

ingevity

2022 ANNUAL REPORT AND FORM 10-K



ABOUT INGEVITY

Ingevity provides products and technologies that purify, protect and enhance the world around us. Through a team of talented and experienced people, we develop, manufacture and bring to market solutions that help customers solve complex problems and make the world more sustainable. We operate in two reporting segments: Performance Chemicals, which includes specialty chemicals and engineered polymers, and Performance Materials, which includes high-performance activated carbon. These products are used in a variety of demanding applications, including adhesives, agrochemicals, asphalt paving, bioplastics, coatings, elastomers, lubricants, pavement markings, publication inks, oil exploration and production, and automotive components that reduce gasoline vapor emissions. Headquartered in North Charleston, South Carolina, Ingevity operates from 31 locations around the world and employs approximately 2,050 people. The company's common stock is traded on the New York Stock Exchange (NYSE:NGVT). For more information visit www.ingevity.com.



2,050 EMPLOYEES



14

MANUFACTURING SITES



7

TECHNICAL CENTERS



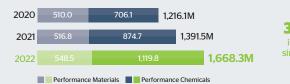
10ADMINISTRATIVE OFFICES

Financial Highlights

Total Stockholder Return (January 1, 2022 to December 31, 2022)

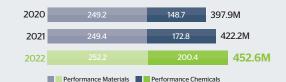


Total Revenue in Millions (U.S. \$)



37.2% increase since 2020

Total Adjusted Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) in Millions (U.S. \$)1



13.7% increase since 2020

Diluted Adjusted EPS1



Net Debt Ratio¹ Adjusted EBITDA Margin¹

2.9_x

27.1%

1 See page 108 for definitions of these non-GAAP financial measures and the reconciliation of these non-GAAP financial measures to the nearest GAAP financial measures.





A MESSAGE FROM THE CEO

John Fortson | President and Chief Executive Officer

DEAR INGEVITY STOCKHOLDERS.

Ingevity has much to be proud of in 2022. As a company, we delivered record performance and grew revenue and adjusted EBITDA* by 20% and 7%, respectively, over 2021. We did so despite an environment that remained dynamic and challenging. I am incredibly proud of how our team performed. In early 2022, Ingevity, like others, was dealing with the lingering effects of the Covid-19 pandemic, particularly in China, and global disruptions in our supply chains and logistics. However, after two years of Covid-19, we effectively adjusted to this new "normal." However, in short order, the environment changed again as the war between Russia and Ukraine led to dramatic spikes in energy prices and further disruptions to supply chains. This drove significant inflationary pressure and further logistics challenges across our businesses. By the end of the year, government actions to contain inflation led many to predict a recession or a significant slowdown. Customers became cautious. Additionally, as China moved away from its zero Covid-19 policy to reopening, the country experienced significant disruptions as industries had to shut down to deal with the rising infection rates.

Our team remains nimble and aggressive.

Everyone has important roles to play in this type of environment. Our operations team had to work safely and remain flexible as demand planning and materials availability drove continuous revisions to production schedules. The supply chain team worked 24-7 to source the materials and vehicles we needed to make our products and to get them to our customers. The commercial team had to have tough pricing conversations with our customers as the cost to produce product rose dramatically. Our growth and innovation colleagues remained focused on identifying future avenues for growth for the company. All this hard work led to record results for the year.

Our businesses continue to perform well.

Performance Chemicals enjoyed an unprecedented year of record growth across all of its businesses with revenue and segment EBITDA** growth of 28% and 16%, respectively, over 2021 levels. The segment reported over \$200 million of segment EBITDA** for the first time in our history. We saw

strength in all our end markets - Industrial Specialties, Pavement Technologies, and Engineered Polymers. We completed our Polyols expansion in our facility in DeRidder, Louisiana to increase volumes of our engineered polymers. Before the end of the year, we closed on the acquisition of Ozark Materials and welcomed them to Ingevity. This road marking business is extremely complementary to our existing pavement and adhesives businesses. They are a terrific group of people and are a welcome addition to the Ingevity team.

Performance Materials revenue grew 6% and segment EBITDA** was up 1% from 2021. This was a good outcome given the continued weakness in global auto production numbers. I am proud of how the team responded – to reach this performance they had to constantly adjust production and delivery schedules for our carbon as auto production surged and then fell off in different geographies around the world.

We strategically invest in our future.

In 2022, we made significant progress in evolving our business to meet future customer demands in all our businesses. The Ozark acquisition allows us to offer a full suite of product offerings to our road construction customers. We continue to enjoy success in the development of different alternate fatty acids, and production is expected to ramp up in 2023. This important initiative both reduces our reliance on crude tall oil ("CTO") and allows us to enter new markets where CTO based products aren't competitive. We also continue to prepare to sell into the bio-fuels market as demand accelerates in Europe. Across Ingevity, we continue to identify and invest in opportunities to increase our exposure to electric vehicles. Our legacy businesses already have exposure through end uses that include lignin for our engineered polymers. In 2022, we made a strategic investment in Nexeon Limited, a company that is developing silicon-based anode technology that utilizes activated carbon. Our ability to manufacture carbon that is optimized for use in these anodes is an exciting opportunity for us. We continue to identify other opportunities to support the electric battery industry using our carbon and our production and engineering capabilities.



As one team, we are continuing our journey as a specialty chemicals technology provider of choice, leaving our planet a better place.

We have a world class team that continues to develop and grow.

We said goodbye to one of the original members of our board of directors, Mike Fitzpatrick. Mike played a significant role in the establishment of Ingevity and its success, and we thank him. We welcomed new board members. Shon Wright. Will Slocum and Bruce Hoechner, who are already making an impact across the company, and also welcomed a chief human resources officer, Christine Stunyo, to lead our people and talent efforts. At the start of 2022, we rolled out "The IngeviWay in Action" - a set of behavioral expectations across the company to better align how we work and collaborate as a team to create the Ingevity of the future. We care about the employee experience, and the investments in our people over the past years have significantly improved our employee engagement scores during and post-pandemic. Our human resources team refined role responsibilities to better increase accountability. Across Ingevity, we challenged ourselves by raising the bar on expectations to build, inspire and lead. The continuous improvement team conducted seminars at all our domestic sites except one (scheduled to be completed in Q1 2023). We are actively reporting and studying "near miss" safety events to ensure we always put safety first.

We demonstrate leadership in sustainability.

We purify, protect and enhance the world around us. Ingevity was recently recognized by Newsweek® magazine in their list of America's Most Responsible Companies in 2023, ranking 58th out of 500 public companies. Ingevity is ranked 10th in the materials and chemicals industry and is the top ranked public company in South Carolina. Additionally, we were awarded a Gold rating by EcoVadis, the independent evidence-based sustainability assessment organization. Our EcoVadis rating places us in the top 3% of all responding companies. We are pleased that others are recognizing the sustainable nature of our company and our products. We proudly joined the United Nations Global Compact, further committing ourselves to improving our efforts for sustainable development, and we also submitted comprehensive data to the CDP to identify ways to manage environmental risks and provide important data to our customers, investors and the market.

Thank you for your interest and investment in Ingevity. We hope you share our enthusiasm for our Company. We are excited about the future and confident in our ability to continue to be a best-in-class specialty chemicals company that is a leader in sustainability and our markets. Here's to a great 2023!

Best regards,

John C. Fortson President and CEO

 $^{^*\ \}textit{Definitions and reconciliations of these non-GAAP financial measures can be found in Appendix A.}$

^{**} Segment EBITDA is a GAAP financial measure for segment performance calculated pursuant to Accounting Standards Codification ("ASC") 280, Segment Reporting ("ASC 280").

BOARD OF DIRECTORS



JEAN S. BLACKWELL Chair of the Board at Ingevity and Former Exec. Vice President and CFO, Cummins Inc.



LUIS FERNANDEZ-MORENO Sole Manager and Member at Strat and Praxis LLC



JOHN FORTSON President and CEO at Ingevity



DIANE GULYAS Former President, DuPont Performance Polymers at E.I. du Pont de Nemours and Company



BRUCE HOECHNER Former President and CEO at Rogers Corporation



FRED LYNCH Operating Partner, AEA Investors, LP, and Former CEO and President at Masonite **International Corporation**



KAREN NARWOLD Exec. Vice President, Chief Administrative Officer, **General Counsel** and Secretary at Albemarle Corporation



DAN SANSONE Former Exec. Vice President, Strategy and CFO at Vulcan **Materials Company**



WILL SLOCUM Partner at Inclusive Capital Partners, and Director at Strategic Education, Inc.



BENJAMIN (SHON) WRIGHT Vice President at Cummins Incorporated, and President at Cummins Engine Components

- Executive Committee
 Audit Committee
- Leadership Development and
 Nominating and **Compensation Committee**
- Governance Committee
- Sustainability and Safety Committee

LEADERSHIP TEAM



JOHN FORTSON President and CEO at Ingevity



MARY DEAN HALL Exec. Vice President and CFO



STACY COZAD Exec. Vice President, **General Counsel** and Secretary



ED WOODCOCK Exec. Vice President and President, **Performance Materials**



RICH WHITE Sr. Vice President, Performance Chemicals, and President, Industrial Specialties and **Pavement Technologies**



STEVE HULME Sr. Vice President, Performance Chemicals, and President, **Engineered Polymers**



CHRISTINE STUNYO Senior Vice President, Chief Human **Resources Officer**

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

		FOR	M 10-K			
✓ ANNUAL REPOI	TT PURSUANT T	TO SECTION 13 (OR 15(d) OF THI	E SECURITIES EX	CHANGE ACT OF	1934
	For t	he fiscal year en	nded December	31, 2022		
☐ TRANSITION REP	ORT PURSUANT	TO SECTION 1	3 OR 15(d) OF T	HE SECURITIES E	XCHANGE ACT C)F 1934
	(Commission File	Number 001-3	7586		
		Ing	evity	,		
			CORPORATIO			
	(Exac	ct name of registra				
	aware				7-4027764	
(State or other jurisdiction of		-			yer Identification No.	
4920 O'Hear Avenue Suite 400		h Charleston		South Carolina	(29405
	(Address of princ		740-2300 telephone number)		(2	Zip code)
	Securities r	egistered pursu	ant to Section 1	2(b) of the Act:		
Title of Each Class:		Trading Symbol	l(s)	Name of Each Excl	nange on Which Regis	tered:
Common Stock (\$0.01 par	-	NGVT			K Stock Exchange	
Indicate by check mark if the registrant is a		registered pursuanted issuer, as defined				Yes⊠ No□
Indicate by check mark if the registrant is n	ot required to file re	ports pursuant to Se	ection 13 or Section	15(d) of the Act.		Yes □ No ⊠
Indicate by check mark whether the registra preceding 12 months (or for such shorter pedays.			•		-	-
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Indicate by check mark whether the registra	ant is a large acceler.	ated filer an acceler	rated filer a non-acc	relerated filer, or a sma	ller reporting company	Yes ⊠ No □
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If an emerging growth company, indicate financial accounting standards provided put	•	-		extended transition pe	eriod for complying w	vith any new or revised
Indicate by check mark whether the registra reporting under Section 404(b) of the Sarba						
If securities are registered pursuant to Sect correction of an error to previously issued f		, indicate by check	mark whether the fi	nancial statements of	the registrant included	in the filing reflect the \Box
Indicate by check mark whether any of the registrant's executive officers during the rel				ry analysis of incentiv	e-based compensation	received by any of the
Indicate by check mark whether the Registr	_					Yes □ No ⊠
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At June 30, 2022, the aggregate market value of common stock held by non-affiliates of the Registrant was \$2,401,433,359. The market value held by non-affiliates excludes the value of those shares held by executive officers and directors of the Registrant.

 $The \ Registrant\ had\ 37,150,610\ shares\ of\ common\ stock,\ \$0.01\ par\ value,\ outstanding\ at\ February\ 20,\ 2023.$

Documents Incorporated by Reference

Ingevity Corporation Form 10-K

INDEX

	Page No.
Forward-Looking Statements	3
PART I	4
Item 1. Business	4
Item 1A. Risk Factors	13
Item 1B. Unresolved Staff Comments	23
Item 2. Properties	23
Item 3. Legal Proceedings	23
Item 4. Mine Safety Disclosures	23
INFORMATION ABOUT OUR EXECUTIVE OFFICERS	24
PART II	25
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	25
Item 6. [RESERVED]	26
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	26
Item 7A. Quantitative and Qualitative Disclosures about Market Risk	40
Item 8. Financial Statements and Supplementary Data	43
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	97
Item 9A. Controls and Procedures	97
Item 9B. Other Information	97
Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	97
PART III	98
Item 10. Directors, Executive Officers and Corporate Governance	98
Item 11. Executive Compensation	98
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	98
Item 13. Certain Relationships and Related Transactions, and Director Independence	99
Item 14. Principal Accounting Fees and Services	99
PART IV	100
Item 15. Exhibits and Financial Statement Schedules	100
Item 16. Form 10-K Summary	106
SIGNATURES	107

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the Private Securities Litigation Reform Act of 1995 that reflect our current expectations, beliefs, plans, or forecasts with respect to, among other things, future events and financial performance. Forward-looking statements are often characterized by words or phrases such as "may," "will," "could," "should," "would," "anticipate," "estimate," "expect," "project," "intend," "plan," "believe," "target," "prospects," "potential," "outlook," "guidance," and "forecast," and other words, terms and phrases of similar meaning.

These statements, by their nature, involve certain estimates, expectations, projections, forecasts and assumptions, and are subject to various risks and uncertainties that are difficult to predict and often beyond our control. These risks and uncertainties may, and often do, cause actual results to differ materially from those contained in a forward-looking statement. Accordingly, readers are cautioned not to place undue reliance on any forward-looking statement. Any forward-looking statement is based on information currently available to us and speaks only as of the date that it is made. We have no duty, and undertake no obligation, to update any forward-looking statement to reflect developments occurring after the statement is made.

The risks and uncertainties that may cause actual results to differ materially from those indicated in any forward-looking may be included with the forward-looking statement itself. Other such risks and uncertainties include, but are not limited to, those discussed in Item 1A. Risk Factors in this report, as well as the following:

- we may be adversely affected by general global economic, geopolitical, and financial conditions beyond our control, including inflation and the war in Ukraine;
- we are exposed to risks related to our international sales and operations;
- adverse conditions in the automotive market have and may continue to negatively impact demand for our automotive carbon products;
- we face competition from substitute products, new technologies, and new or emerging competitors;
- if more stringent air quality standards worldwide are not adopted, our growth could be impacted;
- we may be adversely affected by a decrease in government infrastructure spending;
- adverse conditions in cyclical end markets may adversely affect demand for our products;
- our Performance Chemicals segment is highly dependent on crude tall oil ("CTO") which is limited in supply and subject to price increases that we may be unable to pass through;
- lack of access to sufficient CTO and other raw materials upon which we depend would impact our ability to produce our products;
- the inability to make or effectively integrate future acquisitions and other investments may negatively affect our results;
- we are dependent upon third parties for the provision of certain critical operating services at several of our facilities;
- adverse effects of the novel coronavirus ("COVID-19") pandemic;
- we may continue to be adversely affected by disruptions in our supply chain;
- the occurrence of natural disasters and extreme weather or other unanticipated problem such as labor difficulties (including work stoppages), equipment failure, or unscheduled maintenance and repair, which could result in operational disruptions of varied duration;
- we are dependent upon attracting and retaining key personnel;
- we are dependent on certain large customers;
- from time to time, we may be engaged in legal actions associated with our intellectual property rights;
- if we are unable to protect our intellectual property and other proprietary information, we may lose significant competitive advantage;
- information technology security breaches and other disruptions;
- complications with the design or implementation of our new enterprise resource planning system, including higher than anticipated associated costs;
- government policies and regulations, including, but not limited to, those affecting the environment, climate change, tax policies, tariffs, and the chemicals industry; and
- losses due to lawsuits arising out of environmental damage or personal injuries associated with chemical or other manufacturing processes.

PART I

ITEM 1. BUSINESS

General

Ingevity provides products and technologies that purify, protect, and enhance the world around us. Through a diverse team of talented and experienced people, we develop, manufacture, and bring to market solutions that are largely renewably sourced and help customers solve complex problems while making the world more sustainable. Our products are used in a variety of demanding applications, including automotive components that reduce gasoline vapor emissions, asphalt paving, road striping, oil exploration and production, agrochemicals, adhesives, lubricants, publication inks, coatings, elastomers, and bioplastics. We operate in two reporting segments: Performance Materials and Performance Chemicals.

Throughout this Annual Report on Form 10-K, except where otherwise stated or indicated by the context, "Ingevity," the "Company," "we," "us," or "our" means Ingevity Corporation and its consolidated subsidiaries and their predecessors.

Our business originated as part of the operations of our former parent company, Westvaco Corporation, in 1964, and we operated as a division of Westvaco Corporation and its corporate successors, including MeadWestvaco Corporation and WestRock Company ("WestRock") until our separation from WestRock in May 2016. Our common stock began "regular-way" trading on the New York Stock Exchange in May 2016 under the symbol "NGVT."

Our principal executive offices are located at 4920 O'Hear Avenue, Suite 400, North Charleston, South Carolina 29405. Ingevity maintains a website at www.ingevity.com. We make available, free of charge through our website, our filings with the Securities and Exchange Commission (the "SEC"), including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after such items are filed with, or furnished to, the SEC. We also use our website to publish additional information that may be important to investors, such as presentations to analysts. Information contained in or connected to our website is not incorporated by reference into this Annual Report on Form 10-K. Reports we file with the SEC may also be viewed at www.sec.gov.

The table below illustrates our product lines and the primary end uses for our products by segment, as well as our revenue by segment for the fiscal year 2022. For more information on our U.S. and foreign operations, see Notes 4 and 19, to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K.

	Performance Materials	Performance Chemicals						
Product Lines		Pavement Technologies	Industrial Specialties	Engineered Polymers				
Primary End Uses	Gasoline vapor emissions control Purification of food, water, beverages, and chemicals	Warm mix asphalt Pavement preservation Pavement reconstruction and recycling Thermoplastic pavement markings	Adhesives Agrochemicals Lubricants Printing inks Industrial intermediates Oilfield	Coatings Resins Elastomers Adhesives Bioplastics Medical devices				
2022 Revenue	\$548.5 million	\$1,119.8 million						

Governmental Regulations

Our manufacturing operations are subject to regulation by governmental and other regulatory authorities with jurisdiction over our operations. These regulations include the discharge of materials into the environment, the handling, storage, transportation, disposal, and clean-up of chemicals and waste materials, and otherwise relating to the protection of the environment, as well as other operational regulations, such as the Occupational Safety and Health Act ("OSHA") and the Toxic

Substances Control Act ("TSCA") in the U.S. and the Registration, Evaluation and Authorization of Chemicals ("REACH"), directives in the European Union, the United Kingdom ("UK"), and other countries. It is not possible to quantify with certainty the material effects that compliance with these regulations may have upon the capital expenditures, earnings, or competitive position of Ingevity, but we currently anticipate that such compliance will not have a material adverse effect on any of the foregoing. Environmental and other regulations and related legal proceedings have the potential to involve significant costs and liability for Ingevity.

Intellectual Property

Intellectual property, including patents, closely guarded trade secrets, and highly proprietary manufacturing know-how, as well as other proprietary rights, is a critical part of maintaining our technology leadership and competitive edge. Our business strategy includes filing patent and trademark applications where appropriate for proprietary developments, as well as protecting our trade secrets. We actively create, protect, and enforce our intellectual property rights. We are filing for and being granted patents for product and process developments for our Performance Materials business that we believe are both novel and consistent with trends in the technological development of engines. Our Evotherm® Warm Mix Asphalt technology is supported by numerous global patents. Additionally, our caprolactone and related technologies are supported by numerous global patents and trademarks, as well as proprietary manufacturing and technical know-how. The protection afforded by our patents and trademarks varies based on country, scope, and coverage, as well as the availability of legal remedies. Although our intellectual property taken as a whole is material to the business, there is no individual patent or trademark the loss of which could have a material adverse effect on the business.

On July 19, 2018, Ingevity filed suit against BASF Corporation ("BASF") in the United States District Court for the District of Delaware (the "Delaware Proceeding") alleging BASF infringed Ingevity's patent covering canister systems used in the control of automotive gasoline vapor emissions (U.S. Patent No. RE38,844) (the "844 Patent"). On February 14, 2019, BASF asserted counterclaims against Ingevity in the Delaware Proceeding, alleging two claims for violations of U.S. antitrust law (one for exclusive dealing and the other for tying) as well as a claim for tortious interference with an alleged prospective business relationship between BASF and a BASF customer (the "BASF Counterclaims"). The BASF Counterclaims relate to Ingevity's enforcement of the 844 Patent and Ingevity's entry into several supply agreements with customers of its fuel vapor canister honeycombs. The U.S. District Court dismissed Ingevity's patent infringement claims on November 18, 2020, and the case proceeded to trial on the BASF Counterclaims in September 2021.

On September 15, 2021, a jury in the Delaware Proceeding issued a verdict in favor of BASF on the BASF Counterclaims and awarded BASF damages of approximately \$28.3 million, which will be trebled under U.S. antitrust law to approximately \$85.0 million when the court enters judgment. In addition, BASF may seek pre- and post-judgment interest and attorneys' fees and costs in amounts that they will have to support at a future date.

We disagree with the verdict, including the court's application of the law, and we intend to seek judgment as a matter of law in the Delaware Proceeding post-trial briefing stage and on appeal, if necessary. In addition, we intend to challenge the U.S. District Court's November 2020 dismissal of our patent infringement claims against BASF. Ingevity believes in the strength of its intellectual property and the merits of its position and intends to pursue all legal relief available to challenge these outcomes in the Delaware Proceeding. The final resolution of these matters could take up to eighteen months.

Seasonality

There are a variety of seasonal dynamics, including global climate and weather conditions, that impact our businesses, though none have currently materially affected our financial results, except in the case of the pavement technologies product line, where roughly 70 to 75 percent of revenue is generated between April and September. From a supply perspective, this seasonality is effectively managed through pre-season inventory build and active inventory management throughout the year.

Energy

Our manufacturing processes require a significant amount of energy. We are dependent on natural gas to fuel the processes in our chemical refineries and activated carbon plants. Although we believe that we currently have a stable natural gas supply and infrastructure for our operations, we are subject to volatility in the market price of natural gas. We enter into certain derivative financial instruments to mitigate expected fluctuations in market prices and the volatility of earnings and cash flow resulting from changes to the pricing of natural gas purchases. All of our manufacturing processes also consume a

significant amount of electricity. Each of these facilities are located in regulated service areas that have stable rate structures with reliable electricity supply.

Leveraging Sustainability

Throughout our Performance Chemicals and Performance Materials portfolios, we are a leader in adding value to products made from renewable materials and in derivatizing technologies that impart desirable environmental benefits in their use. To create a majority of our chemistries, we take crude tall oil from pine trees, hardwood sawdust (both co-products of the lumber, paper, and furniture-making industries), and vegetable oils and convert them into products that benefit customers, the environment, and society.

For the caprolactone-based products in our Performance Chemicals segment – although derived from traditional feedstocks – these solutions enable performance attributes in end-use markets that directly help customers and consumers meet sustainability goals. The superior durability of capa-based polyurethane technologies extends product life and the biodegradable performance of our thermoplastic polycaprolactones offers compostable end of-life solutions.

Put simply: Ingevity's products help customers reduce their ecological impact. Our asphalt emulsifiers enable pavement recycling that reuses up to 100 percent of existing materials to create longer-lasting roads. Our automotive activated carbon products improve the air we breathe by recovering 8 million gallons of gasoline daily. Our lubricant technologies increase tool life and simplify formulations. And our alternative-fuel vehicle technology enables the use of renewable natural gas as fuel for pickup trucks and busses.

Our business is built on our ability to maximize the value and utility of materials over their lifecycle, and we will continue to enhance this value proposition through future acquisitions and new product development.

Human Capital Management

Talent

Our employees are critical to our success, and we strive to provide a safe, rewarding, and respectful workplace where our people are provided with opportunities to pursue career paths based on skills, performance, and potential. Our success depends, in part, on our ability to attract, retain and motivate critical resources across production, technical, engineering, sales, and various functional disciplines. If an ongoing failure to attract and retain individuals in key business roles and functions materialized, it could adversely affect our financial condition and operational results.

We currently employ approximately 2,050 employees, of whom approximately 77 percent are employed in the U.S. Approximately 19 percent of our employees are represented by domestic (i.e., U.S.) labor unions under various collective bargaining agreements ("CBA"). We engage in negotiations with labor unions for new CBAs from time to time based on expiration dates of agreements and statutory requirements. We consider our relationships with all salaried, union-hourly, and non-hourly employees to be positive and collaborative.

During the second quarter of 2022, at our Covington, Virginia Performance Materials' facility, the International Brotherhood of Electrical Workers ("IBEW") AFL-CIO Local Union 464 ratified a four-year CBA, which expires January 15, 2025. In the third quarter of 2022, at our Covington Virginia Performance Materials' facility, the Covington Paper Workers Union, Local 675, affiliated with the Association of Western Pulp and Paper Workers ratified a four-year CBA which expires December 1, 2025. In the fourth quarter of 2022, at our Charleston South Carolina Performance Chemicals' facility: (1) the United Steel, Paper, Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union ("USW") on behalf of its Local Union 9-0508-02, ratified a four-year CBA, which expires June 30, 2026, and (2) the International Association of Machinists and Aerospace Workers ("IAM") and its Charleston Lodge No. 183, ratified a four-year CBA, which expires June 30, 2026. In addition, the CBA at our Wickliffe, Kentucky Performance Materials facility with the USW, on behalf of its affiliated Local Union 0775, expired on February 1, 2023. The parties began contract renewal negotiations in January 2023.

Diversity, Equity & Inclusion

At Ingevity, we are committed to fostering a culture where we recognize, celebrate, and welcome the ways in which each other's unique backgrounds, experiences and perspectives help us reach the best solutions for our customers. To support us in developing practical and thoughtful ways to embed these principles into our everyday work, we created a dedicated team to advance diversity, equity, and inclusion ("DEI").

A strategic and intentional focus on DEI enhances the employee experience and satisfaction. It also supports more effective innovation, enhanced customer experience, and a deeper understanding of the communities Ingevity serves. Our diversity recruiting strategy is focused on ensuring everyone has an equitable experience by diversifying our talent pipeline through diverse candidate slates and interview teams as well as gender-neutral job descriptions. We are also enhancing our partnerships with organizations such as the National Society of Black Engineers (NSBE), National Black MBA Association, Society of Women Engineers (SWE), Society of Hispanic Engineers (SHPE), Society of Asian Scientist and Engineers (SASE), Corporate Gray, an organization that focuses on military recruiting, and historically black colleges and universities to broaden our candidate pool.

Our focus on advancing the diversity makeup of our leadership continues to positively impact our growth and success. Today, our board of directors is 30 percent women and 20 percent racially and ethnically diverse, and our executive team is 38 percent women-led and 13 percent racially and ethnically diverse. Our Women's Network employee resource group ("ERG") has served many years as a catalyst for building community, supporting personal and professional development, and strengthening our business impact internally and externally. We also recently launched two new ERGs in support of our Black and Hispanic employees. ERGs aim to foster a richer and more diverse workplace by promoting a positive and inclusive employee experience.

Performance Management

We evaluate employee performance holistically, looking at the progress against goals, behaviors, feedback, and direct contributions of the employee and their level of impact on the business. Performance measurement includes accomplishments that supported the team, our company, internal and external customers, and our core values. In 2022, we modified our approach to create a more formalized record of employee performance at mid-year and year-end, including a new requirement for everyone at Ingevity to request feedback from colleagues who have insight into the respective employee's performance and contributions. We have a structured performance assessment review at least twice a year and continued to promote ongoing conversations between managers and employees to improve performance, drive business results, and increase employee engagement. Performance conversations often occur monthly or more frequently. The slight process enhancements allow Ingevity to cultivate a well-rounded view of each employee's strengths and identify opportunities for learning and growth.

Health & Safety

Ingevity has a world-class safety program and a strong safety culture. Personal, process, and public safety are core values at Ingevity. We work hard to protect employees, contractors, and the communities where we operate from injuries, illnesses and incidents through the design and delivery of safe operations, continuous improvement of personal and process safety performance, management systems, and programs, a strong culture of compliance, and a commitment to zero harm to people and the environment.

In 2022, we continued our efforts to increase reporting of and response to near miss incidents to prevent more serious injuries before they could occur. This included efforts to increase the number of near misses reported and an increase in reporting by a broader number of employees. We also continued to improve safety training, further expanded the use of leading indicators to ensure effective initiatives are proactively implemented, and improved incident investigation quality to ensure contributing factors are appropriately identified and addressed. Employees were trained on the importance of our Life-Saving Rules, put in place to prevent fatalities and serious injuries through leadership videos, monthly interactive training packages, and upgraded procedures, checklists, work permits, and audits. Additionally, in North America where the majority of our bulk shipments are executed, we abide by the American Chemistry Council's Responsible Care practices of transporting our chemicals safely. We strategically utilize logistics providers that have committed to these higher standards of Safety, Security, Stewardship, and the Environment.

Segments

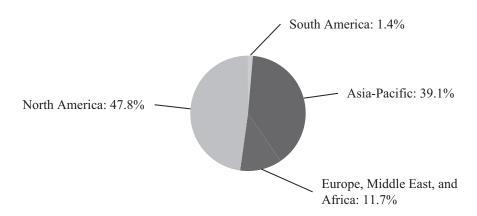
Performance Materials

We engineer, manufacture, and sell hardwood-based, chemically activated carbon products, which are produced through a highly technical and specialized process primarily for use in gasoline vapor emission control systems in cars, trucks, motorcycles, and boats. To maximize the productivity of our manufacturing assets, we also produce several other activated carbon products for food, water, beverage, and chemical purification applications.

Our automotive activated carbon products primarily take the form of granules, pellets, and honeycomb "scrubbers," which are primarily utilized in vehicle-based gasoline vapor emission control systems to capture gasoline vapors that would

otherwise be released into the atmosphere as volatile organic compounds. The captured gasoline vapors are largely purged from the activated carbon and re-directed to the engine where they are used as supplemental power for the vehicle. In this way, our automotive activated carbon products are part of a system that improves the environment and fuel efficiency. Performance Materials' net sales for 2022, 2021, and 2020 were \$548.5 million, \$516.8 million, and \$510.0 million, respectively. The chart below reflects our 2022 Performance Materials' net sales by geography. Sales are assigned to geographic areas based on the location of the party to which the product was shipped.

2022 Net Sales by Geography



Raw Materials and Production

Our Performance Materials segment serves customers globally from three manufacturing locations in the U.S. and two in China. The primary raw material (by volume) used in the manufacture of our activated carbon is hardwood sawdust. Sawdust is readily available and is sourced through multiple suppliers to protect against supply disruptions and to maintain competitive pricing.

We also utilize phosphoric acid, which is used to chemically activate the hardwood sawdust. This phosphoric acid is sourced through multiple suppliers to protect against supply disruptions and to maintain competitive pricing. The market price of phosphoric acid is affected by the global agriculture market as the majority of global phosphate rock production is used for fertilizer production and only a portion of that production is used to manufacture purified phosphoric acid.

Customers

We sell our automotive technologies products to approximately 80 customers around the globe. In 2022, our ten largest customers accounted for approximately 89 percent of sales. We are the trusted source of these products for many of the world's largest automotive parts manufacturers, including BorgWarner Inc. (previously Delphi Technologies PLC), A. Kayser Automotive System GmbH, Korea Fuel-Tech Corporation, MAHLE GmbH, and many other large and small component manufacturers throughout the global automotive supply chain. Our process purification products are sold to approximately 60 customers globally. We sell our automotive technologies and process purification products primarily through our own direct sales force in North America, Europe, South America, Asia, and a smaller, focused network of third-party distributors that have established a strong direct sales and marketing presence in North America and China.

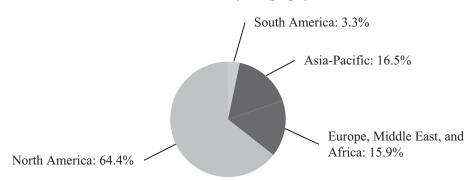
Competition

Our competitors include Norit, Kuraray Co., Ltd., and several domestic U.S. manufacturers and distributors of imported products and Chinese manufacturers. Ingevity has a decades-long track record of providing activated carbon that achieves life-of-vehicle emission standards. Given the imperative for automotive manufacturers to produce vehicles for the U.S., Canada, and China markets capable of meeting life-of-vehicle emission standards, or potentially face expensive recalls and unfavorable publicity, our automotive activated carbon products provide our customers the low-risk choice for this high-performance application. Additionally, we are well-positioned to meet increasing emissions standards around the world.

Performance Chemicals

Ingevity's Performance Chemicals segment is comprised of three product lines: pavement technologies, industrial specialties, and engineered polymers. Our products are utilized in warm mix paving, pavement preservation, pavement reconstruction and recycling, road striping, adhesives, agrochemical dispersants, lubricants, printing inks, coatings, resins, elastomers, bioplastics, medical devices, oil well service additives, oil production and downstream applications, and other diverse industrial uses. Our application expertise is often called upon by our customers to provide unique solutions that maximize resource efficiency. We have a broad and diverse customer base in this segment. In 2022, our top ten customers accounted for approximately 23 percent of our segment revenue, with the next 100 customers making up approximately 49 percent of our segment revenue. Performance Chemicals' net sales for 2022, 2021, and 2020 were \$1,119.8 million, \$874.7 million, and \$706.1 million, respectively. The chart below reflects our 2022 Performance Chemicals' net sales by geography. Sales are assigned to geographic areas based on the location of the party to which the product was shipped.

2022 Net Sales by Geography



Raw Materials and Production

Our Performance Chemicals segment serves customers globally from seven manufacturing locations in the U.S. and one in the UK. Most of our industrial specialties and some of our pavement technologies products are derived from crude tall oil ("CTO"), a co-product of the kraft pulping process, where pine trees are used as the source of the pulp. We also produce products derived from lignin, which is extracted from black liquor, another co-product of the kraft pulping process.

We typically source over 80 percent of our CTO needs through long-term supply contracts. The remainder of our CTO needs is sourced through short-term contracts and spot purchases in the open market. Most of our long-term contracted volumes are sourced through two primary parties: WestRock and Georgia-Pacific LLC ("Georgia-Pacific"). During 2022, we sourced approximately 75 percent of our CTO and CTO equivalent volumes of black liquor soap skimming ("BLSS"), the precursor to CTO, from WestRock and Georgia-Pacific combined. These relationships with WestRock and Georgia-Pacific are strategically important to our Performance Chemicals business due to the limited supply of CTO globally, a significant portion of which we believe is already under long-term supply agreements with other consumers of CTO.

