.

All intercompany accounts and transactions were eliminated in the preparation of the accompanying consolidated financial statements.

Revenue Recognition

Chemours recognizes revenue using a five-step model, resulting in revenue being recognized as performance obligations within a contract have been satisfied. The steps within that model include: (i) identifying the existence of a contract with a customer; (ii) identifying the performance obligations within the contract; (iii) determining the contract's transaction price; (iv) allocating the transaction price to the contract's performance obligations; and, (v) recognizing revenue as the contract's performance obligations are satisfied. A contract with a customer exists when: (i) the Company enters into an enforceable agreement that defines each party's rights regarding the goods or services to be transferred, and the related payment terms; (ii) the agreement has commercial substance; and, (iii) it is probable that the Company will collect the consideration to which it is entitled in the exchange. A performance obligation is a promise in a contract to transfer a distinct good or service, or a series of distinct goods or services, to a customer. The transaction price is the customary amount of consideration that the Company expects to be entitled to in exchange for a transfer of the promised goods or services to a customer, excluding any amounts collected by the Company on behalf of third parties (e.g., sales and use taxes). Judgment is required to apply the principles-based, five-step model for revenue recognition. Management is required to make certain estimates and assumptions about the Company's contracts with its customers, including, among others, the nature and extent of its performance obligations, its transaction price amounts and any allocations thereof, the critical events which constitute satisfaction of its performance obligations, and when control of any promised goods or services is transferred to its customers.

The Company's revenue from contracts with customers is reflected in the consolidated statements of operations as net sales, the vast majority of which represents product sales that consist of a single performance obligation. Product sales to customers are made under a purchase order ("PO"), or in certain cases, in accordance with the terms of a master services agreement ("MSA") or similar arrangement, which documents the rights and obligations of each party to the contract. When a customer submits a PO for product or requests product under an MSA, a contract for a specific quantity of distinct goods at a specified price is created, and the Company's performance obligation under the contract is satisfied when control of the product is transferred to the customer, which is indicated by shipment of the product and the transfer of title and the risk of loss to the customer. Revenue is recognized on consignment sales when control transfers to the customer, generally at the point of customer usage of the product. The transaction price for product sales is generally the amount specified in the PO or in the request under an MSA; however, as is common in Chemours' industry, the Company offers variable consideration in the form of rebates, volume discounts, early payment discounts, pricing based on formulas or indices, price matching, and guarantees to certain customers. Such amounts are included in the Company's estimated transaction price using either the expected value method or the most-likely amount, depending on the nature of the variable consideration included in the contract. The Company regularly assesses its customers' creditworthiness, and product sales are made based on established credit limits. Payment terms for the Company's invoices are typically less than 90 days.

The Company also licenses the right to access certain of its trademarks to customers under specified terms and conditions in certain arrangements, which is recognized as a component of net sales in the consolidated statements of operations. Under such arrangements, the Company may receive a royalty payment for a trademark license that is entered into on a stand-alone basis or incorporated into an overall product sales arrangement. Royalty income is generally based on customer sales and recognized under the sales-based exception as the customer sale occurs. When minimum guaranteed royalty amounts are included in the transaction price, the Company recognizes royalty income ratably over the license period for the minimum amount. When there is no consideration specified for the use of the Company's trademark, the entire transaction price is recognized in connection with the transfer of control of product. Royalty income resulting from the right to use the Company's technology is considered outside the scope of revenue recognition under GAAP as it is not a part of the Company's ongoing major or central activities, and is recognized as a component of other income (expense), net in the consolidated statements of operations in accordance with agreed-upon terms at the point or points in time that performance obligations are satisfied.

Consistent with the fact that the vast majority of the Company's payment terms are less than 90 days from the point at which control of the promised goods or services is transferred, no adjustments have been made for the effects of a significant financing component. Additionally, the Company has elected to recognize the incremental costs associated with obtaining contracts as an expense when incurred if the amortization period of the assets that the Company would have recognized is one year or less. Amounts billed to customers for shipping and handling fees are considered a fulfillment cost and are included in net sales, and the costs incurred by the Company for the delivery of goods are classified as a component of the cost of goods sold in the consolidated statements of operations.

Research and Development Expense

Research and development ("R&D") costs are expensed as incurred. R&D expenses include costs (primarily consisting of employee costs, materials, contract services, research agreements, and other external spend) relating to the discovery and development of new products, enhancement of existing products, and regulatory approval of new and existing products.

Provision for (Benefit from) Income Taxes

The provision for (benefit from) income taxes is determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. The provision for (benefit from) income taxes represents income taxes paid or payable for the current year, plus the change in deferred taxes during the year. Deferred taxes result from differences between the financial and tax bases of Chemours' assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. The Company's deferred tax assets and liabilities are presented on a net basis by jurisdictional filing group. Net deferred tax assets are presented as a component of other assets, while net deferred tax liabilities are presented as a component of deferred income taxes on the Company's consolidated balance sheets. Valuation allowances are recorded to reduce deferred tax assets when it is more-likely-than-not that a tax benefit will not be realized.

Chemours recognizes income tax positions that meet the more-likely-than-not threshold and accrues any interest related to unrecognized income tax positions in the provision for (benefit from) income taxes in the consolidated statements of operations. The Company also recognizes income tax-related penalties in the provision for (benefit from) income taxes.

Earnings Per Share

Chemours presents both basic earnings per share and diluted earnings per share. Basic earnings per share excludes dilution and is computed by dividing the total net income (loss) attributable to Chemours by the weighted-average number of shares outstanding for the period. Diluted earnings per share reflects the dilution that could occur if the Company's outstanding stock-based compensation awards, including any unvested restricted shares, were vested and exercised, thereby resulting in the issuance of common stock as determined under the treasury stock method. In periods where the Company incurs a net loss, stock-based compensation awards are excluded from the calculation of earnings per share as their inclusion would have an anti-dilutive effect.

Cash and Cash Equivalents

Cash and cash equivalents generally include cash, time deposits, or highly liquid investments with maturities of three months or less at the time of acquisition.

Accounts and Notes Receivable and Allowance for Doubtful Accounts

Accounts and notes receivables are recognized net of an allowance for doubtful accounts. The allowance for doubtful accounts reflects the best estimate of losses inherent in Chemours' accounts and notes receivable portfolio, which is determined by assessing expected credit losses on the basis of historical experience, specific allowances for known troubled accounts, and other available evidence. Accounts and notes receivable are written off when management determines that they are uncollectible.

Inventories

Chemours' inventories are valued at the lower of cost or market or net realizable value, where applicable. Cost of inventories held at substantially all U.S. locations are determined using the last-in, first-out ("LIFO") method, while cost of inventories held outside the U.S. are determined using the average cost method. The elements of cost in inventories include raw materials, direct labor, and manufacturing overhead. Stores and supplies are valued at the lower of cost or net realizable value, and cost is generally determined by the average cost method.

Property, Plant, and Equipment

Property, plant, and equipment is carried at cost and is depreciated using the straight-line method. Substantially all equipment and buildings are depreciated over useful lives ranging from 15 to 25 years. Capitalizable costs associated with computer software for internal use are amortized on a straight-line basis over five to seven years. When assets are surrendered, retired, sold, or otherwise disposed of, their gross carrying values and related accumulated depreciation are removed from the consolidated balance sheets and are included in the determination of any gain or loss on such disposals.

Repair and maintenance costs that materially add to the value of the asset or prolong its useful life are capitalized and depreciated based on their extension to the asset's useful life. Capitalized repair and maintenance costs are recorded on the consolidated balance sheets as a component of other assets.

Impairment of Long-lived Assets

Chemours evaluates the carrying value of its long-lived assets to be held and used when events or changes in circumstances indicate the carrying value may not be recoverable. For the purposes of recognition or measurement of an impairment charge, the assessment is performed on the asset or asset group at the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. To determine the level at which the assessment is performed, Chemours considers factors such as revenue dependency, shared costs, and the extent of vertical integration. The carrying value of a long-lived asset is considered impaired when the total projected undiscounted cash flows from the use and eventual disposition of the asset or asset group are separately identifiable and are less than its carrying value. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair value of the long-lived asset. The fair value methodology used is an estimate of fair market value, which is made based on prices of similar assets or other valuation methodologies, including present value techniques. Long-lived assets to be disposed of by means other than sale are classified as held for use until their disposal. Long-lived assets to be disposed of by sale are classified as held for sale and are reported at the lower of carrying amount or fair market value, less the estimated cost to sell. Depreciation and amortization are discontinued for any long-lived assets classified as held for sale.

Leases

The Company's lease assets and lease liabilities are recognized on the lease commencement date in an amount that represents the present value of future lease payments. Operating leases are included in operating lease right-of-use assets, other accrued liabilities, and operating lease liabilities on the Company's consolidated balance sheets. Finance leases are included in property, plant, and equipment, net, short-term and current maturities of long-term debt, and long-term debt, net, on the Company's consolidated balance sheets. The Company's incremental borrowing rate, which is based on information available at the adoption date of January 1, 2019 for existing leases and the commencement date for leases commencing after the adoption date, is used to determine the present value of lease payments. The Company combines lease components with non-lease components for most classes of assets, except for certain manufacturing facilities or when the non-lease component is significant to the lease component.

The Company does not recognize leases with an initial term of 12 months or less on its consolidated balance sheets and will recognize those lease payments in the consolidated statements of operations on a straight-line basis over the lease term. Certain leases contain variable payments which are based on usage or operating costs, such as utilities and maintenance. These payments are not included in the measurement of the right-of-use asset or lease liability due to the uncertainty of the payment amount and are recorded as lease expense in the period incurred. Leases with the options to extend their term or terminate early are reflected in the lease term when it is reasonably certain that the Company will exercise such options.

Goodwill and Other Intangible Assets

The excess of the purchase price over the estimated fair value of the net assets acquired in a business combination, including any identified intangible assets, is recorded as goodwill. Chemours tests its goodwill for impairment at least annually on October 1; however, these tests are performed more frequently when events or changes in circumstances indicate that the asset may be impaired. Goodwill is evaluated for impairment at the reporting unit level, which is defined as an operating segment, or one level below an operating segment. A reporting unit is the level at which discrete financial information is available and reviewed by business management on a regular basis. An impairment exists when the carrying value of a reporting unit exceeds its fair value. The amount of impairment loss recognized in the consolidated statements of operations is equal to the excess of a reporting unit's carrying value over its fair value, which is limited to the total amount of goodwill allocated to the reporting unit.

Chemours has the option to first qualitatively assess whether it is more-likely-than-not that an impairment exists for a reporting unit. Such qualitative factors include, among other things, prevailing macroeconomic conditions, industry and market conditions, changes in costs associated with raw materials, labor, or other inputs, the Company's overall financial performance, and certain other entity-specific events that impact Chemours' reporting units. When performing a quantitative test, the Company weights the results of an income-based valuation technique, the discounted cash flows method, and a market-based valuation technique, the guideline public companies method, to determine its reporting units' fair values.

Definite-lived intangible assets, such as purchased and licensed technology, patents, trademarks, customer lists and allowance units are amortized over their estimated useful lives, generally for periods ranging up to 20 years. The reasonableness of the useful lives of these assets is periodically evaluated.

Investments in Affiliates

The Company uses the equity method of accounting for its investments in and earnings of affiliates. The Company considers whether the fair value of any of its equity method investments has declined below their carrying value whenever adverse events or changes in circumstances indicate that recorded values may not be recoverable. If the Company considers any such decline to be other than temporary, based on various factors, a write-down would be recorded to the estimated fair value.

Restricted Cash and Restricted Cash Equivalents

The Company classifies cash and cash equivalents that are legally or contractually restricted for withdrawal or usage as restricted cash and restricted cash equivalents. Chemours restricted cash and restricted cash equivalents includes cash and cash equivalents deposited in an escrow account as per the terms of the Company's Memorandum of Understanding ("MOU") agreement which is further discussed in "Note 22 – Commitments and Contingent Liabilities".

Environmental Liabilities and Expenditures

Chemours accrues for environmental remediation matters when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated. Where the available information is only sufficient to establish a range of probable liability, and no point within the range is more likely than any other, the lower end of the range has been used.

Estimated liabilities are determined based on existing remediation laws and technologies and the Company's planned remedial responses, which are derived from environmental studies, sampling, testing, and analyses. Inherent uncertainties exist in such evaluations, primarily due to unknown environmental conditions, changing governmental regulations regarding liability, and emerging remediation technologies. These liabilities, which are undiscounted, are adjusted periodically as remediation efforts progress and as additional technological, regulatory, and legal information becomes available.

Environmental liabilities and expenditures include claims for matters that are liabilities of EID and its subsidiaries, which Chemours may be required to indemnify pursuant to the Separation-related agreements executed prior to the Separation. These accrued liabilities are undiscounted and do not include claims against third parties.

Costs related to environmental remediation are charged to expense in the period that the associated liability is accrued and are reflected as a component of the cost of goods sold for on-site remediation costs or as a component of selling, general, and administrative expense for off-site remediation costs in the consolidated statements of operations. Other environmental costs are also charged to expense in the period incurred, unless they extend the useful life of the property, increase the property's capacity, and/or reduce or prevent contamination from future operations, in which case they are capitalized and amortized. Pursuant to the binding MOU entered into between Chemours, DuPont, Corteva, and EID, as further discussed in "Note 22 – Commitments and Contingent Liabilities", costs specific to potential future legacy per- and polyfluoroalkyl substances ("PFAS") liabilities are subject to a cost-sharing arrangement between the parties. Any recoveries of Qualified Spend (as further described in "Note 22 – Commitments and Contingent Liabilities" and as defined in the MOU) from DuPont and/or Corteva under the cost-sharing arrangement will be recognized as an offset to the Company's cost of goods sold or selling, general, and administrative expense, as applicable, when realizable. Any Qualified Spend incurred by DuPont and/or Corteva under the cost-sharing arrangement will be recognized in the Company's cost of goods sold or selling, general, and administrative expense, as applicable, when the amounts of such costs are probable and estimable.

Asset Retirement Obligations

Chemours records its asset retirement obligations at their fair value at the time the liability is incurred. Fair value is measured using the expected future cash outflows discounted at Chemours' credit-adjusted, risk-free interest rate, which is considered to be a Level 3 input within the fair value hierarchy. Accretion expense is recognized as an operating expense within the cost of goods sold in the consolidated statements of operations, using the credit-adjusted, risk-free interest rate in effect when the liability was recognized. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset and are depreciated over the estimated remaining useful life of the asset, generally for periods ranging from two to 25 years.

Insurance

Chemours insures for certain risks where permitted by law or regulation, including workers' compensation, vehicle liability, and employee-related benefits. Liabilities associated with these risks are estimated in part by considering any historical claims experience, demographic factors, and other actuarial assumptions. For certain other risks, the Company uses a combination of third-party insurance and self-insurance, reflecting its comprehensive review of relevant risks. A receivable for an insurance recovery is generally recognized when the loss has occurred and collection is considered probable.

Litigation

Chemours accrues for litigation matters when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated. Where the available information is only sufficient to establish a range of probable liability, and no point within the range is more likely than any other, the lower end of the range has been used. When a material loss contingency is reasonably possible, but not probable, the Company does not record a liability, but instead discloses the nature of the matter and an estimate of the loss or range of loss, to the extent such estimate can be made. Litigation-related liabilities and expenditures included in the consolidated financial statements include legal matters that are liabilities of EID and its subsidiaries, which Chemours may be required to indemnify pursuant to the Separation-related agreements executed prior to the Separation. Legal costs, such as outside counsel fees and expenses, are charged to expense in the period that services are rendered.

Treasury Stock

Chemours accounts for repurchases of the Company's common stock as treasury stock using the cost method, whereby the entire cost of the acquired common stock is recorded as treasury stock. The cost of treasury stock re-issued is determined using the first-in, first-out ("FIFO") method.

Stock-based Compensation

Chemours' stock-based compensation consists of stock options, restricted stock units ("RSUs"), and performance share units ("PSUs") awarded to employees and non-employee directors. Stock options and PSUs are measured at their fair value on the grant date or date of modification, as applicable. RSUs are measured at the stock price on the grant date or date of modification, as applicable. The Company recognizes compensation expense on a straight-line basis over the requisite service and/or performance period, as applicable. Forfeitures of awards are accounted as a reduction in stock-based compensation expense in the period such awards are forfeited.

Financial Instruments

In the ordinary course of business, Chemours enters into contractual arrangements to reduce its exposure to foreign currency and interest rate risks. The Company has established a financial risk management program, which currently includes four distinct risk management instruments: (i) foreign currency forward contracts, which are used to minimize the volatility in the Company's earnings related to foreign exchange gains and losses resulting from remeasuring its monetary assets and liabilities that are denominated in non-functional currencies; (ii) foreign currency forward contracts, which are used to mitigate the risks associated with fluctuations in the euro against the U.S. dollar for forecasted U.S. dollar-denominated inventory purchases in certain of the Company's international subsidiaries that use the euro as their functional currency; (iii) interest rate swaps, which are used to mitigate the volatility in the Company's cash payments for interest due to fluctuations in London Interbank Offered Rate ("LIBOR"), as is applicable to the portion of the Company's senior secured term loan facility denominated in U.S. dollars; and, (iv) euro-denominated debt, which is used to reduce the volatility in stockholders' equity caused by changes in foreign currency exchange rates of the euro with respect to the U.S. dollar for certain of its international subsidiaries that use the euro as their functional currency. The Company's financial risk management program reflects varying levels of exposure coverage and time horizons based on an assessment of risk. The program operates within Chemours' financial risk management policies and guidelines, and the Company does not enter into derivative financial instruments for trading or speculative purposes.

The Company's foreign currency forward contracts that are used as a net monetary assets and liabilities hedge are not part of a cash flow hedge program or a fair value hedge program, and have not been designated as a hedge. For these instruments, all gains and losses resulting from the revaluation of derivative assets and liabilities are recognized in other income (expense), net in the consolidated statements of operations during the period in which they occur, and any such gains or losses are intended to be offset by any gains or losses on the underlying asset or liability. For the Company's foreign currency forward contracts that have been designated under a cash flow hedge program, all gains and losses resulting from the revaluation of the derivative instruments are recognized as a component of accumulated other comprehensive loss on the consolidated balance sheets during the period in which they occur, and are reclassified to the cost of goods sold in the consolidated statements of operations during the period in which the underlying transactions affect earnings, or when it becomes probable that the forecasted transactions will not occur. For the Company's interest rate swaps that have been designated under a cash flow hedge program, all gains and losses resulting from the revaluation of the derivative instruments are recognized as a component of accumulated other comprehensive loss on the consolidated balance sheets during the period in which they occur, and are reclassified to interest expense, net in the consolidated statements of operations during the period in which the underlying transaction affects earnings. For the Company's euro-denominated debt instruments, which are designated as a net investment hedge, changes due to remeasurement are included in accumulated other comprehensive loss on the consolidated balance sheets. Chemours' uses the spot method to evaluate the effectiveness of its net investment hedge.

Financial instruments are reported on a gross basis on the consolidated balance sheets.

Foreign Currency Translation

Chemours identifies its separate and distinct foreign entities and groups them into two categories: (i) extensions of the parent (U.S. dollar functional currency); and, (ii) self-contained (local functional currency). If a foreign entity does not align with either category, factors are evaluated, and a judgment is made to determine the functional currency. Chemours changes the functional currency of its separate and distinct foreign entities only when significant changes in economic facts and circumstances clearly indicate that the functional currency has changed.

During the periods covered by the consolidated financial statements, part of Chemours' business operated within foreign entities. For foreign entities where the U.S. dollar is the functional currency, all foreign currency-denominated asset and liability amounts are remeasured into U.S. dollars at end-of-period exchange rates, with the exception of inventories, prepaid expenses, property, plant, and equipment, goodwill, and other intangible assets. These aforementioned assets are remeasured at historical exchange rates. Foreign currency-denominated revenue and expense amounts are measured at exchange rates in effect during the period, with the exception of expenses related to any balance sheet amounts remeasured at historical exchange rates. Exchange gains and losses arising from remeasurement of foreign currency-denominated monetary assets and liabilities are included in other income (expense), net in the consolidated statements of operations in the period in which they occurred.

For foreign entities where the local currency is the functional currency, assets and liabilities denominated in local currencies are translated into U.S. dollars at end-of-period exchange rates, and the resulting translation adjustments are reported as a component of accumulated other comprehensive loss on the consolidated balance sheets. Assets and liabilities denominated in currencies other than the functional currency are remeasured into the functional currency prior to translation into U.S. dollars, and the resulting exchange gains or losses are included in other income (expense), net in the consolidated statements of operations in the period in which they occurred. Revenues and expenses are translated into U.S. dollars at average exchange rates in effect during the period.

Defined Benefit Plans

Chemours has defined benefit plans covering certain of its employees outside of the U.S. The benefits of these plans, which primarily relate to pension, are accrued over the employees' service periods. The Company uses actuarial methods and assumptions in the valuation of its defined benefit obligations and the determination of any net periodic pension income or expense. Any differences between actual and expected results, or changes in the value of defined benefit obligations and plan assets, if any, are not recognized in earnings as they occur. Rather, they are systematically recognized over subsequent periods.

Fair Value Measurement

Fair value is defined as the exit price, the price that would be received to sell an asset or transfer a liability in an orderly transaction between market participants at the measurement date. Under the accounting for fair value measurements and disclosures, a fair value hierarchy was established to prioritize the valuation inputs used to measure fair value. The hierarchy gives highest priority to unadjusted, quoted prices in active markets for identical assets and liabilities (i.e., Level 1 measurements) and lowest priority to unobservable inputs (i.e., Level 3 measurements). A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

Chemours applies the following valuation hierarchy in measuring the fair values of its assets and liabilities:

- Level 1 – Quoted prices in active markets for identical assets and liabilities;
- Level 2 – Significant other observable inputs (e.g., quoted prices for similar items in active markets, quoted prices for identical or similar items in markets that are not active, inputs other than quoted prices that are observable, such as interest rate and yield curves, and market-corroborated inputs); and,
- Level 3 – Unobservable inputs for the asset or liability, which are valued based on management's estimates of assumptions that market participants would use in pricing the asset or liability.

Assets and Liabilities Held for Sale

The Company classifies long-lived assets or disposal groups as held for sale in the period when the following held for sale criteria are met: (i) the Company commits to a plan to sell; (ii) the long-lived asset or disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such long-lived assets or disposal groups; (iii) an active program to locate a buyer and other actions required to complete the plan to sell have been initiated; (iv) the sale is probable within one year; (v) the asset or disposal group is being actively marketed for sale at a price that is reasonable in relation to its current fair value; and (vi) it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn. Long-lived assets and disposal groups classified as held for sale are measured at the lower of their carrying amount or fair value less costs to sell. The Company ceases depreciation and amortization for a disposal group upon it being classified as held for sale.

Recent Accounting Pronouncements

Accounting Guidance Issued and Not Yet Adopted

Accounting for Contract Assets and Contract Liabilities from Contracts with Customers

In October 2021, the Financial Accounting Standards Board ("FASB") issued ASU 2021-08, *Business Combinations* (Topic 805)*: Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* ("ASU 2021-08"), which requires contract assets and contract liabilities acquired in a business combination to be recognized in accordance with Topic 606 as if the acquirer had originated the contracts. The guidance will be effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, with early adoption permitted. The Company adopted ASU 2021-08 on January 1, 2023, the effect of which will not be material to its financial position, results of operations and cash flows. The Company will apply the provisions of ASU 2021-08 after adoption to future acquisitions, if any.

Disclosure of Supplier Finance Program Obligations

In September 2022, the FASB issued ASU 2022-04, *Liabilities - Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations* ("ASU 2022-04"), which requires entities that use supplier finance programs in connection with the purchase of goods and services to disclose qualitative and quantitative information about their programs, including key terms and activity during the period. The guidance will be effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, with early adoption permitted, and should be applied retrospectively to each period in which a balance sheet is presented subject to certain exceptions. The Company is currently evaluating the disclosure requirement of this standard that will be required to be included in its consolidated financial statements.

Facilitation of the Effects of Reference Rate Reform on Financial Reporting

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting* ("ASU 2020-04"*),* which provides optional guidance for a limited period of time to ease the potential burden associated with accounting for contracts, hedging relationships, and other transactions that reference LIBOR or another reference rate expected to be discontinued due to reference rate reform. In December 2022, the FASB issued ASU 2022-06, *Deferral of the Sunset Date of Topic 848* ("ASU 2022-06"), which extended the expiration date of ASU 2020-04 to December 31, 2024. The Company does not expect the impacts of adopting ASU 2020-04 to be material to its financial position, results of operations and cash flows.

Recently Adopted Accounting Guidance

Disclosures by Business Entities About Government Assistance

In November 2021, the FASB issued ASU 2021-10, *Government Assistance* (Topic 832)*: Disclosures by Business Entities About Government Assistance* ("ASU 2021-10"), which requires annual disclosures about transactions with a government that are accounted for by applying a grant or contribution accounting model by analogy. The Company adopted ASU 2021-10 during the year ended December 31, 2022. Government grant transactions during the year ended December 31, 2022 were de minimis.

Note 4. Acquisitions and Divestitures

Divestitures

In December 2021, the Company entered into an agreement to sell land related to the Beaumont former operating site for cash consideration of approximately $17 (the "Beaumont Transaction"). The Company completed the land sale on May 24, 2022 and received net cash proceeds of $17. In January 2022, the Company entered into a stock agreement to sell certain of its wholly-owned subsidiaries and the remaining assets at its former Aniline business facilities in Pascagoula, Mississippi (the "Pascagoula Transaction"). The Company completed the sale on June 9, 2022 and received net cash proceeds of $16. Upon completion of the Beaumont Transaction and the Pascagoula Transaction, the Company recorded a net pre-tax gain of $5 and $18, respectively, in other income (expense), net in the consolidated statements of operations during the year ended December 31, 2022.

On July 26, 2021, the Company entered into a definitive agreement with Manchester Acquisition Sub LLC, a Delaware limited liability company and a subsidiary of Draslovka Holding a.s., to sell the Mining Solutions business of its Chemical Solutions segment for cash consideration of approximately $520 (the "Mining Solutions Transaction"). The Company completed the sale on December 1, 2021 and received net cash proceeds of $508, net of $13 cash divested. Upon completion of the sale, during the year ended December 31, 2021, the Company also recorded a net pre-tax gain on sale of $112 in other income (expense), net in the consolidated statements of operations, inclusive of $21 of transaction costs. The sale of the Mining Solutions business does not represent a strategic shift that will have a major effect on the Company's operations and financial results. Accordingly, the disposal group is not classified as a discontinued operation.

Note 5. Net Sales

Disaggregation of Net Sales

The following table sets forth a disaggregation of the Company's net sales by geographic region and segment for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Net sales by geographic region (1)			
North America:			
Titanium Technologies	$ 1,285	$ 1,019	$ 776
Thermal & Specialized Solutions	974	635	520
Advanced Performance Materials	619	494	407
Other Segment	71	169	211
Total North America	2,949	2,317	1,914
Asia Pacific:			
Titanium Technologies	928	1,049	778
Thermal & Specialized Solutions	178	160	134
Advanced Performance Materials	657	595	450
Other Segment	24	23	22
Total Asia Pacific	1,787	1,827	1,384
Europe, the Middle East, and Africa:			
Titanium Technologies	695	829	528
Thermal & Specialized Solutions	320	313	331
Advanced Performance Materials	281	254	202
Other Segment	17	16	25
Total Europe, the Middle East, and Africa	1,313	1,412	1,086
Latin America (2):			
Titanium Technologies	472	458	320
Thermal & Specialized Solutions	208	149	120
Advanced Performance Materials	61	54	45
Other Segment	4	128	100
Total Latin America	745	789	585
Total net sales	$ 6,794	$ 6,345	$ 4,969

(1) Net sales are attributed to countries based on customer location.

(2) Latin America includes Mexico.

The following table sets forth a disaggregation of the Company's net sales by product group and segment for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Net sales by product group and segment			
Titanium dioxide and other minerals	$ 3,380	$ 3,355	$ 2,402
Total Titanium Technologies	3,380	3,355	2,402
Refrigerants	1,352	973	889
Foam, propellants, and other	328	284	216
Total Thermal & Specialized Solutions	1,680	1,257	1,105
Advanced materials	1,125	977	782
Performance solutions	493	420	322
Total Advanced Performance Materials	1,618	1,397	1,104
Mining solutions	—	237	203
Performance chemicals and intermediates	116	99	155
Total Other Segment	116	336	358
Total net sales	$ 6,794	$ 6,345	$ 4,969

Substantially all of the Company's net sales are derived from goods and services transferred at a point in time. The Company's net sales from trademark licensing royalties were not significant for the years ended December 31, 2022, 2021 and 2020.

Contract Balances

The Company's assets and liabilities from contracts with customers constitute accounts receivable - trade, deferred revenue, and customer rebates. An amount for accounts receivable - trade is recorded when the right to consideration under a contract becomes unconditional. An amount for deferred revenue is recorded when consideration is received prior to the conclusion that a contract exists, or when a customer transfers consideration prior to the Company satisfying its performance obligations under a contract. Customer rebates represent an expected refund liability to a customer based on a contract. In contracts with customers where a rebate is offered, it is generally applied retroactively based on the achievement of a certain sales threshold. As revenue is recognized, the Company estimates whether or not the sales threshold will be achieved to determine the amount of variable consideration to include in the transaction price.

The following table sets forth the Company's contract balances from contracts with customers at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Contract assets:		
Accounts receivable - trade, net (Note 11)	$ 509	$ 644
Contract liabilities:		
Deferred revenue	$ 5	$ 5
Customer rebates (Note 19)	90	83

Changes in the Company's deferred revenue balances resulting from additions for advance payments and deductions for amounts recognized in net sales during the years ended December 31, 2022 and 2021 were not significant. For the years ended December 31, 2022 and 2021, the amount of net sales recognized from performance obligations satisfied in prior periods (e.g., due to changes in transaction price) was not significant.

There were no material contract asset balances or capitalized costs associated with obtaining or fulfilling customer contracts as of December 31, 2022 and 2021.

Remaining Performance Obligations

Certain of the Company's master services agreements or other arrangements contain take-or-pay clauses, whereby customers are required to purchase a fixed minimum quantity of product during a specified period, or pay the Company for such orders, even if not requested by the customer. The Company considers these take-or-pay clauses to be an enforceable contract, and as such, the legally-enforceable minimum amounts under such an arrangement are considered to be outstanding performance obligations on contracts with an original expected duration greater than one year. At December 31, 2022, Chemours had $31 of remaining performance obligations. The Company expects to recognize approximately 91% of its remaining performance obligations as revenue in 2023 and the remainder in 2024. The Company applies the allowable practical expedient and does not include remaining performance obligations that have original expected durations of one year or less, or amounts for variable consideration allocated to wholly-unsatisfied performance obligations or wholly-unsatisfied distinct goods that form part of a single performance obligation, if any. Amounts for contract renewals that are not yet exercised by December 31, 2022 are also excluded.

Note 6. Research and Development Expense

The following table sets forth the Company's R&D expense by segment for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Titanium Technologies	$ 34	$ 36	$ 31
Thermal & Specialized Solutions	25	20	18
Advanced Performance Materials	54	46	41
Other Segment	1	2	2
Corporate and Other	4	3	1
Total research and development expense	$ 118	$ 107	$ 93

Note 7. Restructuring, Asset-related, and Other Charges

The following table sets forth the components of the Company's restructuring, asset-related, and other charges for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Restructuring and other charges:			
Employee separation charges	$ 9	$ (2)	$ 17
Decommissioning and other charges	2	8	41
Total restructuring and other charges	11	6	58
Asset-related charges	5	—	22
Total restructuring, asset-related, and other charges	$ 16	$ 6	$ 80

The following table sets forth the impacts of the Company's restructuring programs to segment earnings for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Restructuring and other charges:			
Plant and product line closures:			
Other Segment	$ 2	$ 13	$ 4
Corporate and Other	—	—	1
Total plant and product line closures	2	13	5
2022, 2020, and 2019[1] restructuring programs:			
Titanium Technologies	1	—	3
Thermal & Specialized Solutions	1	—	2
Advanced Performance Materials	3	(1)	5
Other Segment	—	—	1
Corporate and Other	4	—	4
Total restructuring programs	9	(1)	15
Other charges:			
Titanium Technologies	—	—	1
Advanced Performance Materials	—	1	—
Other Segment	—	(7)	37
Total other charges	—	(6)	38
Total restructuring and other charges	11	6	58
Asset-related charges:			
Titanium Technologies	5	—	—
Advanced Performance Materials	—	—	10
Other Segment	—	—	8
Corporate and Other	—	—	4
Total asset-related charges	5	—	22
Total restructuring, asset-related, and other charges	$ 16	$ 6	$ 80

(1) Year ended December 31, 2020 includes $3 of employee separation charges relating to the 2019 restructuring program. All remaining actions related to this program were completed in 2020.

Plant and Product Line Closures

Other Segment

In 2015, the Company announced its completion of the strategic review of its Reactive Metals Solutions business and the decision to stop production at its Niagara Falls, New York manufacturing plant. Following the closure of the facility, the Company incurred decommissioning and dismantling-related charges of $2 for the years ended December 31, 2021 and 2020. Through December 31, 2022, the Company has incurred, in the aggregate, $42 in restructuring charges related to these activities, excluding asset-related charges. The Company has substantially completed all actions and does not expect to incur additional charges related to these activities at its Niagara Falls site.

In 2020, the Company completed a business review of its Aniline business. It was determined that the Aniline business was not core to the Company's future strategy, and production ceased at the Pascagoula, Mississippi manufacturing plant in the fourth quarter of 2020. As a result, during the year ended December 31, 2020, the Company recorded asset-related charges of $10, which are primarily comprised of $6 for property, plant, and equipment and other asset impairments, as well as $4 for environmental remediation liabilities to be paid over a period of approximately 16 years. The Company also recorded employee separation-related liabilities of $2. In conjunction with this decision, approximately 20 employees separated from the Company through the end of 2021 with approximately 15 additional employees separating from the Company during the first quarter of 2022. Furthermore, the Company recorded decommissioning and dismantling-related charges of $12 for the year ended December 31, 2021. The Company has completed all actions related to this program. In June 2022, the assets at the Aniline facility were sold as part of the Pascagoula Transaction.

2022 and 2020 Restructuring Programs

Management initiated severance programs in 2022 and 2020 that were largely attributable to aligning the cost structure of the Company's businesses and corporate functions with its strategic and financial objectives. Employee separation charges recorded for the 2022 restructuring program amounted to $9 for the year ended December 31, 2022. Employee separation charges recorded for the 2020 restructuring program amounted to $(1) and $13 for the years ended December 31, 2021 and 2020, respectively. Through December 31, 2022, the cumulative amount incurred for the Company's 2022 restructuring program amounted to $9 and the related payments are expected to be substantially completed by the end of 2023. Through December 31, 2021, the cumulative amount incurred for the Company's 2020 severance program amounted to $12. All remaining actions related to the 2020 restructuring program were completed in 2021.

Other Charges

In connection with the construction work at the Mining Solutions facility in Gomez Palacio, Durango, Mexico, the Company had previously entered into an agreement with a third-party services provider. In 2020, the Company entered into dispute resolution with the third-party services provider, resulting in a $26 charge related to probable contract termination fees, as well as immediate recognition of $11 of other related prepaid costs for a total of $37 in Other Charges. During 2021, the Company and the third-party services provider reached an agreement to terminate the contractual relationship resulting in a payment of $26 for the aforementioned contract termination fees and, in exchange, the Company received title to approximately $22 of assets classified as construction-in-process, of which only approximately $9 were expected to be used by the Company when construction resumed. Accordingly, approximately $13 was recognized in impairment charges in 2021, offset by $22 of the liability recorded in 2020 being reversed in 2021, resulting in a net $9 gain in Other Charges. Additionally, during the year ended December 31, 2021, the Company incurred $2 of freight charges associated with transportation of the impaired assets. In December 2021, the assets at the Mining Solutions facility in Gomez Palacio, Durango, Mexico were sold as part of the Mining Solutions Transaction.

Other Asset-related Charges

Titanium Technologies

In the year ended December 31, 2022, the Company recorded asset-related charges of $5 resulting from the conflict between Russia and Ukraine and the Company's decision to suspend its business with Russian entities.

Advanced Performance Materials

In the year ended December 31, 2020, in connection with various property, plant, and equipment and other asset impairments, the Company recorded asset-related charges of $10.

The following table sets forth the change in the Company's employee separation-related liabilities associated with its restructuring programs for the years ended December 31, 2022 and 2021.

	Site Closures	2022, 2020, and 2019 Restructuring Programs	Total
Balance at January 1, 2021	$ 2	$ 5	$ 7
Credits to income	(1)	(1)	(2)
Payments	—	(4)	(4)
Balance at December 31, 2021	1	—	1
Charges to income	—	9	9
Payments	(1)	(3)	(4)
Balance at December 31, 2022	$ —	$ 6	$ 6

At December 31, 2022 and 2021, there were no significant outstanding liabilities related to the Company's decommissioning and other restructuring-related charges.

Note 8. Other Income (Expense), Net

The following table sets forth the components of the Company's other income (expense), net for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Leasing, contract services, and miscellaneous income (1)	$ 53	$ 14	$ 20
Royalty income (2)	6	22	18
Gain on sales of assets and businesses, net (3)	21	115	8
Exchange (losses) gains, net (4)	(15)	3	(26)
Non-operating pension and other post-retirement employee benefit income (5)	5	9	1
Total other income, net	$ 70	$ 163	$ 21

(1) For the year ended December 31, 2022, miscellaneous income includes proceeds from a settlement of a patent infringement matter relating to certain copolymer patents associated with the Company's Advanced Performance Materials segment.

(2) Royalty income is primarily from technology licensing.

(3) For the year ended December 31, 2022, gain on sale of assets and businesses, net includes pre-tax gain on sale of $5 related to the Beaumont Transaction and $18 related to the Pascagoula Transaction (see "Note 4 – Acquisitions and Divestitures"). For the year ended December 31, 2021, gain on sale of assets and businesses, net includes pre-tax gain on sale of $112 associated with the sale of the Company's Mining Solutions business (see "Note 4 – Acquisitions and Divestitures"). For the year ended December 31, 2020, gain on sale includes a $6 gain associated with the sale of the Company's Oakley, California site, which was contingent upon the completion of certain environmental remediation activities at the site.

(4) Exchange gains (losses), net includes gains and losses on the Company's foreign currency forward contracts that have not been designated as a cash flow hedge.

(5) Non-operating pension and other post-retirement employee benefit income represents the non-service cost component of net periodic pension income (cost).

Note 9. Income Taxes

The following table sets forth the components of the Company's provision for (benefit from) income taxes for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Current tax expense (benefit):			
U.S. federal	$ 83	$ 60	$ 4
U.S. state and local	13	12	1
International	47	72	75
Total current tax expense	143	144	80
Deferred tax expense (benefit):			
U.S. federal	8	(69)	(86)
U.S. state and local	(2)	(6)	(12)
International	14	(1)	(22)
Total deferred tax expense (benefit)	20	(76)	(120)
Total provision for (benefit from) income taxes	$ 163	$ 68	$ (40)

The following table sets forth the components of the Company's deferred tax assets and liabilities at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Deferred tax assets:		
Environmental and other liabilities	$ 188	$ 162
Employee related and benefit items	49	64
Other assets and accrual liabilities	133	111
Tax attribute carryforwards	73	91
Operating lease liability	57	56
Total deferred tax assets	500	484
Less: Valuation allowance	(12)	(8)
Total deferred tax assets, net	488	476
Deferred tax liabilities:		
Property, plant, and equipment and intangible assets	(257)	(244)
LIFO inventories	(30)	(18)
Operating lease asset	(55)	(53)
Other liabilities	(55)	(40)
Total deferred tax liabilities	(397)	(355)
Deferred tax assets, net	$ 91	$ 121

The following table sets forth an analysis of the Company's effective tax rates for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,					
	2022		2021		2020	
	$	%	$	%	$	%
Statutory U.S. federal income tax rate	$ 156	21.0%	$ 142	21.0%	$ 38	21.0%
State income taxes, net of federal benefit	7	1.0%	3	0.4%	(11)	(6.1)%
Lower effective tax rate on international operations, net	(16)	(2.2)%	(19)	(2.8)%	(34)	(19.0)%
Foreign-derived intangible income deduction	—	—%	(12)	(1.8)%	—	—%
Goodwill	—	—%	10	1.5%	—	—%
Depletion	(6)	(0.8)%	(7)	(1.0)%	(6)	(3.4)%
Exchange gains	(8)	(1.1)%	(13)	(1.9)%	—	—%
Provision to return and other adjustments	(2)	(0.3)%	(11)	(1.6)%	(37)	(20.6)%
Valuation allowance	4	0.5%	(16)	(2.4)%	13	7.3%
Stock-based compensation	(9)	(1.2)%	(4)	(0.6)%	—	—%
R&D credit	(7)	(0.9)%	(6)	(0.9)%	(7)	(3.8)%
Uncertain tax positions	36	4.9%	(3)	(0.4)%	(1)	(0.5)%
Other, net	8	1.1%	4	0.6%	5	2.8%
Total effective tax rate	$ 163	22.0%	$ 68	10.1%	$ (40)	(22.3)%

The following table sets forth the Company's income (loss) before income taxes for its U.S. and international operations for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
U.S. operations (including exports)	$ 217	$ 44	$ (136)
International operations	524	632	315
Income before income taxes	$ 741	$ 676	$ 179

Management asserts that it is indefinitely reinvested with respect to all undistributed earnings prior to 2018 and, therefore, has not recorded deferred tax liabilities with respect to those earnings. Beginning in 2018, management determined that the Company's earnings from certain foreign subsidiaries are not indefinitely reinvested and presumed such earnings will be distributed to the U.S. At December 31, 2022 and 2021, deferred tax liabilities for the foreign subsidiaries that are not indefinitely reinvested were not material to the Company's consolidated financial statements. At December 31, 2022, the amount of indefinitely reinvested unremitted earnings was approximately $531. The potential tax implications of the repatriation of unremitted earnings are driven by the facts at the time of distribution; however, due to U.S. tax reform and the U.S. Transition Tax, the incremental cost to repatriate earnings is expected to be primarily related to withholding taxes and is not expected to be material.

For the years ended December 31, 2022 and 2021, the Company recorded $3 and $1 of valuation allowance on certain foreign tax credits, respectively. Additionally, the Company recorded $1 of valuation allowance on state net operating losses for the year ended December 31, 2022. For the year ended December 31, 2020, the Company recorded $12 of valuation allowance on certain foreign subsidiary net deferred tax assets, which was subsequently reversed during the year ended December 31, 2021, and $2 of valuation allowance on certain foreign tax credits.

The Company reviews its tax return positions, taking into account the progress of audits by various taxing jurisdictions and other changes in relevant facts and circumstances evident at each balance sheet date. At December 31, 2022, the Company recognized net tax expense of $36 related to transfer pricing uncertain tax positions. The Company maintains its as filed tax positions are appropriate and supportable.

Under the tax laws of various jurisdictions in which the Company operates, deductions or credits that cannot be fully utilized for tax purposes during the current year may be carried forward or back, subject to statutory limitations, to reduce taxable income or taxes payable in future or prior years. At December 31, 2022, the Company's U.S state tax losses amounted to $4, which substantially expire between 2036 and 2040. The Company has foreign net operating losses of $6, which expire between 2026 and 2031, and $11 of certain foreign tax credits, which expire between 2025 and 2032.

Each year, Chemours and/or its subsidiaries file income tax returns in the U.S. federal jurisdiction and various states and non-U.S. jurisdictions.

The following table sets forth the Company's significant jurisdictions' tax returns that are subject to examination by their respective taxing authorities for the open years listed.

Jurisdiction	Open Years
China	2015 through 2022
India	2015 through 2022
Mexico	2016 through 2022
Netherlands	2020 through 2022
Singapore	2019 through 2022
Switzerland	2019 through 2022
Taiwan	2015 through 2022
U.S.	2017 through 2022

Positions challenged by the taxing authorities may be settled or appealed by Chemours and/or EID in accordance with the tax matters agreement. As a result, income tax uncertainties are recognized in the Company's consolidated financial statements in accordance with accounting for income taxes, when applicable.

The following table sets forth the change in the Company's unrecognized tax benefits for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Balance at January 1,	$ 5	$ 7	$ 9
Gross amounts of increases and decreases in unrecognized tax benefits as a result of adjustments to tax provisions taken during the prior period	54	(1)	(2)
Gross amounts of increases and decreases in unrecognized tax benefits as a result of tax positions taken during the current period	6	—	1
Reduction to unrecognized tax benefits as a result of a lapse of the applicable statute of limitations	—	(1)	(1)
Balance at December 31,	$ 65	$ 5	$ 7
Total unrecognized tax benefits, if recognized, that would impact the effective tax rate	$ 42	$ 4	$ 8
Total amount of interest and penalties recognized in the consolidated statements of operations	4	(1)	1
Total amount of interest and penalties recognized in the consolidated balance sheets	4	1	1

As of December 31, 2022, the total amount of unrecognized tax benefits was $65, of which $54 was recorded in other liabilities and $11 was recorded as an offset to deferred tax assets. In addition, accruals of $4 have been recorded for penalties and interest, as of December 31, 2022, in other liabilities. These liabilities at December 31, 2022 were reduced by $26 for offsetting benefits from the corresponding effects of potential transfer pricing adjustments included in other assets.

The following table sets forth a rollforward of the Company's deferred tax asset valuation allowance for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Balance at January 1,	$ 8	$ 24	$ 10
Charges to income tax expense	4	—	14
Release of valuation allowance	—	(16)	—
Balance at December 31,	$ 12	$ 8	$ 24

In connection with the classification of assets held for sale during the third quarter of 2021 related to the sale of the Mining Solutions Business on December 1, 2021, the Company recorded an income tax benefit of $16 related to the release of a valuation allowance on the deferred tax assets of one of its Mexican subsidiaries. The Company has evaluated all available positive and negative evidence, including the impact of the sale of the Mining Solutions business, as well as the future projections of profitability for the entity post sale. As a result, the Company determined that all of its deferred tax assets related to the Mexican subsidiary are more likely than not to be realized and accordingly reversed the valuation allowance against those deferred tax assets.

Note 10. Earnings Per Share of Common Stock

The following table sets forth the reconciliations of the numerators and denominators of the Company's basic and diluted earnings per share calculations for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Numerator:			
Net income attributable to Chemours	$ 578	$ 608	$ 219
Denominator:			
Weighted-average number of common shares outstanding - basic	155,359,361	164,943,575	164,681,827
Dilutive effect of the Company's employee compensation plans	2,943,646	3,754,864	1,664,702
Weighted-average number of common shares outstanding - diluted	158,303,007	168,698,439	166,346,529
Basic earnings per share of common stock (1)	$ 3.72	$ 3.69	$ 1.33
Diluted earnings per share of common stock (1)	3.65	3.60	1.32

(1) Figures may not recalculate exactly due to rounding. Basic and diluted earnings per share are calculated based on unrounded numbers.

The following table sets forth the average number of stock options that were anti-dilutive and, therefore, were not included in the Company's diluted earnings per share calculations for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Average number of stock options	1,077,922	1,500,577	3,839,845

Note 11. Accounts and Notes Receivable, Net

The following table sets forth the components of the Company's accounts and notes receivable, net at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Accounts receivable - trade, net (1)	$ 509	$ 644
VAT, GST, and other taxes (2)	88	41
Other receivables (3)	29	35
Total accounts and notes receivable, net	$ 626	$ 720

(1) Accounts receivable - trade, net includes trade notes receivable of $3 and $17 and is net of allowances for doubtful accounts of $10 and $5 at December 31, 2022 and 2021, respectively. Such allowances are equal to the estimated uncollectible amounts.

(2) Value added tax ("VAT") and goods and services tax ("GST") for various jurisdictions.

(3) Other receivables consist of derivative instruments, advances, other deposits including receivables under the terms of the MOU. For details of the MOU, see "Note 22 – Commitments and Contingent Liabilities".

Accounts and notes receivable are carried at amounts that approximate fair value. Bad debt expense amounted to $9, $2 and $3 for the years ended December 31, 2022, 2021 and 2020, respectively.

The following table sets forth the change in the Company's allowance for doubtful accounts for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Balance at January 1,	$ 5	$ 7	$ 5
Additions charged to expenses	9	2	3
Deductions from reserves (1)	(4)	(4)	(1)
Balance at December 31,	$ 10	$ 5	$ 7

(1) Bad debt write-offs were less than $1, $1, and $1 for the years ended December 31, 2022, 2021 and 2020, respectively.

Note 12. Inventories

The following table sets forth the components of the Company's inventories at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Finished products	$ 910	$ 704
Semi-finished products	218	192
Raw materials, stores, and supplies	654	475
Inventories before LIFO adjustment	1,782	1,371
Less: Adjustment of inventories to LIFO basis	(378)	(272)
Total inventories	$ 1,404	$ 1,099

Inventory values, before LIFO adjustment, are generally determined by the average cost method, which approximates current cost. Inventories are valued under the LIFO method at substantially all of the Company's U.S. locations, which comprised $835 and $650 (or 47% and 47%, respectively) of inventories before the LIFO adjustments at December 31, 2022 and 2021, respectively. The remainder of the Company's inventory held in international locations and certain U.S. locations is valued under the average cost method.