There are other pressures on the availability of CTO. Some pulp or paper mills may choose to consume their production of CTO to meet their energy needs or reduce their carbon footprint, rather than sell the CTO to third parties. Weather conditions have in the past and may in the future affect the availability and quality of pine trees used in the kraft pulping process and, therefore, the availability of CTO that meets Ingevity's quality standards. Geopolitical risk factors could constrain CTO availability. For example, sanctions imposed on Russia in 2022 have constrained the global CTO supply by approximately 10 percent.

Also, there are regulatory pressures that may incentivize suppliers of CTO to sell CTO into alternative fuel markets (i.e., biofuels) rather than to historical end users such as Ingevity. CTO-based biofuel has been deemed to meet the EU's Renewable Energy Directive, second phase ("RED II") biofuel sustainability criteria. As a consequence of RED II, there has been a significant increase in demand for CTO and its derivatives, resulting in significantly increasing prices.

In addition to these developments in the EU, various pieces of legislation regarding the use of alternative fuels have been introduced in the U.S. at both the federal and state level. Currently, none of the U.S. legislation mandates or provides incentives for the use of CTO or its derivatives as a biofuel. Future legislation in the U.S. and elsewhere may promote the use of CTO or its derivatives as a feedstock for the production of biofuels, further constraining supply.

Because the supply of CTO is inherently constrained by the volume of kraft pulp processing as discussed above, as well as the recent diversion of CTO for the production of alternative fuels, the availability of CTO supply as a raw material for the pine-based chemicals industry is under pressure. This pressure has increased and we expect will continue to drive the cost of CTO to unprecedented levels. CTO accounted for approximately 14 percent of our consolidated cost of sales and 22 percent of our full company raw materials purchases in 2022.

As described above, the pricing and availability of CTO are impacted by the limited supply of the product and competing demands for its use, both of which drive pressure on its price. To diversify our raw material stream, we converted a portion of our Crossett, Arkansas CTO facility to run non-CTO-based alternative fatty acids ("AFA"). We currently sell AFA as well as AFA derivatives into end markets such as oilfield and industrial applications. We have invested and will continue to invest, in AFA production capacity at our Crossett, Arkansas facility as we expand the commercialization of our product offerings in existing and new markets, which may include the biofuels market.

Our engineered polymers' products are caprolactone based, which is derived from cyclohexanone, a benzene derivative, and hydrogen peroxide, both of which are readily available in the market. We maintain multiple suppliers of cyclohexanone to protect against supply disruptions and to maintain competitive pricing. Our hydrogen peroxide is currently supplied by Solvay Interox Limited, a co-located supplier at our Warrington, UK facility under a long-term supply agreement.

The other key raw materials used in the Performance Chemicals business are maleic anhydride, pentaerythritol, and ethylene amines. These are sourced where possible through multiple suppliers to protect against supply disruptions and to maintain competitive pricing.

Markets Served

Pavement Technologies

Our pavement technologies product line produces a broad line of innovative additives and technologies utilized globally in road construction and pavement preservation, including pavement reconstruction and recycling. With the acquisition of Ozark Materials, LLC and Ozark Logistics, LLC (collectively, "Ozark Materials"), we have added road striping technologies to the portfolio.

Warm Mix Asphalt. Evotherm®, our premier road construction additive, is a warm mix asphalt technology that promotes adhesion by acting as both a liquid antistrip and a warm mix asphalt. Once Evotherm® is mixed into the binder utilized for road layer construction, production temperatures can be significantly cooler than conventional hot mix asphalt. Lower production temperatures allow our customers to reduce emissions and fuel use during road construction as well as extend their paving seasons into colder months.

Pavement Preservation. We provide an array of pavement preservation products that eliminate many traditional asphalt heating, mixing, and transportation demands – saving our customers time, energy, and money. Our technical team matches the right emulsifier and design to our customers' materials and conditions to create high-performing emulsions. We offer a full range of specialized cationic, anionic, and amphoteric emulsifiers with additional, custom-formulated specialty additives.

Pavement Reconstruction and Recycling. We provide an array of pavement reconstruction and recycling additives that reduce the life cycle cost of pavement by enabling the milling and reuse of existing roadways. Our cold in-place recycling additives allow our customers to reopen existing roadways faster, while also lowering overall costs and jobsite emissions.

Thermoplastic Pavement Markings. We provide alkyd and hydrocarbon premium-based thermoplastic road striping technologies which provide long service life, excellent adhesion, superior color, and retro-reflectivity. Based on the customer and/or governmental agency requirements, the markings can be designed for varying levels of initial and retained performance properties.

Customers

We supply our pavement technologies products to approximately 650 customers in 65 countries through our own direct sales force, primarily in North America and Asia, as well as a network of third-party distributors. In 2022, our ten largest customers accounted for 42 percent of the product line's sales. Our largest customers include Colas SA, Ergon, Inc., Associated Asphalt Inc., and Idaho Asphalt Supply Inc.

Competition

Our primary competitors in pavement technologies are Nouryon Chemicals B.V., Arkema S.A., Kao Specialties Americas LLC, Sherwin-Williams Company, and PPG Industries Traffic Solutions. We compete based on deep knowledge of our customers' businesses and extensive insights into road-building technologies and trends globally. We use these strengths to develop consulting relationships with government departments of transportation, facilitating new technology introduction into key markets around the world. Our combined expertise in the disciplines of chemistry and civil engineering provides us with a comprehensive understanding of the relationship between the molecular structure of our products and their impact on the performance of pavement systems. This allows us to develop products customized to local markets and to consistently deliver cost-effective solutions for our customers.

Industrial Specialties

Our industrial specialties product line produces and sells chemicals utilized in several industrial applications, including adhesive tackifiers, agrochemical dispersants, lubricant additives, printing ink resins, industrial intermediates, and oilfield.

Adhesives. We are a global supplier of tackifier resins, which provide superior adhesion to difficult-to-bond materials, to the adhesives industry. Adhesive applications for our products include construction, product assembly, packaging, pressure-sensitive labels and tapes, hygiene products, and road markings.

Agrochemicals. We produce dispersants for crop protection products as well as other naturally derived products for agrochemicals. Crop protection formulations are highly engineered, specifically formulated, and cover a range of different formulation types, from liquids to solids. We deliver a wide range of dispersants that are high performing and consistent. In addition, our crop protection products are approved for use as inert ingredients in agrochemicals by regulatory agencies throughout the world.

Lubricants. We supply lubricant additives and corrosion inhibitors for the metalworking and fuel additives markets. Our lubricant products are multi-functional additives that contribute to lubricity, wetting, corrosion inhibition, emulsification, and general performance efficiency. Our products are valued because of their ease in handling, robust performance, and improved formulation stability.

Printing Inks. We are a leading supplier of ink resins from renewable resources to the global graphic arts industry for the preparation of printing inks. Our products improve the gloss, drying speed, viscosity, adhesion, and rub resistance of the finished ink to the substrate. We produce a wide array of resins, typically specifically tailored to a customer's use, which can vary by application, pigment type, end-use, formulation, manufacturing, and printing process.

Industrial Intermediates. Our functional chemistries are sold across a diverse range of industrial markets including, among others, paper chemicals, textile dyes, rubber, cleaners, mining, and nutraceuticals.

Oilfield. We supply oilfield well service additives to improve emulsion stability, aid in fluid loss control, for oil-based drilling muds. Other specialty additives, typically used in deep water applications, include rheology modifiers and wetting agents that improve viscosity properties and aid in the efficiency of the drilling process. We also supply corrosion inhibitors or their components for oil and gas production and downstream applications. Crude oil and natural gas production are characterized by variable production rates and unpredictable changes due to the nature of the produced fluids including but not limited to water and salt content, as well as supply and demand balance. Our corrosion inhibitors maximize production rates by reducing the downtime for key equipment and pipes due to corrosion.

Customers

We sell our industrial specialties products to approximately 500 customers around the globe in over 60 countries through our own direct sales representatives and third-party sales representatives and distributors. In 2022, our ten largest customers accounted for 36 percent of the product line's sales. Our largest customers include Haliburton, Solenis, Flint Group, H.B. Fuller Co., and Arboris.

Competition

Our competitors, which differ depending on the product, application, and region, include Kraton Corp., Eastman Chemical Co., ExxonMobil Corp., Borregaard ASA, Lawter, Inc., Repsol S.A., Firmenich SA, Lamberti S.p.A., Mobile Rosin Oil Company, Inc., as well as several others. Specific to our industrial specialty products, our customers select the product that provides the best balance of performance, consistency, and price. Reputation and loyalty are also valued by our customers and allow us to win business when other factors are equal. In adhesives, our products compete against other tackifiers, including other tall oil resin ("TOR") based tackifiers as well as tackifiers produced from gum rosin and hydrocarbon starting materials. In addition, the choice of polymer used in an adhesive formulation drives the selection of a tackifier. In agrochemicals, the selection of a dispersant is made early in the product development cycle and the formulator has a choice among our sulfonated lignin products, lower-quality lignosulfonates and other surfactants such as naphthalene sulfonates. In lubricants, we compete against other producers of distilled tall oil and additives. In printing inks, our products compete against other resins that can be derived from TOR, gum rosin and, to a lesser extent, hydrocarbon sources. In our industrial intermediates business, our tall oil fatty acid ("TOFA") competes against widely available fats and oils derived from tallow, soy, rapeseed, palm, and cotton sources. In oilfield, we compete against other tall oil specialty additives used for oil-based drilling fluids or corrosion inhibition formulations in the drilling, production and downstream applications of oilfield. We compete based on our ability to understand our customers' applications and deliver solutions that aid in their improvement of the exploration drilling and production of oil and gas for end users. Our scale and manufacturing flexibility help us deliver the creativity, expedience, and confidence that customers in oilfield technologies require.

Engineered Polymers

Our engineered polymers product line includes caprolactone and caprolactone-based specialty polymers for use in coatings, resins, elastomers, adhesives, bioplastics, and medical devices.

Coatings. Our coating products are used in automobile refinishing, sports floors, windmill blade coatings, and marine applications. Our products enhance product performance by providing abrasion resistance, long durability, a high-quality finish, and enhanced performance in resin modification. Our products are often preferred because they provide a combination of traits that allows customers to displace several combinations of other products.

Resins. Our resin products are used in acrylic resins, polyurethane, and inks. Our products enhance product performance due to their protective properties, all-weather performance, and reduction or elimination of the need for solvents in formulations. Our products tend to be preferred where superior or particular performance levels are required.

Elastomers. Our products are used in wheels, seals, mining screens, and polyurethane films. Our products enhance product performance due to their resistance to wear and tear, ability to maintain form and function under pressure and temperature and excellent UV resistance. Our products are often used in highly demanding applications where competing products do not reach the required performance levels.

Adhesives. Our products are used in hot-melts, fabric lamination, and miscellaneous footwear components. Our products enhance product performance through their durability and substrate compatibility. Our products are often preferred because they are found to be easier to process and apply compared to competitive offerings.

Bioplastics. Our products are used in films, paper coatings, disposable cups, utensils, and packaging. Our products enhance product performance due to the combination of their biodegradability, improved mechanical properties, and wide processability when used in combination with other bioplastic solutions. Special grades are also available to help comply with food contact legislation in various regions and applications.

Medical Devices. Our products are used in medical devices. Our products enhance end-product performance due to their low melting point and ability to be thermoformed. Our products improve process conditions and provide patient comfort compared to competitive thermoplastic offerings.

Customers

We sell our engineered polymers chemicals to over 300 customers around the globe through our own direct sales representatives and third-party sales representatives and distributors. In 2022, our ten largest customers accounted for approximately 45 percent of the product line's sales. Our largest customers include polyurethane, adhesive, coatings, and bioplastics manufacturers.

Competition

Our primary caprolactone competitors are Daicel, Corp., Juren, and BASF SE, but we also face competition from other competing materials. We compete based on performance as compared to the other competitive materials. We also compete by strengthening our technology-focused relationships with our customers.

ITEM 1A. RISK FACTORS

Based on the information currently known to us, we believe that the following information identifies the most significant risk factors affecting the Company. However, the risks and uncertainties we face are not limited to those set forth in the risk factors described below. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business. In addition, 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.

If any of the following risks and uncertainties develop into actual events, these events could have a material adverse effect on our business, financial condition. or results of operations. In such a case, the trading price of our Common Stock could decline.

Operational and Market Risks

Adverse conditions in the automotive market have and may continue to negatively impact demand for our automotive carbon products.

Sales of our automotive activated carbon products are tied to global internal-combustion-engine ("ICE") and hybrid electric vehicle automobile ("HEV") production levels. ICE and HEV automotive production in the markets we serve can be affected by macro-economic factors such as interest rates, fuel prices, shifts in vehicle mix (including shifts toward alternative energy vehicles), consumer confidence, employment trends, regulatory and legislative oversight requirements, and trade agreements. For example, during the first half of 2020, the COVID-19 pandemic led to a significant reduction in vehicle production, and vehicle sales were negatively impacted by government shutdown orders and stay-at-home directives. Additionally, vehicle production inputs, such as the microchip shortages during 2021 and 2022, were further impacted by the complexity of the global automotive supply chain and have resulted in reduced vehicle production and, as a result, vehicle sales, and our operating results have been negatively impacted. We currently anticipate this negative impact to lessen during 2023.

The Company's pavement technologies product line is heavily dependent on government infrastructure spending.

A significant portion of our customers' and our revenues in our pavement technologies business is derived from contracts with various foreign and U.S. governmental agencies, and therefore, when government spending is reduced, our customers' demand for our products is similarly reduced. Our customers provide paving services to, for example, the governments of various jurisdictions within North America, Europe, China, Brazil, and India, and we sell pavement marking materials to the governments of various jurisdictions within North America, and revenue either directly or indirectly attributable to such government spending continues to remain a significant portion of our revenues. Government business is, in general, subject to special risks and challenges, including: delays in funding and uncertainty regarding the allocation of funds to federal, state, and local agencies; delays in spending or reductions in other state and local funding dedicated to transportation projects; other government budgetary constraints, cutbacks, delays or reallocation of government funding; long purchase cycles or approval processes; our customers' and government agencies' competitive bidding and qualification requirements; changes in government policies and political agendas; and international conflicts or other military operations that could cause the temporary or permanent diversion of government funding from transportation or other infrastructure projects.

Certain of the Company's products are sold into cyclical end-markets, such as the automotive market and the apparel market, which are impacted by changes in consumer and industrial demand.

Certain of our products are sold into end-markets that are cyclical and subject to frequent and rapid technology changes, changes in consumer preferences, evolving standards, and changes in product supply and demand. For example, demand for our engineered polymers products in the automotive market, where our products are formulated into automotive resins and coatings and various components, may be affected by technological advances, changing automotive original equipment manufacturer ("OEM") specifications, and global automobile production levels. Demand for our engineered

polymers products, where our products are sold into footwear adhesives and structural support, may be affected by consumer discretionary spending and changes in consumer preferences. Additionally, sales of our industrial specialties products may be negatively impacted due to reduced global industrial demand. The impact of these changes may lead to increased competition from competing and substitute products and downward pricing pressures on our customers, and therefore, our engineered polymers and industrial specialties product offerings.

We face competition from new technologies and new or emerging competitors.

Our industries and the end-use markets into which we sell our products experience periodic technological change and product improvement. Our future growth depends on our ability to gauge the direction of commercial and technological progress in key end-use markets, to swiftly identify and respond to disruptive technologies, and to fund and successfully develop, manufacture, and market products in such changing end-use markets. If we fail to keep pace with the evolving or disruptive technological innovations in our end-use markets on a competitive basis, our financial condition and results of operations could be adversely affected.

In the Performance Materials segment, there is competition from other activated carbon manufacturers. These competitors are trying to develop more advanced and alternative activated carbon products that could more effectively compete with our products in automotive applications. There is also competition in automotive applications from non-activated carbon competitors and product offerings. For example, multiple OEMs are using sealed tanks in certain subsets of their vehicles to comply with the strict emission regulations (i.e., Tier 3/LEV III) in the U.S. While sealed tank fuel systems generally require an increased sized pelleted activated carbon canister to deal with refueling emissions, in most cases, they do not use an extruded honeycomb to meet current U.S. and California regulations. There is also emerging competition in the "honeycomb" space, which may impact sales of the Company's products. If a competitor were to succeed in developing products that are better suited than ours for automotive evaporative emissions capture applications and/or a competitive technology, such as, but not limited to, sealed gas tanks, our financial results could be negatively impacted.

In addition, the adoption of electric and hydrogen fuel cell vehicles is increasing in the U.S. and other parts of the world. Consumer demand for these alternative-fueled vehicles is expected to continue to increase significantly in future years as certain states and international governments implement limits on the sale of vehicles with ICE with targets to completely phase out sales of such vehicles by as early as 2030. A reduction in the sales of vehicles with internal combustion engines would reduce demand for our activated carbon automotive products. Our long-term strategy is to grow our sales of products for applications in all-electric and hydrogen fuel cell vehicles to off-set the expected decline in activated carbon sales for ICE. If we are unable to develop products for all-electric and hydrogen fuel cell vehicles or grow sales fast enough, our business and results of operations could be adversely impacted. The process of designing and developing new technology and related products is complex, costly, and uncertain and may require us to retain and recruit talent in areas of expertise outside of our current core competencies. There can be no assurance that such advances in technology will be feasible or will occur in a timely and efficient manner.

Certain of our products face competition from substitute products where the costs of different raw material inputs can impact the price competitiveness of our products and negatively impact our sales and/or profits as we respond to substitute product competition.

Gum rosin-based products and hydrocarbon resins compete with our TOR-based resins in the adhesives and printing ink markets. The price of gum rosin has a significant impact on the market price for TOR and rosin derivatives and is driven by labor rates for harvesting, land leasing costs, and various other factors that are not within our control. Hydrocarbon resins, for example, C5 resins, are co-products from the manufacture of isoprene (synthetic rubber). Availability and pricing are determined by the supply/demand dynamics for synthetic rubber as well as the price of crude oil as the feedstock for isoprene and various other factors that are not within our control. Animal and vegetable-based fatty acids compete with TOFA products in lubricant and industrial specialties. The market price for TOFA products is impacted by the prices of other fats and oils, and the prices for other fats and oils are driven by actual and expected harvest rates, petroleum oil prices, and the biofuel market. Other monomers, thermoplastics, and polyols compete with our caprolactone-based products. The price for our products is impacted by the prices of competitive substitutes which are influenced by oil prices as well as other supply and demand factors. We may not be able to pass through raw material cost increases, or we may lose market share if we do not effectively manage our pricing, which in either case could negatively impact our financial results.

Additionally, the price of energy may directly or indirectly impact demand, pricing, or profitability for certain of our products. As petroleum oil prices can change rapidly, Ingevity products may be disadvantaged because CTO and BLSS are thinly traded commodities with pricing commonly established for periods ranging from one quarter to one-year periods. Due to this, alternative technologies which compete with product offerings provided by Ingevity may be advantaged from time to time in the marketplace. Protracted periods of high volatility or sustained oversupply of petroleum oil may also translate into increased competition from petroleum-based alternatives. In addition, pricing for competing naturally derived oils such as palm or soybean is likely to put further pressure on the pricing of the Company's products during periods of depressed petroleum prices.

The COVID-19 pandemic has had and may continue to have, a negative impact on our business, financial condition, results of operations, and cash flows.

The COVID-19 pandemic continues to impact our operations and financial results. Our facilities, as well as the operations of our suppliers, customers, and third-party sales representatives and distributors, have been, and continue to be, disrupted by governmental and private sector responses to the COVID-19 pandemic, including, without limitation, government shutdown requirements, business shutdowns, work-from-home orders and social distancing protocols, travel or health-related restrictions, quarantines, self-isolations, and disruptions to transportation channels. These types of disruptions, or an outbreak among the employees in any of our facilities, could cause significant interruptions to, or temporary closures of, our operations and could materially adversely affect our ability to adequately staff and maintain our operations. Working remotely may eventually lead to inefficiencies, as well as technology and security risks. Additionally, we are uncertain if the extended period during which our employees are unable to travel to our facilities or those of our customers and suppliers may negatively impact our business.

Disruptions to the operations of our suppliers have at times, and may again, negatively impact our ability to purchase goods and services for our business at efficient prices and in sufficient amounts. Additionally, the operations of our customers have been and could be further, disrupted, which can result in customers attempting to delay or cancel orders, reduce future orders or seek extended payment terms. Furthermore, the negative impact of the COVID-19 pandemic on the global economy, adverse changes in the industries that our products serve or adverse changes in the financial condition of our customers could further adversely impact demand for our products, particularly in the automotive industry and industrial and consumer applications. The extent of the impact that the COVID-19 pandemic will continue to have on our business and financial results will depend on various uncertainties and future developments, including the ultimate duration, severity, and spread of the virus and any new variants in the countries where we operate and transact business, subsequent government actions, and the resulting economic impacts.

Disruptions at any of our facilities could negatively impact our production, financial condition, and results of operations.

Disruptions to any of our manufacturing operations or other facilities, due to natural disasters and extreme weather, such as a hurricane, tropical storm, earthquake, tornado, severe weather, flood, fire, or other unanticipated problems such as labor difficulties, pandemics (including the COVID-19 pandemic), equipment failure, cyberattacks or other cybersecurity incidents, capacity expansion difficulties or unscheduled maintenance, could cause operational disruptions of varied duration. Also, many of our production employees are governed by CBAs. The CBA at our North Charleston, South Carolina Performance Chemicals facility with the IBEW Local Union No. 1753 expired on June 30, 2022. The parties began contract negotiations in December 2022. In addition, the CBA at our Wickliffe, Kentucky Performance Materials facility with the USW, on behalf of its affiliated Local Union 0775, expired on February 1, 2023. The parties began contract renewal negotiations in January 2023. At both facilities, the parties continue to operate under the applicable expired CBA while negotiations are pending. While the Company has generally positive relations with its labor unions, there is no guarantee the Company will be able to successfully negotiate new union contracts without work stoppages, labor difficulties, or unfavorable terms. In addition, existing CBAs may not prevent a strike or work stoppage at the applicable plant.

These types of disruptions could materially adversely affect our financial condition and results of operations to varying degrees depending upon the facility, the duration of the disruption, and our ability to shift business to another facility or find alternative sources of manufacturing capacity. Any losses due to these events may not be covered by our existing insurance policies or may be subject to certain deductibles. In certain cases, we have products, such as our extruded honeycomb and caprolactone products, that are only made at one facility. While we have some redundancies within the facilities that are the sole manufacturer of certain products, we have limited ability to make these products at other facilities.

We are dependent upon third parties for the provision of certain critical operating services at several of our facilities.

We are dependent upon third parties for the provision of certain critical operating services, primarily utilities and related services (e.g., steam, compressed air, energy, water, wastewater treatment) at our Covington, Virginia Performance Materials facility and the following Performance Chemicals facilities: Crossett, Arkansas; North Charleston, South Carolina; and Warrington, UK. We have existing long-term contractual arrangements covering these services. The provision of these services would be at risk if any of the counterparties were to idle or permanently shut down their plant, or if operations were disrupted due to natural or other disaster, or by reason of strikes or other labor disruptions, or if there were a significant contractual dispute between the parties.

In the event that the applicable counterparty was to fail to provide the contracted services, we would be required to obtain these services from other third parties, most likely at an increased cost, or to expend capital to provide these services ourselves. The expenses associated with obtaining or providing these services, as well as any interruption in our operations as a result of the failure of the counterparty to provide these services, may be significant and may adversely affect our financial condition and results of operations.

Furthermore, in the event that WestRock's Covington, VA paper mill's wastewater treatment operations do not comply with permits or applicable law and WestRock is unable to determine the cause of such non-compliance, then we will be responsible for up to 50 percent of the costs and expenses of such noncompliance (increasing in 10 percent increments per violation during each twelve month period) despite representing less than 3 percent of the total wastewater volume. These costs and expenses may be significant and may adversely impact our financial condition and results of operations.

Additionally, several of our manufacturing facilities are leased. In the event we were to have a dispute with the landlord regarding the terms of the relevant lease agreements, or we were otherwise unable to fully access or utilize the leased property, the associated business disruption may be significant and may adversely affect our financial condition and results of operations.

We are also dependent on third parties for the disposal of brine, which results from our own conversion of BLSS into CTO. If these service providers do not perform under their contracts, the costs of disposing of brine ourselves, including, for example, the transportation costs, could be significant.

We are dependent on certain large customers.

We have certain large customers in particular businesses, the loss of which could have a material adverse effect on the applicable segment's sales and, depending on the significance of the loss, our results of operations, financial condition, or cash flows. Sales to Ingevity's ten largest customers (across both segments) accounted for 30 percent of total sales for 2022. No customer accounted for more than 10 percent of total sales for 2022. With some exceptions, our business with those large customers is based primarily upon individual purchase orders. As such, our customers could cease buying our products from us at any time, for any reason, with little or no recourse. If a major customer or multiple smaller customers elected not to purchase products from us, our financial condition and results of operations could be materially adversely affected.

We are dependent on attracting and retaining key personnel.

We are dependent upon our production workers, as well as upon engineering, technical, sales, and application specialists, together with experienced industry professionals and senior management. Our success depends, in part, on our ability to attract, retain and motivate key talent. Our failure to attract and retain individuals making significant contributions to our business could adversely affect our financial condition and results of operations.

The inability to make or effectively integrate future acquisitions and other investments may negatively affect our results.

As part of our growth strategy, we may pursue acquisitions of businesses and product lines or invest in joint ventures. The ability to grow through acquisitions or other investments depends upon our ability to identify, negotiate, finance, complete, and integrate suitable acquisitions or joint venture arrangements. There can be no assurances that we will be able to integrate these acquisitions in an efficient and cost-effective manner or that these acquisitions or joint ventures will generate the expected value.

Acquisitions and other investments may expose us to liability from the target company and/or joint venture partner. Acquisition and investment target companies may be or may become involved in disputes regarding intellectual property and other aspects of their businesses or may be subject to liabilities that are unknown at the time of the transaction, including liabilities under environmental or tax laws. Depending on the nature of our investment and/or structure of an acquisition, we may take on or be exposed to such liability, which could materially impact our business, financial condition, or results of operations.

As we rely on information technologies to conduct our business, cyber-attacks, data and privacy breaches, or a failure of information technology systems could disrupt our operations and expose us to liability, which could cause our business and reputation to suffer.

We rely on our information technology systems, some of which are managed by third parties, to support, manage and maintain the day-to-day operations and activities of our business, including our manufacturing facilities, customer and vendor transactions, and financial, accounting, and business records. In addition, we collect and store certain data, including proprietary business information, and may have access to confidential or personal information that is subject to privacy and security laws and regulations.

The secure processing, storage, and transmission of sensitive, confidential, and personal data is critical to our operations and business strategy. We have instituted a system of security policies, procedures, capabilities, internal controls and audits based on our pursuit of ISO 27001 certification, designed to protect this information. Additionally, we engage third-party threat detection, penetration testing, and monitoring services which includes a global cybersecurity incident response team. Despite our security architecture and controls, and those of our third-party providers, we may be vulnerable to cyber-attacks, computer viruses, security breaches, ransomware attacks, inadvertent or intentional employee actions, system failures, and other risks that could potentially lead to the compromising of sensitive, confidential or personal data, improper use of our, or our third-party provider systems, solutions or networks, unauthorized access, use, disclosure, modification or destruction of information, and operational disruptions. We also maintain an information security risk insurance policy to help mitigate the financial consequences of these risks, however, there is no guarantee that such a policy will be sufficient to address such costs. In addition, the global regulatory environment pertaining to information security and privacy is increasingly complex, with new and changing requirements, such as the European Union's General Data Protection Regulation ("GDPR"), California Consumer Privacy Act ("CCPA"), and the China Cybersecurity Law and Personal Information Protection Law. GDPR, which applies to the collection, use, retention, security, processing, and transfer of personally identifiable information of residents of EU countries, mandates new compliance obligations and imposes significant fines and sanctions for violations. CCPA requires companies to provide new data disclosure, access, deletion, and opt-out rights to consumers in California. Implementing and complying with these laws and regulations may be more costly or take longer than we anticipate, or could otherwise affect our business operations. Information security breaches, cyber incidents, and disruptions, or failure to comply with laws and regulations related to information security or privacy, could result in legal claims or proceedings against us by governmental entities or individuals, significant fines, penalties or judgements, disruption of our operations, remediation requirements, changes to our business practices, and damage to our reputation, which could adversely affect our business, financial condition or results of operations.

Complications with the design or implementation of our new enterprise resource planning ("ERP") system could adversely impact our business and operations.

We are in the process of a complex, multi-year implementation of a new ERP system that is necessary due to the finite life of the existing operating system. The ERP system implementation requires the integration of the new ERP system with multiple new and existing information systems and business processes in order to maintain the accuracy of our books and records and to provide our management team with information important to the operation of our business. Such an initiative is a major financial undertaking and requires substantial time and attention from management and key employees. The implementation of the ERP system may prove to be more difficult, costly, or time-consuming than expected, and it is possible that the system will not yield the benefits anticipated. Failure to successfully design and implement the new ERP system as planned could harm our business, financial condition, and operating results. Additionally, if we do not effectively implement the ERP system as planned or the ERP system does not operate as intended, the effectiveness of our internal control over financial reporting could be negatively impacted.

Supply Chain Risks

Disruptions within our supply chain have negatively impacted and could continue to negatively impact, our production, financial condition, and results of operations.

We have been, and could continue to be, adversely affected by disruptions within our supply chain and transportation network. Our products are transported by truck, rail, barge or ship primarily by third-party providers. The costs of transporting our products could be negatively affected by factors outside of our control, including rail service interruptions or rate increases, extreme weather events, tariffs, rising fuel costs, and capacity constraints. Recently, the unprecedented congestion in ocean shipping has, and could continue to, adversely impact the reliability of our export shipments to customers and imports of raw materials, and transport driver shortages experienced as a result of the COVID-19 pandemic have caused extended lead times for domestic shipments. Significant delays or increased costs relating to transportation could materially affect our financial condition and results of operations. Disruptions at our suppliers could lead to volatility or increases in raw material or energy costs and/or reduced availability of materials or energy, potentially affecting our financial condition and results of operations.

Our Performance Chemicals segment is highly dependent on CTO as a raw material, which is limited in supply, and may be subject to price increases; changing supply and demand economics for CTO could limit access to sufficient supply and/or cause price increases that we may be unable to pass through to customers.

CTO is essential to our industrial specialties and some of our pavement technologies product lines within our Performance Chemicals segment. Availability of CTO is directly linked to (as it is a co-product of) the production output of kraft mills using softwood, primarily pine trees, as their feedstock, (i.e., pulp). Softwood pulp is the predominant fiber source for packaging grades of paper as well as fluff pulp for personal care products. As a result, there is a finite global supply of CTO, with global demand for softwood pulp driving the global supply of CTO, rather than demand for CTO itself. Most of the CTO made available for sale by its producers in North America, where our manufacturing assets are located, is covered by long-term supply agreements, further constraining availability.

We typically source over 80 percent of our CTO needs through long-term supply contracts. The remainder of our CTO needs is sourced through short-term contracts and spot purchases in the open market. Most of our long-term contracted volumes are sourced through two primary parties: WestRock and Georgia-Pacific. During 2022, we sourced approximately 75 percent of our CTO and CTO equivalent volumes of BLSS, the precursor to CTO, from WestRock and Georgia-Pacific combined. These long-term CTO supply contracts permit periodic adjustment or negotiation of pricing and other terms. There can be no guarantee that pricing, CTO volume, and other terms will not be materially impacted as a result of these adjustments or negotiations. For example, effective January 1, 2022, WestRock removed a mill that had provided approximately 28,500 tons of CTO per year from our long-term supply agreement.

If any of our suppliers fail to meet their respective obligations under our supply agreements or we are otherwise unable to procure an adequate supply of CTO, we would be unable to maintain our current level of production and our results of operations could be materially and adversely affected.

There are other pressures on the availability of CTO. Some pulp or paper mills may choose to consume their production of CTO to meet their energy needs or reduce their carbon footprint, rather than sell the CTO to third parties. Weather conditions have in the past and may in the future affect the availability and quality of pine trees used in the kraft pulping process and, therefore, the availability of CTO that meets Ingevity's quality standards. Geopolitical risk factors could constrain CTO availability. For example, sanctions imposed on Russia in 2022 have constrained the global CTO supply by approximately 10 percent.

Also, there are regulatory pressures that may incentivize suppliers of CTO to sell CTO into alternative fuel markets (i.e., biofuels) rather than to historical end users such as Ingevity. CTO-based biofuel has been deemed to meet the EU's Renewable Energy Directive, second phase ("RED II") biofuel sustainability criteria. As a consequence of RED II, there has been a significant increase in demand for CTO and its derivatives, resulting in significantly increasing prices.

In addition to these developments in the EU, various pieces of legislation regarding the use of alternative fuels have been introduced in the U.S. at both the federal and state level. Currently, none of the U.S. legislation mandates or provides incentives for the use of CTO or its derivatives as a biofuel. Future legislation in the U.S. and elsewhere may promote the use of CTO or its derivatives as a feedstock for the production of biofuels, further constraining supply.

Because the supply of CTO is inherently constrained by the volume of kraft pulp processing as discussed above, as well as the recent diversion of CTO for the production of alternative fuels, the availability of CTO supply as a raw material for the pine-based chemicals industry is under pressure. This pressure has and we expect will continue to drive the cost of CTO to unprecedented levels. CTO accounted for approximately 14 percent of our consolidated cost of sales and 22 percent of our full company raw materials purchases in 2022. The inability to pass through any increases in our cost of CTO to our customers in the form of price increases or other adjustments will result in a negative impact on our results of operations. Additionally, we may be placed at a competitive disadvantage relative to certain competitors who rely on different primary raw materials or who have more favorable terms with their suppliers.

We purchase a variety of other raw materials, which are also subject to pricing pressures; inability to procure these raw materials or to pass on price increases could negatively impact our operations or financial results.