During 2021, inventory reductions in the Company's Titanium Technologies segment resulted in liquidations of LIFO inventory layers carried at lower costs prevailing in prior years as compared to current-year costs. During the year ended December 31, 2021, the benefit to net income (loss) attributable to Chemours from the liquidation of LIFO inventory was $8 or $0.05 on basic earnings (loss) per share of common stock.

Note 13. Property, Plant, and Equipment, Net

The following table sets forth the components of the Company's property, plant, and equipment, net at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Equipment	$ 7,745	$ 7,559
Buildings	1,180	1,168
Construction-in-progress	324	361
Land	102	108
Mineral rights	36	36
Property, plant, and equipment	9,387	9,232
Less: Accumulated depreciation	(6,216)	(6,078)
Total property, plant, and equipment, net	$ 3,171	$ 3,154

Property, plant, and equipment, net included gross assets under finance leases of $91 and $95 at December 31, 2022 and 2021, respectively.

Interest expense capitalized as part of property, plant, and equipment, net amounted to $7, $5, and $4 for the years ended December 31, 2022, 2021 and 2020, respectively.

Depreciation expense amounted to $286, $309, and $313 for the years ended December 31, 2022, 2021 and 2020, respectively.

Note 14. Leases

The Company leases certain office space, laboratory space, equipment, railcars, tanks, barges, tow boats, and warehouses. Lease expense is recognized over the term of these leases on a straight-line basis. The Company's leases have remaining terms of up to 24 years. Some leases of equipment contain immaterial amounts of residual value guarantees. Leases with an initial term of 12 months or less are not recorded on the consolidated balance sheets.

The following table sets forth the Company's lease assets and lease liabilities and their balance sheet locations at December 31, 2022 and 2021.

		December 31,	
	Balance Sheet Location	2022	2021
Lease assets:			
Operating lease right-of-use assets	Operating lease right-of-use assets	$ 240	$ 227
Finance lease assets	Property, plant, and equipment, net (Note 13)	61	69
Total lease assets		$ 301	$ 296
Lease liabilities:			
Current:			
Operating lease liabilities	Other accrued liabilities (Note 19)	$ 49	$ 59
Finance lease liabilities	Short-term and current maturities of long-term debt (Note 20)	12	12
Total current lease liabilities		61	71
Non-current:			
Operating lease liabilities	Operating lease liabilities	198	179
Finance lease liabilities	Long-term debt, net (Note 20)	49	60
Total non-current lease liabilities		247	239
Total lease liabilities		$ 308	$ 310

The following table sets forth the components of the Company's lease cost for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Operating lease cost	$ 51	$ 66	$ 88
Short-term lease cost	4	7	5
Variable lease cost	16	21	20
Finance lease cost:			
Amortization of lease assets	8	12	8
Interest on lease liabilities	4	4	4
Total lease cost	$ 83	$ 110	$ 125

The following table sets forth the cash flows related to the Company's leases for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	$ 56	$ 70	$ 91
Operating cash flows from finance leases	4	4	4
Financing cash flows from finance leases	11	10	6
Non-cash lease liabilities activity:			
Leased assets obtained in exchange for new operating lease liabilities	$ 65	$ 45	$ 23
Leased assets obtained in exchange for new finance lease liabilities	—	14	19

The following table sets forth the weighted-average terms and weighted-average discount rates for the Company's leases at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Weighted-average remaining lease term (years):		
Operating leases	10.0	11.0
Finance leases	5.4	6.3
Weighted-average discount rate:		
Operating leases	5.23%	5.30%
Finance leases	5.42%	4.80%

The following table sets forth the Company's lease liabilities' maturities for the next five years and thereafter.

	Operating Leases	Finance Leases	Total
2023	$ 61	$ 14	$ 75
2024	52	13	65
2025	42	13	55
2026	36	11	47
2027	23	8	31
Thereafter	91	13	104
Total lease payments	305	72	377
Less: Imputed interest	58	11	69
Present value of lease liabilities	$ 247	$ 61	$ 308

The Chemours Discovery Hub

In October 2017, Chemours executed a build-to-suit lease agreement to construct a new 312,000-square-foot R&D facility located in the Science, Technology, and Advanced Research campus of the University of Delaware in Newark, Delaware ("Chemours Discovery Hub"). Chemours was deemed to be the owner for accounting purposes during construction of the facility. Construction was completed in the fourth quarter of 2019, and, upon its completion, Chemours evaluated whether a sale occurred for purposes of sale-leaseback accounting treatment. The Company determined that this transaction did not qualify for sale-leaseback accounting, and, as a result, the leasing arrangement is considered to be a financing transaction. At completion of the construction, the build-to-suit lease liability was reclassified as a financing obligation within long-term debt, net, and the build-to-suit lease asset was capitalized in property, plant and equipment, net. At December 31, 2022 and 2021, a financing obligation of $93 and $93, respectively, and property, plant, and equipment of $84 and $88, respectively, are recorded on the Company's consolidated balance sheet.

The following table sets forth the Company's minimum future payments due for the next five years and thereafter related to the Chemours Discovery Hub financing obligation.

2023	$ 7
2024	7
2025	7
2026	7
2027	7
Thereafter	140
Total payments	$ 175

Note 15. Goodwill and Other Intangible Assets, Net

Goodwill

The following table sets forth the changes in the carrying amount of the Company's goodwill by segment for the years ended December 31, 2022 and 2021.

	Titanium Technologies	Thermal & Specialized Solutions	Advanced Performance Materials	Other Segment	Total
Balance at January 1, 2021	$ 13	$ 33	$ 56	$ 51	$ 153
Divestitures	—	—	—	(51)	(51)
Balance at December 31, 2021	13	33	56	—	102
Balance at December 31, 2022	$ 13	$ 33	$ 56	$ —	$ 102

Chemours consists of four operating segments: Titanium Technologies, Thermal & Specialized Solutions, Advanced Performance Materials, and Chemical Solutions (included in Other Segment). The Company defines its reporting units as operating units or one level below its operating segments. In 2022 and in 2021 following the Mining Solutions Transaction, the Company had three reporting units for goodwill testing, which align with the Company's operating segments: Titanium Technologies, Thermal & Specialized Solutions, and Advanced Performance Materials. For the year ended December 31, 2021, $51 of goodwill was allocated to the disposal group in determining the gain on sale of the Mining Solutions business. For the year ended December 31, 2022, the Company did not have any impairments to or transfers of its goodwill balances. The Company tested the goodwill balances attributable to each of its reporting units for potential impairment on October 1, 2022, 2021, and 2020, the dates of Chemours' annual goodwill assessments. No goodwill impairments were recorded for the years ended December 31, 2022, 2021 and 2020, as the fair values of the Company's reporting units that carry goodwill exceeded each respective reporting unit's carrying amount on October 1, 2022, 2021 and 2020.

The total accumulated impairment losses included in the Company's goodwill balance at December 31, 2022 and 2021 amounted to $4.

Other Intangible Assets, Net

The following table sets forth the gross carrying amounts and accumulated amortization of the Company's other intangible assets by major class at December 31, 2022 and 2021.

	December 31, 2022			December 31, 2021		
	Cost	Accumulated Amortization	Net	Cost	Accumulated Amortization	Net
Allowance units (1)	$ 13	$ (1)	$ 12	$ —	$ —	$ —
Customer lists	2	(2)	—	2	(2)	—
Customer relationships	22	(21)	1	22	(16)	6
Patents	19	(19)	—	19	(19)	—
Purchased and licensed technology	3	(3)	—	3	(3)	—
Other	10	(10)	—	10	(10)	—
Total other intangible assets	$ 69	$ (56)	$ 13	$ 56	$ (50)	$ 6

(1) Allowance units represent rights purchased for the production and/or importation of regulated materials.

The aggregate pre-tax amortization expense for definite-lived intangible assets was $5, $8, and $7 for the years ended December 31, 2022, 2021 and 2020, respectively. The estimated annual aggregate pre-tax amortization expense for 2023 is $10. Less than $1 of pre-tax amortization expense is estimated annually for 2024, 2025, 2026, and 2027. Definite-lived intangible assets are amortized over their estimated useful lives, generally for periods ranging up to 20 years. The reasonableness of the useful lives of these assets is periodically evaluated. The Company does not have any indefinite-lived intangible assets.

Note 16. Investments in Affiliates

The Company holds investments in companies where it, directly or indirectly, owns 20% to 50% of the voting stock, or has the ability to exercise significant influence over the operating and financial policies of the investee.

The following table sets forth the jurisdiction, carrying value, and ownership percentages of the Company's investments in affiliates at December 31, 2022 and 2021.

		December 31, 2022		December 31, 2021	
Investee	Jurisdiction	Carrying Value	Ownership	Carrying Value	Ownership
Chemours-Mitsui Fluorochemicals Company, Ltd.	Japan	$ 87	50.0%	$ 98	50.0%
The Chemours Chenguang Fluoromaterials Company Limited	China	36	50.0%	33	50.0%
Changshu 3F Zhonghao New Chemical Materials Co., Ltd.	China	52	10.0%	38	10.0%
		$ 175		$ 169	

The following table sets forth the changes in the Company's investments in affiliates for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Balance at January 1,	$ 169	$ 167	$ 162
Equity in earnings of affiliates	55	43	23
Dividends	(33)	(30)	(25)
Currency translation and other	(16)	(11)	7
Balance at December 31,	$ 175	$ 169	$ 167

The Company engages in transactions with its equity method investees in the ordinary course of business. For the years ended December 31, 2022, 2021 and 2020, net sales to the Company's equity method investees amounted to $193, $144, and $98, respectively, and purchases from the Company's equity method investees amounted to $218, $180, and $133, respectively.

Note 17. Other Assets

The following table sets forth the components of the Company's other assets at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Capitalized repair and maintenance costs	$ 240	$ 195
Pension assets (1)	50	55
Deferred income taxes	152	171
Miscellaneous (2)	81	26
Total other assets	$ 523	$ 447

(1) Pension assets represents the funded status of certain of the Company's long-term employee benefit plans.

(2) Miscellaneous includes corresponding income tax benefits related to uncertain tax positions on transfer pricing at December 31, 2022 (see "Note 9 – Income Taxes").

Note 18. Accounts Payable

The following table sets forth the components of the Company's accounts payable at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Trade payables	$ 1,228	$ 1,141
VAT and other payables	23	21
Total accounts payable	$ 1,251	$ 1,162

Note 19. Other Accrued Liabilities

The following table sets forth the components of the Company's other accrued liabilities at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Accrued litigation (1)	$ 41	$ 36
Asset retirement obligations (1)	10	14
Income taxes	19	43
Customer rebates	90	83
Accrued interest	17	17
Operating lease liabilities (2)	49	59
Miscellaneous (3)	74	73
Total other accrued liabilities	$ 300	$ 325

(1) Represents the current portions of accrued litigation and asset retirement obligations (see "Note 22 – Commitments and Contingent Liabilities").

(2) Represents the current portion of operating lease liabilities (see "Note 14 – Leases").

(3) Miscellaneous primarily includes accruals related to utility expenses, property taxes, a workers compensation indemnification liability and other miscellaneous expenses.

Note 20. Debt

The following table sets forth the components of the Company's debt at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Senior secured term loans:		
Tranche B-2 U.S. dollar term loan due April 2025	$ 766	$ 776
Tranche B-2 euro term loan due April 2025 (€333 at December 31, 2022 and €337 at December 31, 2021)	355	381
Senior unsecured notes:		
4.000% due May 2026 (€441 at December 31, 2022 and €450 at December 31, 2021)	470	510
5.375% due May 2027	495	500
5.750% due November 2028	783	800
4.625% due November 2029	620	650
Finance lease liabilities	61	72
Financing obligation (1)	91	93
Total debt principal	3,641	3,782
Less: Unamortized issue discounts	(4)	(5)
Less: Unamortized debt issuance costs	(22)	(28)
Less: Short-term and current maturities of long-term debt	(25)	(25)
Long-term debt, net	$ 3,590	$ 3,724

(1) At December 31, 2022 and 2021, financing obligation relates to the financed portion of the Chemours Discovery Hub. Refer to "Note 14 – Leases" for further details.

Senior Secured Credit Facilities

The Company's credit agreement, as amended and restated on April 3, 2018, ("Credit Agreement") provides for a seven-year, senior secured term loan facility and a five-year, $800 senior secured revolving credit facility ("Revolving Credit Facility") (collectively, the "Senior Secured Credit Facilities"). On October 7, 2021, the Company entered into an amendment to the Credit Agreement ("Credit Agreement Amendment") to, among other things, increase the aggregate commitment amount under the Revolving Credit Facility to $900 and extend the stated maturity date to October 7, 2026 (from April 3, 2023). The Credit Agreement is subject to a springing maturity in the event that the senior secured term loans due April 2025 and the senior unsecured notes due in May 2026 are not redeemed, repaid, modified, and/or refinanced within the 91-day period prior to their maturity date.

The senior secured term loan facility under the Senior Secured Credit Facilities provides for a class of term loans, denominated in U.S. dollars, in an aggregate principal amount of $900 ("Dollar Term Loan") and a class of term loans, denominated in euros, in an aggregate principal amount of €350 ("Euro Term Loan") (collectively, the "Term Loans"). The Dollar Term Loan bears a variable interest rate equal to, at the election of the Company, adjusted LIBOR plus 1.75% or adjusted base rate plus 0.75%, subject to an adjusted LIBOR or an adjusted base rate floor of 0.00% or 1.00%, respectively. The Euro Term Loan bears a variable interest rate equal to adjusted Euro Interbank Offered Rate ("EURIBOR") plus 2.00%, subject to an adjusted EURIBOR floor of 0.50%. The Term Loans will mature on April 3, 2025, and are subject to acceleration in certain circumstances.

At December 31, 2022, the effective interest rates on the Dollar Term Loan and the Euro Term Loan were 6.1% and 3.9%, respectively.

For the years ended December 31, 2022, 2021 and 2020, the Company made term loan repayments of $13 on its Term Loans. During 2021, the Company repurchased through open market transactions, an aggregate principal amount of $37 and made an optional prepayment of $54 on its senior secured term loans.

The proceeds of any loans made under the Revolving Credit Facility can be used for working capital needs and other general corporate purposes, including permitted acquisitions, as defined in the Credit Agreement. The Revolving Credit Facility bears a variable interest rate range based on the Company's total net leverage ratio, as defined in the Credit Agreement, between (i) a 0.25% and a 1.00% spread for adjusted base rate loans, and (ii) a 1.25% and a 2.00% spread for LIBOR and EURIBOR loans. In addition, the Company is required to pay a commitment fee on the average daily unused amount of the Revolving Credit Facility within an interest rate range based on its total net leverage ratio, between 0.10% and 0.25%. At December 31, 2022, commitment fees on the Revolving Credit Facility were assessed at a rate of 0.10% per annum.

In 2020, as a precautionary measure in light of macroeconomic uncertainties driven by COVID-19, the Company drew $300 from its Revolving Credit Facility; the borrowings were repaid in the same year. No borrowings were outstanding under the Revolving Credit Facility at December 31, 2022 and 2021. Chemours also had $108 and $107 in letters of credit issued and outstanding under the Revolving Credit Facility at December 31, 2022 and 2021, respectively.

Under the Credit Agreement, solely with respect to the Revolving Credit Facility, the Company is required to maintain a senior secured net leverage ratio not to exceed 2.00 to 1.00 in each quarter, through the date of maturity. In addition, the Credit Agreement contains customary affirmative and negative covenants that, among other things, limit or restrict the Company's and its subsidiaries' ability, subject to certain exceptions, to incur additional indebtedness or liens, pay dividends, and engage in certain transactions, including mergers, acquisitions, asset sales, or investments, outside of specified carve-outs. The Credit Agreement also contains customary representations and warranties and events of default. The Company was in compliance with its debt covenants at December 31, 2022 and 2021.

The Company's obligations under the Senior Secured Credit Facilities are guaranteed on a senior secured basis by all of its material domestic subsidiaries, which are also guarantors of the Company's outstanding notes, subject to certain exceptions. The obligations under the Senior Secured Credit Facilities are also, subject to certain exceptions, secured by a first priority lien on substantially all of the Company's assets and substantially all of the assets of its wholly-owned, material domestic subsidiaries, including 100% of the stock of certain of its domestic subsidiaries and 65% of the stock of certain of its foreign subsidiaries.

Senior Unsecured Notes

Senior Unsecured Notes Due May 2027

On May 23, 2017, the Company issued a $500 aggregate principal amount of 5.375% senior unsecured notes due May 2027 (the "2027 Notes"). The 2027 Notes require payment of principal at maturity and interest semi-annually in cash and in arrears on May 15 and November 15 of each year. The Company received proceeds of $489, net of an original issue discount of $5 and underwriting fees and other related expenses of $6, which are deferred and amortized to interest expense using the effective interest method over the term of the 2027 Notes. A portion of the net proceeds from the 2027 Notes was used to pay the $335 of the First MDL Settlement, as discussed in "Note 22 – Commitments and Contingent Liabilities". The remaining proceeds from the 2027 Notes were available for general corporate purposes.

The 2027 Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured unsubordinated basis by each of the Company's existing and future direct and indirect domestic restricted subsidiaries that (i) incurs or guarantees indebtedness under the Senior Secured Credit Facilities, or (ii) guarantees certain other indebtedness of the Company or any guarantor in an aggregate principal amount in excess of $100. The guarantees of the 2027 Notes will rank equally with all other senior indebtedness of the guarantors. The 2027 Notes rank equally in right of payment to all of the Company's existing and future unsecured unsubordinated debt and are senior in right of payment to all of its existing and future debt that is by its terms expressly subordinated in right of payment to the 2027 Notes. The 2027 Notes are subordinated to indebtedness under the Senior Secured Credit Facilities, as well as any future secured debt to the extent of the value of the assets securing such debt, and structurally subordinated to the liabilities of any non-guarantor subsidiaries.

Pursuant to the terms of the indenture governing the 2027 Notes, the Company is obligated to offer to purchase the 2027 Notes at a price of 101% of the principal amount, together with accrued and unpaid interest, if any, up to, but not including, the date of purchase, upon the occurrence of certain change of control events. The Company may redeem the 2027 Notes, in whole or in part, at an amount equal to 100% of the aggregate principal amount plus a specified "make-whole" premium and accrued and unpaid interest, if any, to the date of purchase prior to February 15, 2027. The Company may also redeem some or all of the 2027 Notes by means other than a redemption, including tender offer and open market repurchases.

Senior Unsecured Notes Due May 2026

On June 6, 2018, the Company issued an aggregate principal amount of €450 4.000% senior unsecured notes due May 2026, denominated in euros (the "2026 Euro Notes"). The 2026 Euro Notes require payment of principal at maturity and payments of interest semi-annually in cash and in arrears on May 15 and November 15 of each year. The Company received net proceeds of €445, which, together with cash on hand, were used to purchase or redeem, as the case may be, the previously outstanding euro notes due May 2023 and a $250 aggregate principal amount of the 6.625% senior unsecured notes due May 2023, denominated in U.S. dollars (the "2023 Dollar Notes") pursuant to a tender offer and the redemption, as well as pay for any fees and expenses in connection therewith.

The 2026 Euro Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured unsubordinated basis by each of the Company's existing and future direct and indirect domestic restricted subsidiaries that (i) incurs or guarantees indebtedness under the Senior Secured Credit Facilities, or (ii) guarantees certain other indebtedness of the Company or any guarantor in an aggregate principal amount in excess of $100. The guarantees of the 2026 Euro Notes will rank equally with all other senior indebtedness of the guarantors. The 2026 Euro Notes also rank equally in right of payment to all of the Company's existing and future unsecured unsubordinated debt and are senior in right of payment to all of its existing and future debt that is, by its terms, expressly subordinated in right of payment to the 2026 Euro Notes. The 2026 Euro Notes are subordinated to indebtedness under the Senior Secured Credit Facilities, as well as any future secured debt to the extent of the value of the assets securing such debt, and are structurally subordinated to the liabilities of any non-guarantor subsidiaries.

Pursuant to the terms of the indenture governing the 2026 Euro Notes, the Company is obligated to offer to purchase the 2026 Euro Notes at a price of 101% of the principal amount, together with accrued and unpaid interest, if any, up to, but not including, the date of purchase, upon the occurrence of certain change of control events. Prior to May 15, 2021, the Company may redeem the 2026 Euro Notes (i) in whole or in part, at an amount equal to 100% of the aggregate principal amount plus a specified "make-whole" premium, plus accrued and unpaid interest, if any, up to, but excluding, the redemption date and (ii) on one or more occasions, up to 35% of the aggregate principal amount of the notes, with the net cash proceeds of one or more equity offerings at a price equal to 104% of the principal amounts of such notes, plus accrued and unpaid interest, if any, up to, but excluding, the redemption date. On or after May 15, 2021, the Company may redeem the 2026 Euro Notes at specified redemption prices. The Company may also redeem some of all of the 2026 Euro Notes by means other than a redemption, including tender offer and open market repurchases.

Senior Unsecured Notes Due November 2028

On November 27, 2020, the Company issued an $800 aggregate principal amount of 5.750% senior unsecured notes due November 2028 (the "2028 Notes") in an offering that was exempt from the registration requirements of the Securities Act. The 2028 Notes require payment of principal at maturity and interest semi-annually in cash and in arrears on May 15 and November 15 of each year. The Company received proceeds of $790, net of underwriting fees and other related expenses of $10, which are deferred and amortized to interest expense using the effective interest method over the term of the 2028 Notes. The net proceeds from the 2028 Notes were used, together with cash on hand, to purchase or redeem, as applicable, the remaining $908 aggregate principal amount of the 2023 Dollar Notes. In connection with the purchase and redemption of the remaining 2023 Dollar Notes, the Company incurred a loss on extinguishment of $22 for the year ended December 31, 2020.

The 2028 Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured unsubordinated basis by each of the Company's existing and future direct and indirect domestic restricted subsidiaries that (i) incurs or guarantees indebtedness under the Senior Secured Credit Facilities, or (ii) guarantees certain other indebtedness of the Company or any guarantor in an aggregate principal amount in excess of $100. The guarantees of the 2028 Notes will rank equally with all other senior indebtedness of the guarantors. The 2028 Notes rank equally in right of payment to all of the Company's existing and future unsecured unsubordinated debt and are senior in right of payment to all of its existing and future debt that is by its terms expressly subordinated in right of payment to the 2028 Notes. The 2028 Notes are subordinated to indebtedness under the Senior Secured Credit Facilities, as well as any future secured debt to the extent of the value of the assets securing such debt, and structurally subordinated to the liabilities of any non-guarantor subsidiaries.

Pursuant to the terms of the indenture governing the 2028 Notes, the Company is obligated to offer to purchase the 2028 Notes at a price of 101% of the principal amount, together with accrued and unpaid interest, if any, up to, but not including, the date of purchase, upon the occurrence of certain change of control events. Prior to November 15, 2023, the Company may redeem the 2028 Notes (i) in whole or in part, at an amount equal to 100% of the aggregate principal amount plus a specified "make-whole" premium and accrued and unpaid interest, if any, to the date of purchase, and (ii) on one or more occasions, up to 35% of the aggregate principal amount of the notes, with the net cash proceeds of one or more equity offerings at a price equal to 105.750% of the principal amounts of such notes, plus accrued and unpaid interest, if any, up to, but excluding, the redemption date. On or after November 15, 2023, the Company may redeem the 2028 Notes at specified redemption prices. The Company may also redeem some or all of the 2028 Notes by means other than a redemption, including tender offer and open market repurchases.

Senior Unsecured Notes Due November 2029

On August 18, 2021, the Company issued a $650 aggregate principal amount of 4.625% senior unsecured notes due November 2029 (the "2029 Notes") in an offering that was exempt from the registration requirements of the Securities Act. The 2029 Notes require payment of principal at maturity and interest semi-annually in cash and in arrears on May 15 and November 15 of each year. The Company received proceeds of $642, net of underwriting fees and other related expenses of $8, which are deferred and amortized to interest expense using the effective interest method over the term of the 2029 Notes. The net proceeds from the 2029 Notes were used, together with cash on hand, to purchase or redeem, as applicable, the $750 aggregate principal of the 7.000% senior unsecured notes due May 2025 (the "2025 Notes"). In connection with the purchase and redemption of the 2025 Notes, the Company incurred a loss on extinguishment of $20 for the year ended December 31, 2021.

The 2029 Notes are fully and unconditionally guaranteed, jointly and severally, on a senior unsecured unsubordinated basis by each of the Company's existing and future direct and indirect domestic restricted subsidiaries that (i) incurs or guarantees indebtedness under the Senior Secured Credit Facilities, or (ii) guarantees certain other indebtedness of the Company or any guarantor in an aggregate principal amount in excess of $100. The guarantees of the 2029 Notes will rank equally with all other senior indebtedness of the guarantors. The 2029 Notes rank equally in right of payment to all of the Company's existing and future unsecured unsubordinated debt and are senior in right of payment to all of its existing and future debt that is by its terms expressly subordinated in right of payment to the 2029 Notes. The 2029 Notes are subordinated to indebtedness under the Senior Secured Credit Facilities, as well as any future secured debt to the extent of the value of the assets securing such debt, and structurally subordinated to the liabilities of any non-guarantor subsidiaries.

Pursuant to the terms of the indenture governing the 2029 Notes, the Company is obligated to offer to purchase the 2029 Notes at a price of 101% of the principal amount, together with accrued and unpaid interest, if any, up to, but not including, the date of purchase, upon the occurrence of certain change of control events. Prior to November 15, 2024, the Company may redeem the 2029 Notes (i) in whole or in part, at an amount equal to 100% of the aggregate principal amount plus a specified "make-whole" premium and accrued and unpaid interest, if any, up to, but excluding the redemption date, and (ii) on one or more occasions, up to 35% of the aggregate principal amount of the notes, with the net cash proceeds of one or more equity offerings at a price equal to 104.625% of the principal amounts of such notes, plus accrued and unpaid interest, if any, up to, but excluding, the redemption date. On or after November 15, 2024, the Company may redeem the 2029 Notes at specified redemption prices. The Company may also redeem some or all of the 2029 Notes by means other than a redemption, including tender offer and open market repurchases.

2025 Notes Tender Offer and Redemption

On August 4, 2021, the Company commenced an all-cash tender offer to purchase any and all of the outstanding 2025 Notes for a purchase price of $1,025.00 per $1,000.00 of principal amount through an early tender deadline of August 17, 2021, and $995.00 per $1,000.00 of principal amount thereafter, through August 31, 2021, the tender expiration date, plus any accrued and unpaid interest thereon (the "2025 Notes Tender Offer"). In connection with the 2025 Notes Tender Offer, the Company received consents from the holders of a majority of the aggregate principal amount of the 2025 Notes to amend certain provisions of the indenture governing the 2025 Notes, thereby allowing the Company to call and redeem the remaining 2025 Notes outstanding upon two business days' notice to the noteholders (the "2025 Notes Redemption") (collectively, the "2025 Notes Tender Offer and Redemption"). The Company completed the 2025 Notes Tender Offer and Redemption on August 20, 2021 for an aggregate purchase price of $782, inclusive of an early participation premium of $18 and accrued interest of $14. The 2025 Notes Tender Offer and Redemption was funded with the proceeds from the offering of the 2029 Notes and cash on hand.

2023 Dollar Notes Tender Offer and Redemption

On November 12, 2020, the Company commenced an all-cash tender offer to purchase any and all of the outstanding 2023 Dollar Notes for a purchase price of $1,017.94 per $1,000.00 of principal amount through an early tender deadline of November 25, 2020, and $987.94 per $1,000.00 of principal amount thereafter, through December 10, 2020, the tender expiration date, plus any accrued and unpaid interest thereon (the "2023 Dollar Notes Tender Offer"). In connection with the 2023 Dollar Notes Tender Offer, the Company received consents from the holders of a majority of the aggregate principal amount of the 2023 Dollar Notes to amend certain provisions of the indenture governing the 2023 Dollar Notes, thereby allowing the Company to call and redeem the remaining 2023 Dollar Notes outstanding upon two business days' notice to the noteholders (the "2023 Dollar Notes Redemption") (collectively, the "2023 Dollar Notes Tender Offer and Redemption").

The Company completed the 2023 Dollar Notes Tender Offer and Redemption on December 1, 2020 for an aggregate purchase price of $926, inclusive of an early participation premium of $16 and accrued interest of $2. The 2023 Dollar Notes Tender Offer and Redemption was funded with the proceeds from the offering of the 2028 Notes and cash on hand.

Note Repurchases

During the year ended December 31, 2022, the Company repurchased through open market transactions, an aggregate principal of $62 of its senior unsecured notes for cash payment of $54. The Company recorded a gain of $7 in "Gain (loss) on extinguishment of debt" in the consolidated statements of operations, net of $1 in charges related to the write-off of deferred financing costs associated with the extinguished debt.

Accounts Receivable Securitization Facility

On July 12, 2019, the Company, through a wholly-owned special purpose entity ("SPE"), executed an agreement with a bank for an accounts receivable securitization facility ("Securitization Facility") for the purpose of enhancing the Company's liquidity (the "Original Purchase Agreement"). Under the Securitization Facility, certain of the Company's subsidiaries sell their accounts receivable to the SPE, which is a non-guarantor subsidiary. In turn, the SPE may transfer undivided ownership interests in such receivables to the bank in exchange for cash. The Securitization Facility permitted the SPE to borrow up to a total of $125, with an option to increase to $200. The bank has a first priority security interest in all receivables held by the SPE, and the SPE has not granted a security interest to anyone else.

As the SPE previously maintained effective control over the accounts receivable under the Original Purchase Agreement, the transfers of the ownership interests to the bank did not meet the criteria to account for the transfers as true sales. As a result, the Company accounted for the transfers as collateralized borrowings. Cash received from the bank was a short-term obligation of the Company, which was fully-collateralized by all receivables held by the SPE. The Securitization Facility was subject to interest charges against both the amount of outstanding borrowings and the amount of available but undrawn commitments. The Securitization Facility bore a variable interest rate on outstanding borrowings and a fixed commitment fee on the average daily undrawn amount. Borrowings under the Securitization Facility were classified in the consolidated balance sheets as a component of current liabilities due to the short-term nature of the obligation.

On March 9, 2020, the Company, through its wholly-owned SPE, entered into an amended and restated receivables purchase agreement (the "Amended Purchase Agreement") under the Securitization Facility. The Amended Purchase Agreement amends and restates, in its entirety, the Original Purchase Agreement. The Amended Purchase Agreement, among other things, extends the term of the Original Purchase Agreement such that the SPE may sell certain receivables and request investments and letters of credit until the earlier of March 5, 2021 or a termination event, and contains customary representations and warranties, as well as affirmative and negative covenants.

Pursuant to the Amended Purchase Agreement, the Company no longer maintains effective control over the transferred receivables, and therefore accounts for these transfers as sales of receivables. As a result, on March 9, 2020, the Company repurchased the then-outstanding receivables under the Securitization Facility through repayment of the secured borrowings under the Original Purchase Agreement, resulting in net repayments of $110 and subsequent sale of $125 of its receivables to the bank during the first quarter of 2020. These sales were transacted at 100% of the face value of the relevant receivables, resulting in derecognition of the receivables from the Company's consolidated balance sheets.

On March 5, 2021, the Company, through the SPE, entered into an amendment (the "First Amendment") to its Amended Purchase Agreement (together with the First Amendment, the "Purchase Agreement") to, among other things, extend the term of the Purchase Agreement, such that the SPE may sell certain receivables and request investments and letters of credit until the earlier of March 6, 2023 or another event that constitutes a "Termination Date" under the Purchase Agreement. The First Amendment also increases the facility limit under the arrangement from $125 to $150.

On November 24, 2021, the Company, through the SPE, entered into an amendment (the "Second Amendment") to its Purchase Agreement to, among other things, extend the term of the Purchase Agreement, such that the SPE may sell certain receivables and request investments and letters of credit until the earlier of March 6, 2024 or another event that constitutes a "Termination Date" under the Purchase Agreement. As of December 31, 2022, the Securitization Facility is fully utilized.

Cash received from collections of sold receivables is used to fund additional purchases of receivables at 100% of face value on a revolving basis, not to exceed the facility limit, which is the aggregate purchase limit. For the years ended December 31, 2022 and 2021, the Company received $1,481 and $1,364, respectively, of cash collections on receivables sold under the Amended Purchase Agreement, following which it sold and derecognized $1,481 and $1,389, respectively, of incremental accounts receivable. The Company maintains continuing involvement as it acts as the servicer for the sold receivables and guarantees payment to the bank. As collateral against the sold receivables, the SPE maintains a certain level of unsold receivables, which amounted to $46 and $76 at December 31, 2022 and 2021, respectively. During the years ended December 31, 2022 and 2021, the Company incurred $3 of fees associated with the Securitization Facility. Costs associated with the sales of receivables are reflected in the Company's consolidated statements of operations for the periods in which the sales occur.

Other

In 2020, the Company entered into a financing arrangement, by which an external financing company funded certain of the Company's annual insurance premiums for $16, and subsequently repaid in full for the year ended December 31, 2020. In 2019, the Company entered into a similar financing arrangement for $11, of which $5 was repaid during the year ended December 31, 2019 and the remainder in 2020.

Maturities

The Company has required quarterly principal payments related to the Senior Secured Credit Facilities equivalent to 1.00% per annum through December 2024, with the balance due at maturity. Also, on an annual basis, the Company is required to make additional principal payments depending on leverage levels, as defined in the Credit Agreement, equivalent to up to 50% of excess cash flows based on certain leverage targets with step-downs to 25% and 0% as actual leverage decreases to below a 3.50 to 1.00 leverage target. The Company is not expected to make additional principal payments in 2023.

The following table sets forth the Company's debt principal maturities for the next five years and thereafter.

2023	$ 13
2024	13
2025	1,095
2026	470
2027	495
Thereafter	1,403
Total principal maturities on debt	$ 3,489

Debt Fair Value

The following table sets forth the estimated fair values of the Company's senior debt issues, which are based on quotes received from third-party brokers, and are classified as Level 2 financial instruments in the fair value hierarchy.

	December 31, 2022		December 31, 2021	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Senior secured term loans:				
Tranche B-2 U.S. dollar term loan due April 2025	$ 766	$ 755	$ 776	$ 769
Tranche B-2 euro term loan due April 2025 (€333 at December 31, 2022 and €337 at December 31, 2021)	355	345	381	378
Senior unsecured notes:				
4.000% due May 2026 (€441 at December 31, 2022 and €450 at December 31, 2021)	470	422	510	518
5.375% due May 2027	495	459	500	538
5.750% due November 2028	783	702	800	846
4.625% due November 2029	620	509	650	645
Total senior debt principal	3,489	$ 3,192	3,617	$ 3,694
Less: Unamortized issue discounts	(4)		(5)	
Less: Unamortized debt issuance costs	(22)		(28)	
Total senior debt, net	$ 3,463		$ 3,584	

Note 21. Other Liabilities

The following table sets forth the components of the Company's other liabilities at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Employee-related costs (1)	$ 82	$ 94
Accrued litigation (2)	55	50
Asset retirement obligations (2)	73	62
Miscellaneous (3)	109	63
Total other liabilities	$ 319	$ 269

(1) Employee-related costs primarily represents liabilities associated with the Company's long-term employee benefit plans.

(2) Represents the long-term portions of accrued litigation and asset retirement obligations (see "Note 22 – Commitments and Contingent Liabilities").

(3) Miscellaneous primarily includes an accrued workers compensation indemnification liability of $33 and $32 at December 31, 2022 and 2021, respectively. Miscellaneous also includes long-term income tax liabilities from uncertain tax positions at December 31, 2022 (see "Note 9 – Income Taxes").

Note 22. Commitments and Contingent Liabilities

Asset Retirement Obligations

Chemours has recorded asset retirement obligations, which are primarily related to closure, reclamation, and removal for mining operations relative to the extraction of titanium ore and other saleable minerals in the Titanium Technologies segment; and, cap, cover, and post-closure maintenance of landfills in all segments.

The following table sets forth the activity in the Company's asset retirement obligations for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Balance at January 1,	$ 76	$ 76	$ 76
Obligations incurred or acquired	—	—	12
Increase (decrease) in estimated cash outflows	2	1	(14)
Accretion expense	10	2	4
Settlements and payments	(5)	(3)	(2)
Balance at December 31,	$ 83	$ 76	$ 76
Current portion	$ 10	$ 14	$ 13
Non-current portion	73	62	63

Litigation Overview

The Company and certain of its subsidiaries, from time to time, are subject to various lawsuits, claims, assessments, and proceedings with respect to product liability, intellectual property, personal injury, commercial, contractual, employment, governmental, environmental, anti-trust, and other such matters that arise in the ordinary course of business. In addition, Chemours, by virtue of its status as a subsidiary of EID prior to the Separation, is subject to or required under the Separation-related agreements executed prior to the Separation to indemnify EID against various pending legal proceedings. Except as noted below, while management believes it is reasonably possible that Chemours could incur losses in excess of the amounts accrued, if any, for the aforementioned proceedings, it does not believe any such loss would have a material impact on the Company's consolidated financial position, results of operations, or cash flows. It is not possible to predict the outcomes of these various lawsuits, claims, assessments, or proceedings. Disputes between Chemours and EID may arise regarding indemnification matters, including disputes based on matters of law or contract interpretation. Should disputes arise, they could materially adversely affect Chemours.

If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, the Company accrues a liability for the estimated loss. When a material loss contingency is reasonably possible, but not probable, the Company does not record a liability, but instead discloses the nature of the matter and an estimate of the loss or range of loss, to the extent such estimate can be made. Significant judgment is required in both the determination of probability and whether an exposure is reasonably estimable. The Company's judgments are subjective based on the status of the legal or regulatory proceedings, the merits of the Company's defenses and consultation with in-house and outside legal counsel. Because of uncertainties related to these matters, accruals are based on the best information available at the time. As additional information becomes available, the Company reassesses the potential liability related to pending claims and litigation and may revise its estimates accordingly. Due to the inherent uncertainties of the legal and regulatory process in the multiple jurisdictions in which Chemours operates, management's judgments may be materially different than the actual outcomes. Legal costs such as outside counsel fees and expenses are charged to expense in the period services are rendered.

Management believes the Company's litigation accruals are appropriate based on the facts and circumstances for each matter, which are discussed in further detail below.

The following table sets forth the components of the Company's accrued litigation at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Asbestos	$ 35	$ 33
PFOA (1)	45	23
All other matters (2)	16	30
Total accrued litigation	$ 96	$ 86

(1) At December 31, 2022, PFOA includes $20 associated with the Company's portion of the potential loss in the single matter not included in the Leach settlement. For information regarding this matter, refer to "PFOA" within this "Note 22 – Commitments and Contingent Liabilities".

(2) At December 31, 2021, all other matters includes $25, which was paid in January 2022, associated with the Company's portion of the costs to enter into the Settlement Agreement, Limited Release, Waiver and Covenant Not to Sue reflecting Chemours, DuPont, Corteva, EID and the State of Delaware's agreement to settle and fully resolve claims alleged against the companies. For information regarding this matter, refer to "PFAS" within this "Note 22 – Commitments and Contingent Liabilities".

The following table sets forth the current and long-term components of the Company's accrued litigation and their balance sheet locations at December 31, 2022 and 2021.

		December 31,	
	Balance Sheet Location	2022	2021
Accrued Litigation:			
Current accrued litigation (1)	Other accrued liabilities (Note 19)	$ 41	$ 36
Long-term accrued litigation	Other liabilities (Note 21)	55	50
Total accrued litigation		$ 96	$ 86

(1) At December 31, 2021, current accrued litigation includes $25, which was paid in January 2022, associated with the Company's portion of the costs to enter into the Settlement Agreement, Limited Release, Waiver and Covenant Not to Sue reflecting Chemours, DuPont, Corteva, EID, and the State of Delaware's agreement to settle and fully resolve claims alleged against the companies. For information regarding this matter, refer to "PFAS" within this "Note 22 – Commitments and Contingent Liabilities".

Memorandum of Understanding (the "MOU") with DuPont, Corteva and EID

In January 2021, Chemours, DuPont, Corteva, and EID, a subsidiary of Corteva, entered into a binding MOU, reflecting the parties' agreement to share potential future legacy liabilities relating to PFAS arising out of pre-July 1, 2015 conduct (i.e., "Indemnifiable Losses", as defined in the separation agreement, dated as of June 26, 2015, as amended, between EID and Chemours (the "Separation Agreement")) until the earlier to occur of: (i) December 31, 2040; (ii) the day on which the aggregate amount of Qualified Spend is equal to $4,000; or, (iii) a termination in accordance with the terms of the MOU (e.g., non-performance of the escrow funding requirements pursuant to the MOU by any party). As defined in the MOU, Qualified Spend includes:

- All Indemnifiable Losses (as defined in the Separation Agreement), including punitive damages, to the extent relating to, arising out of, by reason of, or otherwise in connection with PFAS Liabilities as defined in the MOU (including any mutually agreed-upon settlements);
- Any costs or amounts to abate, remediate, financially assure, defend, settle, or otherwise pay for all pre-July 1, 2015 PFAS Liabilities or exposure, regardless of when those liabilities are manifested; includes Natural Resources Damages claims associated with PFAS Liabilities;
- Fines and/or penalties from governmental agencies for legacy EID PFAS emissions or discharges prior to the spin-off; and,
- Site-Related GenX Claims as defined in the MOU.

The parties have agreed that, during the term of the cost-sharing arrangement, Chemours will bear half of the cost of such future potential legacy PFAS liabilities, and DuPont and Corteva will collectively bear the other half of the cost of such future potential legacy PFAS liabilities up to an aggregate $4,000. Any recoveries of Qualified Spend from DuPont and/or Corteva under the cost-sharing arrangement will be recognized as an offset to the Company's cost of goods sold or selling, general, and administrative expense, as applicable, when realizable. Any Qualified Spend incurred by DuPont and/or Corteva under the cost-sharing arrangement will be recognized in the Company's cost of goods sold or selling, general, and administrative expense, as applicable, when the amounts of such costs are probable and estimable or expensed as incurred with respect to period costs, such as legal expenses. During the years ended December 31, 2022 and 2021, the Company incurred expenditures subject to cost-sharing as Qualified Spend under the MOU of approximately $152 and $100, respectively. During the years ended December 31, 2022 and 2021, the Company received $66 and $36, respectively, of recovery from DuPont and Corteva.

After the term of this arrangement, Chemours' indemnification obligations under the Separation Agreement would continue unchanged, subject in each case to certain exceptions set out in the MOU. Pursuant to the terms of the MOU, the parties have agreed to release certain claims regarding Chemours' Delaware lawsuit and confidential arbitration (concerning the indemnification of specified liabilities that EID assigned to Chemours in its spin-off), including that Chemours has released any claim set forth in the complaint filed in the Delaware lawsuit, any other similar claims arising out of or resulting from the facts recited by Chemours in the complaint or the process and manner in which EID structured or conducted the spin-off, and any other claims that challenge the spin-off or the assumption of Chemours Liabilities (as defined in the Separation Agreement) by Chemours and the allocation thereof, subject in each case to certain exceptions set out in the MOU. The parties have further agreed not to bring any future, additional claims regarding the Separation Agreement or the MOU outside of arbitration.

The parties have also agreed to establish an escrow account to support and manage the payments for potential future PFAS liabilities. The MOU provides that: (i) no later than each of September 30, 2021 and September 30, 2022, Chemours shall deposit $100 into an escrow account and DuPont and Corteva shall together deposit $100 in the aggregate into an escrow account, and (ii) no later than September 30 of each subsequent year through and including 2028, Chemours shall deposit $50 into an escrow account and DuPont and Corteva shall together deposit $50 in the aggregate into an escrow account. Subject to the terms and conditions set forth in the MOU, each party may be permitted to defer funding in any year. Additionally, if on December 31, 2028, the balance of the escrow account (including interest) is less than $700, Chemours will make 50% of the deposits and DuPont and Corteva together will make 50% of the deposits necessary to restore the balance of the escrow account to $700. Such payments will be made in a series of consecutive annual equal installments commencing on September 30, 2029 pursuant to the escrow account replenishment terms as set forth in the MOU. Any funds that remain in escrow at termination of the MOU will revert to the party that deposited them. As such, future payments made by the Company into the escrow account will remain an asset of Chemours, and such payments will be reflected as a transfer to restricted cash and restricted cash equivalents on its consolidated balance sheets. As per the terms of the MOU, the Company deposited $100 into the escrow account in September 2022 and in 2021, which is recognized as restricted cash and restricted cash equivalents on its consolidated balance sheets at December 31, 2022 and 2021, respectively. No withdrawals are permitted from the escrow account before January 2026, except for funding mutually agreed-upon third-party settlements in excess of $125. Starting in January 2026, withdrawals may be made from the escrow account to fund Qualified Spend if the parties' aggregate Qualified Spend in that particular year is greater than $200. Starting in January 2031, the amounts in the escrow account can be used to fund any Qualified Spend. Future payments from the escrow account for potential future PFAS liabilities will be reflected on the Company's consolidated statement of cash flows at that point in time.

The parties will cooperate in good faith to enter into additional agreements reflecting the terms set forth in the MOU.

Asbestos

In the Separation, EID assigned its asbestos docket to Chemours. At December 31, 2022 and 2021, there were approximately 900 and 1,000 lawsuits pending against EID alleging personal injury from exposure to asbestos, respectively. These cases are pending in state and federal court in numerous jurisdictions in the U.S. and are individually set for trial. A small number of cases are pending outside of the U.S. Most of the actions were brought by contractors who worked at sites between the 1950s and the 1990s. A small number of cases involve similar allegations by EID employees or household members of contractors or EID employees. Finally, certain lawsuits allege personal injury as a result of exposure to EID products.

At December 31, 2022 and 2021, Chemours had accruals of $35 and $33 related to these matters, respectively.

Benzene

In the Separation, EID assigned its benzene docket to Chemours. At December 31, 2022 and 2021, there were 18 and 19 cases pending against EID alleging benzene-related illnesses, respectively. These cases consist of premises matters involving contractors and deceased former employees who claim exposure to benzene while working at EID sites primarily in the 1960s through the 1980s, and product liability claims based on alleged exposure to benzene found in trace amounts in aromatic hydrocarbon solvents used to manufacture EID products such as paints, thinners, and reducers.

Management believes that a loss is reasonably possible as to the docket as a whole; however, given the evaluation of each benzene matter is highly fact-driven and impacted by disease, exposure, and other factors, a range of such losses cannot be reasonably estimated at this time.

In May 2021, the Company and EID filed suit in Delaware state court against multiple insurance companies for breach of their contractual obligations to indemnify Chemours and EID against liabilities, costs and losses relating to benzene litigation which are covered under liability insurance policies purchased by EID during the period 1967 to 1986. EID and Chemours are seeking payment of all costs and settlement amounts for past and future benzene cases falling under those policies. The outcome of this matter is not expected to have a material impact on Chemours' results of operations or financial position.

PFOA

Chemours does not, and has never, used "PFOA" (collectively, perfluorooctanoic acids and its salts, including the ammonium salt) as a polymer processing aid nor sold it as a commercial product. Prior to the Separation, the performance chemicals segment of EID made PFOA at its Fayetteville Works site in Fayetteville, North Carolina ("Fayetteville") and used PFOA as a processing aid in the manufacture of fluoropolymers and fluoroelastomers at certain sites, including: Washington Works, Parkersburg, West Virginia; Chambers Works, Deepwater, New Jersey ("Chambers Works"); Dordrecht Works, Netherlands; Changshu Works, China; and, Shimizu, Japan. These sites are now owned and/or operated by Chemours.

At December 31, 2022 and 2021, Chemours maintained accruals of $25 and $23, respectively, related to PFOA matters under the Leach Settlement (discussed below), EID's obligations under agreements with the U.S. Environmental Protection Agency (the "EPA"), and voluntary commitments to the New Jersey Department of Environmental Protection (the "NJ DEP"). These obligations and voluntary commitments include surveying, sampling, and testing drinking water in and around certain Company sites, and offering treatment or an alternative supply of drinking water if tests indicate the presence of PFOA in drinking water at or greater than the applicable levels. The Company will continue to work with EPA, NJ DEP and other authorities regarding the extent of work that may be required with respect to these matters.

Leach Settlement

In 2004, EID settled a class action captioned *Leach v. DuPont*, filed in West Virginia state court, alleging that approximately 80,000 residents living near the Washington Works facility had suffered, or may suffer, deleterious health effects from exposure to PFOA in drinking water. Among the settlement terms, EID funded a series of health studies by an independent science panel of experts ("C8 Science Panel") to evaluate available scientific evidence on whether any probable link exists, as defined in the settlement agreement, between exposure to PFOA and disease.

The C8 Science Panel found probable links, as defined in the settlement agreement, between exposure to PFOA and pregnancy-induced hypertension, including preeclampsia, kidney cancer, testicular cancer, thyroid disease, ulcerative colitis, and diagnosed high cholesterol. Under the terms of the settlement, EID is obligated to fund up to $235 for a medical monitoring program for eligible class members and pay the administrative costs associated with the program, including class counsel fees. The court-appointed Director of Medical Monitoring implemented the program, and testing is ongoing with associated payments to service providers disbursed from an escrow account which the Company replenishes pursuant to the settlement agreement. Through December 31, 2022, approximately $2 has been disbursed from escrow related to medical monitoring. While it is reasonably possible that the Company will incur additional costs related to the medical monitoring program, such costs cannot be reasonably estimated due to uncertainties surrounding the level of participation by eligible class members and the scope of testing.