We purchase a variety of other raw materials from third parties for our manufacturing operations, including, but not limited to, hardwood sawdust, phosphoric acid, ethylene amines, black liquor, maleic/fumaric acid, hydrogen peroxide, cyclohexanone, pentaerythritol, calcium carbonates, pigments, glass beads, acrylic emulsions, and resins. Each raw material is subject to its own supply and demand dynamics which may, at times, limit availability and/or cause price volatility. For example, at times we have been unable to obtain our full requirements of hydrogen peroxide for our Warrington UK facility and we have limited ability to store quantities onsite. we may be unable to procure the quantities of raw materials we need which could negatively impact our operations or we may be unable to pass through price increases to our customers which could negatively impact our financial results.

International Operations Risks

We are exposed to the risks inherent in international sales and operations.

In 2022, sales to customers outside of the U.S. made up approximately 47 percent of our total sales, and we sell our products to customers in approximately 80 countries. We have exposure to risks of operating outside the U.S., including: fluctuations in foreign currency exchange rates, including the euro, pound sterling, Japanese yen and Chinese renminbi; restrictions on, or difficulties and costs associated with, the repatriation of cash from foreign countries to the U.S.; difficulties and costs associated with complying with a wide variety of complex laws, treaties and regulations, which may carry significant penalties for non-compliance; unexpected changes in political or regulatory environments; earnings and cash flows that may be subject to tax withholding requirements or the imposition of tariffs, exchange controls or other restrictions; geopolitical and economic instability; general country strikes or work stoppages; unforeseen public health crises, such as pandemic and epidemic diseases (including the COVID-19 pandemic); import and export restrictions, tariffs, and other trade barriers or retaliatory actions; difficulties in maintaining overseas subsidiaries and international operations; difficulties in obtaining approval for significant transactions; government limitations on foreign ownership; government takeover or nationalization of business; and government mandated price controls.

Any one or more of the above factors could adversely affect our international operations and could significantly affect our financial condition and results of operations. For example, Chinese government agencies have in the past required companies to reduce or suspend manufacturing operations from time to time, with little or no notice, for reasons such as energy restrictions and air quality concerns. The timing and length of these suspensions, which are expected to continue occurring, are difficult to predict. These unpredictable events could negatively impact our results of operations and cash flows. Further, any of these factors may impact our customers' non-U.S. operations, which could reduce demand for our products. As our international operations and activities expand, we inevitably have greater exposure to the risks associated with operating in many foreign countries.

Our engineered polymers product line may be adversely affected by the United Kingdom's withdrawal from the European Union.

Effective January 1, 2021, the European Union ("EU") and the UK formed two separate markets and two distinct regulatory and legal environments, creating new barriers to trade in goods and services and to cross-border mobility and exchanges.

Even though the UK reached an agreement with the EU on the terms of their future cooperation, as reflected in the EU-UK Trade and Cooperation Agreement and related arrangements, the regulatory frameworks of the UK and the EU may subsequently change and potentially divergent laws and regulations may develop, including those relating to UK and EU

REACH. This may have adverse practical and/or operational implications for our engineered polymers product line, including potential disruption to supply chains, additional compliance and operational costs, required product modifications, and necessary operational changes.

Legal and Regulatory Risks

From time to time, we may be engaged in legal actions associated with our intellectual property rights; if we are unsuccessful, these could potentially result in an adverse effect on our financial condition and results of operations.

Intellectual property rights, including patents, trade secrets, confidential information, trademarks, trade names, and trade dress, are important to our business. See "Intellectual Property" included within Part I. Item 1 of this Form 10-K for more information on the 844 Patent. We endeavor to protect our intellectual property rights in key jurisdictions in which our products are produced or used, in jurisdictions into which our products are imported, and in jurisdictions where our competitors have significant manufacturing capabilities. Our success will depend to a significant degree upon our ability to protect and preserve our intellectual property rights. However, we may be unable to obtain or maintain protection for our intellectual property in key jurisdictions and the Company's patents and other intellectual property may not prevent competitors from independently developing or selling similar or duplicative products and services. 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. We are currently involved in several legal actions relative to the intellectual property associated with the 844 Patent. On September 15, 2021, a jury in the lawsuit filed by the Company against BASF Corporation for patent infringement in the United States District Court for the District of Delaware (the "Delaware Proceeding") issued a verdict in favor of BASF on certain counterclaims filed by BASF in the Delaware Proceeding. The jury awarded BASF damages of approximately \$28.3 million, which will be trebled under U.S. antitrust law to approximately \$85.0 million when the court enters judgment. In addition, BASF may seek pre- and post-judgment interest and attorneys' fees and costs in amounts that they will have to prove at a future date. Earlier in the Delaware Proceeding, the U.S. District Court dismissed the Company's patent infringement claims against BASF alleging BASF infringed the 844 Patent and invalidated some, but not all, of the claims in our 844 patent, which expired in March 2022.

The Company disagrees with the verdict, including the court's application of the law, and it intends to seek judgment as a matter of law in the Delaware Proceeding post-trial briefing stage and on appeal, if necessary. The Company also intends to challenge the U.S. District Court's previous dismissal of the Company's patent infringement claims against BASF in the Delaware Proceedings. The final resolution of these matters could take up to eighteen months and there can be no assurance that the Company will prevail in its attempts to challenge the verdict. Because the outcome of the Company's post-trial motions and possible appeal is difficult to predict, as of December 31, 2022, the Company has accrued a total of \$85.0 million, the full amount of the jury's verdict (including treble damages). The amount accrued for this matter is included within Other liabilities on the consolidated balance sheet as of December 31, 2022, and the charge is included within Other (income) expense, net on the consolidated statement of operations for the twelve months ended December 31, 2022. The amount of any liability the Company may ultimately incur related to the Delaware Proceeding could be more or less than the amount accrued. The Company has and may continue to incur additional fees, costs and expenses for as long as the post-trial motions and possible appeal are ongoing. If the Company is required to pay the entire jury verdict (together with any associated fees, costs, and expenses), or the Company must make certain changes to its business when the matters associated with the Delaware Proceeding are eventually resolved, such outcomes could have an adverse effect on the Company's business, financial condition, and operating results.

The Delaware Proceeding and other legal actions to protect, defend or enforce our intellectual property rights could result in significant costs and diversion of our resources and our management's attention, and we may not prevail in any such suits or proceedings, which 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. If the Company is found to infringe any third-party rights, it could be required to pay substantial damages, or it could be enjoined from offering some of its products and services.

We also rely heavily 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. For instance, we manufacture some of our products in China where we may be at a greater risk of a third party misappropriating our intellectual property despite the foregoing policies, procedures and 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.

Environmental and Sustainability Risks

Certain elements of our strategic growth are dependent on the adoption of more stringent air quality standards around the world.

Environmental standards drive the implementation of gasoline vapor emission control systems by automotive manufacturers. Given increasing societal concern over global warming and health hazards associated with poor air quality, there is growing pressure on regulators across the globe to take meaningful action. For those countries that have not significantly regulated gasoline vapor emissions, enacting more stringent regulations governing gasoline vapor emissions represents a significant upside to our Performance Materials' automotive carbon business. However, regulators may react to a variety of considerations, including economic and political, that may result in any such more stringent regulations being delayed or shelved entirely, in one or more countries or regions. As the adoption of more stringent regulations governing gasoline vapor emissions is expected to drive significant growth in our automotive carbon applications, the failure to enact such regulations will have a significant impact on the growth prospects for these products.

Our business involves hazards associated with chemical manufacturing, storage, transportation, and disposal; the legal and regulatory environment related to such chemicals and other environmental impacts (such as climate change and extreme weather) could require expenditures or changes to our product formulations and operations.

There are hazards associated with the chemicals we manufacture and the related storage and transportation of our raw materials, including common solvents, such as toluene and methanol, and reactive chemicals, such as acrylic acid, all of which fall under the OSHA Process Safety Management Code. 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 natural disasters, severe weather events, acts of sabotage and performance by third parties, and as a result we could face potential hazards, including the following: piping and storage tank leaks and ruptures; mechanical failure; employee exposure to hazardous substances; 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, and contamination of the environment, which could lead to government fines, work stoppage injunctions, lawsuits by injured persons, damage to our public reputation and brand, and diminished product acceptance. If such actions are determined adversely to us, or there is an associated economic impact on our business, we may have inadequate insurance or cash flow to offset any associated costs.

Increasing weather-related impacts on our operations and plant sites may impact the cost or availability of insurance. Furthermore, the potential impact of climate change and related regulations on our suppliers and customers is highly uncertain and there can be no assurance that it will not have an adverse effect on the availability over time of our suppliers' and customers' businesses, and on our financial condition and results of operations.

Our operations are subject to a wide range of general and industry-specific environmental laws and regulations; changes to this legal and regulatory landscape could limit our business activities and increase our operating costs.

Our operations are subject to a wide range of general and industry-specific environmental laws and regulations. Certain regulations applicable to our operations, including the OSHA and the TSCA in the U.S. and the REACH directive in Europe, the UK and other countries, prescribe limits restricting exposure to several chemicals used in our operations, including certain forms of formaldehyde, a raw material used in the manufacture of phenolic modified rosin-based ink resins and some lignin-based dispersants. Future studies on the health effects of chemicals used in our operations, including alkylphenols, such as bisphenol A, which are used in our TOR-based ink resins, may result in additional regulation or new requirements, which might further restrict or prohibit the use of, and exposure to, these chemicals. Additional regulation of or requirements for these or other chemicals could require us to change our operations, and these changes could affect the quality or types of products we manufacture and/or materially increase our costs.

Increased focus by governmental entities on environmental issues and sustainability may result in new or increased regulations. Changes in environmental laws and regulations, or their application, could subject Ingevity to significant additional

capital expenditures and operating expenses in future years. Additionally, changes in the regulation of greenhouse gases, as well as future climate change laws and regulations, depending on their nature and scope, could subject our operations to significant additional costs or limits on operations. Our manufacturing facilities use energy, including electricity and natural gas and some of our plants emit amounts of greenhouse gas that may in the future be affected by legislative and regulatory efforts to limit greenhouse gas emissions. Potential consequences could include increased energy, transportation, and raw material costs and may require us to make additional investments in facilities and equipment or limit our ability to grow. Any such changes are uncertain and, therefore, it is not possible for Ingevity to predict with certainty the amount of additional capital expenditures or operating expenses that could be necessary for compliance with respect to any such changes.

Independent of any such regulation, increased public awareness and adverse publicity about potential impacts on climate change or environmental harm from us or our industry could harm our reputation or otherwise impact Ingevity adversely. In recent years, investors have also begun to show increased interest about sustainability and climate change as it relates to their investment decisions. We have set targets for greenhouse gas reductions and related sustainability goals. There can be no assurance that we will meet these targets and goals. If we fail to achieve our sustainability goals or reduce our impact on the environment or if we are unable to respond or are perceived to be inadequately responding to sustainability concerns, we may receive adverse publicity, and certain investors may divert from, or avoid investing in, our securities, which could have a negative impact on our business and reputation.

Financial and Economic Risks

We may be adversely affected by general global economic and financial conditions beyond our control.

Our businesses may be affected by a number of factors that are beyond our control such as general economic and business conditions, changes in tax laws, or tax rates and conditions in the financial services markets including counterparty risk, insurance carrier risk, rising interest rates, inflation, deflation, fluctuations in currencies, which factors may negatively impact our ability to compete. Macroeconomic challenges, including conditions in financial and capital markets and levels of unemployment, and the ability of the U.S. and other countries to deal with their rising debt levels, may continue to put pressure on the economy or lead to changes in tax laws or tax rates. There can be no assurance that changes in tax laws or tax rates will not have a material impact on our future cash taxes, effective tax rate, or deferred tax assets and liabilities. Adverse developments in global or regional economies could drive an increase or decrease in the demand for our products that could increase or decrease our revenues, increase or decrease our manufacturing costs, and ultimately increase or decrease our results of operations, financial condition and cash flows. As a result of negative changes in the economy, customers, vendors, or counterparties may experience significant cash flow problems or cause consumers of our products to postpone or refrain from spending in response to adverse economic events or conditions. If customers are not successful in generating sufficient revenue or cash flows or are precluded from securing financing, they may not be able to pay or may delay payment of accounts receivable that are owed to us or we may experience lower sales volumes. Our financial condition and results of operations could be materially and adversely affected by any of the foregoing.

Inflation and other adverse global economic conditions could result in an adverse impact on our results of operations.

We are affected by general global economic and financial conditions that are beyond our control, including inflation and significant spikes in energy costs. We attempt to reduce our inflation risk and mitigate the effects of other adverse economic and financial conditions by passing on price increases where appropriate to our customers. A significant portion of our business with our customers is purchase order based, which allows us to increase prices in response to inflation and other market conditions. However, to the extent our customers are under fixed-price contracts with limited or no price adjustment mechanisms, we are unable to mitigate the impact of inflation by passing on price increases through to our customers, and we could experience an adverse impact on our results of operations as a result.

Challenges in the commercial and credit environment may materially adversely affect our future access to capital.

We have, at times, relied on various forms of credit to satisfy working capital needs. Our ability to issue debt or enter into other financing arrangements on acceptable terms could be materially adversely affected if there is a material decline in the demand for our products or in the solvency of our customers or suppliers or if other significantly unfavorable changes in economic conditions occur. Volatility in the world financial markets could increase borrowing costs or affect our ability to gain access to the capital markets, which could have a material adverse effect on our competitive position, business, financial condition, results of operations, and cash flows.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We are headquartered in North Charleston, South Carolina and operate manufacturing facilities in the U.S., United Kingdom, and the People's Republic of China and have business offices and warehouse and distribution facilities globally. The following locations represent the principal properties of Ingevity. We believe these facilities are adequate and suitable for our current operations, and that the production capacity of our facilities is sufficient to meet current demand. In the case of the properties identified as "Leased", we nevertheless own the manufacturing assets themselves.

Location Own / Lease		Functional Use
North Charleston, South Carolina	Own / Lease (1)	Corporate Headquarters; Application Labs; Performance Chemicals: Manufacturing
Covington, Virginia	Lease	Performance Materials: Manufacturing
Crossett, Arkansas	Lease	Performance Chemicals: Manufacturing
DeRidder, Louisiana	Own	Performance Chemicals: Manufacturing
Waynesboro, Georgia	Own (2)	Performance Materials: Manufacturing
Shanghai, People's Republic of China	Lease	Regional Headquarters; Application Lab
Wickliffe, Kentucky	Own (3)	Performance Materials: Manufacturing
Changshu, People's Republic of China	Lease	Performance Materials: Manufacturing
Warrington, United Kingdom	Lease	Performance Chemicals: Manufacturing, Application Lab
Zhuhai, People's Republic of China	Lease	Performance Materials: Manufacturing, Application Lab
Greenville, Alabama	Lease	Performance Chemicals: Manufacturing
Dayton, Nevada	Own	Performance Chemicals: Manufacturing
Childress, Texas	Own (4)	Performance Chemicals: Manufacturing
Marion, Indiana	Own	Performance Chemicals: Manufacturing

⁽¹⁾ Portions of the manufacturing operations are on leased land and our corporate headquarters building is leased.

ITEM 3. LEGAL PROCEEDINGS

Information regarding certain of these matters is set forth in Note 18 – Commitments and Contingencies within the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

⁽²⁾ Certain manufacturing assets are subject to a finance lease with the Development Authority of Burke County (the county in which Waynesboro, Georgia is located).

⁽³⁾ Certain manufacturing assets are subject to a finance lease.

⁽⁴⁾ Portions of the manufacturing operations are on leased land.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The executive officers of Ingevity Corporation, the offices they currently hold, their business experience over the past five years and their ages are as follows:

Name	Age (1)	Present Position and Business Experience
John C. Fortson	55	President and Chief Executive Officer (2020-present); Executive Vice President, Chief Financial Officer & Treasurer (2015-2020); Vice President, Chief Financial Officer and Treasurer of AAR Corporation (2013-2015); Managing Director in the Investment Banking Department of Bank of America Merrill Lynch (2007-2013)
Mary Dean Hall	65	Executive Vice President and Chief Financial Officer (2021-present); Senior Vice President, Chief Financial Officer and Treasurer at Quaker Houghton (2015-2021); Vice President and Treasurer at Eastman Chemical Company (2009-2015); Prior to that role, she held various senior-level financial positions of increasing responsibility with Eastman from 1995 through 2009, including Treasurer, Vice President and Controller, and Vice President, Finance.
S. Edward Woodcock	57	Executive Vice President & President of Performance Materials (2015-present); Vice President of MeadWestvaco's Carbon Technologies business (2010-2015)
Stacy L. Cozad	52	Executive Vice President, General Counsel & Secretary (2021-present); Senior Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary at Spirit AeroSystems Holdings, Inc. (2017-2021); Senior Vice President, General Counsel and Corporate Secretary at Spirit AeroSystems Holdings, Inc. (2016-2017); Associate General Counsel – Litigation at Southwest Airlines Co. (2009-2015)
Rich White	60	Senior Vice President, Performance Chemicals, and President, Industrial Specialties and Pavement Technologies (2022-present); Vice President, Industrial Specialties (2019-2022); VP Global Sales at DuPont Nutrition & Biosciences (2017-2019); Prior to that role, he held various senior-level positions of increasing responsibility with FMC from 1998 through 2017.
Steve Hulme	54	Senior Vice President, Performance Chemicals, and President, Engineered Polymers (2022-present); Vice President, Engineered Polymers (2020-2022); General Manager at Maysta International Ltd (2018-2020); Prior to that role, he held various senior-level positions of increasing responsibility with Evonik and Air Products and Chemicals from 2010 through 2018.
Christine Stunyo	44	Senior Vice President, Chief Human Resources Officer (2022 - present); Senior Vice President Human Resources at Host Hotels & Resorts (2020-2022); Senior Vice President, Global Human Resources at US Pharmacopeia (2019-2020), Vice President, Global Human Resources at US Pharmacopeia (2015-2018); Prior to that role, she held various senior-level positions of increasing responsibility with Capital One and PepsiCo from 2005 through 2015.

⁽¹⁾ As of December 31, 2022.

All officers are elected to hold office for one year or until their successors are elected and qualified. No family relationships exist among any of our executive officers or directors, and there are no arrangements or understandings between any of the above-listed officers and any other person pursuant to which they serve as an officer.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDERS MATTER AND ISSUER PURCHASES OF EQUITY SECURITIES

Market for Registrant's Common Equity and Related Stockholder Matters

Ingevity's common stock (\$0.01 par value) is listed on the New York Stock Exchange, Inc. ("NYSE") under the symbol "NGVT." There were approximately 4,600 record holders of our common stock as of February 20, 2023.

Unregistered Sales of Equity Securities

Not Applicable.

Issuer Purchases of Equity Securities

The following table summarizes information with respect to the repurchase of our common stock during the three months ended December 31, 2022.

Period	Total Number of Shares Purchased	Total Numb Shares Purcha Part of Publ Average Price Paid Per Share Program		Va Pu	pproximate Dollar alue of Shares that May Yet be rchased Under the ans or Programs (1)
October 1-31, 2022	<u> </u>	\$ _	<u> </u>	\$	450,648,949
November 1-30, 2022		\$ 	_	\$	450,648,949
December 1-31, 2022	85,257	\$ 69.92	85,257	\$	444,688,057
Total	85,257		85,257		

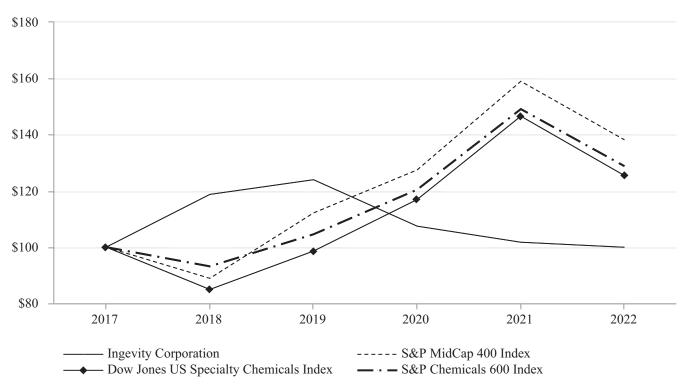
⁽¹⁾ On July 25, 2022, our Board of Directors authorized the repurchase of up to \$500.0 million of our common stock and rescinded the prior outstanding repurchase authorization with respect to the shares that remained unused under the prior authorization. Shares under the current repurchase authorization may be purchased through open market or privately negotiated transactions at the discretion of management based on its evaluation of market prevailing conditions and other factors, including through the use of trading plans intended to qualify under Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

Stock Performance Graph

The following table and graph present the cumulative total stockholder return for Ingevity's common stock compared with the Standard & Poor's (S&P) MidCap 400 Index, the Standard & Poor's (S&P) Chemicals 600 Index, and the Dow Jones (DJ) U.S. Specialty Chemicals Index for the five-year period ended December 31, 2022.

The graph assumes the investment of \$100 in each of Ingevity's common stock, the S&P MidCap 400 Index, the S&P Chemicals 600 Index, and the DJ U.S. Specialty Chemicals Index, respectively, as of market close on December 31, 2017, and that all dividends, if any, were reinvested.

Total Stockholder Returns



		December 31,					
	2017	2018	2019	2020	2021	2022	
Ingevity Corporation	\$ 100.00	\$118.76	\$ 124.00	\$ 107.46	\$ 101.75	\$ 99.96	
S&P MidCap 400 Index	\$ 100.00	\$ 88.90	\$112.17	\$ 127.48	\$ 159.01	\$ 138.18	
S&P Chemicals 600 Index	\$ 100.00	\$ 84.94	\$ 98.60	\$ 116.95	\$ 146.60	\$ 125.47	
Dow Jones U.S. Specialty Chemicals Index	\$ 100.00	\$ 93.16	\$ 104.57	\$ 120.47	\$ 149.13	\$ 128.81	

The graph and related information set forth above are not deemed to be "filed" with the SEC for purposes of Section 18 of the Exchange Act or incorporated by reference into any future filing made by us with the SEC, except to the extent that we specifically incorporate it by reference into any such filing. The stock price performance included in the graph above is not necessarily indicative of future stock performance.

ITEM 6. [RESERVED]

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

Introduction

Management's discussion and analysis of Ingevity's financial condition and results of operations ("MD&A") should be read in conjunction with Item 8. *Financial Statements and Supplementary Data*. Investors are cautioned that the forward-looking statements contained in this section and other parts of this Annual Report on Form 10-K involve both risk and uncertainty. Several important factors could cause actual results to differ materially from those anticipated by these statements.

Many of these statements are macroeconomic in nature and are, therefore, beyond the control of management. See "Cautionary Statements about Forward-Looking Statements" at the beginning of this Annual Report on Form 10-K for further discussion.

Overview

Ingevity Corporation is a leading global manufacturer of specialty chemicals and high-performance activated carbon materials. We provide innovative solutions to meet our customers' unique and demanding requirements through proprietary formulated products. We report in two business segments, Performance Materials and Performance Chemicals.

Our Performance Materials segment manufactures products in the form of powder, granular, extruded pellets, extruded honeycombs, and activated carbon sheets. Automotive technologies products are sold into gasoline vapor emission control applications within the automotive industry, while process purification products are sold into the food, water, beverage, and chemical purification industries.

Our Performance Chemicals segment consists of our pavement technologies, industrial specialties, and engineered polymers product lines. Performance Chemicals manufactures products derived from crude tall oil ("CTO") and lignin extracted from the kraft pulping process as well as caprolactone monomers and derivatives derived from cyclohexanone and hydrogen peroxide. Performance Chemicals products serve as critical inputs used in a variety of high-performance applications, including warm mix paving, pavement preservation, pavement reconstruction and recycling, and road striping thermoplastics and paint (pavement technologies product line), adhesives, agrochemicals, lubricants, printing inks, industrial intermediates and oilfield (industrial specialties product line), coatings, resins, elastomers, adhesives, bio-plastics, and medical devices (engineered polymers product line).

Recent Developments

Ozark Materials

On October 3, 2022, we completed our acquisition of Ozark Materials, LLC and Ozark Logistics, LLC (collectively, "Ozark Materials"). Refer to Note 16 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Strategic Investments

During 2022, we continued to invest in inorganic strategic investments by obtaining equity positions in four separate privately-held companies for a total of \$77.4 million. Refer to Note 5 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Net Investment Hedge

In 2022, we terminated our fixed-to-fixed cross-currency interest rate swaps, accounted for as net investment hedges, and received proceeds of \$14.7 million. Refer to Note 9 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Financing Activities

On April 27, 2022, we redeemed the \$300.0 million outstanding aggregate principal balance of our 4.50% Senior Notes due in 2026 prior to maturity. On June 23, 2022, we repaid our outstanding Term Loan in an aggregate principal amount of \$323.0 million and we amended and restated our revolving credit facility. Refer to Note 10 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Results of Operations

	Years Ended December 31,						
In millions		2022		2021		2020	
Net sales	\$	1,668.3	\$	1,391.5	\$	1,216.1	
Cost of sales		1,098.2		878.7		750.6	
Gross profit		570.1		512.8		465.5	
Selling, general, and administrative expenses		198.8		179.3		149.4	
Research and technical expenses		30.3		26.3		22.6	
Restructuring and other (income) charges, net		13.8		16.2		18.5	
Acquisition-related costs		5.0		0.6		1.8	
Other (income) expense, net		(1.7)		79.9		(4.1)	
Interest expense		61.8		51.7		47.1	
Interest income		(7.5)		(4.0)		(4.9)	
Income (loss) before income taxes		269.6		162.8		235.1	
Provision (benefit) for income taxes		58.0		44.7		53.7	
Net income (loss)	\$	211.6	\$	118.1	\$	181.4	

Net sales

The table below shows 2022 and 2021 Net sales and variances from 2021 and 2020, respectively.

			Change vs. prior year				
In millions		r year sales Volum	e Price/Mix	Currency effect		Current year Net sales	
Year Ended December 31, 2022 vs. 2021	\$ 1	,391.5	9.4 294.2	(26.8)	\$	1,668.3	
Year Ended December 31, 2021 vs. 2020	\$ 1	,216.1 9	7.0 74.7	3.7	\$	1,391.5	

Year Ended December 31, 2022 vs. 2021

The sales increase in 2022 was driven by favorable pricing and sales composition (mix) of \$294.2 million (21 percent), primarily driven by an increase in Performance Chemicals of \$279.3 million, and a volume increase of \$9.4 million (one percent), offset slightly by unfavorable foreign exchange impacts of \$26.8 million (two percent).

Year Ended December 31, 2021 vs. 2020

The sales increase in 2021 was driven by a volume increase of \$97.0 million (eight percent) primarily related to a volume increase in Performance Chemicals of \$110.0 million, favorable pricing of \$74.7 million (six percent) and favorable foreign exchange impacts of \$3.7 million (less than one percent), offset slightly by a volume decrease in Performance Materials of \$13.0 million.

Gross profit

Year Ended December 31, 2022 vs. 2021

Gross profit increase of \$57.3 million was driven by favorable pricing and sales composition (mix) of \$291.5 million and favorable sales volume of \$6.3 million, partially offset by increased manufacturing costs of \$238.0 million primarily due to raw material and energy cost inflationary pressure, and unfavorable foreign exchange impacts of \$2.5 million. Refer to the Segment Operating Results section included within this MD&A for more information on the drivers of the changes in gross profit period over period for both segments.

Year Ended December 31, 2021 vs. 2020

Gross profit increase of \$47.3 million was driven by favorable pricing improvement of \$73.0 million, favorable sales volume of \$30.6 million, and favorable foreign currency exchange of \$1.3 million, partially offset by increased manufacturing costs of \$57.6 million due to raw material and energy cost inflationary pressure. Refer to the Segment Operating Results section included within this MD&A for more information on the drivers to the changes in gross profit period over period for both segments.

Selling, general, and administrative expenses

Year Ended December 31, 2022 vs. 2021

Selling, general, and administrative ("SG&A") expenses were \$198.8 million (12 percent of Net sales) and \$179.3 million (13 percent of Net sales) for the years ended December 31, 2022 and 2021, respectively. The increase in SG&A expenses is primarily due to higher employee-related costs of \$11.3 million and increased travel and other miscellaneous costs of \$10.6 million. This was partially offset by a decrease in litigation defense costs of \$2.4 million.

Year Ended December 31, 2021 vs. 2020

SG&A expenses were \$179.3 million (13 percent of Net sales) and \$149.4 million (12 percent of Net sales) for the years ended December 31, 2021 and 2020, respectively. The increase in SG&A expenses is primarily due to higher employee-related costs of \$27.7 million and increased travel and other miscellaneous costs of \$3.2 million. This was partially offset by a decrease in litigation defense costs of \$1.0 million.

Research and technical expenses

Years Ended December 31, 2022, 2021, and 2020

Research and technical expenses as a percentage of Net sales remained relatively consistent period over period, totaling 1.8 percent of sales in the year ended December 31, 2022 compared to 1.9 percent in the years ended December 31, 2021 and 2020, respectively.

Restructuring and other (income) charges, net

Years Ended December 31, 2022, 2021, and 2020

Restructuring and other (income) charges, net, were \$13.8 million, \$16.2 million, and \$18.5 million for the years ended December 31, 2022, 2021, and 2020, respectively. For all years presented the majority of the charges were related to our digital transformation initiative. See Note 15 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Acquisition-related costs

Years Ended December 31, 2022, 2021, and 2020

Acquisition costs were \$5.0 million, \$0.6 million, and \$1.8 million for the years ended December 31, 2022, 2021, and 2020, respectively. For the twelve months ended December 31, 2022, all charges related to the integration of Ozark Materials into our Performance Chemicals segment. For the twelve months ended December 31 2021 and 2020, all charges incurred were in connection with the Caprolactone Acquisition. See Note 16 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Other (income) expense, net

Years Ended December 31, 2022, 2021, and 2020

	Years Ended December 31,					1,
In millions	2	2022		2021		2020
Foreign currency exchange (income) loss	\$	2.3	\$	2.5	\$	(5.8)
Litigation verdict charge (1)				85.0		_
Other (income) expense, net		(4.0)		(7.6)		1.7
Total Other (income) expense, net	\$	(1.7)	\$	79.9	\$	(4.1)

⁽¹⁾ See Note 18 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Interest expense

Years Ended December 31, 2022, 2021, and 2020

	Years Ended December 31,					1,
In millions	2022		2021			2020
Finance lease obligations	\$	7.5	\$	7.4	\$	6.8
Revolving credit facility and term loan		21.2		7.6		22.2
Senior Notes		33.1		36.7		18.1
Total interest expense	\$	61.8	\$	51.7	\$	47.1

Interest income

Years Ended December 31 2022, 2021, and 2020

	Years Ended December 31,						
In millions	2	2022		2021		2020	
Restricted investment (1)	\$	2.1	\$	2.0	\$	2.0	
Fixed-to-fixed cross-currency interest rate swap (2)		1.1		0.5		1.6	
Floating-to-fixed interest rate swaps (2)		1.7		_			
Other		2.6		1.5		1.3	
Total interest income	\$	7.5	\$	4.0	\$	4.9	

⁽¹⁾ See Note 5 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Provision (benefit) for income taxes

Years Ended December 31, 2022, 2021, and 2020

For the years ended December 31, 2022, 2021, and 2020, our effective tax rate was 21.5 percent, 27.5 percent, and 22.8 percent respectively. An explanation of the change in the effective tax rate is presented in Note 17 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K.

⁽²⁾ See Note 9 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information.

Segment Operating Results

In addition to the information discussed above, the following sections discuss the results of operations for each of Ingevity's segments. Our segments are (i) Performance Materials and (ii) Performance Chemicals. Segment Earnings before Interest, Taxes, Depreciation and Amortization ("EBITDA") is the primary measure used by the Company's chief operating decision maker to evaluate the performance of and allocate resources among our operating segments. Segment EBITDA is defined as segment revenue less segment operating expenses (segment operating expenses consist of costs of sales, selling, general and administrative expenses, other (income) expense, net, excluding depreciation and amortization). We have excluded the following items from segment EBITDA: interest expense, net, associated with corporate debt facilities, income taxes, depreciation, amortization, restructuring and other (income) charges, net, acquisition and other-related costs, litigation verdict charges, pension and postretirement settlement and curtailment (income) charge, net. In general, the accounting policies of the segments are the same as those described in the Summary of Significant Accounting Policies in Note 2 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K.

Performance Materials

Performance Summary

Our Performance Materials segment experienced solid automotive volume growth from improved semiconductor chip availability and China automobile production stimulus. Additionally, the segment also recognized volume improvement in process purification products and we were able to increase prices to capture more of the value from our highly differentiated carbon. These top-line improvements were largely offset by continued pressure from higher raw material input costs and higher logistic costs driven by inflation. The strengthening of the U.S. dollar against the Chinese renminbi and the euro also contributed to the pressure on EBITDA when compared to the prior year.

	 Years Ended December 31				
In millions	 2022		2021		2020
Total Performance Materials - Net sales	\$ 548.5	\$	516.8	\$	510.0
Segment EBITDA	252.2		249.4		249.2

Net Sales Comparison of Years Ended December 31, 2022, 2021, and 2020

		Cha				
In millions	Prior year Currency Net sales Volume Price/Mix effect					ear es
Year Ended December 31, 2022 vs 2021	\$ 516.8	28.6	14.9	(11.8)	\$ 54	8.5
Year Ended December 31, 2021 vs 2020	\$ 510.0	(13.0)	12.6	7.2	\$ 51	6.8

Year Ended December 31, 2022 vs. 2021

Segment net sales. The increase in 2022 was driven by a volume increase of \$28.6 million (six percent) and favorable pricing and sales composition (mix) of \$14.9 million (three percent), partially offset by unfavorable foreign currency exchange impacts of \$11.8 million.

Segment EBITDA. Segment EBITDA increased by \$2.8 million due to favorable volume of \$15.6 million, pricing and sales composition (mix) of \$13.8 million, and decreased SG&A expenses and research and technical costs of \$0.5 million. The increase was largely offset by higher manufacturing costs of \$21.5 million and unfavorable foreign currency exchange impacts of \$5.6 million.

Year Ended December 31, 2021 vs. 2020

Segment net sales. The increase in 2021 was driven by favorable pricing of \$12.6 million (three percent) and favorable foreign currency exchange impacts of \$7.2 million (less than one percent). The increase was partially offset by \$13.0 million (three percent) in volume decline in automotive evaporative emission canister products due to semiconductor shortages in automotive markets.

Segment EBITDA. Segment EBITDA increased by \$0.2 million due to favorable pricing contributing \$11.3 million, and lower manufacturing costs of \$2.4 million. The increase was partially offset by unfavorable volume of \$11.2 million, primarily in the automotive evaporative emission canister products, and increased SG&A expenses and research and technical costs of \$7.4 million, due to increased travel, outside services, and consulting expenses. Favorable foreign currency exchange impacts also contributed \$5.1 million to the increase.