In addition, under the Leach settlement agreement, EID must continue to provide water treatment designed to reduce the level of PFOA in water to six area water districts and private well users. At Separation, this obligation was assigned to Chemours, and is included in the $25 and $23 accrued at December 31, 2022 and 2021, respectively.

PFOA Leach Class Personal Injury

Further, under the Leach settlement, class members may pursue personal injury claims against EID only for those diseases for which the C8 Science Panel determined a probable link exists. Approximately 3,500 lawsuits were subsequently filed in various federal and state courts in Ohio and West Virginia and consolidated in multi-district litigation ("MDL") in Ohio federal court. These were resolved in March 2017 when EID entered into an agreement settling all MDL cases and claims, including all filed and unfiled personal injury cases and claims that were part of the plaintiffs' counsel's claims inventory, as well as cases tried to a jury verdict (the "First MDL Settlement") for $670.7 in cash, with half paid by Chemours, and half paid by EID.

Concurrently with the First MDL Settlement, EID and Chemours agreed to a limited sharing of potential future PFOA costs (i.e., "Indemnifiable Losses", as defined in the Separation Agreement between EID and Chemours) for a period of five years. The cost-sharing agreement entered concurrently with the First MDL Settlement has been superseded by the binding MOU addressing certain PFAS matters and costs. For more information on this matter refer to "Memorandum of Understanding (the "MOU") with Dupont, Corteva and EID" within this "Note 22 – Commitments and Contingent Liabilities".

While all MDL lawsuits were dismissed or resolved through the First MDL Settlement, the First MDL Settlement did not resolve PFOA personal injury claims of plaintiffs who did not have cases or claims in the MDL or personal injury claims based on diseases first diagnosed after February 11, 2017. Approximately 96 plaintiffs filed matters after the First MDL Settlement. In January 2021, EID and Chemours entered into settlement agreements with counsel representing these plaintiffs, providing for a settlement of all but one of the 96 then filed and pending cases, as well as additional pre-suit claims, under which those cases and claims of settling plaintiffs were resolved for approximately $83 (the "Second MDL Settlement"). Chemours contributed approximately $29, and DuPont and Corteva each contributed approximately $27 to the Second MDL Settlement.

The single matter not included in the settlement is a testicular cancer case tried in March 2020 to a verdict of $40 in compensatory and emotional distress damages and $10 in loss of consortium damages. The jury found that EID's conduct did not warrant punitive damages. In March 2021, the trial court issued post trial rulings which reduced the consortium damages to $0.25. EID appealed the verdict to the United States Court of Appeals for the 6th Circuit and, in December 2022, the 6th Circuit affirmed the verdict in a two-to-one decision, with one judge dissenting on two grounds including the district court's grant of collateral estoppel. In January 2023, EID petitioned for a rehearing of the appeal by the 6th Circuit *en banc*, which was denied in February 2023. EID may petition the United States Supreme Court to review the decision. The outcome of such petition is not determinable at this time and has significant uncertainties. Given the current status of this case and the significant uncertainties, the Company recorded a reserve for potential loss on this matter of $20 at December 31, 2022, representing Chemours' share of the verdict under the terms of the MOU and in accordance with accounting guidance on obligations resulting from joint and several liability arrangements.

In August 2022, a personal injury case was filed in federal court in West Virginia on behalf of a plaintiff purporting to be a member of the Leach Class, and in December 2022, two additional personal injury cases were filed on behalf of plaintiffs purporting to be Leach class members. In December, the Judicial Panel on Multi-District Litigation (JPML) declined to close the Ohio MDL, so these three matters will proceed in the Ohio MDL.

State of Ohio

In February 2018, the State of Ohio initiated litigation against EID regarding historical PFOA emissions from the Washington Works site. Chemours is an additional named defendant. Ohio alleges damage to natural resources and fraudulent transfer in the spin-off that created Chemours and seeks damages including remediation and other costs and punitive damages.

PFAS

EID and Chemours have received governmental and regulatory inquiries and have been named in other litigations, including class actions, brought by individuals, municipalities, businesses, and water districts alleging exposure to and/or contamination from PFAS, including PFOA. Many actions include an allegation of fraudulent transfer in the spin-off that created Chemours. Chemours has declined EID's requests for indemnity for fraudulent transfer claims.

Chemours has responded to letters and inquiries from governmental law enforcement entities regarding PFAS, including in January 2020, a letter informing it that the U.S. Department of Justice, Consumer Protection Branch, and the United States Attorney's Office for the Eastern District of Pennsylvania are considering whether to open a criminal investigation under the Federal Food, Drug, and Cosmetic Act and asking that it retain its documents regarding PFAS and food contact applications. In July 2020, Chemours received a grand jury subpoena for documents. The Company is presently unable to predict the duration, scope, or result of any potential governmental, criminal, or civil proceeding that may result, the imposition of fines and penalties, and/or other remedies. The Company is also unable to develop a reasonable estimate of a possible loss or range of losses, if any.

Fayetteville Works, Fayetteville, North Carolina

For information regarding the Company's ongoing litigation and environmental remediation matters at Fayetteville, refer to "Fayetteville Works, Fayetteville, North Carolina" under the "Environmental Overview" within this "Note 22 – Commitments and Contingent Liabilities".

Aqueous Film Forming Foam Matters

Chemours does not, and has never, manufactured nor sold aqueous film forming foam ("AFFF"). Numerous defendants, including EID and Chemours, have been named in approximately 3,700 matters, involving AFFF, which is used to extinguish hydrocarbon-based (i.e., Class B) fires and subject to U.S. military specifications. Most matters have been transferred to or filed directly into a multi-district litigation ("AFFF MDL") in South Carolina federal court or identified by a party for transfer. The matters pending in the AFFF MDL allege damages as a result of contamination, in most cases due to migration from military installations or airports, or personal injury from exposure to AFFF. Plaintiffs seek to recover damages for investigating, monitoring, remediating, treating, and otherwise responding to the contamination. Others have claims for personal injury, property diminution, and punitive damages.

In March 2021, ten water provider cases within the AFFF MDL were approved by the court for purposes of commencing initial discovery (Tier One discovery) and in October 2021, the court approved three of these cases for additional discovery (Tier Two discovery). In September 2022, a water provider action filed by the City of Stuart, Florida was selected for the first bellwether trial and will be called for jury selection and/or trial on or after June 5, 2023. The court has encouraged all parties to discuss resolution of the water provider category of cases, and on October 26, 2022 appointed a mediator to facilitate discussions among and between the parties. Consistent with the court's instruction and under the mutual obligations of the MOU, Chemours, Corteva/EID and DuPont, together, are engaged with Plaintiffs' Counsel on these cases, including through the court-appointed mediator; however, there is no guarantee that the discussions will result in a settlement. Settlement discussions are complex and often involve potential amounts, scope and terms, which can be monetary and non-monetary, that one or more parties may not consider reasonable under the circumstances or indicative of the merits or potential outcome of any court proceeding with respect to the underlying claims. It is reasonably possible that such mediation discussions could result in a loss, which could be material; however, at this time, the Company is unable to predict the duration, scope, or result of the mediation discussions, and because of these uncertainties, the Company is also unable to develop a reasonable estimate of a possible loss or range of losses, if any.

There are AFFF lawsuits pending outside the AFFF MDL that have not been designated by a party for inclusion in the MDL. These matters identifying EID and/or Chemours as a defendant are:

Valero Refining ("Valero") has five pending state court lawsuits filed commencing in June 2019 regarding its Tennessee, Texas, Oklahoma, California, and Louisiana facilities. These lawsuits allege that several defendants that designed, manufactured, marketed, and/or sold AFFF or PFAS incorporated into AFFF have caused Valero to incur damages and costs including remediation, AFFF disposal, and replacement. Valero also alleges fraudulent transfer.

In New York, four individuals filed a lawsuit against numerous defendants including Chemours. The lawsuit alleges personal injury resulting from exposure to AFFF in Long Island drinking water and violation of New York Uniform Fraudulent Conveyance Act. Plaintiffs seek compensatory and punitive damages and medical monitoring.

In Texas, a lawsuit was filed against numerous defendants including Chemours, DuPont and Corteva. The lawsuit alleges personal injury from occupational exposure to AFFF. Plaintiffs seek compensatory and punitive damages. In the first quarter of 2022, certain defendants including Chemours, DuPont and Corteva were dismissed.

In Illinois, a lawsuit was filed in May 2022 in the state court against numerous defendants, including EID. The lawsuit alleges personal injury from occupational exposure, including from AFFF-related materials/products, and seeks compensatory damages and punitive damages. Chemours is not a named defendant.

In Ontario, Canada, three lawsuits were filed by two parties in December 2022, against DuPont de Nemours, Inc. and another defendant, seeking contribution and indemnification, interest, and costs in connection with three underlying actions filed by property owners in Canada, and a related third-party action filed by some defendants in one of the matters. The plaintiffs in the underlying actions allege PFAS contamination of their respective properties from the use of firefighting foam. Chemours is not a named defendant in any of these matters but has agreed to defend pursuant to the MOU. These lawsuits against DuPont were noticed for discontinuance by one of the filing parties.

State Natural Resource Damages Matters

In addition to the State of New Jersey actions (as detailed below) and the State of Ohio action (as detailed above), the states of Vermont, New Hampshire, New York, Michigan, North Carolina, Mississippi, Alaska, Pennsylvania, Colorado, Florida, Wisconsin, Massachusetts, Illinois and California, as well as Guam and the Marina Islands, have filed lawsuits against defendants, including EID and Chemours, relating to the alleged contamination of state natural resources with PFAS compounds either from AFFF and/or other sources. These lawsuits seek damages including costs to investigate, clean up, restore, treat, monitor, or otherwise respond to contamination of natural resources and some include counts for fraudulent transfer.

On July 13, 2021, Chemours, DuPont, Corteva, and EID entered into a settlement agreement with the State of Delaware to settle such potential claims, including for environmental releases or sales of products containing PFAS or other known contaminants. Under the agreement, in January 2022, the companies paid a total amount of $50 to the State of Delaware, which shall be utilized to fund a Natural Resources and Sustainability Trust (the “Trust”) to be used for environmental restoration and enhancement of resources, sampling and analysis, community environmental justice and equity grants, and other natural resource needs. Chemours contributed $25 to the settlement and the remaining $25 was divided between DuPont and Corteva which shall be treated as Qualified Spend under the MOU. If the companies enter into a proportionally similar agreement to settle or resolve claims of another state for PFAS-related natural resource damages, for an amount greater than $50, the companies may be required to make one or more supplemental payment(s) directly to the Trust, with such payment(s) not to exceed $25 in the aggregate. At this time, the Company has concluded the probability of loss as to any supplemental payment(s) under the settlement agreement to be remote.

Other PFAS Matters

In New York courts, EID has been named in approximately 40 lawsuits, which are not part of the Leach class, brought by individual plaintiffs alleging negligence and other claims in the release of PFAS, including PFOA, into drinking water against current and former owners and suppliers of a manufacturing facility in Hoosick Falls, New York. Two additional lawsuits have been filed by a business seeking to recover its losses and by nearby property owners and residents in a putative class action. The lawsuit filed by the business was dismissed, but the claims by the individual business owner were allowed to proceed. In September 2022, the Court certified the class action, and EID filed a petition for review of the certification, which was denied in January 2023. The Town of Petersburgh in New York also filed suit in New York state court in August 2022 alleging defendants 3M, EID, and other defendants, are responsible for PFOA contamination of its municipal drinking water supply. The complaint alleges product liability claims, negligence, and trespass. Plaintiff seeks injunctive and declaratory relief as well as compensatory and punitive damages.

Furthermore, 13 Long Island water suppliers have filed lawsuits against several defendants including EID and Chemours alleging PFAS, PFOA, and perfluorooctanesulfonic acid ("PFOS") contamination through releases from industrial and manufacturing facilities and business locations where PFAS-contaminated water was used for irrigation and sites where consumer products were disposed. Claims vary between matters but include claims of personal injury alleging various disease conditions, product liability, negligence, nuisance, trespass and fraudulent transfer. All matters are seeking compensatory and punitive damages and, in certain cases, medical monitoring, declaratory and/or injunctive relief. In January 2022, Chemours filed a third-party claim for indemnity in connection with one of the Long Island water supplier matters.

In New York and New Jersey, lawsuits were filed by Suez Water against several defendants, including EID and Chemours, alleging damages from PFAS releases into the environment, including PFOA and PFOS, that impacted water sources that the utilities use to provide water, as well as products liability, negligence, nuisance, and trespass. Defendants filed motions to dismiss the complaints in both matters. The motion was denied in the Suez Water New Jersey lawsuit in October 2021. In January 2022, the court granted defendants' motion to dismiss in the Suez New York lawsuit without prejudice and the plaintiff filed a second amended complaint in February 2022. Following the filing of the second amended complaint in the Suez New York lawsuit, the defendants filed a motion to dismiss.

In New Jersey, lawsuits were filed against several defendants including EID and Chemours. The lawsuits include ten lawsuits alleging that defendants are responsible for PFAS contamination, including PFOA and PFOS, in groundwater and drinking water. In addition, seven lawsuits were filed alleging exposure to PFAS and other chemicals, including two lawsuits by parents on behalf of their adult children claiming pre-natal exposure, resulted in the children's cognitive delays, neurological, genetic, and autoimmune conditions. Furthermore, 10 additional lawsuits were filed in state court with similar allegations of personal injury, which have been removed to New Jersey federal court. Plaintiffs seek certain damages including punitive damages.

In Georgia and Alabama lawsuits were filed against numerous carpet manufacturers, certain municipal defendants, and suppliers and former suppliers, including EID and Chemours. The lawsuits include a matter filed by the Water Works and Sewer Board of the Town of Centre, Alabama and a matter filed by the City of Rome, Georgia alleging negligence, nuisance, and trespass in the release of PFAS, including PFOA, into a river leading to the town's water source. Additionally, a putative class action was filed on behalf of customers of the Rome, Georgia water division and the Floyd County, Georgia water department alleging negligence and nuisance and related to the release of perfluorinated compounds, including PFOA, into a river leading to their water sources.

In Ohio, a putative class action ("Hardwick") was filed against several defendants including 3M, EID and Chemours seeking class action status for U.S. residents having a detectable level of PFAS in their blood serum. The complaint seeks declaratory and injunctive relief, including the establishment of a "PFAS Science Panel". In March 2022, the court granted in part and denied in part the plaintiff's class certification and certified a class covering anyone subject to Ohio laws having minimal levels of PFOA plus at least one other PFAS in their blood. The court requested further briefing on whether the class should be extended to include other states that recognize the claims for relief filed in the action. The defendants, including EID and Chemours, jointly filed a petition to appeal the class certification decision and in September 2022 the petition was granted and appellate review is proceeding. Defendants will continue to defend at the trial court level while this appeal is pending. Management believes that a loss is reasonably possible as to the Hardwick matter, but not estimable at this time given the significant class issues to be resolved and that this matter is entering the discovery phase.

In California, several lawsuits were filed in state court against several defendants, including EID and Chemours. The complaints allege product liability, negligence, nuisance and trespass. Plaintiffs seek declaratory and injunctive relief, including abatement, as well as compensatory and punitive damages. The lawsuits include matters filed by:

- 11 southern California public water systems, the City of Corona, California and the Corona Utility Authority that allege manufacturers of PFOA and PFOS are responsible for contaminating the drinking water supply. The matter involving the 11 southern California public water systems has been transferred to the AFFF MDL. In the matter involving the City of Corona, California and the Corona Utility Authority, in February 2022, the court dismissed the case against EID and Chemours on jurisdictional grounds and the plaintiffs appealed the decision.
- Atascadero Mutual Water Company in San Luis Obispo County, California alleging damages to drinking water supply from PFAS releases, including PFOA and PFOS, into the environment. This matter has been transferred to the AFFF MDL.
- Sacramento Suburban Water District alleging damages from PFAS releases into the environment, including PFOA and PFOS, that impacted water sources the Water District uses to provide water. This matter was transferred to the AFFF MDL.

In Delaware, a putative class action was filed against two electroplating companies, 3M and EID, and two other defendants added in an amended complaint, alleging responsibility for PFAS contamination, including PFOA and PFOS, in drinking water and the environment in the nearby community. Although initially named in the lawsuit, Chemours was subsequently dismissed. The putative class of residents alleges negligence, nuisance, trespass, and other claims and seeks medical monitoring, personal injury and property damages, and punitive damages.

In South Carolina, a putative class action was filed in March 2022 in the state court against 3M, EID and the Company alleging PFAS contamination from a former textile plant located in Society Hill, South Carolina which allegedly used PFAS containing textile treatment chemicals supplied by the defendants. The lawsuit alleges negligence, trespass, strict liability and nuisance and seeks monetary damages, including property diminution, and injunctive relief, including water treatment and remediation, as well as punitive damages. The matter has been removed to federal court.

In Alabama, a purported class action was filed in July 2022 in Alabama federal court on behalf of certain drinking water utilities against 3M, EID, Corteva and the Company alleging contamination of drinking water. The complaints allege negligence, public nuisance, private nuisance and trespass. The plaintiffs seek injunctive relief as well as compensatory and punitive damages.

In Maine, a previously filed lawsuit in federal court by individuals against various paper mills owners in Maine was amended in October 2022 to add various alleged suppliers to the paper mills as defendants, including EID. The lawsuit alleges PFAS chemicals were used in making paper products at the mills and that discharges, waste disposal and the selling of byproducts from paper mills caused property damages as well as personal injury to the plaintiffs. The lawsuit alleges various claims against the mills; alleges negligence, strict liability and nuisance against the supplier defendants; and seeks monetary damages.

In the Netherlands, Chemours, along with DuPont and Corteva, received a civil summons filed before the Court of Rotterdam by four municipalities (Dordrecht, Papendrecht, Sliedrecht and Molenlanden) seeking liability declarations relating to the Dordrecht site's operations and emissions. Chemours reviewed the summons and filed a statement of defense during the fourth quarter of 2021, and in September 2022 the court entered an interlocutory judgment denying in part certain aspects of such statement of defense. At this time, management believes that a loss related to this matter is remote.

New Jersey Department of Environmental Protection Directives and Litigation

In March 2019, NJ DEP issued two Directives and filed four lawsuits against Chemours and other defendants. The Directives are: (i) a state-wide PFAS Directive issued to EID, DowDuPont, DuPont Specialty Products USA ("DuPont SP USA"), Solvay S.A., 3M, and Chemours seeking a meeting to discuss future costs for PFAS-related costs incurred by NJ DEP and establishing a funding source for such costs by the Directive recipients, and information relating to historic and current use of certain PFAS compounds; and, (ii) a Pompton Lakes Natural Resources Damages ("NRD") Directive to EID and Chemours demanding $0.1 to cover the cost of preparation of a natural resource damage assessment plan and access to related documents.

The lawsuits filed in New Jersey state courts by NJ DEP are: (i) in Salem County, against EID, 3M, and Chemours primarily alleging clean-up and removal costs and damages and natural resource damages under the Spill Act, the Water Pollution Control Act ("WPCA"), the Industrial Site Recovery Act ("ISRA"), and common law regarding past and present operations at Chambers Works, a site assigned to Chemours at Separation; (ii) in Middlesex County, against EID, DuPont SP USA, 3M, and Chemours primarily alleging clean-up and removal costs and damages and natural resource damages under the Spill Act, ISRA, WPCA, and common law regarding past and present operations at Parlin, an EID owned site; (iii) in Gloucester County, against EID and Chemours primarily alleging clean-up and removal costs and damages and natural resource damages under the Spill Act, WPCA, and common law regarding past operations at Repauno, a non-operating remediation site assigned to Chemours at Separation which has been sold; and, (iv) in Passaic County, against EID and Chemours primarily alleging clean-up and removal costs and damages and natural resource damages under the Spill Act, WPCA, and common law regarding past operations at Pompton Lakes, a non-operating remediation site assigned to Chemours at Separation. The alleged pollutants listed in the Salem County and Middlesex County matters above include PFAS. Each lawsuit also alleges fraudulent transfer.

In August 2020, a Second Amended Complaint was filed in each matter, adding fraudulent transfer and other claims against DuPont SP USA, Corteva, and DuPont. For the Salem County matter, NJ DEP added claims relating to failure to comply with state directives, including the state-wide PFAS Directive.

The matters were removed to federal court and consolidated for case management and pretrial purposes. In December 2021, the federal court entered a consolidated order granting, in part, and denying, in part, a motion to dismiss or strike parts of the Second Amended Complaints. In January 2022, NJ DEP filed a motion for a preliminary injunction requiring EID and Chemours to establish a remediation funding source ("RFS") in the amount of $943 for the Chambers Works site, the majority of which is for non-PFAS remediation items. Chemours believes that the motion as directed to it is not supported by applicable law and the RFS sought by NJ DEP is not an appropriate estimate of remedial cost for the Chambers Works site and, subject to the discussions regarding overall remediation costs under "Environmental Overview" within this Note 22 – Commitments and Contingent Liabilities, management believes that a loss is reasonably possible, but not estimable at this time, due to various reasons, including that the motion is in its early stages and there are significant factual issues and legal questions to be resolved.

EID requested that Chemours defend and indemnify it in these matters. Chemours has accepted the indemnity and defense of EID while reserving rights and declining EID's demand as to matters involving other EID entities, as well as ISRA and fraudulent transfer, subject to the terms of the MOU.

PFOA and PFAS Summary

With the exception of the matters noted otherwise above, management believes that it is reasonably possible that the Company could incur losses related to PFOA and/or PFAS matters in excess of amounts accrued, but any such losses, which could be material, are not estimable at this time due to various reasons, including, among others, that some matters are in their early stages and that there are significant factual issues to be resolved.

U.S. Smelter and Lead Refinery, Inc.

There are seven lawsuits, including a putative class action, by area residents concerning the U.S. Smelter and Lead Refinery multi-party Superfund site in East Chicago, Indiana. Several of the lawsuits allege that Chemours is now responsible for EID environmental liabilities. The lawsuits include allegations for personal injury damages, property diminution, and other damages. At Separation, EID assigned Chemours its former plant site, which is located south of the residential portion of the Superfund area, and its responsibility for the environmental remediation at the Superfund site. In one of the seven lawsuits, pursuant to a March 2021 court decision, there are no current pending claims against EID or Chemours. In four of the other lawsuits, pursuant to August 2021 and September 2021 court decisions, the court granted defendants' motion to dismiss, but in September 2022, granted plaintiffs' motions for leave to file amended complaints for certain claims. Management believes a loss is reasonably possible, but not estimable at this time due to various reasons including, among others, that such matters are in their early stages and have significant factual issues to be resolved.

Securities Litigation

In October 2019, a putative class action was filed in Delaware federal court against Chemours and certain of its officers. Following appointment of lead plaintiff, the New York State Teachers' Retirement System, and counsel, the plaintiff filed an amended complaint alleging that the defendants violated the Securities and Exchange Act of 1934 by making materially false and misleading statements and omissions in public disclosures regarding environmental liabilities and litigation matters assigned to Chemours in connection with its spin-off from EID. The amended complaint seeks a class of purchasers of Chemours stock between February 16, 2017 and August 1, 2019 and demands compensatory damages and fees. In February 2022, the Delaware federal court granted in part and denied in part Chemours' motion to dismiss the amended complaint and later ordered proceeding to determine if the remaining claims in the complaint shall proceed. In March 2022, plaintiff sought reconsideration of certain portions of the court's ruling. In May 2022, the lead plaintiff filed a Stipulation, Joint Motion and Proposed Order (the "Stipulation") withdrawing plaintiff's motion for reconsideration, striking certain allegations in the complaint relating to the claims that remained, waiving any appeal in connection with the action, and jointly moving the court to reconsider its prior partial dismissal order and grant Chemours' motion to dismiss the complaint. The court entered an order approving the Stipulation, granting Chemours' motion to dismiss, and dismissing all claims in the complaint with prejudice.

Commencing in July 2020, follow-on derivative lawsuits were filed by individual shareholders in Delaware federal court against Chemours, its directors and certain of its officers. The lawsuits rely on factual allegations similar to those in the securities action discussed above and allege breach of fiduciary duty and other claims. In July 2021 and June 2022, the plaintiffs in the follow-on lawsuits voluntarily dismissed the actions. These matters are now closed.

Patent Infringement

In November 2017, Chemours filed an action for infringement of two of its patents against Daikin America, Inc. and Daikin Industries, LTD. ("Daikin") in the Delaware federal court. Chemours alleges that Daikin have made, used, offered to sell, sold, or imported certain copolymers which infringe the patents-in-suit. In July 2022, the parties entered into a confidential settlement and the case has been dismissed.

Mining Solutions Facility Construction Stoppage

The Company had a Mining Solutions facility in Gomez Palacio, Durango, Mexico, which was under construction and included in the Mining Solutions Transaction. As of December 31, 2021, all assets at the Mining Solutions facility in Gomez Palacio, Durango, Mexico have transferred ownership as part of the Mining Solutions Transaction which is further discussed in "Note 4 – Acquisitions and Divestitures". Additionally, all pending litigation was contractually transferred, pending assignment of those cases before the court. The Company is not required to indemnify costs associated with any future litigation matters.

Environmental Overview

Chemours, due to the terms of the Separation-related agreements with EID, is subject to contingencies pursuant to environmental laws and regulations that in the future may require further action to correct the effects on the environment of prior disposal practices or releases of chemical substances, which are attributable to EID's activities before it spun-off Chemours. Much of this liability results from the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA", often referred to as "Superfund"), the Resource Conservation and Recovery Act ("RCRA"), and similar federal, state, local, and foreign laws. These laws may require Chemours to undertake certain investigative, remediation, and restoration activities at sites where ownership was transferred to Chemours under the Separation-related agreements or at sites where EID-generated waste was disposed before the 2015 separation. The accrual also includes estimated costs related to a number of sites identified for which it is probable that environmental remediation will be required, but which are not currently the subject of enforcement activities.

Chemours accrues for remediation activities when it is probable that a liability has been incurred and a reasonable estimate of the liability can be made. Where the available information is sufficient to estimate the amount of liability, that estimate has been used. Where the available information is only sufficient to establish a range of probable liability, and no point within the range is more likely than any other, the lower end of the range has been used. Estimated liabilities are determined based on existing remediation laws and technologies and the Company's planned remedial responses, which are derived from environmental studies, sampling, testing, and analyses. Inherent uncertainties exist in such evaluations, primarily due to unknown environmental conditions, changing governmental regulations regarding liability, and emerging remediation technologies. The Company, from time to time, may engage third parties to assist in obtaining and/or evaluating relevant data and assumptions when estimating its remediation liabilities. These liabilities are adjusted periodically as remediation efforts progress and as additional technological, regulatory, and legal information becomes available. Environmental liabilities and expenditures include claims for matters that are liabilities of EID and its subsidiaries, which Chemours may be required to indemnify pursuant to the Separation-related agreements. These accrued liabilities are undiscounted and do not include claims against third parties. Costs related to environmental remediation are charged to expense in the period that the associated liability is accrued.

The following table sets forth the Company's environmental remediation liabilities at December 31, 2022 and 2021 for the five sites that are deemed the most significant, together with the aggregate liabilities for all other sites.

	December 31,	
	2022	2021
Chambers Works, Deepwater, New Jersey	$ 30	$ 27
Fayetteville Works, Fayetteville, North Carolina (1)	465	359
Pompton Lakes, New Jersey	41	42
USS Lead, East Chicago, Indiana	17	24
Washington Works, West Virginia	17	11
All other sites	98	99
Total environmental remediation	$ 668	$ 562

(1) For more information on this matter refer to "Fayetteville Works, Fayetteville, North Carolina" within this "Note 22 – Commitments and Contingent Liabilities".

The following table sets forth the current and long-term components of the Company's environmental remediation liabilities at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Current environmental remediation	$ 194	$ 173
Long-term environmental remediation	474	389
Total environmental remediation	$ 668	$ 562

Typically, the time-frame for a site to go through all phases of remediation (investigation and active clean-up) may take about 15 to 20 years, followed by several years of operation, maintenance, and monitoring ("OM&M") activities. Remediation activities, including OM&M activities, vary substantially in duration and cost from site to site. These activities, and their associated costs, depend on the mix of unique site characteristics, evolving remediation technologies, and diverse regulatory requirements, as well as the presence or absence of other potentially responsible parties. In addition, for claims that Chemours may be required to indemnify EID pursuant to the Separation-related agreements, Chemours, through EID, has limited available information for certain sites or is in the early stages of discussions with regulators. For these sites in particular, there may be considerable variability between the clean-up activities that are currently being undertaken or planned and the ultimate actions that could be required. Therefore, considerable uncertainty exists with respect to environmental remediation costs and, under adverse changes in circumstances, management currently estimates the potential liabilities may range up to approximately $730 above the amount accrued at December 31, 2022. This estimate is not intended to reflect an assessment of Chemours' maximum potential liability. As noted above, the estimated liabilities are determined based on existing remediation laws and technologies and the Company's planned remedial responses, which are derived from environmental studies, sampling, testing, and analyses. Inherent uncertainties exist in such evaluations, primarily due to unknown environmental conditions, changing governmental regulations regarding liability, and emerging remediation technologies. Management will continue to evaluate as new or additional information becomes available in the determination of its environmental remediation liability.

In October 2021, EPA released its PFAS Strategic Roadmap, identifying a comprehensive approach to addressing PFAS. The PFAS Strategic Roadmap sets timelines by which EPA plans to take specific actions through 2024, including establishing a national primary drinking water regulation for PFOA and PFOS and taking Effluent Limitations Guidelines actions to regulate PFAS discharges from industrial categories among other actions. As provided under its roadmap, EPA also released on the same day its National PFAS Testing Strategy, under which the agency will identify and select certain PFAS compounds for which it will require PFAS manufacturers to conduct testing pursuant to the Toxic Substances Control Act ("TSCA") orders. EPA has indicated that Chemours will receive orders for certain of such compounds, including seven of the testing orders will be issued for PFAS compounds alleged to be associated with Fayetteville. In June 2022, EPA issued its first TSCA Section 4(a)(2) order under this program to five recipients, including Chemours and EID, and Chemours has met with the agency in July 2022 to discuss the order and responded to it. In January 2023, EPA issued a second TSCA Section 4(a)(2) order to 4 recipients, including Chemours and EID. The timing of the remaining TSCA orders is not determinable at this time.

Also in October 2021, EPA published a final toxicity assessment for GenX compounds that decreased the draft reference dose for GenX compounds based on EPA's review of new studies and analyses. On March 18, 2022, Chemours filed a petition to EPA requesting to withdraw and correct its toxicity assessment for GenX compounds, which was denied by EPA on June 14, 2022. The next day, on June 15, 2022, EPA released health advisories for four PFAS, including interim updated lifetime drinking water health advisories for PFOA and PFOS, and final health advisories for GenX compounds, including hexafluoropropylene oxide dimer acid ("HFPO Dimer Acid"), and another PFAS compound (PFBS). On July 13, 2022 the Company filed a Petition for Review of the GenX compounds health advisory. The Company continues to evaluate the impact of EPA's June 15th health advisories and the PFAS Strategic Roadmap. The environmental remediation liabilities and accrued litigation, as applicable, recorded for Fayetteville, Washington Works, Parkersburg, West Virginia and Chambers Works, Deepwater, New Jersey as of December 31, 2022 are based upon the existing Consent Orders, agreements and/or voluntary commitments with EPA, state and other local regulators and depending on the ultimate outcome of EPA's actions, could require adjustment to meet any new drinking water standards. It is reasonably possible that additional costs could be incurred in connection with EPA's actions, however, the Company cannot estimate the potential impact or additional cost at this time, due in part to the uncertainties on EPA's development of maximum contaminant levels for PFOA and PFOS and the implementation of the June 15th health advisories. Refer to "Fayetteville Works, Fayetteville, North Carolina" below for further detail on the impact of EPA's final drinking water health advisory for GenX compound, including HFPO Dimer Acid.

For the years ended December 31, 2022, 2021 and 2020, Chemours incurred environmental remediation expenses of $269, $269, and $71, respectively.

Fayetteville Works, Fayetteville, North Carolina

Fayetteville has been in operation since the 1970s and is located next to the Cape Fear River southeast of the City of Fayetteville, North Carolina. Hexafluoropropylene oxide dimer acid ("HFPO Dimer Acid", sometimes referred to as "GenX" or "C3 Dimer Acid") is manufactured at Fayetteville. The Company has operated the site since its Separation from EID in 2015.

While the Company believes that discharges from Fayetteville to the Cape Fear River, on-site surface water, groundwater, and air emissions have not impacted the safety of drinking water in North Carolina, the Company is cooperating with a variety of ongoing inquiries and investigations from federal, state, and local authorities, regulators, and other governmental entities including EPA.

Consent Order with North Carolina Department of Environmental Quality ("NC DEQ")

In February 2019, the North Carolina Superior Court for Bladen County approved a Consent Order ("CO") between NC DEQ, Cape Fear River Watch ("CFRW"), and the Company, resolving the State's and CFRW's lawsuits and other matters (including Notices of Violation ("NOVs") issued by the State). Under the terms of the CO, Chemours paid $13 in March 2019 to cover a civil penalty and investigative costs and agreed to certain compliance measures (with stipulated penalties for failures to do so), including the following:

- Install a thermal oxidizer ("TO") to control all PFAS in process streams from certain processes at Fayetteville at an efficiency of 99.99%;
- Develop, submit, and implement, subject to approval from NC DEQ and CFRW, a plan for interim actions that are economically and technologically feasible to achieve the maximum PFAS reduction from Fayetteville to the Cape Fear River within a two-year period;
- Develop and implement, subject to approval, a Corrective Action Plan ("CAP") that complies with North Carolina's groundwater standards and guidance provided by NC DEQ. At a minimum, the CAP must require Chemours to reduce the total loading of PFAS originating from Fayetteville to surface water by at least 75% from baseline, as defined by the CO; and,
- Provide and properly maintain permanent drinking water supplies, including via whole-building filtration units and reverse osmosis ("RO") units to qualifying surrounding properties with private drinking water wells.

In August 2020, NC DEQ, CFRW, and the Company reached agreement on the terms of an addendum to the CO (the "Addendum"), which includes procedures for implementing specified remedial measures for reducing PFAS loadings from Fayetteville to the Cape Fear River. The Addendum also includes stipulated financial penalties, inclusive of daily and weekly fines for untimeliness in meeting deadlines for construction, installation, and other requirements, as well as intermittent performance-based fines for noncompliance in meeting PFAS loading reduction requirements and removal efficiency targets. After a period of public comment, in October 2020, the Addendum was approved by the North Carolina Superior Court for Bladen County. A Motion to Intervene filed by Cape Fear Public Utility Authority was denied.

The following table sets forth the on-site and off-site components of the Company's accrued environmental remediation liabilities related to PFAS at Fayetteville at December 31, 2022 and 2021.

	December 31,	
	2022	2021
On-site remediation	$ 264	$ 289
Off-site groundwater remediation	201	70
Total Fayetteville environmental remediation	$ 465	$ 359

The following table sets forth the current and long-term components of the Company's accrued environmental remediation liabilities related to PFAS at Fayetteville at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Current environmental remediation	$ 139	$ 114
Long-term environmental remediation	326	245
Total Fayetteville environmental remediation	$ 465	$ 359

For the years ended December 31, 2022, 2021 and 2020, environmental remediation expenses related to Fayetteville were $229, $228, and $43, respectively. As discussed below, in accordance with the guidance on accounting changes, the Company revised certain of its estimated liability in the second quarter of 2022 and 2021 resulting in an additional environmental remediation expense of $174 and $181 recorded in the years ended December 31, 2022 and 2021, respectively. These accruals were primarily related to off-site drinking water remediation, construction of the barrier wall and the future operation of the groundwater extraction and treatment system in both periods.

Emissions to air

Fayetteville operates multiple permitted air discharge stacks, blowers, and vents as part of its manufacturing activities. A TO became fully operational at the site on December 27, 2019, and Chemours switched to the permitted operating scenario for the TO on December 31, 2019 as set forth in the CO. The TO is designed to reduce aerial PFAS emissions from Fayetteville, and testing results showed that the TO is controlling PFAS emissions at an average efficiency exceeding 99.999%. Testing was conducted by Chemours and monitored by the North Carolina Division of Air Quality ("NC DAQ"). The cost related to the installation of the TO were capitalized in accordance with the Company's policy.

Off-site replacement drinking water supplies

The CO requires the Company to provide permanent replacement drinking water supplies, including via connection to public water supply, whole building filtration units and/or RO units, to qualifying surrounding residents, businesses, schools, and public buildings with private drinking water wells. Qualifying surrounding properties with private drinking water wells that have tested for GenX above the state provisional health goal of 140 parts per trillion ("ppt"), or any applicable health advisory, whichever is lower, may be eligible for public water or a whole building filtration system. Qualifying surrounding properties with private drinking water wells that have tested above 10 ppt for GenX or other perfluorinated compounds ("Table 3 Compounds") are eligible for three under-sink RO units. The Company provides bottled drinking water to a qualifying property when it becomes eligible for a replacement drinking water supply, and continues to provide delivery of bottled drinking water to the qualifying property until the eligible supply is established or installed. Under the terms of the CO, Chemours must make the offer to install a water treatment system to property owners in writing multiple times, and property owners have approximately one year to accept the Company's offer before it expires. In September 2021, the Company entered into an agreement with Bladen County, North Carolina to fund public water system upgrades and connections associated with providing permanent replacement drinking water supplies under the CO.

Further, in addition to the surrounding counties, in November 2021, NC DEQ sent a notice to Chemours regarding PFAS contamination from the Cape Fear River of groundwater monitoring wells and water supply wells in New Hanover County and potentially three other downstream counties based on new sampling data by NC DEQ and its determination of Chemours' obligations for such contamination. NC DEQ directed Chemours to submit for its review and approval a comprehensive groundwater contamination assessment in such counties, as well as an updated drinking water program to provide for sampling under the CO in such counties. In response, in February 2022, the Company submitted an interim drinking water plan and a separate assessment framework plan, which were subsequently updated and resubmitted in August 2022, based on comments received from NC DEQ. On January 30, 2023, NC DEQ provided additional comments to the August 2022 submittal identifying additional actions regarding the groundwater assessment as well as the drinking water program, and the Company has 45 days to respond to NC DEQ. At December 31, 2022, the accrued liabilities reflect the Company's estimated costs related to this matter.

In June 2022, following EPA's release of a final drinking water health advisory for GenX compounds, including HFPO Dimer Acid, by EPA, NC DEQ sent a notice to Chemours requiring the Company to revise its drinking water compliance plan and feasibility study report, and to provide public water or whole building filtration systems to eligible properties with a private drinking water well that have tested above 10 ppt for GenX compounds under Paragraph 19 of the CO.

In July 2022, Chemours submitted its response to NC DEQ, providing information and other items requested by NCDEQ for its approval. Notwithstanding the Petition for Review of the EPA GenX compounds health advisory, and reserving its rights related thereto, the Company proposed a plan to extend Paragraph 19 options to properties that have tested above 10 ppt for GenX compounds, including conducting a feasibility review. As a result of Chemours' proposed plan in response to the NC DEQ notice, the Company recorded approximately $108 in selling, general, and administrative expense, reflecting a change in estimate for the estimated qualifying properties previously qualified for under-sink RO units that may now be eligible for public water or a whole building filtration system resulting from the lower health advisory for GenX of 10ppt.

The Company's estimated liability for off-site replacement drinking water supplies is based on management's assessment of the current facts and circumstances for this matter, including comments received from NC DEQ, which are subject to various assumptions that include, but are not limited to, the number of affected surrounding properties, response rates to the Company's offer, the timing of expiration of offers made to the property owners, the type of water treatment systems selected (i.e., public water, whole building filtration or RO units), the cost of the selected water treatment systems, and any related OM&M requirements, fines and penalties, and other charges contemplated by the CO. For off-site drinking water supplies, OM&M is accrued for 20 years on an undiscounted basis based on the Company's current plans under the CO.

At December 31, 2022 and 2021, the Company had $163 and $59 of accrued liabilities, respectively, for off-site groundwater testing and water treatment system installations at qualifying third-party properties primarily in Bladen and Cumberland counties surrounding Fayetteville, which is expected to be disbursed over approximately 20 years. In addition, the Company had $38 and $11, respectively, of accrued liabilities for the assessment and for sampling related to potential PFAS contamination of groundwater and supply of alternative drinking water in New Hanover and three other downstream counties. Off-site installation, maintenance, and monitoring cost estimates are based on management's assessment of the current facts and circumstances for these matters, including comments received from NC DEQ, and could change as actual experience may differ from management's estimates or new information may become available.

The estimated liability was based on certain assumptions, which management believes are reasonable under the circumstances and include, but are not limited to, implementation of the soil and groundwater assessment, the source and cause of PFAS contamination for the four downstream counties, the estimated number of properties at which sampling is conducted and whether such property will qualify for an alternative drinking water supply, other potentially responsible parties and the method of long-term alternative water supply, if any. Further, management's estimate of the ultimate liability for this matter is dependent upon NC DEQ approval of the proposed plans in response to various NC DEQ letters, obtaining additional information, implementation of EPA's health advisories, additional feasibility and investigation work that has not yet been scoped or performed, and the estimated additional future cost of OM&M. The ultimate resolution of the matters could have a material adverse effect on the Company's financial position, results of operations and cash flow.

On-site surface water and groundwater remediation

Abatement and remediation measures already taken by Chemours, including the capture and disposal of its operations' process wastewater and other interim actions, have addressed and abated nearly all PFAS discharges from the Company's continuing operations at Fayetteville. However, the Company continues to have active dialogue with NC DEQ and other stakeholders regarding the potential remedies that are both economically and technologically feasible to achieve the CO and Addendum objectives related to the impact of site surface water and groundwater contamination from historical operations.

In 2019, the Company completed and submitted its Cape Fear River PFAS Loading Reduction Plan - Supplemental Information Report and its CAP to NC DEQ. The Supplemental Information Report provided information to support the evaluation of potential interim remedial options to reduce PFAS loadings to surface waters. The CAP described potential long-term remediation activities to address PFAS in groundwater and surface waters at the site, in accordance with the requirements of the CO and the North Carolina groundwater standards, and built upon the previous submissions to NC DEQ. The NC DEQ received comments on the CAP during a public comment period, and the Company is awaiting formal response to the CAP from NC DEQ. With respect to the CO, the Addendum was approved by the North Carolina Superior Court for Bladen County in October 2020 and establishes the procedure to implement specified remedial measures for reducing PFAS loadings from Fayetteville to the Cape Fear River, including construction of a barrier wall with a groundwater extraction system to be completed by March 15, 2023, or an extended date in accordance with the Addendum.

The Company began operation of a capture and treatment system from the site's old outfall channel following the issuance of a National Pollutant Discharge Elimination System ("NPDES") permit by NC DEQ in September 2020. In January 2021, the operation of the old outfall treatment system was interrupted on two occasions, and notice was provided to NC DEQ of the low treatment flow conditions through the system. The Company received an NOV from NC DEQ, alleging violations of the CO and the NPDES water permit arising from the design and operation of the treatment system related to the old outfall. The Company and its third-party service provider have taken, and continue to take, interim actions intended to improve the operation of the old outfall treatment system and address challenges posed by substantial rain events, sediment loading into the system, and variability in water influent conditions. In addition, the Company and its third-party service provider are actively working on long-term enhancements to the treatment system based on learnings from the recent challenges. Accordingly, in 2021, the Company recorded additional $64 accrual, representing approximately 20 years of estimated operation of the system, primarily related to the enhancements and the long-term operation of the water treatment system in accordance with the requirements of the CO. System enhancements completed or being implemented consist of a holding pond, installation of new ultra-filtration units and additional water pretreatment equipment which is anticipated to be completed in the second half of 2023.

In 2021, work commenced on the detailed engineering design of the barrier wall and refinement of models for the planned groundwater extraction system. Engineering designs for the Company's major construction projects are typically reviewed at 30, 60 and 90% complete. The current planned construction site of the future barrier wall, that will address both on-site groundwater and long-term seep remediation, is expected to be located at an approximately 30 feet higher elevation above the Cape Fear River. Based upon the 30% design information completed in 2021, significant increase in construction complexity and related vendor and other design costs were identified resulting in a change in estimate, which includes, among others, changes in location, depth of the wall and additional pumping wells. Accordingly, the Company recorded additional $49 accrual in 2021. Chemours submitted the design reports for the 60% and 90% stages, in August 2021 and March 2022, respectively, that NC DEQ reviewed and approved. The Company received an approval of the 90% design on September 15, 2022 with specific conditions to be addressed. Chemours responded to these conditions on October 25, 2022 and received NC DEQ approval of the 90% design, as supplemented on October 26, 2022.

Additionally, on September 15, 2022, NC DEQ issued a permit for discharge of treated groundwater and surface water associated with the project which contained conditions and limits that exceeded the requirements contained within the CO and the previously public-noticed draft discharge permit. The Company filed an administrative petition contesting the discharge permit on October 14, 2022.

On November 14, 2022 the Company reached an agreement with NC DEQ and the Cape Fear Public Utility Authority with respect to the discharge permit that, inter alia, facilitated the construction of the barrier wall and groundwater extraction and treatment system and recognizes an optimization period after commencement of discharge from the system. Chemours has dismissed its petition without prejudice pursuant to the agreement.

Pre-construction site preparation activities for the barrier wall are in progress and in the second quarter of 2022, construction of the water conveyance and treatment facility has begun.

During the second quarter of 2022, the Company recorded additional accrual of approximately $58. The change in estimates primarily related to additional materials required for the barrier wall following completion of soil testing, additional mechanical and electrical for water capture, conveyance and treatment system, additional civil construction requirements, additional soil management requirements and general increases in the cost of materials due to supply chain constraints and inflation.

Accordingly, based on the CO, the Addendum, the CAP, and management's plans, which are based on current regulations and technology, the Company has accrued $264 and $289 at December 31, 2022 and 2021, respectively, related to the estimated cost of on-site remediation, based on the range of potential outcomes on current potential remedial options, and the projected amounts to be paid over a period of approximately 20 years. The final costs of any selected remediation will depend primarily on completion or finalization of contract negotiations with key construction and water treatment vendors, potential schedule and scope changes as the construction progresses, actual labor and material costs that could be impacted by supply chain constraints and inflation, and estimated future cost and time period of OM&M. As such, cost estimates could change as actual experience may differ from management's estimates. Accordingly, at December 31, 2022, the Company estimated that the cost for the barrier wall and groundwater OM&M could range up to $281, of which $158 is accrued.

Further, the final cost of the on-site groundwater treatment system depends on timely finalization of remaining design details, notably water treatment requirements and estimated carbon usage and achieving the successful optimization of the system during the period stated in the permit. Per the Addendum, NC DEQ was required to use best efforts to complete its review and notify the Company whether the 90% design is approved within 30 days after submittal. If not approved within 30 days, subsequent deadlines shall be extended by the time required for NC DEQ approval in excess of 30 days. Changes in estimates are recorded in results of operations in the period that the events and circumstances giving rise to such changes occur. If the Company does not achieve project completion of the barrier wall and groundwater treatment system by March 15, 2023, subject to the extension provided in the Addendum relating to approval of the 90% design report, the Addendum specifies penalties of $0.15 plus an additional $0.02 per week until installation is completed. A prolonged delay in the construction could result in additional costs including the availability of critical construction resources and costs of materials, among others. Payment of financial penalties, if or when completion extends beyond March 15, 2023, subject to extension, as stipulated in the Addendum, is deemed remote at this time.

The Company's estimated liability for the remediation activities that are probable and estimable is based on the CO, the Addendum, the CAP, and management's assessment of the current facts and circumstances, which is subject to various assumptions including the transport pathways (being pathways by which PFAS reaches the Cape Fear River) that will require remedial actions, the types of interim and permanent site surface water and on-site remedies and treatment systems selected and implemented, the estimated cost of such potential remedies and treatment systems, any related OM&M requirements, and other charges contemplated by the CO and the Addendum.

Consistent with prior periods, the Company accrued 20 years of OM&M for Fayetteville environmental remediation systems based on the CO and Addendum, which includes estimated higher power consumption, ongoing monitoring, pretreatment, filtering supplies (principally carbon) and regular maintenance of the system over a 20-year period of estimated operation starting in 2023.

It is possible that issues relating to site discharges in various transport pathways, the selection of remediation alternatives to achieve PFAS loading reductions, or the operating effectiveness of the TO could result in further litigation and/or regulatory demands with regards to Fayetteville, including potential permit modifications or penalties under the CO and the Addendum. It is also possible that, as additional data is collected on the transport pathways and dialogue continues with NC DEQ and other stakeholders, the type or extent of remediation actions required to achieve the objectives committed to in the CO may change (increase or decrease) or remediation activities could be delayed. If such issues arise, or if the CO is further amended, an additional loss is reasonably possible, but not estimable at this time.

Litigation and Other matters related to Fayetteville

In February 2019, the Company received an NOV from EPA, alleging certain TSCA violations at Fayetteville. Matters raised in the NOV could have the potential to affect operations at Fayetteville. For this NOV, the Company responded to EPA in March 2019, asserting that the Company has not violated environmental laws. The Company also received an NOV in April 2020 from NC DEQ, alleging an air permit violation under the North Carolina Administrative Code. As of December 31, 2022, management does not believe that a loss is probable.