Performance Chemicals

Performance Summary

Our Performance Chemicals segment saw strong revenue growth versus the prior year on continued price improvement and favorable mix upgrade to higher margin products. These price increases were necessary to keep pace with the inflationary increases related to energy, raw material, and logistic costs.

Pavement Technologies sales increased by 23.5 percent due primarily to improved volumes and price increases. Volume growth was driven by technology adoption and highway funding in the United States, as well as the acquisition of Ozark Materials.

Industrial Specialties sales increased by 28.4 percent driven by price improvements with strong performance across all markets, particularly in oilfield and adhesive end markets. Price improvements were supplemented by a favorable mix shift to higher-value derivative products as volumes were negatively impacted by raw material availability.

Our Engineered Polymers business grew 31.7 percent as the business increased pricing to offset inflationary costs for raw materials, logistics, and particularly energy costs which continued to rise throughout 2022. Volume improvement was driven by stronger sales in automotive applications and footwear and apparel, mainly in Asia and Europe. These positive volume improvements were slightly offset by a decline in the Americas where some polyurethane customers experienced availability issues with key raw materials.

	Years Ended December					1,
In millions		2022 2021 2020				
Net sales						
Pavement Technologies product line	\$	241.3	\$	195.4	\$	186.8
Industrial Specialties product line		633.8		493.5		391.6
Engineered Polymers product line		244.7		185.8		127.7
Total Performance Chemicals - Net sales	\$	1,119.8	\$	874.7	\$	706.1
Segment EBITDA		200.4		172.8		148.7

Net Sales Comparison of Years Ended December 31, 2022, 2021, and 2020

		Cha			
In millions	ior year et sales	Volume	Price/Mix	Currency effect	rent year et sales
Year Ended December 31, 2022 vs 2021	\$ 874.7	(19.2)	279.3	(15.0)	\$ 1,119.8
Year Ended December 31, 2021 vs 2020	\$ 706.1	110.0	62.1	(3.5)	\$ 874.7

Year Ended December 31, 2022 vs. 2021

Segment net sales. The sales increase was driven by favorable pricing and sales composition (mix) of \$279.3 million (32 percent) in industrial specialties (\$201.8 million), engineered polymers (\$62.4 million), and pavement technologies product

lines (\$15.1 million), partially offset by a volume decrease of \$19.2 million (two percent) and unfavorable foreign currency exchange impacting Net sales by \$15.0 million (two percent).

Segment EBITDA. Segment EBITDA increased \$27.6 million, mainly due to favorable pricing and sales composition (mix) of \$277.7 million, favorable foreign currency exchange impacts and other miscellaneous charges of \$6.4 million. These increases were partially offset by higher manufacturing costs of \$218.1 million due to inflationary raw material and energy costs and increased SG&A expenses of \$29.1 million due to increased spending on growth initiatives, compensation, and travel. Volume declines further offset the overall increase by \$9.3 million.

Year Ended December 31, 2021 vs. 2020

Segment net sales. The sales increase was driven by favorable volume of \$110.0 million (15 percent), which consisted of volume growth in all business lines: industrial specialties (\$64.9 million), engineered polymers (\$43.5 million), and pavement technologies product lines (\$1.6 million). Also driving the net sales increase was favorable pricing and product mix of \$62.1 million (nine percent) in industrial specialties (\$35.3 million), engineered polymers (\$20.7 million), and pavement technologies product lines (\$6.1 million). In addition, unfavorable foreign currency exchange impacted Net sales by \$3.5 million (less than one percent).

Segment EBITDA. Segment EBITDA increased \$24.1 million, mainly due to favorable pricing and product mix of \$61.7 million, and an increase in volume of \$41.8 million. These increases were partially offset by higher manufacturing costs of \$51.6 million due to inflationary raw material and energy costs and increased SG&A expenses of \$23.6 million due to increased spending on growth initiatives, compensation, and travel. Unfavorable foreign currency exchange impacts and other miscellaneous charges of \$4.2 million also contributed to increased costs.

Use of Non-GAAP Financial Measures

Ingevity has presented the financial measure, Adjusted EBITDA, defined below, which has not been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and has provided a reconciliation to net income, the most directly comparable financial measure calculated in accordance with GAAP. Adjusted EBITDA is not meant to be considered in isolation nor as a substitute for the most directly comparable financial measure calculated in accordance with GAAP. Adjusted EBITDA is utilized by management as a measure of profitability.

We believe this non-GAAP financial measure provides management as well as investors, potential investors, securities analysts, and others with useful information to evaluate the performance of the business, because such measure, when viewed together with our financial results computed in accordance with GAAP, provides a more complete understanding of the factors and trends affecting our historical financial performance and projected future results. We believe Adjusted EBITDA is a useful measure because it excludes the effects of financing and investment activities as well as non-operating activities.

Adjusted EBITDA is defined as net income (loss) plus provision (benefit) for income taxes, interest expense, net, depreciation, amortization, restructuring and other (income) charges, net, acquisition, and other-related costs, litigation verdict charges, and pension and postretirement settlement and curtailment (income) charges, net.

This non-GAAP measure is not intended to replace the presentation of financial results in accordance with GAAP and investors should consider the limitations associated with these non-GAAP measures, including the potential lack of comparability of these measures from one company to another. A reconciliation of Adjusted EBITDA to net income is set forth within this section.

Reconciliation of Net Income to Adjusted EBITDA

	Years Ended December 31,					,
In millions		2022		2021		2020
Net income (loss) (GAAP)	\$	211.6	\$	118.1	\$	181.4
Interest expense		61.8		51.7		47.1
Interest income		(7.5)		(4.0)		(4.9)
Provision (benefit) for income taxes		58.0		44.7		53.7
Depreciation and amortization - Performance Materials		36.1		36.8		31.2
Depreciation and amortization - Performance Chemicals		72.7		73.1		69.0
Pension and postretirement settlement and curtailment charges (income), net (1)		0.2		_		0.1
Restructuring and other (income) charges, net		13.8		16.2		18.5
Acquisition and other-related costs (2)		5.9		0.6		1.8
Litigation verdict charge (3)				85.0		
Adjusted EBITDA (Non-GAAP)	\$	452.6	\$	422.2	\$	397.9

⁽¹⁾ For all years, the charges relate to the Performance Materials segment. Our pension and postretirement settlement and curtailment charges (income) are related to the acceleration of prior service costs, as a result of a reduction in the number of participants within the Union Hourly defined benefit pension plan. These are excluded from our segment results because we consider these costs to be outside our operational performance. We continue to include the service cost, amortization of prior service cost, interest costs, expected return on plan assets, and amortized actual gains and losses in our segment EBITDA.

(3) For the year ended December 31, 2021, litigation verdict charge relates to the Performance Materials segment.

Adjusted EBITDA

Year Ended December 31, 2022, 2021 and 2020

The factors that impacted Adjusted EBITDA period to period are the same factors that affected earnings discussed in the sections entitled "Results of Operations" and "Segment Operating Results" within MD&A.

⁽²⁾ For the years ended December 31, 2022 and 2021, charges of \$0.3 million and \$0.2 million relate to the acquisitions of strategic investments in the Performance Materials segment. For the year ended December 31, 2022, charges of \$5.6 million relate to the acquisition and integration of Ozark Materials into the Performance Chemicals segment. For the years ended December 31, 2021 and 2020, charges of \$0.4 million and \$1.8 million relate to the integration of the Caprolactone business, now referred to as our engineered polymers product line, into our Performance Chemicals segment.

Total Company Outlook and 2023 Guidance

In millions	2023 Guidance
Net sales	\$1,900 - \$2,100
Adjusted EBITDA	\$495 - \$515
Operating Cash Flow	\$300 - \$320
Capital Expenditures	\$140 - \$160
Free Cash Flow*	~\$160

^{*}Calculated as Operating Cash Flow less Capital Expenditures

Net sales are expected to be between \$1.9 billion and \$2.1 billion. Growth drivers in our Performance Chemicals segment include our pavement technologies product line as municipalities take advantage of increased infrastructure spending and continue to adopt our Evotherm® warm mix technology and new road markings products. We also anticipate growth in our agrochemicals and oilfield products within our industrial specialties product line. Our engineered polymers product line is expected to continue increasing its presence in key end markets like automotive, consumer packaging, and footwear and apparel. We expect global automobile production to improve, which will support growth in Performance Materials.

Adjusted EBITDA is expected to grow to between \$495 million to \$515 million. In Performance Chemicals, we anticipate lower energy costs will benefit our engineered polymers product line, and a focus on higher-value end markets in the industrial specialties product line, as well as continued growth in the pavement technologies product line, will help offset what we expect to be an increase in the cost of a primary raw material, CTO. We expect EBITDA growth for our Performance Materials segment as volumes shift throughout 2023 to higher margin automotive carbon and automotive production supply chain dynamics improve.

A reconciliation of net income to adjusted EBITDA as projected for 2023 is not provided. Ingevity does not forecast net income as it cannot, without unreasonable effort, estimate or predict with certainty various components of net income. These components, net of tax, include further restructuring and other income (charges), net; additional acquisition and other-related costs; litigation verdict charges; additional pension and postretirement settlement and curtailment (income) charges; and revisions due to legislative tax rate changes. Additionally, discrete tax items could drive variability in our projected effective tax rate. All of these components could significantly impact such financial measures. Further, in the future, other items with similar characteristics to those currently included within adjusted EBITDA, that have a similar impact on the comparability of periods, and which are not known at this time, may exist and impact adjusted EBITDA.

Liquidity and Capital Resources

The primary source of liquidity for our business is the cash flow provided by operating activities. We expect our cash flow provided by operations combined with cash on hand and available capacity under our revolving credit facility to be sufficient to fund our planned operations and meet our interest and other contractual obligations for at least the next twelve months. As of December 31, 2022, our undrawn capacity under our revolving credit facility was \$169.7 million. Over the next twelve months, we expect to fund the following: interest payments, capital expenditures, expenditures related to our business transformation initiative, debt principal repayments, purchases pursuant to our stock repurchase program, income tax payments, and to incur additional spending associated with our Performance Materials' intellectual property litigation. In addition, we may also evaluate and consider strategic acquisitions, joint ventures, or other transactions to create stockholder value and enhance financial performance. In connection with such transactions, or to fund other anticipated uses of cash, we may modify our existing revolving credit facility, redeem all or part of our outstanding senior notes, seek additional debt financing, issue equity securities, or some combination thereof.

Cash and cash equivalents totaled \$76.7 million at December 31, 2022. We continuously monitor deposit concentrations and the credit quality of the financial institutions that hold our cash and cash equivalents, as well as the credit quality of our insurance providers, customers, and key suppliers.

Due to the global nature of our operations, a portion of our cash is held outside the U.S. The cash and cash equivalents balance at December 31, 2022, included \$71.7 million held by our foreign subsidiaries. Cash and earnings of our foreign subsidiaries are generally used to finance our foreign operations and their capital expenditures. We believe that our foreign holdings of cash will not have a material adverse impact on our U.S. liquidity. If these earnings were distributed, such amounts would be subject to U.S. federal income tax at the statutory rate less the available foreign tax credits, if any, and would potentially be subject to withholding taxes in the various jurisdictions. The potential tax implications of the repatriation of unremitted earnings are driven by facts at the time of distribution, therefore, it is not practicable to estimate the income tax liabilities that might be incurred if such cash and earnings were repatriated to the U.S. Management does not currently expect to repatriate cash earnings from our foreign operations in order to fund U.S. operations.

Debt and Finance Lease Obligations

Refer to Note 10 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for a summary of our outstanding debt obligations and revolving credit facility.

Other Potential Liquidity Needs

Share Repurchases

On July 25, 2022, our Board of Directors authorized the repurchase of up to \$500.0 million of our common stock (the "2022 Authorization") and rescinded the prior outstanding repurchase authorization with respect to the shares that remained unused under the prior authorization. Shares under the current repurchase authorization may be purchased through open market or privately negotiated transactions at the discretion of management based on its evaluation of market prevailing conditions and other factors, including through the use of trading plans intended to qualify under Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

During the year ended December 31, 2022, we repurchased \$145.2 million in common shares, representing 2,112,463 shares of our common stock at a weighted average cost per share of \$68.73. At December 31, 2022, \$444.7 million remained available for purchase under our Board-authorized repurchase program.

Capital Expenditures

Projected 2023 capital expenditures are expected to be \$140 million to \$160 million. We have no material commitments associated with these projected capital expenditures as of December 31, 2022.

		Years Ended December 31,								
In millions	_	2022		2021		2020				
Net cash provided by (used in) operating activities	\$	313.1	\$	293.0	\$	352.4				
Net cash provided by (used in) investing activities		(553.9)		(140.6)		(110.6)				
Net cash provided by (used in) financing activities		48.1		(133.1)		(50.2)				

Cash flows provided by (used in) operating activities

Cash flows provided by (used in) operating activities, which consists of net income (loss) adjusted for non-cash items including the cash impact from changes in operating assets and liabilities (i.e., working capital), totaled \$313.1 million for the year ended December 31, 2022.

Cash provided by (used in) operating activities for 2022 was driven by higher cash earnings of \$43.8 million offset by a net increase in overall working capital of \$15.3 million which includes an increase in trade working capital (accounts receivable, inventory, and accounts payable) of \$8.3 million. The build in trade working capital was due primarily to higher end of year accounts receivable on higher sales and higher inventory value due to continued inflation experienced during 2022. Cash flow from operations was further reduced by an increase in cash interest paid of \$7.3 million due to the rising interest rates during 2022 when compared to 2021 as well as \$1.1 million of additional tax payments. The higher tax payments were driven by the higher year over year earnings offset by refunds received in 2022 on prior years' earnings.

Cash provided by (used in) operating activities for 2021 was driven by higher cash earnings of \$26.1 million offset by a net increase in overall working capital of \$70.5 million which includes an increase in trade working capital (accounts receivable, inventory, and accounts payable) of \$89.3 million. The build in trade working capital was due primarily to higher end of year accounts receivable on higher sales and higher inventory value due to inflation experienced during 2021 compared to 2020. Cash flow from operations was further reduced by an increase in cash interest paid of \$7.9 million primarily due to a full year of interest on our 3.88% Senior Notes due 2028 as well as an increase in cash tax payments of \$7.1 million. Higher earnings in 2021 compared to 2020 contributed to the increase in tax payments in 2021 further compounded by the depletion of net operating losses in prior years.

Cash flows provided by (used in) investing activities

For the year ended December 31, 2022, investing activities were driven by capital spending, the Ozark Materials acquisition, and the purchase of strategic investments. Capital spending included the base maintenance capital supporting ongoing operations and cost improvement and growth spending primarily related to our business transformation initiative (refer to Note 15 within the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information). Also, during the year ended December 31, 2022, we acquired Ozark Materials (refer to Note 16 within the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information) and we entered into multiple strategic investments (refer to Note 5 within the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information).

For the year ended December 31, 2021, investing activities were driven by capital spending and strategic investments. Capital spending included the base maintenance capital supporting ongoing operations and growth and cost improvement spending primarily related to our business transformation initiative (refer to Note 15 within the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information). Also, during twelve months ended December 31, 2021, we entered into multiple strategic investments (refer to Note 5 within the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information).

For the year ended December 31, 2020, investing activities were driven by capital spending. Our Performance Materials' facilities, including Covington, Virginia, Wickliffe, Kentucky, and Waynesboro, Georgia, incurred expenditures for growth and expansion projects, as well as base maintenance and safety spending. Our Performance Chemicals' facility in Warrington, United Kingdom, completed a large, multi-year growth and cost improvement project, and there was additional spending at all of our Performance Chemicals' facilities for base maintenance and safety spending. Additionally, we had capital expenditures related to our business transformation initiative (see Note 15 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information) and our new corporate headquarters.

Capital expenditure categories	Years Ended December 31,				,					
In millions		2022 2021				2022 2021				2020
Maintenance	\$	57.4	\$	47.9	\$	49.1				
Safety, health and environment		19.7		14.4		14.9				
Growth and cost improvement		65.4		41.5		18.1				
Total capital expenditures	\$	142.5	\$	103.8	\$	82.1				

Cash flows provided by (used in) financing activities

Cash provided by financing activities for the year ended December 31, 2022, was \$48.1 million and was driven by net proceeds from the revolving credit facility of \$828.0 million, offset by payments on long-term borrowings of \$628.1 million, payments, and share repurchases of \$145.2 million.

Cash used in financing activities for the year ended December 31, 2021, was \$133.1 million, and was driven by the repurchase of common stock of \$109.4 million, payments on long-term borrowings of \$23.4 million, and tax payments related to withholding tax on vested equity awards of \$2.4 million.

Cash used in financing activities for the year ended December 31, 2020, was \$50.2 million, and was driven by proceeds from long-term borrowings from the senior notes that were issued in the fourth quarter of \$550.0 million, net of debt issuance costs of \$8.8 million. We used these proceeds to repay the outstanding balance on the revolving credit facility of \$131.2 million and the 2019 term loan of \$375.0 million. We also paid \$2.2 million in debt issuance costs for the amendment to our revolving credit facility (refer to Note 10 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information). Additionally, we repaid \$14.1 million of other long-term borrowings, repurchased \$88.0 million of our common stock, and made payments of \$3.2 million related to withholding tax on vested equity awards.

New Accounting Guidance

Refer to Note 3 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for a full description of recent accounting pronouncements including the respective expected dates of adoption and expected effects on our Consolidated Financial Statements.

Critical Accounting Policies and Estimates

Our principal accounting policies are described in Note 2 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K. Our Consolidated Financial Statements are prepared in conformity with GAAP. The preparation of our financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses. We have reviewed these accounting policies, identifying those that we believe to be critical to the preparation and understanding of our financial statements. Critical accounting policies are central to our presentation of results of operations and financial condition and require management to make estimates and judgments on certain matters. We base our estimates and judgments on historical experience, current conditions, and other reasonable factors.

The following is a list of those accounting policies that we have deemed most critical to the presentation and understanding of our results of operations and financial condition:

Revenue recognition

Our revenue is derived from contracts with customers, and substantially all our revenue is recognized when products are either shipped from our manufacturing and warehousing facilities or delivered to the customer. Revenue, net of returns and customer incentives, is based on the sale of manufactured products. Revenues are recognized when performance obligations under the terms of a contract with our customer are satisfied; generally, this occurs with the transfer of control of our products. For certain limited contracts, where we are producing goods with no alternative use and for which we have an enforceable right to payment for performance completed to date, we are recognizing revenue as goods are manufactured, rather than when they are shipped. Revenues are presented as Net sales on the consolidated statements of operations.

Since Net sales are derived from product sales only, we have disaggregated our Net sales by our product lines within each reportable segment. Net sales are measured as the amount of consideration we expect to receive in exchange for transferring goods. Sales, value add, and other taxes we collect concurrent with revenue-producing activities are excluded from revenue. Sales returns and allowances are not a normal practice in the industry and are not significant. Certain customers may

receive cash-based incentives, including discounts and volume rebates, which are accounted for as variable consideration and included within Net sales. Shipping and handling fees billed to customers are included in Net sales. If we pay for the freight and shipping, we recognize the cost when control of the product has transferred to the customer as an expense within Cost of sales on the consolidated statements of operations. Payment terms with our customers are typically in the range of zero to sixty days. Because the period between when we transfer a promised good to a customer and when the customer pays for that good will be one year or less, we elect not to adjust the promised amount of consideration for the effects of any financing component, as it is not significant.

Valuation of tangible and intangible long-lived assets and goodwill

Our long-lived assets primarily include property, plant, and equipment, and other intangible assets. We periodically evaluate whether current events or circumstances indicate that the carrying value of long-lived assets to be held and used may not be recoverable. If such circumstances are determined to exist, an estimate of undiscounted future cash flows produced by the long-lived asset, or the appropriate grouping of assets, is compared to carrying value to determine whether an impairment exists.

If an asset is determined to be impaired, the loss is measured based on quoted market prices in active markets, if available. If quoted market prices are not available, the estimate of fair value is based on various valuation techniques, including a discounted value of estimated future cash flows. We report an asset to be disposed of at the lower of its carrying value or its estimated net realizable value.

Goodwill represents the excess of cost of an acquired business over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. We conduct a required annual review of goodwill for potential impairment at October 1, or sooner if events or changes in circumstances indicate that the fair value of a reporting unit is below its carrying value. Our reporting units are our operating segments, i.e., Performance Chemicals and Performance Materials. If the carrying value of a reporting unit that includes goodwill exceeds its fair value, which is determined using both the income approach and market approach, goodwill is considered impaired. The income approach determines fair value based on discounted cash flow model derived from a reporting unit's long-term forecasted cash flows. The market approach determines fair value based on the application of earnings multiples of comparable companies to the projected earnings of the reporting unit. The amount of impairment loss is measured as the difference between the carrying value and the fair value of a reporting unit but is limited to the total amount of goodwill allocated to the reporting unit. In performing the fair value analysis, management makes various judgments, estimates, and assumptions, the most significant of which is the assumption related to revenue growth rates.

The factors we considered in developing our estimates and projections for cash flows include, but are not limited to, the following: (i) macroeconomic conditions; (ii) industry and market considerations; (iii) costs, such as increases in raw materials, labor, or other costs; (iv) our overall financial performance; and (v) other relevant entity-specific events that impact our reporting units.

The determination of whether goodwill is impaired involves a significant level of judgment in the assumptions underlying the approach used to determine the estimated fair values of our reporting units. We believe that the estimates and assumptions used in our impairment assessment are reasonable; however, these assumptions are judgmental and variations in any assumptions could result in materially different calculations of fair value. We will continue to evaluate goodwill on an annual basis as of October 1, and whenever events or changes in circumstances, such as significant adverse changes in operating results, market conditions, or changes in management's business strategy indicate that there may be a probable indicator of impairment. It is possible that the assumptions used by management related to the evaluation may change or that actual results may vary significantly from management's estimates.

Business Combinations

Accounting for business combinations, which requires, among other things, the acquiring entity in a business combination to recognize the fair value of the assets acquired and liabilities assumed; the recognition of acquisition-related costs within the consolidated results of operations; the recognition of restructuring costs within the consolidated results of operations for which the acquirer becomes obligated after the acquisition date; and contingent purchase consideration to be recognized at fair value on the acquisition date with subsequent adjustments recognized on the consolidated statements of operations. We generally use qualified third-party consultants to assist management in determining the fair value of assets acquired and liabilities assumed. This includes, when necessary, assistance with the determination of lives and valuation of

tangible property, plant, and equipment and identifiable intangibles, assisting management in determining the fair value of obligations associated with employee-related liabilities and assisting management in assessing obligations associated with legal and environmental claims.

The fair value assigned to identifiable intangible assets acquired is determined primarily by using an income approach, which is based on assumptions and estimates made by management. Significant assumptions utilized in the income approach are the attrition rate, revenue growth rates, EBITDA margins, royalty rates, and the discount rate. These assumptions are based on company-specific information and projections, which are not observable in the market and are therefore considered Level 2 and Level 3 measurements. The excess of the purchase price over the fair value of the identified assets and liabilities is recorded as goodwill. Based on the acquired business' end markets and products, as well as how the chief operating decision maker will review the business results, determines the most appropriate operating segment for which to integrate the acquired business. Goodwill acquired, if any, is allocated to the reporting unit within or at the operating segment for which the acquired business will be integrated. Selection of the appropriate reporting unit is based on the level at which discrete financial information is available and reviewed by business management post-integration. Operating results of the acquired entity are reflected within the Consolidated Financial Statements from the date of acquisition.

Income taxes

We are subject to income taxes in the U.S. and numerous foreign jurisdictions, including China and the United Kingdom. The provision for income taxes includes income taxes paid, currently payable or receivable, and deferred taxes. We follow the liability method of accounting for income taxes in accordance with current accounting standards regarding the accounting for income taxes. Under this method, deferred income taxes are recorded based on the differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws in effect at the time the underlying assets or liabilities are recovered or settled. The ability to realize deferred tax assets is evaluated through the forecasting of taxable income, historical and projected future operating results, the reversal of existing temporary differences, and the availability of tax planning strategies. Valuation allowances are recognized to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. We do not provide income taxes on undistributed earnings of consolidated foreign subsidiaries as it is our intention that such earnings will remain invested in those companies.

We recognize income tax positions that are more likely than not to be realized and accrue interest related to unrecognized income tax positions, which is included as a component of the income tax provision, on the consolidated statements of operations.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign currency

We have foreign-based operations, primarily in Europe, South America, and Asia, which accounted for approximately 24 percent of our net sales in 2022. We have designated the local currency as the functional currency of our significant operations outside of the U.S. The primary currencies for which we have exchange rate exposure are the U.S. dollar versus the euro, the Japanese yen, the pound sterling, and the Chinese renminbi. In addition, certain of our domestic operations have sales to foreign customers. In the conduct of our foreign operations, we also make inter-company sales. All of this exposes us to the effect of changes in foreign currency exchange rates. Our earnings are therefore subject to change due to fluctuations in foreign currency exchange rates when the earnings in foreign currencies are translated into U.S. dollars. In some cases, to minimize the effects of such fluctuations, we use foreign exchange forward contracts to hedge firm and highly anticipated foreign currency cash flows. Our largest exposures are to the Chinese renminbi and the euro. A hypothetical 10 percent adverse change, excluding the impact of any hedging instruments, in the average Chinese renminbi and euro to U.S. dollar exchange rates during the year ended December 31, 2022, would have decreased our net sales and income before income taxes for the year ended December 31, 2022, by approximately \$19 million or one percent and \$7 million or two percent, respectively. Comparatively, a hypothetical 10 percent adverse change in the average Chinese renminbi and euro to U.S. dollar exchange rates during the year ended December 31, 2021 would have decreased our net sales and income before income taxes for the year ended December 31, 2021, by approximately \$22 million or two percent and \$9 million or five percent, respectively.

Concentration of credit risk

Concentration of credit risk: The financial instruments that potentially subject Ingevity to concentrations of credit risk are accounts receivable. We limit our credit risk by performing ongoing credit evaluations and, when necessary, requiring letters of credit, guarantees, or collateral. Our largest customer as of December 31, 2022, had accounts receivable of \$9.3 million and \$5.7 million as of December 31, 2022 and 2021, respectively. Sales to our largest customer, which is from our Performance Materials segment, were approximately four percent of total net sales for each of the years ended December 31, 2022, 2021, and 2020, respectively. Sales to the automotive industry, which represents our largest industry concentration, were approximately 30 percent of our consolidated Net sales. No customers individually accounted for greater than 10 percent of Ingevity's consolidated Net sales.

Commodity price risk

A portion of our manufacturing costs includes purchased raw materials, which are commodities whose prices fluctuate as market supply and demand fundamentals change. Accordingly, product margins and the level of our profitability tend to fluctuate with the changes in these commodity prices. The cost of energy is a manufacturing cost that is exposed to commodity pricing. Our sources of energy costs are diversified among electricity, steam and natural gas, with natural gas comprising our largest energy input.

Crude tall oil price risk

Our results of operations are directly affected by the cost of our raw materials, particularly crude tall oil ("CTO"), which represents approximately 14 percent of consolidated cost of sales and 22 percent of our full company raw materials purchases for the year ended December 31, 2022. Pricing for CTO is driven by the limited supply of the product and competing demands for its use, both of which drive pressure on its price. Our gross profit and margins could be adversely affected by increases in the cost of CTO if we are unable to pass the increases on to our customers. Based on average pricing during the year ended December 31, 2022, a hypothetical unhedged, unfavorable 10 percent increase in the market price for CTO would have increased our cost of sales for the year ended December 31, 2022, by approximately \$11 million or one percent, which we may or may not have been able to pass on to our customers. Comparatively, based on average pricing during the year ended December 31, 2021, a hypothetical unhedged, unfavorable 10 percent increase in the market price for CTO would have increased our cost of sales for the year ended December 31, 2021 by approximately \$9 million or one percent.

Natural gas price risk

Natural gas, both direct and indirect, is our largest form of energy costs constituting approximately seven percent of our cost of goods sold for the year ended December 31, 2022. Increases in natural gas costs, unless passed on to our customers, would adversely affect our results of operations. If natural gas prices increase significantly, our business or results of operations may be adversely affected. We enter into certain derivative financial instruments to mitigate expected fluctuations in market prices and the volatility to earnings and cash flow resulting from changes to the pricing of natural gas purchases. Refer to Note 9 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information on our natural gas pricing would have resulted in an increase to cost of sales of approximately \$7.9 million or 70 basis points. As of December 31, 2022, we had 1.4 million and 0.5 million mmBTUS (millions of British Thermal Units) in the aggregate notional volume of outstanding natural gas commodity swap contracts and zero-cost collar option contracts, respectively, designated as cash flow hedges. Comparatively, for the year ended December 31, 2021, a hypothetical, unhedged 10 percent increase in natural gas pricing would have resulted in an increase to cost of sales of approximately \$4.3 million or 50 basis points. As of December 31, 2022, open commodity contracts hedge forecasted transactions until December 2023. The fair value of the outstanding designated natural gas commodity hedge contracts as of December 31, 2022 and 2021 was a net liability of \$1.6 million and \$0.6 million, respectively.

Interest Rate Risk

As of December 31, 2022, approximately \$828 million of our borrowings include a variable interest rate component. As a result, we are subject to interest rate risk with respect to such floating-rate debt. For the year ended December 31, 2022, a hypothetical 100 basis point increase in the variable interest rate component of our borrowings would increase our annual interest expense by approximately \$8 million or 11 percent. Comparatively, for the year ended December 31, 2021, a hypothetical 100 basis point increase in the variable interest rate component of our borrowings would have increased our annual interest expense by approximately \$3 million or seven percent.

During the year we had floating-to-fixed interest rate swaps with a combined notional amount of \$166.2 million to manage the variability of cash flows in the interest rate payments associated with our existing LIBOR-based interest payments, effectively converting \$166.2 million of our floating rate debt to a fixed rate. Per the terms of these instruments, we received floating rate interest payments based upon the three-month U.S. dollar LIBOR and in return were obligated to pay interest at a fixed rate of 3.79 percent until July 2023. Due to the repayment of our term loan (refer to Note 10 to the Consolidated Financial Statements included within Part II. Item 8 of this Form 10-K for more information), in 2022, we terminated these interest rate swap instruments. Upon termination of the interest rate swap instruments, we reclassified a \$1.7 million gain from AOCI into Interest income on the consolidated statement of operations. The fair value of outstanding interest rate instruments at December 31, 2022 and 2021 was an asset (liability) of zero and \$(4.0) million, respectively.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO THE FINANCIAL STATEMENTS

Description	Page No.
Management's Report on Internal Control over Financial Reporting	44
Report of Independent Registered Public Accounting Firm (PCAOB ID: 238)	45
Consolidated Statements of Operations	47
Consolidated Statements of Comprehensive Income (Loss)	48
Consolidated Balance Sheets	49
Consolidated Statements of Stockholders' Equity	50
Consolidated Statements of Cash Flows	51
Notes to the Consolidated Financial Statements	53

Ingevity Corporation 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 Rules 13a-15(f) and 15d-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 GAAP. 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 GAAP 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, 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.

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. Our assessment of the effectiveness of internal control over financial reporting as of December 31, 2022 did not include the internal controls at our Ozark Materials, LLC and Ozark Logistics, LLC legal entities (collectively, "Ozark Materials"), as permitted by Securities and Exchange Commission guidelines that allow companies to exclude certain acquisitions from their assessment of internal control over financial reporting during the first year following an acquisition. Ozark Materials owns the acquired net assets of the business that we acquired on October 3, 2022. As of and for the year ended December 31, 2022, Ozark Materials represented four percent and one percent of Ingevity's consolidated total assets and consolidated revenues, respectively, which were excluded from management's assessment of internal control over financial reporting.

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 their report, which is presented on the following page.

Date: February 28, 2023 By: /S/ JOHN C. FORTSON /S/ MARY DEAN HALL John C. Fortson Mary Dean Hall		President and Chief Executive Officer	Executive Vice President and Chief Financial Officer
		John C. Fortson	Mary Dean Hall
Date: February 28, 2023	Ву:	/S/ JOHN C. FORTSON	/S/ MARY DEAN HALL
D . E1 . 20 2022	Date: Feb	bruary 28, 2023	

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Ingevity Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Ingevity Corporation and its subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations, of comprehensive income (loss), of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes and financial statement schedule listed in the index appearing under Item 15(a)(2) (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.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Ozark Materials, LLC and Ozark Logistics, LLC from its assessment of internal control over financial reporting as of December 31, 2022 because these entities were acquired by the Company in a purchase business combination during 2022. We have also excluded Ozark Materials, LLC and Ozark Logistics, LLC from our audit of internal control over financial reporting. Ozark Materials, LLC and Ozark Logistics, LLC are wholly-owned subsidiaries whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting represent 4% and 1% of the related consolidated financial statement amounts as of and for the year ended December 31, 2022.

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.

Acquisition of Ozark Materials - Valuation of Customer Relationships

As described in Notes 2 and 16 to the consolidated financial statements, on October 3, 2022, the Company completed the acquisition of Ozark Materials, LLC ("OM") and Ozark Logistics, LLC ("OL" and, together with OM, "Ozark Materials") for a purchase price of \$325.0 million, which resulted in \$88.6 million of customer relationships intangible assets being recorded. The fair value assigned to the customer relationships acquired was determined using an income approach, which is based on assumptions and estimates made by management. The significant assumptions utilized in the income approach are the revenue growth rates, attrition rate, EBITDA margins, and discount rate.

The principal considerations for our determination that performing procedures relating to the valuation of customer relationships from the acquisition of Ozark Materials is a critical audit matter are (i) the significant judgment by management when developing the fair value estimate of the customer relationships acquired, (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to the revenue growth rates, attrition rate, EBITDA margins, and discount rate, and (iii) 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 the acquisition accounting, including controls over management's valuation of the customer relationships acquired. These procedures also included, among others (i) reading the purchase agreement and (ii) testing management's process for developing the fair value estimate of the customer relationships, (iii) evaluating the appropriateness of the income approach, (iv) testing the completeness and accuracy of data used in the income approach, and (v) evaluating the reasonableness of the significant assumptions used by management related to the revenue growth rates, attrition rate, EBITDA margins, and discount rate. Evaluating management's significant assumptions related to the revenue growth rates and EBITDA margins involved evaluating whether the assumptions used by management were reasonable considering (i) the past performance of the acquired businesses; (ii) the consistency with external market and industry data; and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Evaluating the reasonableness of the attrition rate involved considering (i) the past performance of the acquired businesses and (ii) economic and industry forecasts. The discount rate was evaluated by considering the (i) cost of capital of comparable businesses and (ii) other industry factors. Professionals with specialized skill and knowledge were used to assist in evaluating (i) the appropriateness of the Company's income approach and (ii) the reasonableness of the attrition rate and discount rate significant assumptions.