In August 2021, the Company received a NOV from NC DEQ alleging violations of the facility's Title V air permit for failure to reduce facility-wide annual emissions of GenX compounds and failure to properly operate and maintain a carbon absorber unit. The Company provided a response to the NOV in September 2021. In October 2021, the Company received two civil penalty assessments totaling $0.3 associated with the NOV. In November 2021, the Company appealed the civil penalty assessments in North Carolina's Office of Administrative Hearings. In April 2022, the Company and NC DEQ entered into a settlement agreement pursuant to which the Company agreed to pay the civil penalty assessed by the agency and to take additional steps toward reducing air emissions. The administrative appeal has been dismissed.

Civil actions have been filed against EID and Chemours in North Carolina courts relating to discharges from Fayetteville. These actions include a consolidated action brought by public water suppliers seeking damages and injunctive relief, a consolidated purported class action seeking medical monitoring, and property damage and/or other monetary and injunctive relief on behalf of the putative classes of property owners and residents in areas near or that draw drinking water from the Cape Fear River, and two actions encompassing approximately 1,800 private well owners seeking compensatory and punitive damages. Ruling on the Company's motions in April 2019, the court dismissed the medical monitoring, injunctive demand, and many other alleged causes of actions in these lawsuits.

In addition to natural resource damages matter filed by the State of North Carolina (as discussed within the "PFAS" section of this "Note 22 – Commitments and Contingent Liabilities"), in September 2020, three additional lawsuits were filed in North Carolina state court against Chemours and EID, as well as other defendants. One of the lawsuits is a putative class action on behalf of residents who are served by the Cape Fear Public Water utility, alleges negligence, nuisance, and other claims related to the release of perfluorinated compounds from Fayetteville, and seeks compensatory and punitive damages and medical monitoring. The other two lawsuits were filed on behalf of individuals residing near Fayetteville and allege negligence, nuisance, and other claims related to the release of perfluorinated compounds. The individuals seek compensatory property damages, punitive damages, and, in some cases, medical monitoring. All three lawsuits allege fraudulent transfer against EID and other EID entities, but not against Chemours. In October 2020, the cases were removed to federal court and then the two lawsuits filed on behalf of individuals were remanded back to state court.

In March 2022, a lawsuit was filed on behalf of an individual residing near the Fayetteville site against Chemours, EID and other defendants alleging negligence, nuisance and other claims related to the discharges from the Fayetteville site. The individual seeks compensatory property damages, punitive damages and medical monitoring. The lawsuit also alleges fraudulent transfer against EID and other EID entities, but not against Chemours.

In March 2022, Cumberland County, North Carolina filed suit in state court against Chemours, EID and other defendants related to discharges from the Fayetteville site alleging negligence, nuisance, trespass and fraudulent transfer. The lawsuit seeks damages as well as injunctive and equitable relief.

In December 2022, Aqua North Carolina, Inc. filed suit in North Carolina state court alleging EID, DuPont, DowDuPont, Inc and the Company are responsible for polyfluorinated chemical contamination of the Cape Fear River, groundwater and other water sources used by Aqua North Carolina across the state to serve its water customers. The complaint alleges product liability, negligence, trespass, deceptive trade practices, unjust enrichment and fraudulent transfer. Plaintiff seeks equitable relief as well as compensatory and punitive damages.

It is possible that additional litigation may be filed against the Company and/or EID concerning the Fayetteville Work discharges. It is not possible at this point to predict the timing, course, or outcome of all governmental and regulatory inquiries and notices and litigation related to Fayetteville, and it is reasonably possible that these matters could have a material adverse effect on the Company's financial position, results of operations, and cash flows. In addition, local communities, organizations, and federal and state regulatory agencies have raised questions concerning HFPO Dimer Acid and other perfluorinated and polyfluorinated compounds at certain other manufacturing sites operated by the Company. It is possible that additional developments similar to those described above and centering on Fayetteville could arise in other locations.

Other

In addition, in the ordinary course of business, the Company may make certain commitments, including representations, warranties, and indemnities relating to current and past operations, including environmental remediation and other potential costs related to divested assets and businesses, and issue guarantees of third-party obligations. The Company accrues for these matters when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated. In connection with the sale of the Mining Solutions Business, the Company provided a limited indemnification with respect to environmental liabilities that may arise from activities prior to the closing date. Such indemnification would not exceed approximately $78 and will expire on December 1, 2026. No liabilities have been recorded at December 31, 2022 and 2021, respectively, with respect to this indemnification.

Note 23. Equity

2018 Share Repurchase Program

On August 1, 2018, the Company's board of directors approved a share repurchase program authorizing the purchase of shares of Chemours' issued and outstanding common stock in an aggregate amount not to exceed $750, plus any associated fees or costs in connection with the Company's share repurchases activity (the "2018 Share Repurchase Program"). On February 13, 2019, the Company's board of directors increased the authorization amount of the 2018 Share Repurchase Program from $750 to $1,000. Under the 2018 Share Repurchase Program, shares of Chemours' common stock can be purchased in the open market from time to time, subject to management's discretion, as well as general business and market conditions. On May 19, 2022, the Company completed the aggregate $1,000 in authorized purchases of Chemours' issued and outstanding common stock under the 2018 Share Repurchase Program, which amounted to a cumulative 28,603,784 shares purchased at an average share price of $34.96 per share. All common shares purchased under the 2018 Share Repurchase Program are held as treasury stock and accounted for using the cost method.

The following table sets forth the Company's share repurchase activity under the 2018 Share Repurchase Program for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Total number of shares purchased	7,824,039	5,533,746	-
Total paid for shares purchased	$ 251	$ 177	$ -
Average price paid per share	$ 32.06	$ 31.99	$ -

2022 Share Repurchase Program

On April 27, 2022, the Company's board of directors approved a share repurchase program authorizing the purchase of shares of Chemours' issued and outstanding common stock in an aggregate amount not to exceed $750, plus any associated fees or costs in connection with the Company's share repurchase activity (the "2022 Share Repurchase Program"). Under the 2022 Share Repurchase Program, shares of Chemours' common stock can be purchased in the open market from time to time, subject to management's discretion, as well as general business and market conditions. The Company's 2022 Share Repurchase Program became effective on April 27, 2022 and is scheduled to continue through the earlier of its expiration on December 31, 2025 or the completion of repurchases up to the approved amount. The program may be suspended or discontinued at any time. All common shares purchased under the 2022 Share Repurchase Program are expected to be held as treasury stock and accounted for using the cost method.

The following table sets forth the Company's share repurchase activity under the 2022 Share Repurchase Program for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Total number of shares purchased	8,234,314	-	-
Total paid for shares purchased	$ 241	$ -	$ -
Average price paid per share	$ 29.24	$ -	$ -

The Company purchased an aggregate 16,058,353 shares of Chemours' issued and outstanding common stock under the 2018 and 2022 Share Repurchase Programs during the year ended December 31, 2022, respectively, which amounted to $492 at an average share price of $30.61.

Through December 31, 2022, under the 2022 Share Repurchase Program, the Company purchased a cumulative 8,234,314 shares of Chemours' issued and outstanding common stock, which amounted to $241 at an average share price of $29.24 per share. The aggregate amount of Chemours' common stock that remained available for purchase under the 2022 Share Repurchase Program at December 31, 2022 was $509.

Note 24. Stock-based Compensation

The Company's total stock-based compensation expense amounted to $27, $34, and $16 for the years ended December 31, 2022, 2021 and 2020, respectively.

In 2017, Chemours' stockholders approved Chemours' Equity and Incentive Plan (the "Equity Plan"), which provides for grants to certain employees, independent contractors, or non-employee directors of the Company of different forms of awards, including stock options, RSUs, and PSUs, with 19,000,000 shares reserved for issuance. The Equity Plan replaced the Company's prior plan adopted at Separation (the "Prior Plan"). As a result, no further grants will be made under the Prior Plan.

On April 28, 2021, Chemours' stockholders approved an amendment and restatement of the Equity Plan to increase the number of shares of the Company's common stock reserved for issuance by 3,050,000 shares.

Following the amendment and restatement of the Equity Plan, a total of 22,050,000 shares of the Company's common stock may be subject to awards granted under the Equity Plan, less one share for every one share that was subject to an option or stock appreciation right granted after December 31, 2016 under the Prior Plan, and one-and-a-half shares for every one share that was subject to an award other than an option or stock appreciation right granted after December 31, 2016 under the Prior Plan. Any shares that are subject to options or stock appreciation rights will be counted against this limit as one share for every one share granted, and any shares that are subject to awards other than options or stock appreciation rights will be counted against this limit as one-and-a-half shares for every one share granted. Awards that were outstanding under the Prior Plan remain outstanding under the Prior Plan in accordance with their terms. The underlying share awards granted under the Prior Plan after December 31, 2016 that are forfeited, cancelled, or that otherwise do not result in the issuance of shares, will be available for issuance under the Equity Plan. At December 31, 2022, approximately 10,000,000 shares of the Equity Plan reserve are available for grants.

The Chemours Compensation and Leadership Development Committee determines the long-term incentive mix, including stock options, RSUs, and PSUs, and may authorize new grants annually.

Stock Options

During the years ended December 31, 2022, 2021 and 2020, Chemours granted non-qualified stock options to certain of its employees, which will vest over a three-year period and expire 10 years from the date of grant. The fair values of the Company's stock options are based on the Black-Scholes valuation model.

The following table sets forth the weighted-average assumptions used at the respective grant dates to determine the fair values of the Company's stock option awards granted during the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Risk-free interest rate	1.61%	0.91%	0.94%
Expected term (years)	6.00	6.00	6.00
Volatility	56.71%	63.85%	53.18%
Dividend yield	3.85%	4.16%	6.93%
Fair value per stock option	$ 9.89	$ 9.78	$ 3.74

The Company determined the dividend yield by dividing the expected annual dividend on the Company's stock by the option exercise price. A historical daily measurement of volatility is determined based on the blended volatilities of Chemours and the average of its peer companies, adjusted for Chemours' debt leverage. The risk-free interest rate is determined by reference to the yield on an outstanding U.S. Treasury note with a term equal to the expected term of the option granted. The expected term is determined using a simplified approach, calculated as the mid-point between the graded vesting period and the contractual life of the award.

The following table sets forth Chemours' stock option activity for the years ended December 31, 2022, 2021 and 2020.

	Number of Shares (in Thousands)	Weighted-average Exercise Price (per Share)	Weighted-average Remaining Contractual Term (in Years)	Aggregate Intrinsic Value (in Thousands)
Outstanding, December 31, 2019	6,056	$ 20.92	4.71	$ 19,087
Granted	2,778	14.42		
Exercised	(1,124)	14.23		
Forfeited	(186)	23.84		
Expired	(165)	29.99		
Outstanding, December 31, 2020	7,359	$ 19.21	6.21	$ 63,894
Granted	1,153	24.35		
Exercised	(1,376)	17.01		
Forfeited	(107)	20.62		
Expired	(62)	36.71		
Outstanding, December 31, 2021	6,967	$ 20.32	6.60	$ 101,261
Granted	1,031	25.98		
Exercised	(3,041)	16.76		
Forfeited	(202)	21.29		
Expired	(87)	32.78		
Outstanding, December 31, 2022	4,668	$ 23.61	7.08	$ 42,668
Exercisable, December 31, 2022	2,189	$ 25.71	5.78	$ 20,561

The aggregate intrinsic values in the preceding table represent the total pre-tax intrinsic value (the difference between the Company's closing stock price on the last trading day at the end of the year and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their in-the-money options at year-end. The amount changes based on the fair market value of the Company's stock. The total intrinsic value of all options exercised for the years ended December 31, 2022, 2021 and 2020 amounted to $45, $23, and $12, respectively.

For the years ended December 31, 2022, 2021 and 2020, the Company recorded $8, $10, and $9 in stock-based compensation expense specific to its stock options, respectively. At December 31, 2022, there was $9 of unrecognized stock-based compensation expense related to stock options, which is expected to be recognized over a weighted-average period of 1.83 years.

Restricted Stock Units

Chemours grants RSUs to key management employees that generally vest over a three-year period and, upon vesting, convert one-for-one to Chemours' common stock. The fair value of all stock-settled RSUs is based on the market price of the underlying common stock at the grant date. RSUs vest contingent upon a time-based vesting condition and do not have explicit performance conditions.

The following table sets forth non-vested RSUs at December 31, 2022, 2021 and 2020.

	Number of Shares (in Thousands)	Weighted-average Grant Date Fair Value (per Share)
Non-vested, December 31, 2019	546	$ 29.95
Granted	585	17.01
Vested	(161)	38.68
Forfeited	(60)	25.78
Non-vested, December 31, 2020	910	$ 20.51
Granted	461	26.30
Vested	(188)	24.33
Forfeited	(24)	19.96
Non-vested, December 31, 2021	1,159	$ 22.20
Granted	388	28.08
Vested	(473)	20.97
Forfeited	(77)	21.75
Non-vested, December 31, 2022	997	$ 25.10

For the years ended December 31, 2022, 2021 and 2020, the Company recorded $11, $12, and $7 in stock-based compensation expense specific to its RSUs, respectively. At December 31, 2022, there was $12 of unrecognized stock-based compensation expense related to RSUs, which is expected to be recognized over a weighted-average period of 0.71 years.

Performance Share Units

Chemours grants PSUs to key senior management employees which, upon vesting, convert one-for-one to Chemours' common stock if specified performance goals, including certain market-based conditions, are met over the three-year performance period specified in the grant, subject to exceptions through the respective vesting period of three years. Each grantee is granted a target award of PSUs, and may earn between 0% and 250% of the target amount depending on the Company's performance against stated performance goals.

The following table sets forth non-vested PSUs at 100% of target amounts at December 31, 2022, 2021 and 2020.

	Number of Shares (in Thousands)	Weighted-average Grant Date Fair Value (per Share)
Non-vested, December 31, 2019	529	$ 39.53
Granted	542	17.14
Vested	(176)	35.84
Forfeited	(51)	27.79
Non-vested, December 31, 2020	844	$ 29.05
Granted	309	27.42
Vested	(122)	52.34
Forfeited	(276)	23.26
Non-vested, December 31, 2021	755	$ 26.72
Granted	316	28.77
Vested	(213)	43.83
Forfeited	—	—
Non-vested, December 31, 2022	858	$ 22.48

A portion of the fair value of PSUs was estimated at the grant date based on the probability of satisfying the market-based conditions associated with the PSUs using the Monte Carlo valuation method, which assesses probabilities of various outcomes of market conditions. The other portion of the fair value of the PSUs is based on the fair market value of the Company's stock at the grant date, regardless of whether the market-based conditions are satisfied. The per unit weighted-average fair value at the date of grant for PSUs granted during the year ended December 31, 2022 was $28.77. The fair value of each PSU grant is amortized monthly into compensation expense based on its respective vesting conditions over a three-year period. Compensation cost is incurred based on the Company's estimate of the final expected value of the award, which is adjusted as required for the portion based on the performance-based condition. The Company assumes that forfeitures will be minimal and recognizes forfeitures as they occur, which results in a reduction in compensation expense. As the payout of PSUs includes dividend equivalents, no separate dividend yield assumption is required in calculating the fair value of the PSUs.

For the years ended December 31, 2022, 2021, and 2020 the Company recorded stock-based compensation expense of $8, $12, and a reduction of stock-based compensation expense of less than $1 specific to its PSUs, respectively. At December 31, 2022, based on the Company's assessment of its performance goals, approximately 1,120,000 additional shares may be awarded under the Equity Plan.

Employee Stock Purchase Plan

Since 2017, the Company has provided employees the opportunity to participate in Chemours' Employee Stock Purchase Plan ("ESPP"). Under the ESPP, a total of 7,000,000 shares of Chemours' common stock is reserved and authorized for issuance to participating employees, as defined by the ESPP, which excludes executive officers of the Company. The ESPP provides for consecutive 12-month offering periods, each with two purchase periods in March and September within those offering periods. Participating employees are eligible to purchase the Company's common stock at a discounted rate equal to 95% of its fair value on the last trading day of each purchase period. To date, the Company has executed open market transactions to purchase the Company's common stock on behalf of its ESPP participants, which amounted to 292,000 shares. The total amount of Chemours' common stock received by employees in connection with the ESPP amounted to $7 at December 31, 2022.

Note 25. Accumulated Other Comprehensive Loss

The following table sets forth the changes and after-tax balances of the Company's accumulated other comprehensive loss for the years ended December 31, 2022, 2021 and 2020.

	Net Investment Hedge	Cash Flow Hedge	Cumulative Translation Adjustment	Defined Benefit Plans	Total
Balance at January 1, 2020	$ (10)	$ 2	$ (231)	$ (110)	$ (349)
Other comprehensive income (loss)	(66)	(10)	111	4	39
Balance at December 31, 2020	(76)	(8)	(120)	(106)	(310)
Other comprehensive income (loss)	55	13	(116)	(6)	(54)
Balance at December 31, 2021	(21)	5	(236)	(112)	(364)
Other comprehensive income (loss)	40	1	(32)	12	21
Balance at December 31, 2022	$ 19	$ 6	$ (268)	$ (100)	$ (343)

Note 26. Financial Instruments

Net Monetary Assets and Liabilities Hedge – Foreign Currency Forward Contracts

At December 31, 2022, the Company had 9 foreign currency forward contracts outstanding with an aggregate gross notional U.S. dollar equivalent of $180 and an average maturity of one month. At December 31, 2021, the Company had 12 foreign currency forward contracts outstanding with an aggregate gross notional U.S. dollar equivalent of $254, and an average maturity of one month. Chemours recognized a net gain of $2, a net loss of $15, and a net gain of $29 for the years ended December 31, 2022, 2021 and 2020, respectively, in other income (expense), net.

Cash Flow Hedge – Foreign Currency Forward Contracts

At December 31, 2022, the Company had 153 foreign currency forward contracts outstanding under its cash flow hedge program with an aggregate notional U.S. dollar equivalent of $180, and an average maturity of four months. At December 31, 2021, the Company had 175 foreign currency forward contracts outstanding under its cash flow hedge program with an aggregate notional U.S. dollar equivalent of $195, and an average maturity of four months. Chemours recognized a pre-tax gain of $17, a pre-tax gain of $10, and a pre-tax loss of $4 for the years ended December 31, 2022, 2021 and 2020, respectively, within accumulated other comprehensive loss. For the year ended December 31, 2022, $19 of gain was reclassified to the cost of goods sold from accumulated other comprehensive loss. For the years ended December 31, 2021 and 2020, $2 of loss and $3 of gain was reclassified to the cost of goods sold from accumulated other comprehensive loss, respectively.

The Company expects to reclassify approximately $4 of net pre-tax gain, based on current foreign currency exchange rates, from accumulated other comprehensive loss to the cost of goods sold over the next 12 months.

Cash Flow Hedge – Interest Rate Swaps

In 2020, the Company entered into interest rate swaps, the objective of which is to mitigate the volatility in the Company's cash payments for interest related to the portion of its senior secured term loan facility denominated in U.S. dollars, which bears a variable interest rate equal to, at the election of the Company, adjusted LIBOR plus 1.75% or adjusted base rate plus 0.75%, subject to an adjusted LIBOR or an adjusted base rate floor of 0.00% or 1.00%, respectively.

At December 31, 2021, the Company had three interest rate swaps outstanding under its cash flow hedge program with an aggregate notional U.S. dollar equivalent of $400; each of the interest rate swaps mature on March 31, 2023. In September 2022, the Company terminated all of its outstanding interest rate swaps, which resulted in a cash settlement of $8. Chemours recognized a pre-tax gain of $8, a pre-tax gain of $2 and a pre-tax loss of $4 for the years ended December 31, 2022, 2021 and 2020 within accumulated other comprehensive loss, respectively. For the years ended December 31, 2022, 2021 and 2020, $5 of gain, $2 and less than $1 of loss were reclassified to interest expense, net from accumulated other comprehensive loss, respectively.

The Company expects to reclassify approximately $4 of pre-tax gain from accumulated other comprehensive loss to interest expense, net through March 2023.

Net Investment Hedge – Foreign Currency Borrowings

The Company recognized a pre-tax gain of $53, a pre-tax gain of $73 and a pre-tax loss of $88 for the years ended December 31, 2022, 2021 and 2020, respectively, on its net investment hedge within accumulated other comprehensive loss. No amounts were reclassified from accumulated other comprehensive loss for the Company's net investment hedges during the years ended December 31, 2022, 2021 and 2020.

Fair Value of Derivative Instruments

The following table sets forth the fair value of the Company's derivative assets and liabilities at December 31, 2022 and 2021.

		Fair Value Using Level 2 Inputs	
	Balance Sheet Location	December 31, 2022	December 31, 2021
Asset derivatives:			
Foreign currency forward contracts not designated as a hedging instrument	Accounts and notes receivable, net (Note 11)	$ —	$ 1
Foreign currency forward contracts designated as a cash flow hedge	Accounts and notes receivable, net (Note 11)	2	5
Interest rate swaps designated as a cash flow hedge	Accounts and notes receivable, net (Note 11)	—	—
Total asset derivatives		$ 2	$ 6
Liability derivatives:			
Foreign currency forward contracts not designated as a hedging instrument	Other accrued liabilities (Note 19)	$ 1	$ 1
Foreign currency forward contracts designated as a cash flow hedge	Other accrued liabilities (Note 19)	4	—
Total liability derivatives		$ 5	$ 1

The Company's foreign currency forward contracts and interest rate swaps are classified as Level 2 financial instruments within the fair value hierarchy as the valuation inputs are based on quoted prices and market observable data of similar instruments. For derivative assets and liabilities, standard industry models are used to calculate the fair value of the various financial instruments based on significant observable market inputs, such as foreign exchange rates and implied volatilities obtained from various market sources. Market inputs are obtained from well-established and recognized vendors of market data, and are subjected to tolerance and/or quality checks.

Summary of Financial Instruments

The following table sets forth the pre-tax changes in fair value of the Company's financial instruments for the years ended December 31, 2022, 2021 and 2020.

	Gain (Loss) Recognized In			
Year Ended December 31,	Cost of Goods Sold	Interest Expense, Net	Other Income (Expense), Net	Accumulated Other Comprehensive Loss
2022				
Foreign currency forward contracts not designated as a hedging instrument	$ —	$ —	$ 2	$ —
Foreign currency forward contracts designated as a cash flow hedge	19	—	—	17
Interest rate swaps designated as a cash flow hedge	—	5	—	8
Euro-denominated debt designated as a net investment hedge	—	—	—	53
2021				
Foreign currency forward contracts not designated as a hedging instrument	$ —	$ —	$ (15)	$ —
Foreign currency forward contracts designated as a cash flow hedge	(2)	—	—	10
Interest rate swaps designated as a cash flow hedge	—	(2)	—	2
Euro-denominated debt designated as a net investment hedge	—	—	—	73
2020				
Foreign currency forward contracts not designated as a hedging instrument	$ —	$ —	$ 29	$ —
Foreign currency forward contracts designated as a cash flow hedge	3	—	—	(4)
Interest rate swaps designated as a cash flow hedge	—	—	—	(4)
Euro-denominated debt designated as a net investment hedge	—	—	—	(88)

Note 27. Long-term Employee Benefits

Plans Covering Employees in the U.S.

Chemours established a defined contribution plan, which covered all eligible U.S. employees. The purpose of the plan is to encourage employees to save for their future retirement needs. The plan is a tax-qualified contributory profit-sharing plan, with cash or deferred arrangement, and any eligible employee of Chemours may participate. Chemours matches 100% of the first 6% of the employee's contribution election, and the plan's matching contributions vest immediately upon contribution. In 2021, the Company enhanced its previous discretionary retirement savings contribution to provide eligible employees with a guaranteed annual contribution ranging from 1% to 3% for the first $0.1 of base salary based on age and years of service.

Plans Covering Employees Outside the U.S.

Pension coverage for employees of Chemours' non-U.S. subsidiaries is provided, to the extent deemed appropriate, through separate plans established after the Separation and comparable to the EID plans in those countries. Obligations under such plans are either funded by depositing funds with trustees, covered by insurance contracts, or unfunded.

The following table sets forth the Company's net periodic pension (cost) income and amounts recognized in other comprehensive income (loss) for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Service cost	$ (14)	$ (15)	$ (15)
Interest cost	(7)	(5)	(6)
Expected return on plan assets	18	20	17
Amortization of actuarial loss	(8)	(7)	(9)
Amortization of prior service gain	2	2	3
Settlement loss	—	(1)	(5)
Curtailment gain	—	—	1
Total net periodic pension cost	$ (9)	$ (6)	$ (14)
Net (loss) gain	$ (2)	$ (22)	$ 4
Prior service benefit (cost)	2	—	(1)
Amortization of actuarial loss	8	7	9
Amortization of prior service gain	(2)	(2)	(3)
Settlement loss	—	1	5
Curtailment gain	—	—	4
Effect of foreign exchange rates	7	6	(9)
Benefit (cost) recognized in other comprehensive income	13	(10)	9
Total changes in plan assets and benefit obligations recognized in other comprehensive income	$ 4	$ (16)	$ (5)

The following table sets forth the pre-tax amounts recognized in accumulated other comprehensive loss at years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Net loss	$ 132	$ 148	$ 143
Prior service credit	(9)	(9)	(12)
Total amount recognized in accumulated other comprehensive loss	$ 123	$ 139	$ 131

The following table sets forth summarized information on the Company's pension plans at December 31, 2022 and 2021.