/s/ PricewaterhouseCoopers LLP Charlotte, North Carolina February 28, 2023

We have served as the Company's auditor since 2015.

Consolidated Statements of Operations

	Years Ended December 31,					,
In millions, except per share data		2022		2021		2020
Net sales	\$	1,668.3	\$	1,391.5	\$	1,216.1
Cost of sales		1,098.2		878.7		750.6
Gross profit		570.1		512.8		465.5
Selling, general, and administrative expenses		198.8		179.3		149.4
Research and technical expenses		30.3		26.3		22.6
Restructuring and other (income) charges, net		13.8		16.2		18.5
Acquisition-related costs		5.0		0.6		1.8
Other (income) expense, net		(1.7)		79.9		(4.1)
Interest expense		61.8		51.7		47.1
Interest income		(7.5)		(4.0)		(4.9)
Income (loss) before income taxes		269.6		162.8		235.1
Provision (benefit) for income taxes		58.0		44.7		53.7
Net income (loss)	\$	211.6	\$	118.1	\$	181.4
Per share data						
Basic earnings (loss) per share	\$	5.54	\$	2.97	\$	4.39
Diluted earnings (loss) per share		5.50		2.95		4.37

Consolidated Statements of Comprehensive Income (Loss)

	Years Ended December 31,					,
In millions		2022		2021		2020
Net income (loss)	\$	211.6	\$	118.1	\$	181.4
Other comprehensive income (loss), net of tax:						
Foreign currency adjustments:						
Foreign currency translation adjustment		(74.9)		(5.3)		23.9
Unrealized gain (loss) on net investment hedges, net of tax provision (benefit) of \$3.2, \$2.3, and \$(2.7)		10.7		7.3		(9.0)
Total foreign currency adjustments, net of tax provision (benefit) of $\$3.2$, $\$2.3$, and $\$(2.7)$		(64.2)		2.0		14.9
Derivative instruments:						
Unrealized gain (loss), net of tax provision (benefit) of \$2.6, \$1.7, and \$(1.3)		8.5		5.5		(4.3)
Reclassifications of deferred derivative instruments (gain) loss, included within net income (loss), net of tax (provision) benefit of \$(2.4), \$(0.3), and \$0.3		(7.8)		(0.7)		0.9
Total derivative instruments, net of tax provision (benefit) of \$0.2, \$1.4, and \$(1.0)		0.7		4.8		(3.4)
Pension & other postretirement benefits:						
Unrealized actuarial gains (losses) and prior service (costs) credits, net of tax provision (benefit) of \$1.0, \$0.4, and \$(0.6)		3.4		1.5		(2.1)
Reclassifications of net actuarial and other (gain) loss, amortization of prior service cost, and settlement and curtailment (income) charges, included within net income, net of tax (provision) benefit of \$0.1, \$0.1, and zero		0.2		0.1		0.3
Total pension and other postretirement benefits, net of tax provision (benefit) of \$1.1, \$0.5, and \$(0.6)		3.6		1.6		(1.8)
Other comprehensive income (loss), net of tax provision (benefit) of $\$4.5$, $\$4.2$, and $\$(4.3)$		(59.9)		8.4		9.7
Comprehensive income (loss)	\$	151.7	\$	126.5	\$	191.1

Consolidated Balance Sheets

	December 31,			1,
In millions, except share and par value data		2022		2021
Assets				
Cash and cash equivalents	\$	76.7	\$	275.4
Accounts receivable, net of allowance for credit losses of \$0.5 million - 2022 and \$2.0 million - 2021		224.8		161.7
Inventories, net		335.0		241.2
Prepaid and other current assets		42.5		46.6
Current assets		679.0		724.9
Property, plant, and equipment, net		798.6		719.7
Operating lease assets, net		56.6		52.4
Goodwill		518.5		442.0
Other intangibles, net		404.8		337.6
Deferred income taxes		5.7		6.8
Restricted investment, net of allowance for credit losses of \$0.6 million - 2022 and \$0.5 million - 2021		78.0		76.1
Strategic investments		109.8		35.3
Other assets		85.5		74.2
Total Assets	\$	2,736.5	\$	2,469.0
Liabilities				
Accounts payable	\$	174.8	\$	125.8
Accrued expenses		54.4		51.7
Accrued payroll and employee benefits		53.3		48.2
Current operating lease liabilities		16.5		17.4
Notes payable and current maturities of long-term debt		0.9		19.6
Income taxes payable		3.6		6.2
Current liabilities		303.5		268.9
Long-term debt including finance lease obligations		1,472.5		1,250.0
Noncurrent operating lease liabilities		40.8		36.2
Deferred income taxes		106.5		114.6
Other liabilities		114.9		125.5
Total Liabilities		2,038.2		1,795.2
Commitments and contingencies (Note 18)				
Equity				
Preferred stock (par value \$0.01 per share; 50,000,000 shares authorized; zero issued and outstanding at 2022 and 2021)		_		_
Common stock (par value \$0.01 per share; 300,000,000 shares authorized; 43,228,172 and 43,102,011 issued and 37,298,989 and 39,269,399 outstanding at 2022 and 2021, respectively)		0.4		0.4
Additional paid-in capital		153.0		136.3
Retained earnings		1,007.7		796.1
Accumulated other comprehensive income (loss)		(46.8)		13.1
Treasury stock, common stock, at cost (5,929,183 and 3,832,612 shares at 2022 and 2021, respectively)		(416.0)		(272.1)
Total Equity		698.3		673.8
Total Liabilities and Equity	\$	2,736.5	\$	2,469.0

INGEVITY CORPORATION Consolidated Statements of Stockholders' Equity

Ingevity Stockholders'

	Common Stock	Stock	1				
In millions, shares in thousands	Shares	Amount	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss)	Treasury stock T	Total Equity
Balance at December 31, 2019	42,675.2 \$	0.4	s	112.8 \$ 497.2	(5.0)	\$ (74.6) \$	530.8
Net income (loss)				- 181.4			181.4
Other comprehensive income (loss)					- 9.7		6.7
Common stock issued	174.6						
Exercise of stock options, net	63.0		1.9				1.9
Tax payments related to vested restricted stock units						(3.2)	(3.2)
Share repurchase program						(88.0)	(88.0)
Share-based compensation plans			9.9	-		3.5	10.1
Adoption of accounting standard				(0.6)			(0.0)
Balance at December 31, 2020	42,912.8	0.4	\$ 121.3	8 8 678.0 \$	8 4.7	\$ (162.3) \$	642.1
Net income (loss)				- 118.1			118.1
Other comprehensive income (loss)					- 8.4		8.4
Common stock issued	121.4						
Exercise of stock options, net	8.79		3.0				3.0

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Tax payments related to vested restricted stock units

Share-based compensation plans

Share repurchase program

Balance at December 31, 2021

Net income (loss)

(2.4)

(2.4)

14.0 673.8 211.6

\$ (272.1)

796.1

136.3

43,102.0

82.9

Tax payments related to vested restricted stock units

Exercise of stock options, net

Common stock issued

Share-based compensation plans

Share repurchase program

Balance at December 31, 2022

Other comprehensive income (loss)

(59.9)

(59.9)

(2.2)

(2.2)

18.6

3.5 (416.0)

(46.8)

1,007.7

Consolidated Statements of Cash Flows

Net income (loss) S		Years Ended December 3				r 31,	31,		
Net income (loss) \$ 211.6 \$ 118.1 \$ 181.4 Adjustments to reconcile net income (loss) to cash provided by operating activities: 3 108.8 109.9 100.2 Non cash operating lease costs 16.1 17.3 18.0 Deferred income taxes (5.0) (4.6) 16.2 Disposal/impairment of assets 2.5 1.2 0.6 Restructuring and other (income) charges, net — — — 1.7 LIFO reserve 10.0 3.5 3.9 Share-based compensation 16.1 1.12.3 8.4 Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-cash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: 4.2.1 (13.8) 2.8 Inventories, net (42.1) (13.8) 2.2.3 Prepaid and other current assets (0.8) (5.9) 2.1 Inventories, net 4.2.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4	In millions		2022		2021	2020			
Depreciation and amortization 108.8 109.9 100.2 Non cash operating lease costs 16.1 17.3 18.0 Deferred income taxes (5.0) (4.6) 16.2 Disposal/impairment of assets 2.5 1.2 0.6 Restructuring and other (income) charges, net -	Cash provided by (used in) operating activities:								
Depreciation and amortization 108.8 109.9 100.2 Non cash operating lease costs 16.1 17.3 18.0 Deferred income taxes (5.0) (4.6) 16.2 Disposal/impairment of assets 2.5 1.2 0.6 Restructuring and other (income) charges, net 10.0 3.5 3.9 Share-based compensation 16.1 12.3 8.4 Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-cash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: 4(2.1) (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accounts payable 42.7 14.8 9.4 Accrued expenses 9.8 4.8 13.4 Accrued expenses 9.8 4.8 13.4 Income taxes	Net income (loss)	\$	211.6	\$	118.1	\$	181.4		
Non cash operating lease costs 16.1 17.3 18.0 Deferred income taxes (5.0) (4.6) 16.2 Disposal/impairment of assets 2.5 1.2 0.6 Restructuring and other (income) charges, net — — 1.7 LIFO reserve 10.0 3.5 3.9 Share-based compensation 16.1 12.3 8.4 Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-cash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: 8.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: 42.1 (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 3.3	Adjustments to reconcile net income (loss) to cash provided by operating activities:								
Deferred income taxes (5.0) (4.6) 16.2 Disposal/impairment of assets 2.5 1.2 0.6 Restructuring and other (income) charges, net — — 1.7 LIFO reserve 10.0 3.5 3.9 Share-based compensation 16.1 12.3 8.4 Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-cash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: — — 1.1 15.3 Accounts receivable, net (63.7) (55.8) 22.3 1.0 1.1 11.3 2.8 Inventories, net (63.7) (55.8) 22.3 1.0 1.0 1.0 1.0 2.2 2.3 1.0 1.0 1.0 2.2 2.3 1.0 1.0 1.0 2.2 2.3 1.0 2.2 3.0 1.0 2.2 3.0 1.0 2.2 3.0 1.0 2.2 3.0 1.0 <	Depreciation and amortization		108.8		109.9		100.2		
Disposal/impairment of assets 2.5 1.2 0.6 Restructuring and other (income) charges, net — — 1.7 LIFO reserve 10.0 3.5 3.9 Share-based compensation 16.1 12.3 8.4 Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-cash items 18.4 1.1 1.5 Changes in operating assets and liabilities, net of effect of acquisitions: 3.4 1.2 1.5 Accounts receivable, net (42.1) (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 1.1 (6.2) (9.6 Operating leases (18.5) <th< td=""><td>Non cash operating lease costs</td><td></td><td>16.1</td><td></td><td>17.3</td><td></td><td>18.0</td></th<>	Non cash operating lease costs		16.1		17.3		18.0		
Restructuring and other (income) charges, net — — 1.7 LIFO reserve 10.0 3.5 3.9 Share-based compensation 16.1 12.3 8.4 Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-cash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: 3.4 1.1 1.3 Accounts receivable, net (42.1) (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued apyroll and employee benefits 5.4 23.1 (3.3 Income taxes 1.1 1.2 4.8 9.4 Operating leases (18.5) (20.2) (9.6 Changes in all other operating assets and l	Deferred income taxes		(5.0)		(4.6)		16.2		
LIFO reserve 10.0 3.5 3.9 Share-based compensation 16.1 12.3 8.4 Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-cash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: Western the counts receivable, net (42.1) (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (0.8) (5.9) 2.1 Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge 8.5 2.3 1.8 Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8	Disposal/impairment of assets		2.5		1.2		0.6		
Share-based compensation 16.1 12.3 8.4 Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-cash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: 8.4 12.1 15.3 Accounts receivable, net (42.1) (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Pepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge - 85.0 - Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 31.3 293.0 352.4 Cash provided by (used in)	Restructuring and other (income) charges, net		_		_		1.7		
Pension and other postretirement benefit costs 1.4 1.6 1.9 Other non-eash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: ————————————————————————————————————	LIFO reserve		10.0		3.5		3.9		
Other non-cash items 18.4 12.1 15.3 Changes in operating assets and liabilities, net of effect of acquisitions: Accounts receivable, net (42.1) (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge - 85.0 - Operating leases (18.8) (20.5) (18.5 Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired	Share-based compensation		16.1		12.3		8.4		
Changes in operating assets and liabilities, net of effect of acquisitions: 4(2.1) (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3) Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities \$ 313.1 \$ 293.0 \$ 352.4 Capital expenditures (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5)	Pension and other postretirement benefit costs		1.4		1.6		1.9		
Accounts receivable, net (42.1) (13.8) 2.8 Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities \$ 313.1 \$ 293.0 \$ 352.4 Capital expenditures (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (34.5) — —	Other non-cash items		18.4		12.1		15.3		
Inventories, net (63.7) (55.8) 22.3 Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0) Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities \$ 313.1 \$ 293.0 \$ 352.4 Capital expenditures (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — (23.8	Changes in operating assets and liabilities, net of effect of acquisitions:								
Prepaid and other current assets (0.8) (5.9) 2.1 Planned major maintenance outage (9.1) (8.6) (7.0 Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5 Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities: \$ 313.1 \$ 293.0 \$ 352.4 Capital expenditures (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — (23.8 Net investment hedge settlement 14.7 — —	Accounts receivable, net		(42.1)		(13.8)		2.8		
Planned major maintenance outage (9.1) (8.6) (7.0) Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3) Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities \$ 313.1 \$ 293.0 \$ 352.4 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — (23.8 Net investment hedge settlement 14.7 — — Purchase of strategic investments (77.4) (35.3) —<	Inventories, net		(63.7)		(55.8)		22.3		
Accounts payable 42.7 14.8 9.4 Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5 Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities: (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — (23.8 Net investment hedge settlement 14.7 — — Purchase of strategic investments (77.4) (35.3) — Other investing activities, net (4.2) (1.5) (4.7	Prepaid and other current assets		(0.8)		(5.9)		2.1		
Accrued expenses 0.8 4.8 13.4 Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5 Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities: (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — — (23.8 Net investment hedge settlement 14.7 — — Purchase of strategic investments (77.4) (35.3) — Other investing activities, net (4.2) (1.5) (4.7	Planned major maintenance outage		(9.1)		(8.6)		(7.0)		
Accrued payroll and employee benefits 5.4 23.1 (3.3 Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5 Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — — Net investment hedge settlement 14.7 — — Purchase of strategic investments (77.4) (35.3) — Other investing activities, net (4.2) (1.5) (4.7	Accounts payable		42.7		14.8		9.4		
Income taxes 4.9 (6.2) (9.6 Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 293.0 \$ 352.4 Cash provided by (used in) investing activities: (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — (23.8 Net investment hedge settlement 14.7 — — Purchase of strategic investments (77.4) (35.3) — Other investing activities, net (4.2) (1.5) (4.7	Accrued expenses		0.8		4.8		13.4		
Litigation verdict charge — 85.0 — Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities: Capital expenditures (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — (23.8 Net investment hedge settlement 14.7 — — Purchase of strategic investments (77.4) (35.3) — Other investing activities, net (4.2) (1.5) (4.7	Accrued payroll and employee benefits		5.4		23.1		(3.3)		
Operating leases (18.8) (20.5) (18.5) Changes in all other operating assets and liabilities, net 13.9 4.7 (6.8 Net cash provided by (used in) operating activities \$ 313.1 \$ 293.0 \$ 352.4 Cash provided by (used in) investing activities: Capital expenditures (142.5) (103.8) (82.1 Payments for acquired businesses, net of cash acquired (344.5) — — Finance lease expenditures — — (23.8 Net investment hedge settlement 14.7 — — Purchase of strategic investments (77.4) (35.3) — Other investing activities, net (4.2) (1.5) (4.7	Income taxes		4.9		(6.2)		(9.6)		
Changes in all other operating assets and liabilities, net Net cash provided by (used in) operating activities Cash provided by (used in) investing activities: Capital expenditures Capital expenditures (142.5) Payments for acquired businesses, net of cash acquired Finance lease expenditures Net investment hedge settlement Purchase of strategic investments (142.5) (103.8) (82.1) (103.8) (82.1) (103.8) (82.1) (103.8)	Litigation verdict charge		_		85.0		_		
Net cash provided by (used in) operating activities Cash provided by (used in) investing activities: Capital expenditures Capital expenditures Capital expenditures (142.5) Payments for acquired businesses, net of cash acquired Finance lease expenditures Net investment hedge settlement Purchase of strategic investments Other investing activities, net \$ 313.1 \$ 293.0 \$ 352.4 \$ 293.0 \$ 352.4 \$ (82.1) \$ (23.8) \$	Operating leases		(18.8)		(20.5)		(18.5)		
Cash provided by (used in) investing activities: Capital expenditures (142.5) (103.8) (82.1) Payments for acquired businesses, net of cash acquired Finance lease expenditures Net investment hedge settlement Purchase of strategic investments (77.4) (35.3) Other investing activities, net (4.2) (1.5)	Changes in all other operating assets and liabilities, net		13.9		4.7		(6.8)		
Capital expenditures(142.5)(103.8)(82.1)Payments for acquired businesses, net of cash acquired(344.5)——Finance lease expenditures———(23.8)Net investment hedge settlement14.7——Purchase of strategic investments(77.4)(35.3)—Other investing activities, net(4.2)(1.5)(4.7)	Net cash provided by (used in) operating activities	\$	313.1	\$	293.0	\$	352.4		
Payments for acquired businesses, net of cash acquired Finance lease expenditures — — (23.8 Net investment hedge settlement Purchase of strategic investments (77.4) Other investing activities, net (4.2) (1.5)	Cash provided by (used in) investing activities:								
Finance lease expenditures — — (23.8 Net investment hedge settlement 14.7 — — Purchase of strategic investments (77.4) (35.3) — Other investing activities, net (4.2) (1.5) (4.7	Capital expenditures		(142.5)		(103.8)		(82.1)		
Net investment hedge settlement14.7——Purchase of strategic investments(77.4)(35.3)—Other investing activities, net(4.2)(1.5)(4.7)	Payments for acquired businesses, net of cash acquired		(344.5)		_		_		
Purchase of strategic investments (77.4) (35.3) — Other investing activities, net (4.2) (1.5) (4.7)	Finance lease expenditures		_		_		(23.8)		
Other investing activities, net (4.2) (1.5) (4.7)	Net investment hedge settlement		14.7		_		_		
	Purchase of strategic investments		(77.4)		(35.3)		_		
Net cash provided by (used in) investing activities \$ (553.9) \$ (140.6) \$ (110.6)	Other investing activities, net		(4.2)		(1.5)		(4.7)		
	Net cash provided by (used in) investing activities	\$	(553.9)	\$	(140.6)	\$	(110.6)		

Consolidated Statements of Cash Flows (continued)

	Years Ended December 31,				
In millions	2022	2021	2020		
Cash provided by (used in) financing activities:					
Proceeds from revolving credit facility	1,164.7	_	346.1		
Proceeds from long-term borrowings	_	_	550.0		
Payments on revolving credit facility	(336.7)	_	(477.3)		
Payments on long-term borrowings	(628.1)	(23.4)	(389.1)		
Debt issuance costs	(3.0)	_	(11.0)		
Debt repayment costs	(3.8)	_	_		
Financing lease obligations, net	(0.9)	(0.7)	23.1		
Borrowings (repayments) of notes payable and other short-term borrowings, net	_	(1.9)	(4.4)		
Tax payments related to withholdings on vested equity awards	(2.2)	(2.4)	(3.2)		
Proceeds and withholdings from share-based compensation plans, net	4.1	4.7	3.6		
Repurchases of common stock under publicly announced plan	(145.2)	(109.4)	(88.0)		
Other financing activities, net	(0.8)				
Net cash provided by (used in) financing activities	\$ 48.1	\$ (133.1)	\$ (50.2)		
Increase (decrease) in cash, cash equivalents, and restricted cash	(192.7)	19.3	191.6		
Effect of exchange rate changes on cash	(6.0)	(1.7)	2.2		
Change in cash, cash equivalents, and restricted cash	(198.7)	17.6	193.8		
Cash, cash equivalents, and restricted cash at beginning of period	276.0	258.4	64.6		
Cash, cash equivalents, and restricted cash at end of period (1)	\$ 77.3	\$ 276.0	\$ 258.4		

⁽¹⁾ Includes restricted cash of \$0.6 million, \$0.6 million, and \$0.7 million and cash and cash equivalents of \$76.7 million, \$275.4 million, and \$257.7 million for the years ended December 31, 2022, 2021, and 2020, respectively. Restricted cash is included within "Prepaid and other current assets" within the consolidated balance sheets.

Supplemental cash flow information:

**			
Cash paid for interest, net of capitalized interest	\$ 54.8 \$	47.5 \$	39.6
Cash paid for income taxes, net of refunds	54.8	53.7	46.6
Purchases of property, plant and equipment in accounts payable	4.9	9.4	2.7
Leased assets obtained in exchange for new finance lease liabilities	_	_	23.8
Leased assets obtained in exchange for new operating lease liabilities	23.7	20.5	27.2

INDEX

Note		Page No.
1	Background	54
2	Summary of Significant Accounting Policies	54
3	New Accounting Guidance	61
4	Revenues	61
5	Fair Value Measurements	62
6	Inventories, net	64
7	Property, Plant, and Equipment, net	65
8	Goodwill and Other Intangible Assets, net	65
9	Financial Instruments and Risk Management	67
10	Debt, including Finance Lease Obligations	70
11	Share-based Compensation	72
12	Equity	75
13	Leases	77
14	Retirement Plans	79
15	Restructuring and Other (Income) Charges, net	84
16	Acquisitions	85
17	Income Taxes	87
18	Commitments and Contingencies	90
19	Segment Information	91
20	Earnings (Loss) per Share	93
21	Supplemental Information	94
22	Subsequent Event	95

Note 1: Background

Description of Business

Ingevity Corporation ("Ingevity," "the company," "we," "us," or "our") provides products and technologies that purify, protect, and enhance the world around us. Through a team of talented and experienced people, we develop, manufacture, and bring to market solutions that help customers solve complex problems and make the world more sustainable. We report in two business segments: Performance Materials and Performance Chemicals.

Our Performance Materials segment manufactures products in the form of powder, granular, extruded pellets, extruded honeycombs, and activated carbon sheets. Automotive technologies products are sold into the gasoline vapor emission control applications within the automotive industry, while process purification products are sold into the food, water, beverage, and chemical purification industries.

Our Performance Chemicals segment consists of our pavement technologies, industrial specialties, and engineered polymers product lines. Performance Chemicals manufactures products derived from crude tall oil ("CTO") and lignin extracted from the kraft pulping process as well as caprolactone monomers and derivatives derived from cyclohexanone and hydrogen peroxide. Performance Chemicals products serve as critical inputs used in a variety of high performance applications, including warm mix paving, pavement preservation, and pavement reconstruction and recycling (pavement technologies product line), adhesives, agrochemicals, lubricants, printing inks, industrial intermediates, and oilfield (industrial specialties product line), coatings, resins, elastomers, adhesives, bio-plastics, and medical devices (engineered polymers product line).

Basis of Consolidation and Presentation

The accompanying Consolidated Financial Statements of Ingevity were prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The significant accounting policies described in Note 2, together with the other notes that follow, are an integral part of the Consolidated Financial Statements. The Consolidated Financial Statements include the accounts of Ingevity and subsidiaries in which a controlling interest is maintained.

Note 2: Summary of Significant Accounting Policies

Estimates and assumptions: We are required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results are likely to differ from those estimates, but we do not believe such differences will materially affect our financial position, results of operations, or cash flows.

Cash equivalents: Highly liquid securities with an original maturity of three months or less are considered cash equivalents.

Accounts receivable and allowance for credit losses: Accounts receivable, net on the consolidated balance sheets are comprised of trade receivables less allowances for credit losses. Trade receivables consist of amounts owed to Ingevity from customer sales and are recorded at the invoiced amounts when revenue is recognized and generally do not bear interest. The allowance for credit losses is our best estimate of the amount of probable loss in the existing accounts receivable. We determine the allowance based on our expected future credit losses, which is partly based on historical write-off experience, current collection trends, and external business factors such as economic factors, including regional bankruptcy rates and political factors. Past-due balances over a specified amount are reviewed individually for collectability. Account balances are charged off against the allowance when it is probable that the receivable will not be recovered. Allowance for credit losses at December 31, 2022 and 2021, was \$0.5 million and \$2.0 million, respectively.

Concentration of credit risk: The financial instruments that potentially subject Ingevity to concentrations of credit risk are accounts receivable. We limit our credit risk by performing ongoing credit evaluations and, when necessary, requiring letters of credit, guarantees, or collateral. Our largest customer as of December 31, 2022 had accounts receivable of \$9.3 million and \$5.7 million as of December 31, 2022 and 2021, respectively. Sales to our largest customer, from our Performance Materials segment, were approximately four percent of total net sales for each of the years ended December 31, 2022, 2021, and 2020, respectively. Sales to the automotive industry, which represents our largest industry concentration, were approximately 30 percent of our consolidated Net sales. No customers individually accounted for greater than 10 percent of Ingevity's consolidated Net sales.

Inventories, net: Inventories are valued at lower of cost or net realizable value, except for inventories determined using the last-in, first-out method ("LIFO"), which are valued at the lower of LIFO or market cost. The value of our U.S. inventories is determined using LIFO for the majority of our raw materials, finished goods, and production materials. The value of all other inventories, including stores and supplies inventories and inventories of non-U.S. operations, is determined by the first-in, first-out ("FIFO") or average costs methods. Elements of cost in inventories include raw materials, direct labor, and manufacturing overhead. We routinely assess inventory for both potential obsolescence and potential declines in anticipated selling prices to derive a market value for the inventory on hand. This review also includes an analysis of potentially obsolete, unmarketable, slow-moving, or overvalued inventory. If necessary, we will impair any inventories by an amount equal to the difference between the value of the held inventory (i.e., cost) and its estimated net realizable value for FIFO and average cost inventories and market value for LIFO inventories.

Property, plant, and equipment: Owned assets are recorded at cost. Also included in the cost of these assets is interest on funds borrowed during the construction period. When assets are sold, retired or disposed of, their cost and related accumulated depreciation are removed from the consolidated balance sheet, and any resulting gain or loss is reflected within the consolidated statement of operations. Repair and maintenance costs that materially add to the value of the asset or prolong its useful life are capitalized and depreciated based on the extension of the useful life.

Repair and maintenance costs: We expense routine repair and maintenance costs as we incur them. We defer expenses incurred during planned major maintenance activities and record these amounts to Other assets on our consolidated balance sheet. Deferred amounts are recognized as expense ratably over the shorter of the estimated interval until the next major maintenance activity or the life of the deferred item. The cash outflows related to these costs are included in operating activities within the consolidated statement of cash flows. The timing of this maintenance can vary by manufacturing plant and has a significant impact on our results of operations in the period performed primarily due to lost production during the maintenance period.

Depreciation: The cost of property, plant, and equipment is depreciated, utilizing the straight-line method, over the estimated useful lives of the assets, the majority of which range from 20 to 40 years for buildings and leasehold improvements and 5 to 30 years for machinery and equipment. The following table provides details on the useful lives and proportion of our machinery and equipment ("M&E") in each useful life category.

Percent of M&E Cost	Depreciable Life in Years	Types of Assets
23	5 to 10	Production control system equipment and hardware, laboratory testing equipment
11	15	Control systems, instrumentation, metering equipment
49	20	Production vessels and kilns, storage tanks, piping
7	25 to 30	Blending equipment, storage tanks, piping, shipping equipment and platforms, safety equipment
3	40	Machinery & equipment support structures and foundations
7	Various	Various

Leases: We lease various assets for use in our operations that are classified as both operating and financing leases. At contract inception, we determine that a lease exists if the contract conveys the right to control an identified asset for a period of time in exchange for consideration. Control is considered to exist when the lessee has the right to obtain substantially all of the economic benefits from the use of an identified asset as well as the right to direct the use of that asset. If a contract is considered to be a lease, we recognize a lease liability based on the present value of the future lease payments, with an offsetting entry to recognize a right-of-use asset. As a majority of our leases do not provide an explicit rate within the lease, an incremental borrowing rate is used, which is based on information available at the commencement date. The determination of the incremental borrowing rate for each individual lease was impacted by the following assumptions: lease term, currency, and the economic environment for the physical location of the leased asset.

Our operating leases principally relate to the following leased asset classes:

Leased Asset Class	Remaining Lease Term
Administrative offices	1 to 15 years
Manufacturing buildings	4 to 28 years
Manufacturing and office equipment	1 to 11 years
Warehousing and storage facilities	3 to 10 years
Vehicles	3 to 6 years
Rail cars	0 to 8 years

Leases with an initial term of 12 months or less are not recorded on the balance sheet. Lease expense is recognized on a straight-line basis over the expected lease term. Some of our leases include options to extend the lease term at our sole discretion. We account for lease and non-lease components together as a single component for all lease asset classes. The depreciable life of assets and leasehold improvements is limited by the expected lease term unless there is a transfer of title or purchase option reasonably certain of exercise. Certain leases provide for escalation of the lease payments, as well as maintenance costs and taxes increase.

Impairment of long-lived assets: We periodically evaluate whether current events or circumstances indicate that the carrying value of our long-lived assets, including intangible assets, to be held and used may not be recoverable. If such circumstances are determined to exist, an estimate of undiscounted future cash flows produced by the long-lived asset, or the appropriate grouping of assets, is compared to carrying value to determine whether impairment exists.

If an asset is determined to be impaired, the loss is measured based on quoted market prices in active markets, if available. If quoted market prices are not available, the estimate of fair value is based on various valuation techniques, including a discounted value of estimated future cash flows. We report an asset to be disposed of at the lower of its carrying value or its estimated net realizable value.

Goodwill and other intangible assets: Goodwill represents the excess of cost of an acquired business over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. We conduct a required annual review of goodwill for potential impairment at October 1, or sooner if events or changes in circumstances indicate that the fair value of a reporting unit is below its carrying value. Our reporting units are our operating segments, i.e., Performance Chemicals and Performance Materials. If the carrying value of a reporting unit that includes goodwill exceeds its fair value, which is determined using both the income approach and market approach, goodwill is considered impaired. The income approach determines fair value based on discounted cash flow model derived from a reporting unit's long-term forecasted cash flows. The market approach determines fair value based on the application of earnings multiples of comparable companies to projected earnings of the reporting unit. The amount of impairment loss is measured as the difference between the carrying value and the fair value of a reporting unit but is limited to the total amount of goodwill allocated to the reporting unit. In performing the fair value analysis, management makes various judgments, estimates and assumptions, the most significant of which is the assumption related to revenue growth rates.

The factors we considered in developing our estimates and projections for cash flows include, but are not limited to, the following: (i) macroeconomic conditions; (ii) industry and market considerations; (iii) costs, such as increases in raw materials, labor, or other costs; (iv) our overall financial performance; and (v) other relevant entity-specific events that impact our reporting units.

The determination of whether goodwill is impaired involves a significant level of judgment in the assumptions underlying the approach used to determine the estimated fair values of our reporting units. We believe that the estimates and assumptions used in our impairment assessment are reasonable; however, these assumptions are judgmental and variations in any assumptions could result in materially different calculations of fair value. We will continue to evaluate goodwill on an annual basis as of October 1, and whenever events or changes in circumstances, such as significant adverse changes in operating results, market conditions, or changes in management's business strategy indicate that there may be a probable indicator of impairment. It is possible that the assumptions used by management related to the evaluation may change or that actual results may vary significantly from management's estimates.

Our fiscal year 2022 annual goodwill impairment test was performed as of October 1, 2022. We determined that the fair value of both our reporting units were substantially in excess of their carrying value and therefore concluded that no goodwill impairment existed. There were no events or circumstances indicating that goodwill might be impaired as of December 31, 2022. No impairment charges have been recognized historically.

Other intangible assets are comprised of finite-lived intangible assets consisting primarily of brands (representing trademarks, trade names and know-how), customer contracts and relationships, and developed technology. Other intangible assets are amortized over their estimated useful lives which range from 3 to 20 years. Any potential impairment for definite-lived intangible assets will be calculated in the same manner as disclosed under impairment of property, plant and equipment. Customer relationships are amortized in a manner that reflects the pattern in which the economic benefits of the intangible asset are consumed.

Capitalized software: Capitalized software for internal use is included within Other assets on the consolidated balance sheets. Amounts capitalized are presented in Capital expenditures on our consolidated statements of cash flow. Capitalized software is amortized using the straight-line over the estimated useful lives ranging from 3 to 15 years. Amortization is recorded to Costs of sales on our consolidated statements of operations for software directly used in the production of inventory and Selling, general, and administrative expenses on our consolidated statements of operations for software used for non-production related activities.

Strategic investments: We have a variety of strategic investments that are classified as long-term assets on the consolidated balance sheets. Our strategic investments are accounted for under either the equity method of accounting or the measurement alternative, where fair value is not readily determinable. We use the equity method of accounting for investments that we do not control, but for which we have the ability to exercise significant influence.

For strategic investments that are accounted for under the equity method of accounting, our initial investment is recorded at cost. Subsequently, the carrying value for these investments will be impacted by our proportionate share of undistributed earnings or loss, distributions, amortization or accretion of basis differences, and other-than-temporary impairments. Subsequent adjustments to our initial investment are recorded within Other (income) expense, net on the consolidated statement of operations.

Strategic investments accounted for under the measurement alternative, where fair value is not readily determinable, are accounted for at cost. Adjustments for observable changes in prices or impairments are recognized in Other (income) expense, net in our consolidated statements of operations.

At each reporting period, we evaluate each investment to determine whether events or changes in business circumstances indicate that the carrying value of the investment may not be fully recoverable.

Legal liabilities: We recognize a liability for legal contingencies when a loss is probable and reasonably estimable. Third-party fees for legal services are expensed as incurred. If only a range of estimated losses can be determined, we accrue an amount that reflects the most likely outcome; if none of the estimates within that range is a better estimate than any other amount, we accrue the low end of the range. If an unfavorable outcome is reasonably possible but not probable, we will disclose an estimate of the reasonably possible loss or range of loss. If we cannot estimate the loss or range of losses arising from a legal proceeding, we will disclose that an estimate cannot be made. In assessing the materiality of a legal proceeding, we evaluate, among other factors, the amount of monetary damages claimed, as well as the potential impact of non-monetary remedies sought by plaintiffs that may require us to change our business practices in a manner that could have a material adverse impact on our business.

Revenue recognition: Our revenue is derived from contracts with customers, and substantially all our revenue is recognized when products are either shipped from our manufacturing and warehousing facilities or delivered to the customer. Revenue, net of returns and customer incentives, is based on the sale of manufactured products. Revenues are recognized when performance obligations under the terms of a contract with our customer are satisfied; generally, this occurs with the transfer of control of our products. For certain limited contracts, where we are producing goods with no alternative use and for which we have an enforceable right to payment for performance completed to date, we are recognizing revenue as goods are manufactured, rather than when they are shipped. Revenues are presented as Net sales on the consolidated statements of operations.

Since Net sales are derived from product sales only, we have disaggregated our Net sales by our product lines within each reportable segment. Net sales are measured as the amount of consideration we expect to receive in exchange for

transferring goods. Sales, value add, and other taxes we collect concurrent with revenue-producing activities are excluded from revenue. Sales returns and allowances are not a normal practice in the industry and are not significant. Certain customers may receive cash-based incentives, including discounts and volume rebates, which are accounted for as variable consideration and included within Net sales. Shipping and handling fees billed to customers are included within Net sales. If we pay for the freight and shipping, we recognize the cost when control of the product has transferred to the customer as an expense within Cost of sales on the consolidated statements of operations. Payment terms with our customers are typically in the range of zero to sixty days. Because the period between when we transfer a promised good to a customer and when the customer pays for that good will be one year or less, we elect not to adjust the promised amount of consideration for the effects of any financing component, as it is not significant.

Cost of sales: Costs primarily consist of the cost of inventory sold and other production related costs. These costs include raw materials, direct labor, manufacturing overhead, packaging costs, and maintenance costs. Shipping and handling costs are recorded within Cost of sales on the consolidated statements of operations.

Selling, general, and administrative expenses: Costs are expensed as incurred and primarily include employee compensation costs related to sales and office personnel, office expenses, and other expenses not directly related to our manufacturing operations. Costs also include advertising and promotional costs.

Research and technical expenses: Costs are expensed as incurred and primarily include employee compensation, technical equipment costs, material testing, and innovation-related expenses.

Royalty expense: We have licensing agreements with third parties requiring us to pay royalties for certain technologies we use in the manufacturing of our products. Royalty expense is recognized as incurred and recorded within Cost of sales on the consolidated statements of operations.

Restructuring and other (income) charges, net: We continually perform strategic reviews and assess the return on our operations, which sometimes results in a plan to restructure the business. The cost and benefit of these strategic restructuring initiatives are recorded within Restructuring and other (income) charges, net on the consolidated statement of operations. These costs are excluded from our operating segment results.

We record an accrual for severance and other non-recurring costs under the provisions of the relevant accounting guidance. Additionally, in some restructuring plans, write-downs of long-lived assets may occur. Two types of assets are impacted: assets to be disposed of by sale and assets to be abandoned. Assets to be disposed of by sale are measured at the lower of carrying amount or estimated net proceeds from the sale. Assets to be abandoned with no remaining future service potential are written down to amounts expected to be recovered. The useful lives of assets to be abandoned that have a remaining future service potential are adjusted and depreciation is recorded over the adjusted useful life.

Income taxes: We are subject to income taxes in the U.S. and numerous foreign jurisdictions, including China and the United Kingdom ("UK"). The provision for income taxes includes income taxes paid, currently payable or receivable, and deferred taxes. We follow the asset and liability method of accounting for income taxes in accordance with current accounting standards regarding the accounting for income taxes. Under this method, deferred income taxes are recognized based on the temporary differences between the financial reporting and tax bases of assets and liabilities, and are measured using the enacted tax rates and laws in effect at the time the underlying assets or liabilities are recovered or settled. The ability to realize deferred tax assets is evaluated through the forecasting of taxable income, historical and projected future operating results, the reversal of existing temporary differences, and the availability of tax planning strategies. Valuation allowances are recognized to reduce deferred tax assets when it is more-likely-than-not that a tax benefit will not be realized. We do not provide income taxes on undistributed earnings of consolidated foreign subsidiaries, as it is our intention that such earnings will remain invested in those companies.

We recognize income tax positions that are more-likely-than-not to be realized and accrue interest related to unrecognized income tax positions, which is included as a component of the income tax provision, on the consolidated statements of operations.

Pension and postretirement benefits: We provide both qualified and non-qualified pension and postretirement benefit plans to our employees. The expense related to the current employees, as well as the expense related to retirees, are included within the Consolidated Financial Statements. The costs (or benefits) and obligations related to these benefits reflect key assumptions related to general economic conditions, including interest (discount) rates, healthcare cost trend rates, and expected return on plan assets. The costs (or benefits) and obligations for these benefit programs are also affected by other assumptions,

such as average retirement age, mortality rates, employee turnover, and plan participation. To the extent our plans' actual experience, as influenced by changing economic and financial market conditions or by changes to our own plans' demographics, differs from these assumptions, the costs and obligations for providing these benefits, as well as the plans' funding requirements, could increase or decrease. When actual results differ from our assumptions, the difference is typically recognized over future periods. In addition, the unrealized gains and losses related to our pension and postretirement benefit obligations may also affect periodic benefit costs (or benefits) in future periods.

Share-based compensation: We recognize compensation expense within our Consolidated Financial Statements for all share-based compensation arrangements. Share-based compensation cost is measured at the date of grant, based on the fair value of the award, and expense is recognized over the grantee's requisite service period; forfeitures are recognized as they occur. We calculate the fair value of our stock options using the Black-Scholes option pricing model. The fair value of restricted stock units ("RSU"s), non-employee director deferred stock units ("DSU"s), and performance-based restricted stock units ("PSU"s) is determined using our closing stock price on the date of the grant. Substantially all compensation expense related to share-based awards is recorded as a component of Selling, general and administrative expenses within the consolidated statements of operations.

Operating segments: Our operating segments are Performance Materials and Performance Chemicals. Our operating segments were determined based upon the nature of the products produced, the nature of the production process, the type of customer for the products, the similarity of economic characteristics, and the manner in which management reviews results. Our chief operating decision maker evaluates the business at the segment level when making decisions about allocating resources and assessing the performance of Ingevity as a whole. We evaluate sales in a format consistent with our reportable segments: (1) Performance Materials, which includes wood-based, chemically activated carbon products and (2) Performance Chemicals, which includes specialty pine-based chemical co-products derived from the kraft pulping process and caprolactone monomers and derivatives derived from cyclohexanone and hydrogen peroxide. Each segment operates as a portfolio of various end uses for the relevant raw material used in that segment.

Fair value measurements: We have categorized our assets and liabilities that are recorded at fair value, based on the priority of the inputs to the valuation technique, into a three-level fair value hierarchy. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure the assets and liabilities fall within different levels of the hierarchy, the categorization is based on the lowest level input that is significant to the fair value measurement of the instrument. The carrying value of our financial instruments: cash and cash equivalents, other receivables, other payables, and accrued liabilities, approximate their fair values due to the short-term nature of these financial instruments.

Derivative financial instruments: We are exposed to market risks, such as the impact of changes in interest rates on our floating rate debt, foreign currency exchange rates due to transactions denominated in a variety of foreign currencies, and commodity prices due to purchases of certain raw materials and inputs. Changes in these rates and prices may have an impact on our future cash flow and earnings. We formally document all relationships between the derivative financial instrument and the hedged item, as well as the risk management objective and strategy for undertaking various hedge transactions. We do not hold or issue derivative financial instruments for speculative or trading purposes. We enter into derivative financial instruments which are governed by policies, procedures, and internal processes set forth by our Board of Directors.

Our risk management program also addresses counterparty credit risk by selecting only major financial institutions with investment grade ratings. Once the derivative financial instrument is entered into, we continuously monitor the financial institutions' credit ratings and our credit risk exposure held by the financial institution. When appropriate, we reallocate exposures across multiple financial institutions to limit credit risk. If a counterparty fails to fulfill its performance obligations under the derivative financial instrument, then Ingevity is exposed to credit risk equal to the fair value of the financial instrument. Derivative assets and liabilities are recorded on our consolidated balance sheets at fair value and are presented on a gross basis. Due to our proactive mitigation of these potential credit risks, we anticipate performance by our counterparties to these contracts, and therefore, no material loss is expected. In order to mitigate the impact of market risks, we have and may enter into both net investment hedges and cash flow hedges.

Cash Flow Hedges: Cash flow hedges are derivative financial instruments designated as and used to hedge the exposure to variability in expected future cash flows that are attributable to a particular risk. The derivative financial instruments that are designated and qualify as a cash flow hedge are recorded on the balance sheet at fair value, and the changes in fair value of these hedging instruments are offset in part or in whole by corresponding changes in the anticipated cash flows

of the underlying exposures being hedged. The gains and losses arising from qualifying hedging instruments are reported as a component of Accumulated other comprehensive income (loss) ("AOCI") located within the consolidated balance sheets and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. The reclassification gain or losses of the hedge from AOCI are recorded in the same financial statement caption on the consolidated statements of operations as the hedged item. For example, designated cash flow hedges entered to minimize foreign currency exchange risk of forecasted revenue transactions are recorded to Net sales on the consolidated statements of operations when the forecasted transaction occurs. Designated commodity cash flow hedges gains or losses recorded in AOCI are recognized within Cost of sales on the consolidated statements of operations when the inventory is sold.

Net Investment Hedges: Net investment hedges are defined as derivative or non-derivative instruments, which are designated as and used to hedge the foreign currency exposure of the net investment in certain foreign operations. The net of the change in the hedge instrument and the item being hedged against for qualifying net investment hedges is reported as a component of the foreign currency adjustments ("CTA") within AOCI on the consolidated balance sheet. The gains (losses) on net investment hedges are reclassified to earnings only when the related CTA are required to be reclassified, usually upon the sale or liquidation of the investment.

Treasury stock: We record shares of common stock repurchased at cost as treasury stock, resulting in a reduction of stockholders' equity on the consolidated balance sheets. When the treasury shares are contributed under our employee benefit plans or issued for option exercises, we use a first-in, first-out ("FIFO") method for determining cost. The difference between the cost of the shares and the market price at the time of contribution to an employee benefit plan is added to or deducted from Additional paid-in capital on the consolidated balance sheets.

Translation of foreign currencies: The local currency is the functional currency for all of our significant operations outside the U.S., consisting primarily of the euro, the Japanese yen, the pound sterling, and the Chinese renminbi. The assets and liabilities of our foreign subsidiaries are translated into U.S. dollars using period-end exchange rates, and adjustments resulting from these financial statement translations are included within AOCI on the consolidated balance sheets. Revenues and expenses are translated at average rates prevailing during each period.

Business combinations: Accounting for business combinations which requires, among other things, the acquiring entity in a business combination to recognize the fair value of the assets acquired and liabilities assumed; the recognition of acquisition-related costs within the consolidated results of operations; the recognition of restructuring costs within the consolidated results of operations for which the acquirer becomes obligated after the acquisition date; and contingent purchase consideration to be recognized at fair value on the acquisition date with subsequent adjustments recognized on the consolidated statement of operations. We generally use qualified third-party consultants to assist management in determining the fair value of assets acquired and liabilities assumed. This includes, when necessary, assistance with the determination of lives and valuation of tangible property, plant, and equipment and identifiable intangibles, assisting management in determining the fair value of obligations associated with employee-related liabilities, and assisting management in assessing obligations associated with legal and environmental claims. The purchase price allocation process allows us to refine these estimates over a measurement period not to exceed one year to reflect new information obtained surrounding facts and circumstances existing at the acquisition date.

The fair value assigned to identifiable intangible assets acquired is determined primarily by using an income approach, which is based on assumptions and estimates made by management. Significant assumptions utilized in the income approach are the attrition rate, revenue growth rates, EBITDA margins, royalty rates, and the discount rate. These assumptions are based on company-specific information and projections, which are not observable in the market and are therefore considered Level 2 and Level 3 measurements. The excess of the purchase price over the fair value of the identified assets and liabilities is recorded as goodwill. Based on the acquired business' end markets and products, as well as how the chief operating decision maker will review the business results, determines the most appropriate operating segment for which to integrate the acquired business. Goodwill acquired, if any, is allocated to the reporting unit within or at the operating segment for which the acquired business will be integrated. Selection of the appropriate reporting unit is based on the level at which discrete financial information is available and reviewed by business management post-integration. Operating results of the acquired entity are reflected within the Consolidated Financial Statements from the date of acquisition.

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

Note 3: New Accounting Guidance

The Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC" or "Codification") is the sole source of authoritative GAAP other than SEC issued rules and regulations that apply only to SEC registrants. The FASB issues an Accounting Standards Update ("ASU") to communicate changes to the Codification. We consider the applicability and impact of all ASUs. ASUs not listed below were assessed and determined to be either not applicable or are not expected to have a material impact on the Consolidated Financial Statements.

Recently Issued Accounting Pronouncements

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." The ASU is intended to provide temporary optional expedients and exceptions to the GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate (LIBOR) and other interbank-offered rates to alternative reference rates. This guidance became effective beginning on March 12, 2020, and we may elect to apply the amendments prospectively until December 31, 2024. As of December 31, 2022, we have not yet elected any optional expedients provided in the standard. We will apply the accounting relief, if necessary, as relevant contract and hedge accounting relationship modifications are made during the reference rate reform transition period. We do not expect this new standard to have a material impact on our Consolidated Financial Statements.

Note 4: Revenues

Disaggregation of Revenue

The following tables present our Net sales disaggregated by product line and geography.

	Years Ended December 31,					
In millions		2022		2021		2020
Performance Materials segment	\$	548.5	\$	516.8	\$	510.0
Performance Chemicals segment						
Pavement Technologies product line		241.3		195.4		186.8
Industrial Specialties product line		633.8		493.5		391.6
Engineered Polymers product line		244.7		185.8		127.7
Total	\$	1,119.8	\$	874.7	\$	706.1
Net sales	\$	1,668.3	\$	1,391.5	\$	1,216.1

The following table presents our Net sales disaggregated by geography, based on the delivery address of our customer.

	 Years Ended December 31,					
In millions	 2022		2021		2020	
North America	\$ 983.2	\$	763.3	\$	676.9	
Asia Pacific	398.7		385.5		345.4	
Europe, Middle East, and Africa	242.2		219.6		174.9	
South America	 44.2		23.1		18.9	
Net sales	\$ 1,668.3	\$	1,391.5	\$	1,216.1	

Contract Balances

The following table provides information about contract assets and contract liabilities from contracts with customers. The contract assets primarily relate to our rights to consideration for products produced but not billed at the reporting date from contracts with certain customers. The contract assets are recognized as accounts receivables when we have an enforceable right

to payment for performance completed to date and the customer has been billed. Contract liabilities represent obligations to transfer goods to a customer for which we have received consideration from our customer. For all periods presented, we had no contract liabilities.

	 Year Ended December 31,					
In millions	 2022		2021			
Contract asset at beginning of period	\$ 5.3	\$	5.7			
Additions	20.7		21.5			
Reclassification to accounts receivable, billed to customers	 (19.6)		(21.9)			
Contract asset at end of period (1)	\$ 6.4	\$	5.3			

⁽¹⁾ Included within "Prepaid and other current assets" on the consolidated balance sheet.

Note 5: Fair Value Measurements

Recurring Fair Value Measurements

The following information is presented for assets and liabilities that are recorded on the consolidated balance sheets at fair value measured on a recurring basis. There were no transfers of assets and liabilities that are recorded at fair value between the three-level fair value hierarchy during the periods reported.

In millions	Level 1 (1) Level 2 (2)		Level 3 (3)	Total			
December 31, 2022							
Assets:							
Deferred compensation plan investments (4)	\$	1.1	\$		\$ 	\$	1.1
Total assets	\$	1.1	\$		\$ 	\$	1.1
Liabilities:							
Deferred compensation arrangement (4)	\$	12.5	\$		\$ 	\$	12.5
Total liabilities	\$	12.5	\$		\$ 	\$	12.5
In millions	Leve	l 1 ⁽¹⁾]	Level 2 (2)	Level 3 (3)		Total
December 31, 2021							
Assets:							
Deferred compensation plan investments (4)	\$	0.9	\$	_	\$ _	\$	0.9
Total assets	\$	0.9	\$		\$ 	\$	0.9
Liabilities:							
Deferred compensation arrangement (4)	\$	13.7	\$	_	\$ _	\$	13.7
Contingent consideration (5)		_			0.8		0.8
Total liabilities	\$	13.7	\$		\$ 0.8	\$	14.5

⁽¹⁾ Quoted prices in active markets for identical assets.

⁽²⁾ Quoted prices for similar assets and liabilities in active markets.

⁽³⁾ Significant unobservable inputs.

⁽⁴⁾ Consists of a deferred compensation arrangement through which we hold various investment securities recognized on our balance sheets. Both the asset and liability related to investment securities are recorded at fair value and are included within "Other assets" and "Other liabilities" on the consolidated balance sheets, respectively. In addition to the investment securities, we also had company-owned life insurance related to the deferred compensation arrangement recorded at cash surrender value in "Other assets" of \$13.3 million and \$14.0 million at December 31, 2022 and 2021, respectively.

⁽⁵⁾ Included within "Other liabilities" on the consolidated balance sheet.

Nonrecurring Fair Value Measurements

There were no nonrecurring fair value measurements on the consolidated balance sheet during the year ended December 31, 2022 and 2021, respectively.

Strategic Investments

Equity Method Investments

During 2021 and 2022, we acquired two separate strategic investments in privately-held companies for \$16.5 million and \$14.6 million, respectively, which are both accounted for under the equity method of accounting. The carrying value of our strategic equity investments was \$28.2 million at December 31, 2022 and \$16.5 million at December 31, 2021. There were no adjustments to the carrying value of equity method investments for impairment for the periods ended, December 31, 2022 and 2021.

During 2022, we entered into an investment with a venture capital fund for \$0.8 million, which is accounted for under the equity method of accounting. As of December 31, 2022 and 2021, respectively, we had approximately \$6.7 million and zero of unfunded commitments, which we anticipate will be paid over a period of 10 years. The carrying value of our strategic equity investment was \$0.7 million and zero at December 31, 2022 and 2021, respectively.

Measurement Alternative Investments

During 2022, we invested \$62.0 million to acquire equity interests in two separate strategic investments, \$60.0 million of which was our investment in lithium-ion anode materials producer, Nexeon Limited. Both of these investments are accounted for under the measurement alternative method. During 2021, we acquired two strategic investments in privately-held companies for \$18.8 million. The aggregate carrying value of all measurement alternative investments where fair value is not readily determinable totaled \$80.9 million and \$18.8 million at December 31, 2022 and 2021, respectively. There were no adjustments to the carrying value of the measurement alternative method investments for impairment or observable price changes for the periods ended December 31, 2022 or 2021.

Restricted Investment

Our restricted investment is a trust managed in order to secure repayment of the finance lease obligation associated with Performance Materials' Wickliffe, Kentucky, manufacturing site at maturity. The trust, presented as a restricted investment on our consolidated balance sheets, purchased long-term bonds that mature in 2025 and 2026. The principal received at maturity of the bonds, along with interest income that is reinvested in the trust, are expected to be equal to or more than the \$80.0 million finance lease obligation that is due in 2027. Because the provisions of the trust provide us the ability, and it is our intent, to hold the investments to maturity, the investments held by the trust are accounted for as held to maturity ("HTM"); therefore, they are held at their amortized cost. The investments held by the trust earn interest at the stated coupon rate of the invested bonds. Interest earned on the investments held by the trust is recognized as interest income and presented within interest income on our consolidated statement of operations.

At December 31, 2022 and 2021, the carrying value of our restricted investment, which is accounted for as HTM and therefore held at amortized costs, was \$78.0 million and \$76.1 million, net of an allowance for credit losses of \$0.6 million and \$0.5 million and included cash of \$7.0 million and \$4.7 million, respectively. The fair value at December 31, 2022 and 2021 was \$74.7 million and \$80.0 million, respectively, based on Level 1 inputs.

The following table shows the total amortized cost of our HTM debt securities by credit rating, excluding the allowance for credit losses and cash. The primary factor in our expected credit loss calculation is the composite bond rating. As the rating decreases, the risk present in holding the bond is inherently increased, leading to an increase in expected credit losses.

	 HTM Debt Securities									
In millions	 AA+	AA	AA-	A	Α-	BBB+		Total		
December 31, 2022	\$ 13.4		10.5	13.2	14.1	20.4	\$	71.6		
December 31, 2021	\$ 13.4		10.6	13.3	14.1	20.5	\$	71.9		

Debt and Finance Lease Obligations

At December 31, 2022 and 2021, the carrying value of finance lease obligations was \$101.9 million and \$102.4 million, respectively, and the fair value was \$106.2 million and \$118.6 million, respectively. The fair value of our finance lease obligations is based on the period-end quoted market prices for the obligations, using Level 2 inputs. The fair value of all other finance lease obligations approximates their carrying values.

The carrying value, excluding debt issuance fees, of our variable rate debt was \$828.0 million and \$328.1 million as of December 31, 2022 and 2021, respectively. The carrying value is a reasonable estimate of the fair value of our outstanding debt as our outstanding debt is variable interest rate debt.

At December 31, 2022 and 2021, the carrying value of our fixed rate debt was \$550.0 million and \$850.0 million, respectively, and the fair value was \$471.8 million and \$843.9 million, respectively, based on Level 2 inputs.

Contingent Consideration

In connection with the acquisition of certain assets in 2020, we are contingently obligated to make an additional payment for such assets of up to an aggregate amount of \$7.0 million. The contingent consideration is payable if certain sales volume targets are achieved prior to the expiration on December 31, 2024, therein referred to as "Revenue Earn-out."

The fair value of the five-year Revenue Earn-out consideration was zero and \$0.8 million at December 31, 2022 and 2021, respectively. Any changes in the fair value of the contingent consideration liability are recorded in current period earnings as a selling, general, and administrative expense.

Note 6: Inventories, net

	Decem	ber 31,	
In millions	2022		2021
Raw materials	\$ 106.7	\$	48.8
Production materials, stores and supplies	27.9		26.8
Finished and in-process goods	 228.2		183.4
Subtotal	\$ 362.8	\$	259.0
Less: LIFO reserve	 (27.8)		(17.8)
Inventories, net	\$ 335.0	\$	241.2

As of December 31, 2022, approximately 47 percent, 8 percent, and 45 percent of our Inventories, net, were accounted for under the FIFO, average cost, and LIFO methods, respectively. As of December 31, 2021, approximately 38 percent, 11 percent, and 51 percent of our Inventories, net, were accounted for under the FIFO, average cost, and LIFO methods, respectively.

Note 7: Property, Plant, and Equipment, net

Property, plant, and equipment, net consist of the following:

		1,			
In millions		2022		2021	
Machinery and equipment	\$	1,162.7	\$	1,113.3	
Buildings and leasehold improvements		200.9		177.2	
Land and land improvements		24.9		20.4	
Construction in progress		120.9		64.4	
Total cost	\$	1,509.4	\$	1,375.3	
Less: accumulated depreciation		(710.8)		(655.6)	
Property, plant, and equipment, net (1)	\$	798.6	\$	719.7	

⁽¹⁾ This includes finance leases related to machinery and equipment of \$94.3 million and \$94.5 million, and net carrying value of \$25.2 million and \$27.7 million; buildings and leasehold improvements of \$39.6 million and \$29.0 million, and net carrying value of \$34.9 million and \$26.2 million; and construction in progress of zero and zero at December 31, 2022 and 2021, respectively. Amortization expense associated with these finance leases is included within depreciation expense. The payments remaining under these finance lease obligations are included within Note 13.

Depreciation expense was \$70.9 million, \$70.6 million, and \$61.2 million for the years ended December 31, 2022, 2021, and 2020, respectively.

Note 8: Goodwill and Other Intangible Assets, net

Goodwill

	Reporting Units						
In millions		Performance Chemicals Performance Materials			Total		
December 31, 2020	\$	441.0	\$	4.3	\$	445.3	
Foreign currency translation		(3.3)				(3.3)	
December 31, 2021	\$	437.7	\$	4.3	\$	442.0	
Foreign currency translation		(33.3)				(33.3)	
Goodwill acquired (1)		109.8				109.8	
December 31, 2022	\$	514.2	\$	4.3	\$	518.5	

⁽¹⁾ See Note 16 for more information about our acquisitions.

Other Intangible Assets

In millions	cont	ustomer tracts and tionships	Brands (1)	Developed Technology		Other		Total	
Gross Asset Value									
December 31, 2020	\$	319.5	\$ 82.4	\$	73.0	\$	2.7	\$ 477.6	
Retirements		_	_		_		(2.2)	(2.2)	
Foreign currency translation		(1.7)	 (0.7)	_	(0.8)			(3.2)	
December 31, 2021		317.8	81.7		72.2		0.5	472.2	
Acquisitions (2)		88.6	15.0		23.5		_	127.1	
Retirements		_	_		_		(0.5)	(0.5)	
Foreign currency translation	_	(17.9)	(7.5)		(7.2)			(32.6)	
December 31, 2022	\$	388.5	\$ 89.2	\$	88.5	\$		\$ 566.2	
Accumulated Amortization									
December 31, 2020	\$	(73.6)	\$ (15.8)	\$	(12.5)	\$	(2.4)	\$ (104.3)	
Amortization		(21.7)	(4.7)		(6.6)		(0.2)	(33.2)	
Retirements			_				2.1	2.1	
Foreign currency translation		0.3	 0.2		0.3			0.8	
December 31, 2021		(95.0)	(20.3)		(18.8)		(0.5)	(134.6)	
Amortization		(22.2)	(4.6)		(6.8)		_	(33.6)	
Retirements		_	_		_		0.5	0.5	
Foreign currency translation		3.4	 1.0		1.9			6.3	
December 31, 2022	\$	(113.8)	\$ (23.9)	\$	(23.7)	\$	_	\$ (161.4)	
Other intangibles, net (3)	\$	274.7	\$ 65.3	\$	64.8	\$		\$ 404.8	

⁽¹⁾ Represents trademarks, trade names, and know-how.

⁽²⁾ See Note 16 for more information about our acquisitions.

⁽³⁾ The weighted average amortization period remaining for all intangibles is 11.3 years, while the weighted average amortization period remaining for customer contracts and relationships, brands, and developed technology and other intangibles is 11.8 years, 12.3 years, 8.4 years, and zero years, respectively.

Intangible assets subject to amortization were allocated among our business segments as follows:

	_		l ,		
In millions			2022		2021
Performance Materials	-	\$	1.7	\$	1.9
Performance Chemicals	_		403.1		335.7
Other intangibles, net		\$	404.8	\$	337.6

The amortization expense related to our intangible assets in the table above is shown in the table below.

	Years Ended December 31,						
In millions		2022 2021			2020		
Cost of sales	\$	_	\$	_	\$	0.1	
Selling, general, and administrative expenses		33.6		33.2		32.5	
Total amortization expense	\$	33.6	\$	33.2	\$	32.6	

Based on the current carrying values of intangible assets, estimated pre-tax amortization expense for the next five years is as follows: 2023 - \$41.8 million, 2024 - \$41.5 million, 2025 - \$41.2 million, 2026 - \$40.5 million and 2027 - \$40.5 million. The estimated pre-tax amortization expense may fluctuate due to changes in foreign currency exchange rates.

Note 9: Financial Instruments and Risk Management

Net Investment Hedges

During 2022, we terminated our fixed-to-fixed cross-currency interest rate swaps, accounted for as net investment hedges, and received net proceeds of \$14.7 million. The proceeds are presented within cash provided by investing activities within the consolidated statement of cash flows. The \$14.7 million gain is reported as a component of the CTA within AOCI on the consolidated balance sheet. Gains on net investment hedges are reclassified to earnings only when the related CTA are required to be reclassified, usually upon the sale or liquidation of the investment.

The fair value of our net investment hedge was a net asset (liability) of zero and \$1.0 million at December 31, 2022 and December 31, 2021, respectively. During the years ended December 31, 2022, 2021, and 2020, we recognized net interest income associated with this financial instrument of \$1.1 million, \$0.5 million, and \$1.6 million, respectively.

Cash Flow Hedges

Foreign Currency Exchange Risk Management

We manufacture and sell our products in several countries throughout the world and thus, we are exposed to changes in foreign currency exchange rates. To manage the volatility relating to these exposures, we net the exposures on a consolidated basis to take advantage of natural offsets. To manage the remaining exposure, from time to time, we utilize forward currency exchange contracts and zero cost collar option contracts to minimize the volatility to earnings and cash flows resulting from the effect of fluctuating foreign currency exchange rates on export sales denominated in foreign currencies (principally the euro). These contracts are generally designated as cash flow hedges. Designated cash flow hedges entered to minimize foreign currency exchange risk of forecasted revenue transactions are recorded to Net sales on the consolidated statement of operations when the forecasted transaction occurs. As of December 31, 2022, there were \$16.9 million in open foreign currency derivative contracts. The fair value of the designated foreign currency hedge contracts was an asset (liability) of \$(0.5) million and \$0.5 million as of December 31, 2022 and 2021, respectively.

Commodity Price Risk Management

Certain energy sources used in our manufacturing operations are subject to price volatility caused by weather, supply and demand conditions, economic variables, and other unpredictable factors. This volatility is primarily related to the market pricing of natural gas. To mitigate expected fluctuations in market prices and the volatility to earnings and cash flow resulting from changes to the pricing of natural gas purchases, from time to time, we will enter into swap contracts and zero cost collar option contracts and designate these contracts as cash flow hedges. As of December 31, 2022, we had 1.4 million and 0.5 million mmBTUs (millions of British Thermal Units) in aggregate notional volume of outstanding natural gas commodity swap contracts and zero-cost collar option contracts, respectively, designated as cash flow hedges. As of December 31, 2022, open commodity contracts hedge forecasted transactions until December 2023. The fair value of the outstanding designated natural gas commodity hedge contracts was a net asset (liability) of \$(1.6) million and \$(0.6) million as of December 31, 2022 and 2021, respectively.

Interest Rate Risk Management

During the year, we had floating-to-fixed interest rate swaps with a combined notional amount of \$166.2 million to manage the variability of cash flows in the interest rate payments associated with our existing LIBOR-based interest payments, effectively converting \$166.2 million of our floating rate debt to a fixed rate. Per the terms of these instruments, we received floating rate interest payments based upon a three-month U.S. dollar LIBOR and in return, were obligated to pay interest at a fixed rate of 3.79 percent until July 2023. Due to the repayment of our term loan (refer to Note 10 for more information), during the second quarter of 2022, we terminated these interest rate swap instruments. Upon termination of the interest rate swap instruments, we reclassified a \$1.7 million gain from AOCI into Interest income on the consolidated statement of operations. The fair value of outstanding interest rate instruments at December 31, 2022 and December 31, 2021 was an asset (liability) of zero and \$(4.0) million, respectively.

Effect of Cash Flow and Net Investment Hedge Accounting on AOCI

In millions	Amount of Gain (Loss) Recognized in AOCI					Amount of Gain (Loss) Reclassified from AOCI into Net income						Location of Gain (Loss) Reclassified from AOCI into Net income	
				Y	ear	Ended	Dec	ember 3	1,				
		2022	2	2021		2020		2022		2021		2020	
Cash flow hedging derivatives													
Currency exchange contracts	\$	0.9	\$	0.8	\$	(0.1)	\$	2.0	\$	0.3	\$	(0.1)	Net sales
Natural gas contracts		4.4		1.6		(0.5)		6.5		0.7		(1.1)	Cost of sales
Interest rate swap contracts		5.8		4.8		(5.0)		1.7		_			Interest income
Total	\$	11.1	\$	7.2	\$	(5.6)	\$	10.2	\$	1.0	\$	(1.2)	
Amount of Gain (Loss) Recognized in Income on Derivative Amount of Gain (Loss) (Amount Excluded from Recognized in AOC1 Effectiveness Testing)								Location of Gain or (Loss) Recognized in Income on Derivative (Amount Excluded from Effectiveness Testing)					
	_					Ended							
		2022	2	2021	_	2020	_	2022		2021		2020	
Net investment hedging derivative													
Currency exchange contracts (1)	\$	13.9	\$	9.6	\$	(11.7)	\$	1.1	\$	0.5	\$	1.6	Interest income
Total	\$	13.9	\$	9.6	\$	(11.7)	\$	1.1	\$	0.5	\$	1.6	

⁽¹⁾ Reclassifications from AOCI to Net Income were zero for all periods presented. Gains and losses would be reclassified from AOCI to Other (income) expense, net.

Within the next twelve months, we expect to reclassify \$1.7 million of losses from AOCI to earnings before taxes.

Fair-Value Measurements

The following information is presented for derivative assets and liabilities that are recorded on the consolidated balance sheets at fair value measured on a recurring basis. There were no transfers of assets and liabilities that were recorded at fair value between Level 1 and Level 2 during the periods reported. There were no non-recurring fair value measurements related to derivative assets and liabilities on our consolidated balance sheet during the fiscal years ending December 31, 2022, 2021, or 2020, respectively.

	December 31, 2022								
In millions	Le	vel 1 ⁽¹⁾	Le	vel 2 (2)	Le	evel 3 ⁽³⁾	Total		
Liabilities:									
Natural gas contracts (6)	\$	_	\$	1.6	\$	_	\$	1.6	
Currency exchange contracts (6)				0.5				0.5	
Total liabilities	\$		\$	2.1	\$		\$	2.1	
				December					
In millions	Le	vel 1 (1)	Lev	vel 2 (2)	Le	evel 3 (3)		Total	
Assets:									
Currency exchange contracts (4)	\$	_	\$	0.5	\$	_	\$	0.5	
Net investment hedge (5)				2.0				2.0	
Total assets	\$		\$	2.5	\$		\$	2.5	
Liabilities:									
Natural gas contracts (6)	\$	_	\$	0.6	\$	_	\$	0.6	
Net investment hedge (7)				1.0				1.0	
Interest rate swap contracts (7)				4.0				4.0	
Total liabilities	\$		\$	5.6	\$		\$	5.6	

⁽¹⁾ Quoted prices in active markets for identical assets.

⁽²⁾ Quoted prices for similar assets and liabilities in active markets.

⁽³⁾ Significant unobservable inputs.

⁽⁴⁾ Included within "Other current assets" on the consolidated balance sheet.