	December 31, 2022	December 31, 2021
Change in benefit obligation:		
Benefit obligation at beginning of year	$ 575	$ 584
Service cost	14	15
Interest cost	7	5
Plan participants' contributions	2	2
Actuarial (gain) loss	(145)	19
Benefits paid	(5)	(4)
Plan amendments	(2)	—
Settlements and transfers	(4)	(11)
Currency translation	(35)	(35)
Benefit obligation at end of year	407	575
Change in plan assets:		
Fair value of plan assets at beginning of year	585	604
Actual return on plan assets	(129)	17
Employer contributions	10	17
Plan participants' contributions	2	2
Benefits paid	(5)	(4)
Settlements and transfers	(4)	(11)
Currency translation	(37)	(40)
Fair value of plan assets at end of year	422	585
Total funded status at end of year	$ 15	$ 10

The following table sets forth the net amounts recognized in the Company's consolidated balance sheets at December 31, 2022 and 2021.

	December 31, 2022	December 31, 2021
Non-current assets	$ 50	$ 55
Current liabilities	(1)	(1)
Non-current liabilities	(34)	(44)
Total net amount recognized	$ 15	$ 10

The accumulated benefit obligation for all pension plans was $357 and $493 as of December 31, 2022 and 2021, respectively.

For the year ended December 31, 2022, the liability component of the Company's global pension plans generated a net actuarial gain of $145, mainly driven by $209 gain as a result of increases in discount rates. The gain was partially offset by $64 of losses primarily due to the impact of inflation and salary scale assumptions.

The asset component of the Company's global pension plans realized a loss of $147 due to volatile equity and bond performance.

The following tables set forth information related to the Company's pension plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at December 31, 2022 and 2021.

	December 31,	
Pension plans with projected benefit obligation in excess of plan assets	**2022**	**2021**
Projected benefit obligation	$ 121	$ 142
Accumulated benefit obligation	104	119
Fair value of plan assets	86	97

	December 31,	
Pension plans with accumulated benefit obligation in excess of plan assets	**2022**	**2021**
Projected benefit obligation	$ 121	$ 142
Accumulated benefit obligation	104	119
Fair value of plan assets	86	97

Assumptions

The Company generally utilizes discount rates that are developed by matching the expected cash flows of each benefit plan to various yield curves constructed from a portfolio of high-quality, fixed income instruments provided by the plans' actuaries as of the measurement date. The expected rate of return on plan assets reflects economic assumptions applicable to each country.

The following tables set forth the assumptions that have been used to determine the Company's benefit obligations and net benefit cost at December 31, 2022 and 2021.

	December 31,	
Weighted-average assumptions used to determine benefit obligations	**2022**	**2021**
Discount rate	3.6%	1.4%
Rate of compensation increase (1)	3.5%	3.4%
Interest crediting rate (2)	2.5%	1.0%

(1) The rate of compensation increase represents the single annual effective salary increase that an average plan participant would receive during the participant's entire career at Chemours.

(2) The interest crediting rate, which is applicable only for account balance type plans, represents the single effective annual account balance increase that an average participant would receive during the participant's entire career at Chemours.

	December 31,	
Weighted-average assumptions used to determine net benefit cost	**2022**	**2021**
Discount rate	1.4%	1.0%
Rate of compensation increase (1)	3.4%	2.5%
Expected return on plan assets	1.0%	1.2%

(1) The rate of compensation increase represents the single annual effective salary increase that an average plan participant would receive during the participant's entire career at Chemours.

Plan Assets

Each pension plan's assets are invested through either an insurance vehicle, a master trust fund, or a stand-alone pension fund. The strategic asset allocation for each plan is selected by management, together with the pension board, where appropriate, reflecting the results of comprehensive asset and liability modeling. For assets under its control, Chemours establishes strategic asset allocation percentage targets and appropriate benchmarks for significant asset classes with the aim of achieving a prudent balance between return and risk. Strategic asset allocations in countries are selected in accordance with the laws and practices of those countries.

The following table sets forth the weighted-average allocation for the Company's pension plan assets at December 31, 2022 and 2021.

	December 31,	
	2022	2021
Cash and cash equivalents	11%	8%
U.S. and non-U.S. equity securities	36%	37%
Fixed income securities	53%	55%
Total weighted-average allocation	100%	100%

Fixed income securities include corporate-issued, government-issued, and asset-backed securities. Corporate debt investments encompass a range of credit risk and industry diversification.

Fair value calculations may not be indicative of net realizable value or reflective of future fair values. Furthermore, although Chemours believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables set forth the fair values of the Company's pension assets by level within the fair value hierarchy at December 31, 2022 and 2021.

	Fair Value Measurements at December 31, 2022		
	Total	Level 1	Level 2
Asset category:			
Debt - government issued	$ 47	$ 7	$ 40
Debt - corporate issued	113	23	90
U.S. and non-U.S. equities	151	31	120
Derivatives - asset position	40	—	40
Cash and cash equivalents	48	48	—
Other	2	—	2
Total pension assets at fair value	401	$ 109	$ 292
Pooled mortgage funds (1)	21		
Total pension assets	$ 422		

(1) Pooled mortgage funds consist of funds that invest in residential mortgages. These funds generally allow for monthly redemption with 30 days' notice. Timing for redemption could be delayed based on the priority of the Company's request and the availability of funds. Interests in these funds are valued using the net asset value ("NAV") per share practical expedient and are not classified in the fair value hierarchy.

	Fair Value Measurements at December 31, 2021		
	Total	Level 1	Level 2
Asset category:			
Debt - government issued	$ 74	$ 10	$ 64
Debt - corporate issued	147	29	118
U.S. and non-U.S. equities	217	44	173
Derivatives - asset position	70	—	70
Cash and cash equivalents	46	46	—
Other	3	—	3
Total pension assets at fair value	557	$ 129	$ 428
Pooled mortgage funds (1)	28		
Total pension assets	$ 585		

(1) Pooled mortgage funds consist of funds that invest in residential mortgages. These funds generally allow for monthly redemption with 30 days' notice. Timing for redemption could be delayed based on the priority of the Company's request and the availability of funds. Interests in these funds are valued using the NAV per share practical expedient and are not classified in the fair value hierarchy.

For pension plan assets classified as Level 1 instruments within the fair value hierarchy, total fair value is either the price of the most recent trade at the time of the market close or the official close price, as defined by the exchange on which the asset is most actively traded on the last trading day of the period, multiplied by the number of units held without consideration of transaction costs.

For pension plan assets classified as Level 2 instruments within the fair value hierarchy, where the security is frequently traded in less active markets, fair value is based on the closing price at the end of the period; where the security is less frequently traded, fair value is based on the price a dealer would pay for the security or similar securities, adjusted for any terms specific to that asset or liability. Market inputs are obtained from well-established, recognized vendors of market data and subjected to tolerance and/or quality checks. For derivative assets and liabilities, standard industry models are used to calculate the fair value of the various financial instruments based on significant observable market inputs, such as foreign exchange rates, commodity prices, swap rates, interest rates, and implied volatilities obtained from various market sources. With the exception of pooled mortgage funds, pooled funds are valued at the per-unit NAV as determined by the fund manager based on the value of the underlying traded securities.

Cash Flows – Defined Benefit Plans

Employer Contributions

For the years ended December 31, 2022, 2021 and 2020, Chemours contributed $10, $17, and $20, respectively, to its defined benefit plans.

Chemours expects to contribute $11 to its pension plans in 2023. The Company's future contributions to its defined benefit pension plans are dependent on market-based discount rates, and, as stated in "Note 2 – Basis of Presentation" to these consolidated financial statements, may differ due to the impacts of the COVID-19 pandemic on the macroeconomic environment and other factors.

Future Benefit Payments

The following table sets forth the benefit payments that are expected to be paid by the plans over the next five years and the five years thereafter.

2023	$ 11
2024	13
2025	14
2026	15
2027	18
2028 to 2032	111

Cash Flows – Defined Contribution Plan

Employer Contributions

For the years ended December 31, 2022, 2021 and 2020, Chemours contributed $31, $28, and $27, respectively, to its defined contribution plan.

Note 28. Supplemental Cash Flow Information

The following table provides a reconciliation of cash and cash equivalents, as reported on the Company's consolidated balance sheets, to cash, cash equivalents, restricted cash and restricted cash equivalents, as reported on the Company's consolidated statements of cash flows.

	December 31,	
	2022	2021
Cash and cash equivalents	$ 1,102	$ 1,451
Restricted cash and restricted cash equivalents (1)	202	100
Cash, cash equivalents, restricted cash and restricted cash equivalents	$ 1,304	$ 1,551

(1) Restricted cash and restricted cash equivalents balance includes cash and cash equivalents deposited in an escrow account as per the terms of the MOU (see "Note 22 – Commitments and Contingent Liabilities").

Note 29. Geographic and Segment Information

Geographic Information

The following table sets forth the geographic locations of the Company's net sales for the years ended and property, plant, and equipment, net as of December 31, 2022, 2021 and 2020.

	Year Ended December 31,					
	2022		2021		2020	
	Net Sales (1)	Property, Plant, and Equipment, Net	Net Sales (1)	Property, Plant, and Equipment, Net	Net Sales (1)	Property, Plant, and Equipment, Net
North America	$ 2,949	$ 2,320	$ 2,317	$ 2,309	$ 1,914	$ 2,461
Asia Pacific	1,787	127	1,827	128	1,384	121
Europe, the Middle East, and Africa	1,313	249	1,412	322	1,086	324
Latin America (2)	745	475	789	395	585	568
Total	$ 6,794	$ 3,171	$ 6,345	$ 3,154	$ 4,969	$ 3,474

(1) Net sales are attributed to countries based on customer location.

(2) Latin America includes Mexico.

Segment Information

Chemours operates through its three reportable segments, which were organized based on their similar economic characteristics, the nature of products and production processes, end-use markets, channels of distribution, and regulatory environments: Titanium Technologies, Thermal & Specialized Solutions, and Advanced Performance Materials. Other Segment includes the Company's Performance Chemicals and Intermediates business and Mining Solutions business (prior to the business sale in 2021). Corporate costs and certain legal and environmental expenses, stock-based compensation expenses, and foreign exchange gains and losses arising from the remeasurement of balances in currencies other than the functional currency of the Company's legal entities are reflected in Corporate and Other.

Beginning with reports filed in the first quarter of 2022, the Company changed its methodology used to allocate certain corporate function expenses to the operating segments to provide the Company's Chief Operating Decision Maker ("CODM") with a more meaningful representation of segment profitability. This allocation methodology change reflects corporate function resource usage by each operating segment based on certain commercial drivers, in addition to the cost drivers, as well as consideration of the Company's recent sale of the Mining Solutions business in 2021. The historical segment information, including adjusted earnings before interest, taxes, depreciation, and amortization ("Adjusted EBITDA"), has been recast to conform to the current segment presentation.

Adjusted EBITDA is the primary measure of segment profitability used by the Company's CODM and is defined as income (loss) before income taxes, excluding the following:

- interest expense, depreciation, and amortization;
- non-operating pension and other post-retirement employee benefit costs, which represents the non-service cost component of net periodic pension (income) costs;
- exchange (gains) losses included in other income (expense), net;
- restructuring, asset-related, and other charges;
- (gains) losses on sales of assets and businesses; and,
- other items not considered indicative of the Company's ongoing operational performance and expected to occur infrequently, including Qualified Spend reimbursable by DuPont and/or Corteva as part of the Company's cost-sharing agreement under the terms of the MOU that were previously excluded from Adjusted EBITDA.

The following table sets forth certain summary financial information for the Company's reportable segments as of, and for the years ended December 31, 2022, 2021 and 2020.

Year Ended December 31,	Titanium Technologies	Thermal & Specialized Solutions	Advanced Performance Materials	Other Segment (1)	Segment Total
2022					
Net sales to external customers (2)	$ 3,380	$ 1,680	$ 1,618	$ 116	$ 6,794
Adjusted EBITDA	601	603	367	2	1,573
Depreciation and amortization	125	55	82	8	270
Equity in earnings of affiliates	—	24	31	—	55
Total assets	2,384	1,238	1,742	124	5,488
Investments in affiliates	—	82	93	—	175
Purchases of property, plant, and equipment	149	30	115	6	300
2021					
Net sales to external customers (2)	$ 3,355	$ 1,257	$ 1,397	$ 336	$ 6,345
Adjusted EBITDA	799	401	284	49	1,533
Depreciation and amortization	126	59	86	16	287
Equity in earnings of affiliates	—	15	28	—	43
Total assets	2,318	1,124	1,621	149	5,212
Investments in affiliates	—	72	97	—	169
Purchases of property, plant, and equipment	104	26	103	39	272
2020					
Net sales to external customers (2)	$ 2,402	$ 1,105	$ 1,104	$ 358	$ 4,969
Adjusted EBITDA	498	344	146	75	1,063
Depreciation and amortization	128	53	88	21	290
Equity in earnings of affiliates	—	6	17	—	23
Total assets	2,130	1,041	1,520	531	5,222
Investments in affiliates	—	66	101	—	167
Purchases of property, plant, and equipment	89	28	109	25	251

(1) On July 26, 2021, the Company entered into the Mining Solutions Transaction which closed on December 1, 2021. For further information see "Note 4 – Acquisitions and Divestitures".

(2) Segment net sales to external customers are provided by product group in "Note 5 – Net Sales".

The following table sets forth a reconciliation for instances in which the above summary financial information for the Company's reportable segments does not sum to consolidated amounts.

Year Ended December 31,	Segment Total	Corporate and Other	Total Consolidated
2022			
Depreciation and amortization	$ 270	$ 21	$ 291
Total assets	5,488	2,152	7,640
Purchases of property, plant, and equipment	300	7	307
2021			
Depreciation and amortization	$ 287	$ 30	$ 317
Total assets	5,212	2,338	7,550
Purchases of property, plant, and equipment	272	5	277
2020			
Depreciation and amortization	$ 290	$ 30	$ 320
Total assets	5,222	1,860	7,082
Purchases of property, plant, and equipment	251	16	267

The following table sets forth a reconciliation of Segment Adjusted EBITDA to the Company's consolidated income (loss) before income taxes for the years ended December 31, 2022, 2021 and 2020.

	Year Ended December 31,		
	2022	2021	2020
Segment Adjusted EBITDA	$ 1,573	$ 1,533	$ 1,063
Corporate and Other expenses (excluding items below)	(212)	(220)	(184)
Interest expense, net	(163)	(185)	(210)
Depreciation and amortization	(291)	(317)	(320)
Non-operating pension and other post-retirement employee benefit income	5	9	1
Exchange (losses) gains, net	(15)	3	(26)
Restructuring, asset-related, and other charges (1)	(15)	(6)	(80)
Gain (loss) on extinguishment of debt	7	(21)	(22)
Gain on sales of assets and businesses, net (2)	21	115	8
Natural disasters and catastrophic events (3)	—	(21)	—
Transaction costs (4)	—	(4)	(2)
Qualified spend recovery (5)	58	20	—
Legal and environmental charges, net (6,7)	(227)	(230)	(49)
Income before income taxes	$ 741	$ 676	$ 179

(1) In 2022, restructuring, asset-related, and other charges primarily includes asset charges and write-offs resulting from the conflict between Russia and Ukraine and the Company's decision to suspend its business with Russian entities. In 2021, restructuring, asset-related, and other charges primarily includes a net $9 gain resulting from contract termination with a third-party services provider at the Company's previously owned Mining Solutions facility in Gomez Palacio, Durango, Mexico.

(2) Refer to "Note 8 – Other Income (Expense), Net" for further details.

(3) In 2021, natural disasters and catastrophic events pertains to the total cost of plant repairs and utility charges in excess of historical averages caused by Winter Storm Uri.

(4) 2021 includes costs associated with the Company's accounting, legal, and bankers' transaction costs incurred in connection with the sale of its Mining Solutions business.

(5) Qualified spend recovery represents costs and expenses that were previously excluded from Adjusted EBITDA, reimbursable by DuPont and/or Corteva as part of the Company's cost-sharing agreement under the terms of the MOU which is discussed in further detail in "Note 22 – Commitments and Contingent Liabilities".

(6) Legal charges pertains to litigation settlements, PFOA drinking water treatment accruals, and other legal charges. For the year ended December 31, 2022, legal charges primarily include proceeds from a settlement in a patent infringement matter relating to certain copolymer patents associated with the Company's Advanced Performance Materials segment and $20 associated with the Company's portion of the potential loss in the single matter not included in the Leach settlement. For the year ended December 31, 2021, legal charges primarily include $25 associated with the Company's portion of the costs to enter into a Settlement Agreement, Limited Release, Waiver and Covenant Not to Sue reflecting Chemours, DuPont, Corteva, EID and the State of Delaware's agreement to settle and fully resolve claims alleged against the companies. The year ended December 31, 2020 includes $29 of charges in connection with the Company's portion of the costs to settle PFOA multi-district litigation in Ohio. Refer to "Note 22 – Commitments and Contingent Liabilities" for further details.

(7) Environmental charges pertains to management's assessment of estimated liabilities associated with certain environmental remediation expenses at various sites. For the years ended December 31, 2022 and 2021, environmental charges primarily include $196 and $169, respectively, related to on-site and off-site remediation costs at Fayetteville. Refer to "Note 22 – Commitments and Contingent Liabilities" for further details.

Exhibit 21

SUBSIDIARIES OF THE REGISTRANT

Name	Organized Under Laws Of
2463297 Ontario Limited	Canada
Chemours Belgium BVBA	Belgium
Chemours Chemicals Rus	Russia
Chemours Deutschland GmbH	Germany
Chemours France SAS	France
Chemours Hong Kong Holding Limited	Hong Kong
Chemours International Operations Sàrl	Switzerland
Chemours Italy S.r.l.	Italy
Chemours Kabushiki Kaisha	Japan
Chemours Korea Inc.	Korea
Chemours Netherlands B.V.	Netherlands
Chemours NL Holding 1 B.V.	Netherlands
Chemours NL Holding 2 B.V.	Netherlands
Chemours NL Holding 4 B.V.	Netherlands
Chemours International B.V.	Netherlands
Chemours Services Sàrl	Switzerland
Chemours Spain S.L.	Spain
Chemours Titanium Technologies (Taiwan) Ltd.	Taiwan
Chemours TR Kimyasal Ürünler Limited Şirketi	Turkey
Chemours UK Limited	United Kingdom
Chemours Vietnam Company Limited	Vietnam
Dordrecht Energy Supply Company (Desco) B.V.	Netherlands
First Chemical Holdings, LLC	Mississippi
First Chemical Texas, L.P	Delaware
FT Chemical, Inc.	Texas
ICOR International Inc.	Indiana
Initiatives Inc de México S.A. de C.V.	Mexico
Noluma International, LLC	Delaware
PT The Chemours Indonesia	Indonesia
Southern Ionics Minerals, LLC	Mississippi
The Chemours (Changshu) Fluoro Technology Company Limited	China
The Chemours (Taiwan) Company Limited	Taiwan
The Chemours (Thailand) Company Limited	Thailand
The Chemours 3F Fluorochemicals (Changshu) Company, Limited	China
The Chemours Canada Company	Canada
The Chemours Chemical (Shanghai) Company Limited	China
The Chemours China Holding Co., Ltd.	China
The Chemours Company (Argentina) S.R.L.	Argentina
The Chemours Company AR, LLC	Delaware

The Chemours Company (Australia) Pty Ltd	Australia
The Chemours Company Asia Pacific Operations, Inc.	Delaware
The Chemours Company Delaware Operations, Inc.	Delaware
The Chemours Company FC, LLC	Delaware
The Chemours Company Holding US, LLC	Delaware
The Chemours Company Industria E Comercio de Produtos Quimicos Ltda.	Brazil
The Chemours Company Mexicana S. de R.L. de C.V.	Mexico
The Chemours Company Mexico, S. de R.L. de C.V.	Mexico
The Chemours Company North America, Inc.	Delaware
The Chemours Company Servicios, S. de R.L. de C.V.	Mexico
The Chemours Company Singapore Pte. Ltd.	Singapore
The Chemours Company Worldwide Operations, Inc.	Delaware
The Chemours Holding Company, S. de R.L. de C.V.	Mexico
The Chemours India Private Limited	India
The Chemours Malaysia Sdn. Bhd.	Malaysia

Subsidiaries not listed would not, if considered in the aggregate as a single subsidiary, constitute a significant subsidiary.

Exhibit 22

LIST OF GUARANTOR SUBSIDIARIES

As of December 31, 2022, the following subsidiaries of The Chemours Company (the "Company") were guarantors of the Company's 4.000% senior unsecured notes due May 2026, which are denominated in euros and the 5.375% senior unsecured notes due May 2027 (collectively, the "Registered Notes",) which are registered under the Securities Act of 1933, as amended.

Name	Organized Under Laws Of
First Chemical Holdings, LLC	Mississippi
First Chemical Texas, L.P.	Delaware
FT Chemical, Inc.	Texas
The Chemours Company FC, LLC	Delaware

Exhibit 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-205391, 333-205392, 333-205393, 333-217623, 333-256592) of The Chemours Company of our report dated February 10, 2023 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
New York, New York
February 10, 2023

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Mark E. Newman, certify that:

1. I have reviewed this Annual Report on Form 10-K of The Chemours Company;

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

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

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

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

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

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

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

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

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

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

Date: February 10, 2023

By: /s/ Mark E. Newman

Mark E. Newman
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Sameer Ralhan, certify that:

1. I have reviewed this Annual Report on Form 10-K of The Chemours Company;

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

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

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

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

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

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

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

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

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

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

Date: February 10, 2023

By: /s/ Sameer Ralhan

Sameer Ralhan
Senior Vice President, Chief Financial Officer

Exhibit 32.1

Certification of CEO Pursuant to
18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of The Chemours Company (the "Company") on Form 10-K for the year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Mark E. Newman, as Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and,

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Mark E. Newman

Mark E. Newman
President and Chief Executive Officer
February 10, 2023

Exhibit 32.2

Certification of CFO Pursuant to
18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of The Chemours Company (the "Company") on Form 10-K for the year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Sameer Ralhan, as Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and,

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Sameer Ralhan

Sameer Ralhan
Senior Vice President, Chief Financial Officer
February 10, 2023

Exhibit 95

MINE SAFETY DISCLOSURES

The Company owns and operates a mineral sands mining and separation facility in Starke, Florida, mineral sands mining facilities in Jesup, Georgia and Nahunta, Georgia, and a mineral sands separation facility in Offerman, Georgia. The following table provides information about citations, orders and notices issued from the Mine Safety and Health Administration ("MSHA") under the Federal Mine Safety and Health Act of 1977 ("Mine Act") for the year ended December 31, 2022.

Mine (MSHA Identification Number)	Section 104 S&S[1] Citations (#)	Section 104(b) Orders (#)	Section 104(d) Citations and Orders (#)	Section 110(b)(2) Violations (#)	Section 107(a) Orders (#)	Total Dollar Value of MSHA Assessments Proposed ($)	Total Number of Mining Related Fatalities (#)	Received Notice of Pattern of Violations Under Section 104(e) (yes/no)	Received Notice of Potential to Have Pattern Under Section 104(e) (yes/no)	Legal Actions Pending as of Last Day of Period (#)	Legal Actions Initiated During Period (#)	Legal Actions Resolved During Period (#)
Starke, FL (0800225)	—	—	—	—	—	$ 863	—	—	—	—	—	—
Jesup, GA (0901256)	1	—	—	—	—	$ 766	—	—	—	—	—	—
Mission Mine (0901230)	—	—	—	—	—	$ —	—	—	—	—	—	—
Offerman MSP (0901236)	—	—	—	—	—	$ —	—	—	—	—	—	—

[1] S&S refers to significant and substantial violations of mandatory health or safety standards under section 104 of the Mine Act.

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Our Vision

Together, we create a better world through the power of our chemistry.





Corporate Headquarters:

The Chemours Company
1007 Market Street
P.O. Box 2047
Wilmington, Delaware 19801
1 302 773 1000

Stock Exchange Listing:

New York Stock Exchange Stock Exchange Symbol: CC

Transfer Agent and Registrar of Stock:

Computershare Investor Services

Overnight Mail Delivery:

462 South 4th Street, Suite 1600
Louisville, Kentucky 40202

Regular Mail Delivery:

P.O. Box 505000
Louisville, Kentucky 40233-5000

computershare.com/investor
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Chemours™

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