⁽⁵⁾ Included within "Other assets" on the consolidated balance sheet.

⁽⁶⁾ Included within "Accrued expenses" on the consolidated balance sheet.

⁽⁷⁾ Included within "Other liabilities" on the consolidated balance sheet.

Note 10: Debt, including Finance Lease Obligations

Current and long-term debt including finance lease obligations consisted of the following:

	December 31,						
In millions, except percentages		2022		2021			
Revolving Credit Facility and other lines of credit (1)	\$	828.0	\$	_			
Term Loan		_		328.1			
3.88% Senior Notes due 2028		550.0		550.0			
4.50% Senior Notes due 2026		_		300.0			
Finance lease obligations (2)		101.9		102.4			
Total debt including finance lease obligations	\$	1,479.9	\$	1,280.5			
Less: debt issuance costs		6.5		10.9			
Total debt including finance lease obligations, net of debt issuance costs	\$	1,473.4	\$	1,269.6			
Less: debt maturing within one year (3)		0.9		19.6			
Long-term debt including finance lease obligations	\$	1,472.5	\$	1,250.0			

⁽¹⁾ Letters of credit outstanding under the revolving credit facility were \$2.3 million and \$2.5 million and available funds under the facility were \$169.7 million and \$497.5 million at December 31, 2022 and 2021, respectively.

Revolving Credit Facility

On June 23, 2022, we entered into an Amendment and Restatement Agreement (the "Amendment") together with the other parties named therein, which amends and restates our existing credit agreement, dated as of March 7, 2016, as amended, supplemented or otherwise modified.

Among other things, the Amendment (a) extends the maturity date from October 28, 2025 to June 23, 2027 and increases the aggregate principal amount of revolving commitments thereunder from \$500 million to \$1 billion, (b) adds Ingevity UK as a borrower under the revolving credit facility, and (c) modifies certain leverage ratio tests and thresholds.

Borrowings under the revolving credit facility bear interest at a rate per annum equal to either (a) the applicable term benchmark rate, subject to a zero floor, or (b) a base rate, in each case, plus an applicable margin of 1 percent to 1.75 percent for term benchmark loans and 0.00 percent to 0.75 percent for base rate loans.

Fees of \$3.0 million, zero, and \$2.2 million were incurred in 2022, 2021, and 2020, respectively, to secure the various amendments associated with our revolving credit facility. These fees have been deferred and will be amortized over the term of the facility.

Term Loan Repayment

On the closing date of the Amendment, we repaid our outstanding term loan in an aggregate principal amount of \$323.0 million. Upon repayment, we recognized \$1.3 million in outstanding interest and \$0.4 million in repayment fees and accelerated the remaining deferred finance fees of \$0.4 million. The interest, fees, and accelerated deferred finance fees were recorded to Interest expense on the consolidated statements of operations. Legal expenses associated with this repayment have been recorded as incurred.

⁽²⁾ Refer to Note 13 for more information.

⁽³⁾ Debt maturing within one year is included within "Notes payable and current maturities of long-term debt" on the consolidated balance sheet.

Senior Notes

Senior Note due 2026

On April 27, 2022, we redeemed the \$300 million outstanding aggregate principal balance of our 4.50% Senior Notes due in 2026 prior to maturity. The redemption was primarily funded utilizing the outstanding capacity under our revolving credit facility. At redemption, we recognized a \$3.4 million redemption premium and accelerated the remaining deferred finance fees of \$2.7 million. Both the redemption premium and accelerated deferred finance fees were recorded to Interest expense on the consolidated statements of operations. Legal expenses associated with this redemption have been recorded as incurred.

Senior Note due 2028

On October 28, 2020, we issued \$550 million aggregate principal amount of 3.88% senior unsecured notes due 2028 (the "2028 Notes"). The 2028 Notes were issued pursuant to an indenture dated as of October 28, 2020, by and among Ingevity, the subsidiary guarantors party thereto and U.S. Bank National Association, as trustee.

The net proceeds from the sale of the 2028 Notes, after deducting deferred financing fees of \$8.8 million, were used to repay the existing term loan and the outstanding balances under our revolving credit facility.

Interest payments on the 2028 Notes are due semiannually in arrears on November 1st and May 1st of each year, beginning on May 1, 2021, at a rate of 3.88 percent per year. The 2028 Notes will mature on November 1, 2028.

At any time prior to November 1, 2023, the Issuer may, on any one or more occasions, redeem up to 40 percent of the original aggregate principal amount of Notes (calculated after giving effect to any issuance of Additional Notes) issued under the Indenture, upon not less than 10 nor more than 60 days notice to holders of Notes (with a copy to the Trustee), at a redemption price equal to 103.875 percent of the principal amount of the Notes redeemed, plus accrued but unpaid interest.

Debt Covenants

Our indentures contain certain customary covenants (including covenants limiting Ingevity's and its restricted subsidiaries' ability to grant or permit liens on certain property securing debt, declare or pay dividends, make distributions on or repurchase or redeem capital stock, make investments in unrestricted subsidiaries, engage in sale and lease-back transactions, and engage in a consolidation or merger, or sell, transfer or otherwise dispose of all or substantially all of the assets of Ingevity and our restricted subsidiaries, taken as a whole) and events of default (subject in certain cases to customary exceptions, as well as grace and cure periods). The occurrence of an event of default under the 2028 Senior Notes could result in the acceleration of the note of such series and could cause a cross-default resulting in the acceleration of other indebtedness of Ingevity and its subsidiaries. We were in compliance with all covenants under the indenture as December 31, 2022.

The credit agreements governing our revolving credit facility contain customary default provisions, including defaults for non-payment, breach of representations and warranties, insolvency, non-compliance with covenants and cross-defaults to other material indebtedness. The occurrence of an uncured event of default under the credit agreement could result in all loans and other obligations becoming immediately due and payable and our revolving credit facility being terminated. The credit agreement also contains certain customary covenants, including financial covenants. The revolving credit facility financial covenants require Ingevity to maintain on a consolidated basis a maximum total net leverage ratio of 4.0 to 1.0 (which may be increased to 4.5 to 1.0 under certain circumstances) and a minimum interest coverage ratio of 3.0 to 1.0. As calculated per the credit agreement, our net leverage for the four consecutive quarters ended December 31, 2022 were 2.5 and our actual interest coverage for the four consecutive quarters ended December 31, 2022 were in compliance with all covenants at December 31, 2022.

Note 11: Share-based Compensation

Equity Incentive Plan

The Ingevity Corporation 2016 Omnibus Incentive Plan, adopted on May 15, 2016, grants certain corporate officers, key employees, and non-employee directors of Ingevity and subsidiaries different forms of benefits, including stock options, RSU, DSU, and PSU. The Ingevity Corporation 2016 Omnibus Incentive Plan has a maximum shares reserve of 4,000,000 for the grant of equity awards. As of December 31, 2022, 2,930,182 shares under the Ingevity Corporation 2016 Omnibus Incentive Plan are still available for grants, assuming that Ingevity performs at the target performance level in each year of the three-year performance period for PSU awards. The Leadership Development and Compensation Committee of Ingevity's Board of Directors ("Compensation Committee") determines the long-term incentive mix, including stock options, RSUs, and PSUs, and may authorize new grants annually. We typically issue new common shares for the vesting of awards under our equity incentive plan.

Employee Stock Purchase Plan

On December 9, 2016, our Compensation Committee and Board of Directors approved the 2017 Ingevity Corporation Employee Stock Purchase Plan ("ESPP"), which was approved by Ingevity's stockholders on April 27, 2017. The ESPP allows eligible employee participants to purchase no more than 5,000 shares of our common stock at a discount through payroll deductions up to 15 percent of their compensation deducted during the purchase period. However, no participant shall be permitted to purchase common stock with a value greater than \$25,000 in any calendar year. The ESPP is a tax-qualified plan under Section 423 of the Internal Revenue Code. The ESPP consists of a one-month enrollment period preceding the three-month purchase period. Employees purchase shares in each purchase period at 85 percent of the market value of our common stock at either the beginning of the offering period or the end of the purchase period, whichever price is lower.

Under the ESPP, a total of 250,000 shares of Ingevity's common stock are reserved and authorized for issuance to participating U.S. employees, as defined by the ESPP, which excludes certain officers of Ingevity. We typically issue treasury shares for issuances under the ESPP. As of December 31, 2022, 56,873 shares under the ESPP are still available for issuance. The initial offering period under the ESPP began on July 1, 2017. During fiscal year 2022, there were 48,389 shares issued under the ESPP at an average price of \$58.93.

Our share-based compensation and ESPP expense is included in the table below.

	Years Ended December 31,							
In millions		2022		2021		2020		
Stock option expense	\$	1.5	\$	1.7	\$	0.6		
ESPP expense		0.7		0.6		0.5		
RSU, DSU and PSU expense		13.9		10.0		7.3		
Total share-based compensation expense (1)	\$	16.1	\$	12.3	\$	8.4		
Income tax benefit		(3.1)		(2.3)		(1.5)		
Total share-based compensation expense, net of tax	\$	13.0	\$	10.0	\$	6.9		

⁽¹⁾ Amounts reflected in "Selling, general, and administrative expenses" on the consolidated statements of operations.

Stock Options

All stock options vest in accordance with vesting conditions set by the Compensation Committee. Stock options granted to date have vesting periods of one to three years from the date of grant. Incentive and non-qualified options granted under the Plan expire no later than 10 years from the grant date. Expense related to stock options granted is based on the assumptions shown in the table below:

	 Years Ended December 31,					
Weighted-average assumptions used to calculate expense for stock options	2022		2021		2020	
Risk-free interest rate	1.8 %)	1.0 %)	1.0 %	
Average life of options (years)	6.0		6.5		6.5	
Volatility	40.0 %)	46.0 %	,)	33.5 %	
Dividend yield			_		_	
Fair value per stock option	\$ 28.80	\$	33.07	\$	15.87	

The following table summarizes Ingevity's stock option activity.

	Number of Options (in thousands)	Weighted- average exercise price (per share)	Weighted- average remaining contractual term (years)	intri	ggregate nsic value housands)
Outstanding, December 31, 2021	338	\$ 61.34	6.7	\$	5,366
Granted	74	68.23			
Exercised	(33)	46.79			
Forfeited	(44)	69.94			
Cancelled					
Outstanding, December 31, 2022	335	\$ 63.18	6.1	\$	4,100
Exercisable, December 31, 2022	224	\$ 61.94	4.9	\$	3,568

The aggregate intrinsic values in the table above represent the total pre-tax intrinsic value (the difference between Ingevity's closing stock price on the last trading day of the period and the exercise price, multiplied by the number of in-themoney options) that would have been received by the option holders had all option holders exercised their in-the-money options at each year end. The amount changes based on the fair market value of Ingevity's stock.

As of December 31, 2022, \$1.1 million of total unrecognized compensation expense related to stock options is expected to be recognized over a weighted-average period of one year.

Restricted Stock Units, Deferred Stock Units, and Performance-based Restricted Stock Units

All RSUs, DSUs, and PSUs vest in accordance with vesting conditions set by the Compensation Committee. RSUs and DSUs granted to date have vesting periods ranging from less than one year to three years from the date of grant. PSUs granted to date have vesting periods of three years from the date of grant, including grants that have a cumulative three-year performance period, subject to the satisfaction of the applicable performance goals established for the respective grant. We periodically assess the probability of achievement of the performance criteria and adjust the amount of compensation expense accordingly. Compensation expense is recognized over the vesting period and adjusted for the probability of achievement of the performance criteria.

The following table summarizes Ingevity's RSUs, DSUs, and PSUs activity.

	RSUs an	nd DSUs	PSUs					
	Number of Units (in thousands) (1)	Weighted average grant date fair value (per share)	Number of Units (in thousands) ⁽¹⁾	Weighted average grant date fair value (per share)				
Nonvested, December 31, 2021	243	\$ 67.36	166	\$ 65.91				
Granted	179	66.42	83	68.23				
Vested	(95)	71.62	_	_				
Forfeited	(26)	63.32	(56)	82.96				
Nonvested, December 31, 2022 (2)	301	\$ 6.04	193	\$ 61.88				

⁽¹⁾ The number granted represents the number of shares issuable upon vesting of RSUs and DSUs. For PSUs, the number granted represents the number of shares issuable upon vesting, assuming that Ingevity performs at the target performance level in each year of the three-year performance period.

⁽²⁾ Excludes 5,715 non-employee director shares that were vested but unissued at December 31, 2022.

As of December 31, 2022, \$15.6 million of unrecognized share-based compensation expense related to RSUs, DSUs and PSUs is expected to be recognized over a weighted-average period of 1.2 years.

Note 12: Equity

Accumulated other comprehensive income (loss)

Summarized below is the roll forward of AOCI, net of tax.

	Years Ended December					er 31,		
In millions		2022		2021		2020		
Foreign currency translation								
Beginning balance	\$	18.4	\$	16.4	\$	1.5		
Net gains (losses) on foreign currency translation		(74.9)		(5.3)		23.9		
Gains (losses) on net investment hedges		13.9		9.6		(11.7)		
Less: tax provision (benefit)		3.2		2.3		(2.7)		
Net gains (losses) on net investment hedges		10.7		7.3		(9.0)		
Other comprehensive income (loss), net of tax		(64.2)		2.0		14.9		
Ending balance	\$	(45.8)	\$	18.4	\$	16.4		
Derivative instruments								
Beginning balance	\$	(2.1)	\$	(6.9)	\$	(3.5)		
Gains (losses) on derivative instruments		11.1		7.2		(5.6)		
Less: tax provision (benefit)		2.6		1.7		(1.3)		
Net gains (losses) on derivative instruments		8.5		5.5		(4.3)		
(Gains) losses reclassified to net income		(10.2)		(1.0)		1.2		
Less: tax (provision) benefit		(2.4)		(0.3)		0.3		
Net (gains) losses reclassified to net income		(7.8)		(0.7)		0.9		
Other comprehensive income (loss), net of tax		0.7		4.8		(3.4)		
Ending balance	\$	(1.4)	\$	(2.1)	\$	(6.9)		
Pension and other postretirement benefits								
Beginning balance	\$	(3.2)	\$	(4.8)	\$	(3.0)		
Unrealized actuarial gains (losses) and prior service (costs) credits		4.4		1.9		(2.7)		
Less: tax provision (benefit)		1.0		0.4		(0.6)		
Net actuarial gains (losses) and prior service (costs) credits		3.4		1.5		(2.1)		
Amortization of actuarial and other (gains) losses, prior service cost (credits), and settlement and curtailment (income) charge reclassified to net income		0.3		0.2		0.3		
Less: tax (provision) benefit		0.1		0.1				
Net actuarial and other (gains) losses, amortization of prior service cost (credits), and settlement and curtailment (income) charge reclassified to net income		0.2		0.1		0.3		
Other comprehensive income (loss), net of tax		3.6		1.6		(1.8)		
Ending balance	\$	0.4	\$	(3.2)	\$	(4.8)		
Total AOCI ending balance at December 31	\$	(46.8)	\$	13.1	\$	4.7		

Reclassifications of accumulated other comprehensive income (loss)

The table below provides details about the reclassifications from AOCI and the affected line items on the consolidated statement of operations for each of the periods presented.

	Years Ended December 31,					,
In millions		2022	_	2021		2020
Derivative Instruments						
Currency exchange contracts (1)	\$	2.0	\$	0.3	\$	(0.1)
Natural gas contracts (2)		6.5		0.7		(1.1)
Interest rate swaps (4)		1.7				
Total before tax		10.2		1.0		(1.2)
(Provision) benefit for income taxes		(2.4)		(0.3)		0.3
Amount included within net income (loss)	\$	7.8	\$	0.7	\$	(0.9)
Pension and other postretirement benefits						
Amortization of prior service credit (costs) (2)	\$	(0.1)	\$	(0.1)	\$	(0.1)
Amortization of unrecognized net actuarial and other gains (losses) (3)		_		(0.1)		(0.1)
Recognized gain (loss) due to curtailment and settlement (2)		(0.2)		_		(0.1)
Total before tax		(0.3)		(0.2)		(0.3)
(Provision) benefit for income taxes		0.1		0.1		
Amount included within net income (loss)	\$	(0.2)	\$	(0.1)	\$	(0.3)

⁽¹⁾ Included within "Net sales" on the consolidated statements of operations.

Share Repurchases

On July 25, 2022, our Board of Directors authorized the repurchase of up to \$500.0 million of our common stock (the "2022 Authorization"), and rescinded the prior outstanding repurchase authorization with respect to the shares that remained unused under the prior authorization. Shares under the current repurchase authorization may be purchased through open market or privately negotiated transactions at the discretion of management based on its evaluation of market prevailing conditions and other factors, including through the use of trading plans intended to qualify under Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

During the year ended December 31, 2022, we repurchased \$145.2 million in common stock, representing 2,112,463 shares of our common stock at a weighted average cost per share of \$68.73. At December 31, 2022, \$444.7 million remained unused under our Board-authorized repurchase program. During the year ended December 31, 2021 and 2020, we repurchased \$109.4 million and \$88.0 million in common stock, representing 1,421,379 and 1,533,442 shares of our common stock at a weighted average cost per share of \$76.98 and \$57.38, respectively.

⁽²⁾ Included within "Cost of sales" on the consolidated statements of operations.

⁽³⁾ Included within "Other (income) expense, net" on the consolidated statements of operations.

⁽⁴⁾ Included within "Interest income" on the consolidated statements of operations.

Note 13: Leases

We have both operating and finance leases, with the majority being operating lease agreements related to rail cars, tanks, equipment, and real estate. Supplemental consolidated balance sheet information related to our leases is as follows:

		 December 31,							
In millions	Financial Statement Caption	2022		2021					
Assets									
Operating lease assets, net (1)	Operating lease assets, net	\$ 56.6	\$	52.4					
Finance lease assets, net (2)	Property, plant, and equipment, net	60.1		53.9					
Finance lease assets, net (2)	Other assets, net	0.1		0.3					
Total lease assets		\$ 116.8	\$	106.6					
Liabilities									
Current									
Operating lease liabilities (3)	Current operating lease liabilities	\$ 16.5	\$	17.4					
Finance lease liabilities	Notes payable and current maturities of long-term debt	0.9		0.8					
Noncurrent									
Operating lease liabilities	Noncurrent operating lease liabilities	40.8		36.2					
Finance lease liabilities	Long-term debt including finance lease obligations	101.0		101.6					
Total lease liabilities		\$ 159.2	\$	156.0					

⁽¹⁾ Operating lease assets, net are recorded net of accumulated amortization of \$40.8 million, and \$35.5 million as of December 31, 2022, and 2021, respectively.

Finance Leases

Our finance lease obligations of \$101.9 million, and \$102.4 million at December 31, 2022 and 2021, respectively, primarily consist of three leases. The first obligation of \$80.0 million, at December 31, 2022, is owed to the city of Wickliffe, Kentucky, associated with Performance Materials' Wickliffe, Kentucky, manufacturing site, which is due at maturity in 2027. The second obligation of \$21.6 million, at December 31, 2022, is owed to the lessor of our corporate headquarters in North Charleston, South Carolina. The lease commenced in July 2020, with a term of 15 years. The third obligation of \$0.3 million, at December 31, 2022, is owed to the Industrial Development Board of the city of Greenville, Alabama, associated with Performance Chemicals' Greenville, Alabama, manufacturing site, which is due to mature in 2028.

We also have a finance lease obligation due in 2031 for certain assets located at our Performance Materials' Waynesboro, Georgia, manufacturing facility. The lease is with the Development Authority of Burke County ("Authority"). The Authority established the sale-leaseback of these assets by issuing an industrial development revenue bond. The bond was purchased by Ingevity and the obligations under the finance lease remain with Ingevity. Accordingly, we offset the finance lease obligation and bond on our consolidated balance sheets.

⁽²⁾ Finance lease assets, net are recorded net of accumulated amortization in Property, plant, and equipment, net and Other assets, net of \$73.8 million and \$1.4 million, as of December 31, 2022, and \$69.6 million and \$1.3 million, as of December 31, 2021.

⁽³⁾ Operating lease liabilities include \$0.2 million, and \$0.2 million of accrued interest, as of December 31, 2022 and 2021, respectively.

Components of lease cost are as follows:

			Yea	rs E	nded Decembe	r 31,	
In millions	illions Financial Statement Caption					2020	
Operating lease cost (1)	Cost of sales	\$	19.9	\$	19.5	\$	19.4
	Selling, general, and administrative expenses		1.4		1.4		1.9
Finance lease cost							
Amortization of leased assets	Cost of sales	\$	3.0	\$	3.3	\$	2.6
	Selling, general, and administrative expenses		1.6		1.6		0.8
Interest on lease liabilities	Interest expense, net		7.5		7.5		6.8
Net lease cost (2)		\$	33.4	\$	33.3	\$	31.5

⁽¹⁾ Includes short-term leases and variable lease costs, which are immaterial.

Maturity of Lease Liabilities

December 31, 2022								
0	perating leases	Fina	nce leases		Total			
\$	18.8	\$	8.3	\$	27.1			
	15.5		8.4		23.9			
	11.8		8.4		20.2			
	8.2		8.5		16.7			
	5.8		85.5		91.3			
	3.9		19.6		23.5			
\$	64.0	\$	138.7	\$	202.7			
	6.7		36.8		43.5			
\$	57.3	\$	101.9	\$	159.2			
	\$	Operating leases \$ 18.8 15.5 11.8 8.2 5.8 3.9 \$ 64.0 6.7	Operating leases Fina \$ 18.8 \$ 15.5 11.8 8.2 5.8 3.9 \$ \$ 64.0 \$ 6.7 \$	Operating leases Finance leases \$ 18.8 \$ 8.3 15.5 8.4 11.8 8.4 8.2 8.5 5.8 85.5 3.9 19.6 \$ 64.0 \$ 138.7 6.7 36.8	Operating leases Finance leases \$ 18.8 \$ 8.3 \$ 15.5 8.4 \$ 11.8 8.4 \$ 8.2 8.5 \$ 5.8 85.5 \$ 3.9 19.6 \$ \$ 64.0 \$ 138.7 \$ 6.7 36.8 \$			

⁽¹⁾ As of December 31, 2022, we have zero operating lease commitments that have not yet commenced related to manufacturing and office equipment leases.

Lease Term and Discount Rate

	Decembe	er 31,
In millions, except percentages	2022	2021
Weighted-average remaining lease term (years)		
Operating leases	4.4	4.1
Finance leases	12.4	6.9
Weighted-average discount rate		
Operating leases	5.16 %	4.97 %
Finance leases	7.19 %	7.18 %

⁽²⁾ Only on the rare occasion do we sublease our leased assets; as a result, this amount excludes sublease income which is immaterial.

Other Information

		Yea	rs End	ed Decembe	r 31,	
In millions		2022		2021		2020
Cash paid for amounts included in the measurement of lease liabilities:						
Operating cash flows from operating leases	\$	18.8	\$	20.5	\$	18.5
Operating cash flows from finance leases		7.5		7.5		6.8
Financing cash flows from finance leases		0.9		0.7		0.7

Note 14: Retirement Plans

Defined Contribution Plans

Eligible employees may participate in our retirement savings plan ("Plan"), a qualified salary-reduction plan under Section 401(k) of the U.S. Internal Revenue Code by contributing a portion of their compensation. For non-union eligible employees participating in the Plan, Ingevity makes matching contributions up to six percent of the employee deferral. In addition to the matching contributions, Ingevity also makes a non-elective contribution of three percent of eligible compensation per payroll for non-union employees. For eligible union employees participating in the Plan, Ingevity makes matching contributions up to 100 percent of the first three percent of the employee deferrals and 50 percent on the next two percent of deferrals. Employee contributions, as well as Ingevity's match contributions, are made to funds designated by the participant, none of which are based on Ingevity's common stock.

Charges associated with employer contributions to the Plan were \$11.2 million, \$9.5 million, and \$10.6 million for the years ended December 31, 2022, 2021, and 2020, respectively.

Defined Benefit Pension and Postretirement Plans

Ingevity has both established qualified and non-qualified benefit plans to provide pension and post-retirement benefits to certain employees and retirees. Our retirement obligations consist of accrued defined benefit obligations earned by Ingevity domestic hourly union employees; accrued obligations from a frozen non-qualified defined benefit pension plan for certain salaried and former salaried employees of Ingevity; and other post-retirement medical and life insurance benefits.

We are required to recognize on our consolidated balance sheets the overfunded and underfunded status of our defined benefit postretirement plans. The overfunded and underfunded status is defined as the difference between the fair value of plan assets and the projected benefit obligation. We are also required to recognize, as a component of other comprehensive income, the actuarial gains and losses and the prior service costs and credits that arise during the period.

The following tables summarize the weighted average assumptions used and components of our defined benefit postretirement plans at December 31, 2022 and 2021.

		Pen	sions			fits		
				Decen	ıber .	31,		
In millions, except percentages		2022		2021		2022		2021
Following are the weighted average assumptions used to determine the benefit obligations at December 31:								
Discount rate - qualified benefit plans		5.00 %		2.75 %		— %	ı	— %
Discount rate - non-qualified benefit plans		5.00 %		2.65 %		4.90 %	ı	2.60 %
Rate of compensation increase		N/A		N/A		N/A		N/A
Change in projected benefit obligation								
Projected benefit obligation at January 1	\$	45.0	\$	45.0	\$	0.9	\$	1.0
Service cost		1.5		1.7		_		
Interest cost		1.2		1.1				_
Actuarial loss (gain)		(14.2)		(2.1)		(0.1)		(0.1)
Plan amendments		0.5		0.3		(0.1)		_
Benefit payments		(1.2)		(1.0)		_		_
Projected benefit obligation at December 31 (1)		32.8		45.0		0.7		0.9
Change in plan assets								
Fair value of plan asset at January 1		31.8		31.2		_		_
Actual return on plan assets		(7.8)		1.4				_
Company contributions		0.3		0.2		_		_
Benefit payments		(1.2)		(1.0)				_
Fair value of plan assets at December 31		23.1		31.8		_		_
Funded Status								
Net Funded Status of the Plan (Liability)	\$	(9.7)	\$	(13.2)	\$	(0.7)	\$	(0.9)
		Pen	sions			Other	Rene	fits
		Pensions Other Benefits December 31,						
In millions		2022		2021		2022		2021
Amount recognized on the consolidated balance sheets:		-		-	_	-		-
Pension and other postretirement benefit asset (2)	\$	_	\$	_	\$	_	\$	_
(2)	-		-		-		-	

Pension and other postretirement benefit (liability) (2)

Total Net Funded Status of the Plan (Liability)

(9.7)

(9.7)

(13.2)

(13.2)

(0.7)

(0.7)

(0.9)

(0.9)

⁽¹⁾ The accumulated benefit obligation for all years presented equals the projected benefit obligation for each plan, respectively.

⁽²⁾ Asset balance is included within "Other assets" and liability balances are included within "Other liabilities" on the consolidated balance sheet.

Amounts Recognized in Other Comprehensive Income (Loss)

Changes in plan assets and benefit obligations recognized in other comprehensive income (loss) are as follows:

				Years E	nded Decemb	er 31,			
		Pensions		0	ther Benefits			Total	
In millions	2022	2021	2020	2022	2021	2020	2022	2021	2020
Current year net actuarial loss (gain)	\$ (4.7)	\$ (2.1)	\$ 2.3	\$ (0.1)	\$ (0.1) \$	0.1	\$ (4.8)	\$ (2.2)	\$ 2.4
Current year prior service cost (credit)	0.5	0.3	0.3	(0.1)			0.4	0.3	0.3
Amortization of net actuarial (loss) gain and prior service (cost) credit	(0.1)	(0.2)	(0.2)	_	_	_	(0.1)	(0.2)	(0.2)
Settlement and curtailment (charges) income, net	(0.2)		(0.1)			_	(0.2)		(0.1)
Total recognized in other comprehensive (income) loss, before taxes	(4.5)	(2.0)	2.3	(0.2)	(0.1)	0.1	(4.7)	(2.1)	2.4
Total recognized in other comprehensive (income) loss, after taxes	\$ (3.4)	\$ (1.5)	\$ 1.7	\$ (0.2)	\$ (0.1) \$	8 0.1	\$ (3.6)	\$ (1.6)	\$ 1.8

Amounts Recognized in Accumulated Other Comprehensive Income (Loss)

The amounts in accumulated other comprehensive income (loss) that have not yet been recognized as components of net periodic benefit cost are as follows:

	December 31,													
	Pensions				Other Benefits					Total				
In millions		2022		2021		2022		2021		2022		2021		
Net actuarial (gain) loss	\$	(1.6)	\$	3.1	\$	(0.1)	\$	0.1	\$	(1.7)	\$	3.2		
Prior service cost (credit)		1.3		1.0		(0.1)		_		1.2		1.0		
Accumulated other comprehensive (income) loss, before taxes		(0.3)		4.1		(0.2)		0.1		(0.5)		4.2		
Accumulated other comprehensive (income) loss, after taxes	\$	(0.2)	\$	3.1	\$	(0.2)	\$	0.1	\$	(0.4)	\$	3.2		

Net Annual Benefit Costs Assumptions

The following table summarizes the weighted-average assumptions used for the components of net annual benefit cost:

	Years Ended December 31,										
		Pensions			Other Benefits	S					
In millions, except percentages	2022	2021	2020	2022	2021	2020					
Discount rate - qualified benefit plans (1)	2.75 %	2.45 %	3.15 %	— %	%	— %					
Discount rate - non-qualified benefit plans (1)	2.65 %	2.30 %	3.10 %	2.60 %	2.20 %	3.05 %					
Expected return on plan assets	5.50 %	4.50 %	4.50 %	N/A	N/A	N/A					
Components of net annual benefit cost:											
Service cost (2)	\$ 1.5	\$ 1.7	\$ 1.6	\$ —	\$ —	\$ —					
Interest cost (3)	1.2	1.1	1.2								
Expected return on plan assets (3)	(1.7)	(1.4)	(1.2)	_	_						
Amortization of prior service cost (2)	0.2	0.1	0.1								
Amortization of net actuarial and other (gain) loss (3)	_	0.1	0.1		_						
Recognized (gain) loss due to curtailments (4)	0.2		0.1								
Net annual benefit cost	\$ 1.4	\$ 1.6	\$ 1.9	\$ —	\$ —	\$ —					

⁽¹⁾ The discount rate used to calculate pension and other post-retirement obligations was based on a review of available yields on high-quality corporate bonds. In selecting a discount rate, we placed particular emphasis on a discount rate yield-curve provided by our third-party actuary, which takes into consideration the projected cash flows that represent the expected timing and amount of our plans' benefit payments.

Contributions

We made no voluntary cash contributions to our domestic hourly union defined benefit pension plan in the years ended December 31, 2022, 2021, and 2020. There are no required cash contributions to our domestic hourly union defined benefit pension plan in fiscal 2022, and we currently have no plans to make any voluntary cash contributions in fiscal 2022.

Fair Value Hierarchy

Following is a description of the valuation methodologies used for the investment measure at fair value. See Note 5 for the definition of fair value and the descriptions of Level 1, 2, and 3 in the fair value hierarchy.

- Cash and short-term funds Cash and quoted short-term instruments are valued at the closing price or the amount held on deposit by the custodian bank.
- Mutual Funds Mutual funds are valued at the closing price reported on the major market on which the individual securities are traded. Substantially all mutual funds are classified within Level 1 of the valuation hierarchy.
- Pooled Funds These investment vehicles are valued using the Net Asset Value (NAV) provided by the fund administrator. The NAV is based on the value of the underlying assets owned by the fund, minus its liabilities, and then divided by the number of shares outstanding.
- Other Other assets are represented by investments in a series limited partnership. These assets are not actively traded and are classified as Level 2.

⁽²⁾ Amounts are recorded to "Cost of sales" on our consolidated statements of operations consistent with the employee compensation costs that participate in the plan.

⁽³⁾ Amounts are recorded to "Other (income) expense, net" on our consolidated statements of operations.

⁽⁴⁾ Our pension and postretirement settlement and curtailment (income) charges are related to the acceleration of prior service costs as a result of a reduction in the number of participants within the Union Hourly defined benefit pension plan during 2022 and 2020.

The following table presents our fair value hierarchy for our major categories of pension plan assets by asset class.

In millions	ember 31, 2022	Level 1	Level 2	Level 3	Me	nvestments asured at Net Asset Value
Cash and short-term investments	\$ 0.2	\$ 0.2	\$ _	\$ _	\$	_
Mutual funds	6.7	6.7	_	_		_
Pooled funds	14.5	_	_	_		14.5
Other	1.7		1.7			_
Total assets	\$ 23.1	\$ 6.9	\$ 1.7	\$ 	\$	14.5

In millions	ember 31, 2021	Level 1	Level 2	Level 3	Me	nvestments asured at Net Asset Value
Cash and short-term investments	\$ 0.2	\$ 0.2	\$ _	\$ _	\$	_
Mutual funds	9.2	9.2	_			_
Pooled funds	20.3	_	_	_		20.3
Other	2.1		2.1			
Total assets	\$ 31.8	\$ 9.4	\$ 2.1	\$ 	\$	20.3

Estimated Future Benefit Payments

The following table reflects the estimated future benefit payments for our pension and other postretirement benefit plans. These estimates take into consideration expected future service, as appropriate.

In millions	Pensions	Other Benefits
2023	\$ 1.1	\$ —
2024	1.2	_
2025	1.4	_
2026	1.5	_
2027	1.6	_
2028-2032	10.2	0.2

Sensitivity Analysis

A one-half percent increase in the assumed discount rate would have decreased our qualified pension benefit obligations by \$2.0 million at December 31, 2022 and decreased our qualified pension benefit costs by \$(0.1) million for 2022. A one-half percent decrease in the assumed discount rate would have increased our qualified pension obligations by \$2.2 million at December 31, 2022 and increased our qualified pension benefit cost by \$0.2 million for 2022.

A one-half percent increase in the assumed expected long-term rate of return on plan assets would have decreased our qualified pension costs by \$0.2 million for 2022. A one-half percent decrease in the assumed expected long-term rate of return on plan assets would have increased our qualified pension costs by \$0.2 million for 2022.

Note 15: Restructuring and Other (Income) Charges, net

Detail on the restructuring charges and other (income) charges, net is provided below.

	Years Ended December 31,							
In millions	2022 2021 202					2020		
Severance and other employee-related costs (1)	\$	_	\$	0.1	\$	6.4		
Other (2)						2.1		
Restructuring charges		_		0.1		8.5		
Business transformation costs		13.8		16.1		10.0		
Other (income) charges, net		13.8		16.1		10.0		
Total Restructuring and other (income) charges, net	\$	13.8	\$	16.2	\$	18.5		

⁽¹⁾ Represents severance and employee benefit charges.

Other (income) charges, net

Business transformation costs

In 2020, we embarked upon a business transformation initiative that includes the implementation of an upgraded enterprise resource planning ("ERP") system. This new ERP system will equip our employees with standardized processes and secure integrated technology that enable us to better understand and meet our customers' needs and compete in the marketplace. The implementation of our new ERP is expected to occur in multiple phases over two years, beginning with our pilot deployment which occurred during the first quarter of 2022. This business transformation requires the integration of the new ERP system with multiple new and existing information systems and business processes in order to maintain the accuracy of our books and records and to provide our management team with real-time information important to the operation of our business. Such an implementation initiative is a major financial undertaking and requires substantial time and the attention of management and key employees. Costs incurred, during the years ended December 31, 2022, 2021, and 2020, of \$13.8 million, \$16.1 million, and \$10.0 million, respectively, represent costs directly associated with the business transformation initiative that, in accordance with GAAP, cannot be capitalized. Over the course of this initiative, which we expect to complete in 2023, we anticipate incurring approximately \$90-95 million of total costs, which includes \$45-50 million of non-capitalizable costs.

Restructuring Reserves

Restructuring reserves which are included within Accrued expenses on the consolidated balance sheets were \$0.5 million and \$0.5 million at December 31, 2022 and 2021, respectively.

⁽²⁾ Primarily represents costs associated with an impairment of an operating lease asset that is no longer in use and other miscellaneous exit costs.

Note 16: Acquisitions

Ozark Materials

On October 3, 2022, we completed our acquisition of Ozark Materials, LLC ("OM"), and Ozark Logistics, LLC ("OL" and, together with OM, "Ozark Materials"), pursuant to that certain Equity Purchase Agreement (the "Purchase Agreement"), by and among Ingevity, Ozark Materials and Ozark Holdings, Inc. ("Seller"). In accordance with the Purchase Agreement, we acquired from Seller, all of the issued and outstanding limited liability company membership interests of Ozark Materials for a purchase price of \$325.0 million, subject to customary adjustments for working capital, indebtedness and transaction expenses (the "Acquisition"). The Acquisition is being integrated into our Performance Chemicals segment and is included within our Pavement Technologies product line. We funded the Acquisition through a combination of borrowings under our existing credit facilities and cash on hand.

The Acquisition is not considered significant to our Consolidated Financial Statements for the year ended December 31, 2022; therefore, proforma results of operations have not been presented.

Preliminary Purchase Price Allocation

Ozark Materials is considered an acquisition of a business under business combinations accounting guidance, and therefore we applied acquisition accounting. Acquisition accounting requires, among other things, that assets acquired and liabilities assumed be recognized at their fair values as of the acquisition date. The aggregate purchase price noted above was allocated to the major categories of assets acquired and liabilities assumed based upon their estimated fair values at the acquisition date using primarily Level 2 and Level 3 inputs. These Level 2 and Level 3 valuation inputs include an estimate of future cash flows and discount rates. Additionally, estimated fair values are based, in part, upon outside appraisals for certain assets, including specifically-identified intangible assets. See Note 5 for an additional explanation of Level 2 and Level 3 inputs.

The allocation of the purchase price to the assets acquired and liabilities assumed, including the residual amount allocated to goodwill, is based upon preliminary information and is subject to change within the measurement period (up to one year from the acquisition date) as additional information concerning final asset and liability valuations is obtained. During the measurement period, if new information is obtained about facts and circumstances that existed as of the acquisition date that, if known, would have resulted in revised estimated values of those assets or liabilities as of that date, we will revise the preliminary purchase price allocation. The effect of measurement period adjustments to the estimated fair values will be reflected as if the adjustments had been completed on the acquisition date. The impact of all changes that do not qualify as measurement period adjustments will be included in current period earnings.

Preliminary Purchase Price Allocation

In millions	Weighted Average Amortization Period	Fair Value
Cash and cash equivalents	\$	8.0
Accounts receivable		28.7
Inventories (1)		48.4
Prepaid and other current assets		2.0
Property, plant and equipment		43.1
Intangible assets (2)		
Brands	10 years	15.0
Customer relationships	15 years	88.6
Developed technology	7 years	23.5
Goodwill (3)		109.8
Other assets, including operating leases		0.1
Total fair value of assets acquired	\$	367.2
Accounts payable		13.9
Other liabilities		2.6
Total fair value of liabilities assumed	\$	16.5
Less: Cash acquired		(8.0)
Plus: Amounts due from Seller		1.8
Total cash paid, less cash and restricted cash acquired	\$	344.5

⁽¹⁾ Fair value of finished goods inventories acquired included a step-up in the value of \$1.8 million, of which \$0.9 million was expensed in the year ended December 31, 2022. The expense is included within "Cost of sales" on the consolidated statement of operations. Inventories are accounted for on a LIFO basis of accounting.

Acquisition and other-related costs

Costs incurred to complete and integrate acquisitions and other strategic investments are expensed as incurred on our consolidated statement of operations. The following table summarizes the costs incurred associated with these combined activities.

	Years Ended December 31,							
In millions		2022 2021 20						
Legal and professional service fees	\$	5.0	\$	0.6	\$	1.8		
Acquisition-related costs		5.0		0.6		1.8		
Inventory fair value step-up amortization (1)		0.9				_		
Acquisition and other-related costs	\$	5.9	\$	0.6	\$	1.8		

⁽¹⁾ Included within "Cost of sales" on the consolidated statement of operations.

⁽²⁾ The aggregate amortization expense was \$2.7 million for the year ended December 31, 2022. Estimated amortization expense is as follows: 2023 - \$10.9 million, 2024 - \$10.9 million, 2025 - \$10.7 million, 2026 - \$10.0 million, and 2027 - \$10.0 million.

⁽³⁾ Goodwill largely consists of expected cost synergies and economies of scale resulting from the business combination. We expect the full amount to be deductible for income tax purposes. This acquired goodwill has been included within our Performance Chemicals reporting unit. See Note 8 for further information regarding our allocation of goodwill among our reporting segments.

Note 17: Income Taxes

Domestic and foreign components of Income (loss) before income taxes are shown below:

	 Years Ended December 31,						
In millions	 2022 2021 2						
Domestic	\$ 200.0	\$	107.4	\$	191.2		
Foreign	 69.6		55.4		43.9		
Income (loss) before income taxes	\$ 269.6	\$	162.8	\$	235.1		

The provision (benefit) for income taxes consisted of:

		Years Ended December 31,								
In millions	_	2022	2021		2020					
Current										
Federal	\$	41.7	\$ 31.1	\$	22.5					
State and local		6.3	2.7		5.1					
Foreign	_	15.0	15.5		9.9					
Total current	\$	63.0	\$ 49.3	\$	37.5					
Deferred										
Federal	\$	(4.6)	\$ (15.3)	\$	15.3					
State and local		(1.7)	(1.6))	(2.7)					
Foreign	_	1.3	12.3		3.6					
Total deferred	\$	(5.0)	\$ (4.6)	\$	16.2					
Provision (benefit) for income taxes	\$	58.0	\$ 44.7	\$	53.7					

We recorded \$4.5 million, \$4.2 million, and \$(4.3) million of deferred tax provision (benefit) expense within components of other comprehensive income during the years ended December 31, 2022, 2021, and 2020, respectively.

The following table summarizes the major differences between taxes computed at the U.S. federal statutory rate and the actual income tax provision attributable to operations:

	Years Ended December 31,						
In millions, except percentage data		2022 2021			2020		
Federal statutory tax rate	\$	56.6	\$	34.2	\$	49.4	
State and local income taxes, net of federal benefit		5.6		2.4		5.1	
Foreign income tax rate differential		2.2		2.2		1.5	
Changes in valuation allowance		0.1		0.8		(1.9)	
Deferred adjustments		0.1		0.3		(1.4)	
Legislative tax rate change		0.8		13.9		5.3	
Excess share-based compensation		(0.1)		(0.3)		0.4	
Federal and state tax credits		(4.8)		(4.9)		(4.0)	
Tax on dividends, deemed dividends, and GILTI		2.7		0.1		0.1	
Foreign derived intangible income		(6.2)		(5.1)		(3.1)	
Officers compensation		0.6		0.3		0.5	
Other		0.4		0.8		1.8	
Provision (benefit) for income taxes	\$	58.0	\$	44.7	\$	53.7	
Effective tax rate		21.5 %		27.5 %		22.8 %	

The decrease in our effective tax rate from 2021 to 2022 was primarily driven by the recognition of the United Kingdom's ("UK") six percent legislative rate increase in 2021. During 2022, our effective tax rate benefited from reduced taxes at our China manufacturing plant associated with the purchases of our sustainably sourced raw material feedstock. This reduction was partially offset by an increase in foreign earnings deemed taxable in the U.S. mainly due to final U.S. foreign tax credit regulations modifying the definition of what foreign taxes qualify as creditable taxes, denying Brazilian taxes paid as qualifying taxes.

The increase in our effective tax rate from 2020 to 2021 was driven by a six percent legislative tax rate increase in the UK. The impacts of this increase were partially offset by the benefit in excess share-based compensation driven by the rebound of stock prices in 2021 compared to 2020, as well as the increased benefit associated with our foreign derived intangible income ("FDII"). This increased benefit from FDII was driven by higher taxable income as a result of reduced capital spend and deferral of litigation expenses for tax purposes. Additionally, in depth research and development studies conducted, as well as amended state return filing, further increased the rate benefit associated with our federal and state credits in 2021, which also helped to partially offset the negative impacts of the UK rate change.

The significant components of deferred tax assets and liabilities are as follows:

		1,		
In millions		2022		2021
Deferred tax assets:				
Employee benefits	\$	19.1	\$	19.0
Net operating losses		10.5		11.6
Leases		17.2		16.5
Litigation verdict accrual		19.9		19.9
Research and experimental expenses		8.9		_
Other		14.4		12.0
Total deferred tax assets	\$	90.0	\$	79.0
Valuation allowance		(9.2)		(8.8)
Total deferred tax assets, net of valuation allowance	\$	80.8	\$	70.2
Deferred tax liabilities:				
Fixed assets	\$	116.7	\$	108.6
Intangibles		34.6		43.7
Inventory		7.3		6.5
Leases		16.9		16.3
Other		6.1		2.9
Total deferred tax liabilities	\$	181.6	\$	178.0
Net deferred tax asset (liability) (1)	\$	(100.8)	\$	(107.8)

⁽¹⁾ Presentation in the table above is on a gross basis, however, due to jurisdictional netting, our net deferred tax asset and liability recorded on the consolidated balance sheets is \$5.7 million and \$106.5 million, respectively, as of December 31, 2022, and \$6.8 million and \$114.6 million, respectively, as of December 31, 2021.

Our net deferred tax liability decreased \$7.0 million at December 31, 2022 as compared to December 31, 2021. As part of Tax Cuts and Jobs Act ("TCJA") enacted in December 2017 under Internal Revenue Code Section 174, beginning in 2022 we are required to capitalize and amortize research and experimental expenditures, thus creating a new deferred tax asset for 2022. The increase in deferred tax assets was slightly offset by an increase in the deferred fixed asset liability as a result of U.S. bonus depreciation, UK super deduction, as well as the 2022 acquisition of Ozark Materials. Impacts of foreign currency fluctuations, most notably in the UK, decreased the overall deferred tax liability by \$6.6 million.

We have deferred tax assets, including net operating loss and state tax credit carryforwards, which are available to offset future taxable income. A valuation allowance has been provided where management has determined that it is more likely

than not that the deferred tax assets will not be realized. In 2022, we recognized tax expense of \$0.1 million due to our expected inability to recognize the benefit associated with state tax credits prior to their expiration.

At December 31, 2022, foreign net operating loss carryforwards totaled \$35.3 million. Of this total, \$0.1 million will expire in 2 years and \$35.2 million has no expiration date.

Due to the global nature of our operations, a portion of our cash is held outside the U.S. The cash and cash equivalent balance at December 31, 2022 included \$71.7 million held by our foreign subsidiaries. At December 31, 2022, 2021, and 2020, no deferred income taxes have been provided for our share of undistributed net earnings of foreign operations due to management's intent to reinvest such amounts indefinitely. The determination of the amount of taxes that may be due if earnings are remitted is not practicable because such liability, if any, is dependent on circumstances that exist if and when remittance occurs. The circumstances that would affect the calculations include the source location and amount of the distribution, the underlying tax rate already paid on the earnings, foreign withholding taxes, the opportunity to use foreign tax credits, and the potential impact of U.S. Tax Reform. Positive undistributed earnings considered to be indefinitely reinvested totaled \$84.5 million at December 31, 2022.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows:

	Years ended December 31,						
In millions	2022 2021				2020		
Balance at beginning of year	\$	0.3	\$	0.1	\$	0.1	
Additions for tax positions related to prior years		0.5		0.3			
Reduction for lapse of statute of limitation				(0.1)			
Balance at end of year	\$	0.8	\$	0.3	\$	0.1	

As of December 31, 2022, 2021, and 2020, \$0.9 million, \$0.4 million, and \$0.1 million, respectively, of unrecognized tax benefit, including penalties and interest, would, if recognized, impact our effective tax rate. We recognize interest accrued related to unrecognized tax benefits and penalties as income tax expense.

Note 18: Commitments and Contingencies

Legal Proceedings

On July 19, 2018, we filed suit against BASF Corporation ("BASF") in the United States District Court for the District of Delaware (the "Delaware Proceeding") alleging BASF infringed Ingevity's patent covering canister systems used in the control of automotive gasoline vapor emissions (U.S. Patent No. RE38,844) (the "844 Patent"). On February 14, 2019, BASF asserted counterclaims against us in the Delaware Proceeding, alleging two claims for violations of U.S. antitrust law (one for exclusive dealing and the other for tying) as well as a claim for tortious interference with an alleged prospective business relationship between BASF and a BASF customer (the "BASF Counterclaims"). The BASF Counterclaims relate to our enforcement of the 844 Patent and our entry into several supply agreements with customers of its fuel vapor canister honeycombs. The U.S. District Court dismissed our patent infringement claims on November 18, 2020, and the case proceeded to trial on the BASF Counterclaims in September 2021.

On September 15, 2021, a jury in the Delaware Proceeding issued a verdict in favor of BASF on the BASF Counterclaims and awarded BASF damages of approximately \$28.3 million, which will be trebled under U.S. antitrust law to approximately \$85.0 million when the court enters judgment. In addition, BASF may seek pre- and post-judgment interest and attorneys' fees and costs in amounts that they will have to support at a future date.

We disagree with the verdict, including the court's application of the law, and we intend to seek judgment as a matter of law in the Delaware Proceeding post-trial briefing stage and on appeal, if necessary. In addition, we intend to challenge the U.S. District Court's November 2020 dismissal of our patent infringement claims against BASF. Ingevity believes in the strength of its intellectual property and the merits of its position and intends to pursue all legal relief available to challenge these outcomes in the Delaware Proceeding. Final resolution of these matters could take up to eighteen months.

As a result of the jury's \$85.0 million verdict, we have accrued the full amount as of December 31, 2022. The amount accrued for this matter is included within Other liabilities on the consolidated balance sheet as of December 31, 2022, and the charge was included within Other (income) expense, net on the consolidated statement of operations for the year ended December 31, 2021. The amount of any liability we may ultimately incur related to the Delaware Proceeding could be more or less than the amount accrued.

Note 19: Segment Information

Ingevity's operating segments are (i) Performance Materials and (ii) Performance Chemicals, a description of both operating segments is included in Note 1.

	Years Ended December 31,						
In millions	2022 2021					2020	
Net sales							
Performance Materials	\$	548.5	\$	516.8	\$	510.0	
Performance Chemicals		1,119.8		874.7		706.1	
Total net sales (1)	\$	1,668.3	\$	1,391.5	\$	1,216.1	
Segment EBITDA (2)							
Performance Materials	\$	252.2	\$	249.4	\$	249.2	
Performance Chemicals		200.4		172.8		148.7	
Total Segment EBITDA (2)	\$	452.6	\$	422.2	\$	397.9	
Interest expense		(61.8)		(51.7)		(47.1)	
Interest income		7.5		4.0		4.9	
(Provision) benefit for income taxes		(58.0)		(44.7)		(53.7)	
Depreciation and amortization - Performance Materials		(36.1)		(36.8)		(31.2)	
Depreciation and amortization - Performance Chemicals		(72.7)		(73.1)		(69.0)	
Pension and postretirement settlement and curtailment (charges) income, net (3)		(0.2)		_		(0.1)	
Restructuring and other income (charges), net (4)		(13.8)		(16.2)		(18.5)	
Acquisition and other-related costs (5)		(5.9)		(0.6)		(1.8)	
Litigation verdict charge (6)		_		(85.0)			
Net income (loss)	\$	211.6	\$	118.1	\$	181.4	

- (1) Relates to external customers only, all intersegment sales and related profit have been eliminated in consolidation.
- (2) Segment EBITDA is the primary measure used by our chief operating decision maker to evaluate the performance of and allocate resources among our operating segments. Segment EBITDA is defined as segment revenue less segment operating expenses (segment operating expenses consist of costs of sales, selling, general and administrative expenses, research and technical expenses, other (income) expense, net, excluding depreciation and amortization). We have excluded the following items from segment EBITDA: interest expense, net, associated with corporate debt facilities, income taxes, depreciation, amortization, restructuring and other (income) charges, net, acquisition and other-related costs, litigation verdict charges, pension and postretirement settlement and curtailment (income) charges, net.
- (3) For all years, the charges relate to the Performance Materials segment. Our pension and postretirement settlement and curtailment charges (income) are related to the acceleration of prior service costs, as a result of a reduction in the number of participants within the Union Hourly defined benefit pension plan. These are excluded from our segment results because we consider these costs to be outside our operational performance. We continue to include the service cost, amortization of prior service cost, interest costs, expected return on plan assets, and amortized actual gains and losses in our segment EBITDA.
- (4) For the year ended December 31, 2022, charges of \$4.8 million and \$9.0 million relate to the Performance Materials segment and Performance Chemicals segment, respectively. For the year ended December 31, 2021, charges of \$6.0 million and \$10.2 million related to the Performance Materials segment and Performance Chemicals segment, respectively. For the year ended December, 31, 2020, charges of \$7.4 million and \$11.1 million relate to the Performance Materials segment and Performance Chemicals segment, respectively. Information about how restructuring and other (income) charges relate to our reporting segments is discussed in Note 15.
- (5) For the years ended December 31, 2022 and 2021, charges of \$0.3 million and \$0.2 million relate to the acquisition of a strategic investment in the Performance Materials segment. For the year ended December 31, 2022, charges of \$5.6 million relate to the acquisition and integration of Ozark Materials into the Performance Chemicals segment. For more detail on these charges see Note 16. For the years ended December 31, 2021 and 2020, charges of \$0.4 million and \$1.8 million relate to the integration of the Caprolactone business, now referred to as our engineered polymers product line, into our Performance Chemicals segment.
- (6) For the year ended December 31, 2021, litigation verdict charge relates to the Performance Materials segment. Refer to Note 18 for additional information.

	Depreciation and amortization						Ca	apital expenditures			
		Years	End	ed Decem	ber 3	1,	Years Ended December 31,				1,
In millions		2022		2021		2020	2022		2021		2020
Performance Materials	\$	36.1	\$	36.8	\$	31.2	\$ 59.8	\$	46.2	\$	30.6
Performance Chemicals		72.7		73.1		69.0	82.7		57.6		51.5
Total	\$	108.8	\$	109.9	\$	100.2	\$ 142.5	\$	103.8	\$	82.1

Property, plant, and equipment, net	De	December 31,			
In millions	2022		2021		
North America	\$ 636	7 \$	551.1		
Asia Pacific	70	4	75.0		
Europe, Middle East, and Africa	91	4	93.5		
South America	0	1	0.1		
Property, plant, and equipment, net	\$ 798	6 \$	719.7		

Total assets		December 31,				
In millions	20)22	2021			
Performance Materials	\$	784.6 \$	716.2			
Performance Chemicals		1,877.4	1,675.6			
Total segment assets (1)	\$	2,662.0 \$	2,391.8			
Corporate and other		74.5	77.2			
Total assets	\$	2,736.5 \$	2,469.0			

⁽¹⁾ Segment assets exclude assets not specifically managed as part of one specific segment herein referred to as "Corporate and other."

Note 20: Earnings (Loss) per Share

Basic earnings (loss) per share is computed by dividing net income (loss) for the period by the weighted average number of common shares outstanding during the period. Diluted earnings (loss) per share is computed by dividing net income (loss) for the period by the weighted average number of shares of common stock and potentially dilutive common stock outstanding for the period. The calculation of diluted net income per share excludes all anti-dilutive common shares.

	Years Ended December 31,					
In millions (except share and per share data)		2022		2021		2020
Net income (loss)	\$	211.6	\$	118.1	\$	181.4
Basic and Diluted earnings (loss) per share (1)						
Basic earnings (loss) per share	\$	5.54	\$	2.97	\$	4.39
Diluted earnings (loss) per share	\$	5.50	\$	2.95	\$	4.37
Shares (2)						
Weighted average number of shares of common stock outstanding - Basic		38,179		39,816		41,330
Weighted average additional shares assuming conversion of potential common shares		292		243		217
Shares - diluted basis		38,471		40,059		41,547

⁽¹⁾ Diluted earnings (loss) per share is calculated using net income (loss) available to common stockholders divided by diluted weighted average shares of common shares outstanding during each period, which includes the dilutive effect of outstanding equity awards.

The following average number of potential common shares were antidilutive and, therefore, were not included in the diluted earnings per share calculation:

	Years Ended December 31,		
In thousands	2022	2021	2020
Average number of potential common shares - antidilutive	204 98		177

⁽²⁾ Shares are presented in thousands.

Note 21: Supplemental Information

The following tables include details of prepaid and other current assets, other assets, accrued expenses and other liabilities as presented on the consolidated balance sheets, as well as other (income) expense, net on the consolidated statement of operations:

Prepaid and other current assets:	 December 31,		
In millions	 2022		2021
Income and value added tax receivables	\$ 12.7	\$	21.8
Prepaid freight and supply agreements	2.7		2.2
Prepaid insurance	3.2		3.5
Non-trade receivables	5.4		2.6
Advances to suppliers	1.0		0.7
Prepaid software as a service	2.9		3.4
Contract asset (Note 4)	6.4		5.3
Restricted cash	0.6		0.6
Other	 7.6		6.5
	\$ 42.5	\$	46.6
Other assets:	Decem	ber 31,	
In millions	2022		2021
Deferred financing charges	\$ 5.1	\$	3.0
Capitalized software, net	46.4		36.0
Land-use rights	4.6		5.1
Planned major maintenance activities	4.3		3.2
Deferred software as a service	4.0		3.2
Deferred compensation plan assets (Note 5)	14.4		14.9
Net investment hedge (Note 9)	_		2.0
Finance lease assets, net (Note 13)	0.1		0.3
Other	6.6		6.5
	\$ 85.5	\$	74.2
Accrued expenses:	 December 31,		
In millions	2022		2021
Accrued interest	\$ 9.0	\$	13.3
Accrued taxes	5.3		8.2
Accrued freight	3.9		5.5
Accrued rebates	13.7		7.5
Restructuring reserves (Note 15)	0.5		0.5
Accrued royalties and commissions	2.4		1.5
Currency exchange and natural gas contracts (Note 9)	2.1		0.6
Accrued energy	3.2		2.8
Other	14.3		11.8
	\$ 54.4	\$	51.7

Other liabilities:	December 31,			
In millions	2022	2022 2021		2021
Deferred compensation arrangements (Note 5)	\$	12.5	\$	13.7
Pension & OPEB liabilities (Note 14)		10.4		14.1
Unrecognized tax benefits (Note 17)		0.8		0.3
Net investment hedge (Note 9)				1.0
Interest rate swaps (Note 9)		_		4.0
Contingent consideration (Note 5)				0.8
Litigation verdict accrual (Note 18)		85.0		85.0
Other		6.2		6.6
	\$	114.9	\$	125.5
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Other (income) expense, net:	Years Ended December 31,			
In millions		2022	2021	2020
Foreign currency translation (income)/loss	\$	2.3 \$	2.5	\$ (5.8)
Royalty and sundry (income)/loss		(0.2)	(0.6)	(0.4)
Litigation verdict charge (Note 18)		_	85.0	
Other (income)/expense, net		(3.8)	(7.0)	2.1
	\$	(1.7) \$	79.9	\$ (4.1)

Note 22: Subsequent Event

During the first quarter of 2023, we realigned our segment reporting structure to increase transparency for our investors and better align with how our chief operating decision maker intends to measure segment operating performance and allocate resources across our operating segments. Effective in the first quarter of 2023, we will separate our engineered polymers product line from the Performance Chemicals reporting segment into its own reporting segment. This reporting segment change will also result in our Performance Chemicals reporting unit for goodwill being split into two separate reporting units for the purposes of goodwill impairment testing. As of and for the year ended December 31, 2022, we continued to review financial information at the Performance Chemicals segment level, and therefore, these changes had no impact on our reporting structure. This segment reporting change will have no impact on our consolidated operating results or the historical operating results for our Performance Materials operating segment.

INGEVITY CORPORATION

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

FOR YEARS ENDED DECEMBER 31, 2022, 2021, and 2020

				Provision/ (Benefit				
In millions	Beg	llance, ginning Year	Charged to Costs and Expenses	Charged to Other Comprehensive Income	Charged to Retained Earnings	Write-offs (1)	E	alance, and of Year
December 31, 2022								_
Accounts receivable credit loss allowance (2)	\$	2.0	0.3	_	_	(1.8)	\$	0.5
Held-to-maturity debt securities credit loss allowance (3)	\$	0.5	0.1	_	_	_	\$	0.6
Deferred tax valuation allowance	\$	8.8	0.1	0.3	_	_	\$	9.2
December 31, 2021								
Accounts receivable credit loss allowance (2)	\$	1.9	0.1	_	_	_	\$	2.0
Held-to-maturity debt securities credit loss allowance (3)	\$	0.9	(0.4)	_		_	\$	0.5
Deferred tax valuation allowance	\$	8.4	0.8	(0.4)	_	_	\$	8.8
December 31, 2020								
Accounts receivable credit loss allowance (2)	\$	0.5	1.4	_	_	_	\$	1.9
Held-to-maturity debt securities credit loss allowance (3)	\$	_	0.3	_	0.6	_	\$	0.9
Deferred tax valuation allowance	\$	13.0	(1.9)	(2.7)	_	_	\$	8.4

⁽¹⁾ Write-offs are net of recoveries.

⁽²⁾ Allowance for credit losses on accounts receivable is included within Accounts receivable, net on the consolidated balance sheet.

⁽³⁾ Allowance for credit losses on held-to-maturity debt securities is included within Restricted investment on the consolidated balance sheet.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

The Company maintains a system of disclosure controls and procedures designed to provide reasonable assurance that information required to be disclosed in the Company's reports filed or submitted under the Securities Exchange Act of 1934, as amended ("Exchange Act") is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. These controls and procedures also provide reasonable assurance that information required to be disclosed in such reports is accumulated and communicated to management as appropriate to allow timely decisions regarding required disclosures.

As of December 31, 2022, the Company's Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), together with management, conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures pursuant to Rules 13a-15(b) and 15d-15(b) of the Exchange Act. Based on that evaluation, the CEO and CFO concluded that these disclosure controls and procedures are effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

We are implementing a new global enterprise resource planning ("ERP") system, which will replace our existing operating and financial systems. The implementation began with our pilot deployment in the first quarter of 2022, followed by our second deployment in the fourth quarter of 2022. The final phase of our ERP implementation will occur in early 2023. During the fourth quarter of 2022 we implemented updates and changes to our processes and related control activities, and have evaluated the operating effectiveness of related key controls. As the last phase of our implementation progresses, we will give appropriate consideration to whether any process changes necessitate modifications to the design of and testing for effectiveness of internal controls over financial reporting.

Except as described above, there have been no changes in the Company's internal control over financial reporting that occurred during the quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Refer to Management's Report on Internal Control over Financial Reporting, which is included within Part II. Item 8 of this Form 10-K and is incorporated by reference to this Item 9A.

Report of Independent Registered Public Accounting Firm

Refer to the Report of Independent Registered Public Accounting Firm, which is included within Part II. Item 8 of this Form 10-K and is incorporated by reference to this Item 9A.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information concerning directors, appearing under the caption "Proposal 1 - Election of Directors" in our Proxy Statement to be filed with the SEC within 120 days of the fiscal year ended December 31, 2022 in connection with the Annual Meeting of Stockholders scheduled to be held on April 27, 2023 (the "Proxy Statement"), information concerning executive officers, appearing under the caption "Information about our Executive Officers" in Part I of this Form 10-K, information concerning the Audit Committee, appearing under the caption "Board and Corporate Governance Matters - Committees of our Board of Directors - Audit Committee" in the Proxy Statement, information concerning delinquent Section 16(a) reports, appearing under the caption "Delinquent Section 16(a) Reports", in the Proxy Statement, and information concerning our Code of Conduct, appearing under the caption "Code of Conduct" in the Proxy Statement, is incorporated herein by reference in response to this Item 10.

ITEM 11. EXECUTIVE COMPENSATION

The information contained in the Proxy Statement in the section titled "Compensation Discussion and Analysis" and in the section titled "Director Compensation," is incorporated herein by reference in response to this Item 11.

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

The information contained in the section titled "Ownership of Equity Securities" in the Proxy Statement, with respect to security ownership of certain beneficial owners and management, is incorporated herein by reference in response to this Item 12.

Equity Compensation Plan Information

The table below sets forth information with respect to compensation plans under which equity securities of Ingevity are authorized for issuance as of December 31, 2022. All of the equity compensation plans pursuant to which we are currently granting equity awards have been approved by stockholders.

Plan Category	Number of Securities to be issued upon exercise of outstanding options and restricted stock awards (A) (1)	Weighted- average exercise price of outstanding options and restricted stock awards (B) (2)	Number of Securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (A))
Equity Compensation Plans approved by stockholders	833,925	\$ 63.18	2,987,055

- (1) Includes 334,860 stock options, 301,192 restricted stock units (RSUs) and 192,158 performance-based restricted stock units (PSUs) granted to employees and 5,715 DSUs to be issued to directors. In accordance with SEC rules, the number of shares to be issued for performance based stock unit awards has been calculated based on the assumption that the awards granted in 2020, 2021 and 2022 will pay out at the target (1.0x). The target payout of the performance based vesting restricted stock unit awards is 192,158 shares.
- (2) Represents the weighted-average exercise price of the outstanding stock options only. The outstanding RSUs and PSUs are not included in this calculation.
- (3) Includes 56,873 shares available for future issuance under the 2017 Ingevity Corporation Employee Stock Purchase Plan.

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

The information contained in the Proxy Statement concerning our independent directors under the caption "Board and Corporate Governance Matters - Director Nominees and Selection - Director Independence" and the information contained in the Proxy Statement concerning related party transactions and our review, approval or ratification thereof appearing under the caption "Related Party Transactions" is incorporated herein by reference in response to this Item 13.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information contained in the Proxy Statement in the section titled "Proposal 2 - Ratification of the Appointment of Independent Registered Public Accounting Firm" is incorporated herein by reference in response to this Item 14.

PART IV

ITEM 15. EXHIBIT AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed with this Report

- i. Consolidated Financial Statements of Ingevity Corporation and its subsidiaries are incorporated under Item 8 of this Form 10-K.
- ii. The following supplementary financial information is filed in this Form 10-K:

Financial Statements Schedule II – Valuation and qualifying accounts and reserves for the years ended December 31, 2022, 2021, and 2020

96

All schedules have been omitted because they are not required, not applicable or the information is otherwise included.

iii. Exhibits: See attached Index of Exhibits

(b) Exhibits

Exhibit No.	Exhibit Description
2.1	Separation and Distribution Agreement between Ingevity Corporation and WestRock 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 May 16, 2016).
2.2	Asset Purchase Agreement, by and among Georgia-Pacific Chemicals, LLC, Georgia-Pacific LLC, Ingevity Arkansas, LLC, and Ingevity Corporation, dated as of August 22, 2017 (incorporated by reference to Exhibit 2.1 to Form 8-K (File No. 001-37586) filed August 22, 2017).
2.3	First Amendment to Asset Purchase Agreement among Ingevity Corporation, Ingevity Arkansas, LLC, Georgia-Pacific Chemicals LLC and Georgia-Pacific LLC, dated as of March 8, 2018 (incorporated by reference to Exhibit 2.2 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on March 8, 2018).
2.4	Agreement for the Sale and Purchase of Perstorp UK Ltd., dated as of December 10, 2018, by and amount Perstorp AB and Ingevity Corporation (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 December 10, 2018).
2.5†	Equity Purchase Agreement, dated July 31, 2022, by and among Ingevity Corporation, Ozark Holdings, Inc., Ozark Materials, LLC and Ozark Logistics, LLC (incorporated by reference to Exhibit 2.1 to Ingevity Corporation's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on August 2, 2022).
3.1	Ingevity Corporation Second 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 April 25, 2019).
3.2	Ingevity Corporation Second Amended and Restated Bylaws, effective October 25, 2021 (incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on October 28, 2021).
3.3	Ingevity Corporation Third Amended and Restated Bylaws, effective July 25, 2022 (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 27, 2022).
4.1	Indenture, dated as of January 24, 2018, among Ingevity Corporation, the Guarantors, and U.S. Bank National Association, a national banking association, with respect to the 4.50% Senior Notes Due 2026 (incorporated by reference to Exhibit 4.1 to Form 8-K filed January 24, 2018).

Exhibit No.	Exhibit Description
4.2	Indenture, dated as of October 28, 2020, among Ingevity Corporation, the guarantors party thereto and U.S. Bank National Association, as trustee, with respect to the 3.875% Senior Notes Due 2028 (incorporated by reference to Exhibit 4.1 to Form 8-K filed October 28, 2020).
4.3	Description of Registrant's Securities.*
10.1	Employee Matters Agreement between Ingevity Corporation and WestRock 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 May 16, 2016).
10.2	Covington Plant Services Agreement between Ingevity Virginia Corporation and WestRock Virginia, LLC (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 May 11, 2016).
10.3	Covington Plant Ground Lease Agreement between Ingevity Virginia Corporation and WestRock Virginia, LLC (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 May 11, 2016).
10.4	Crude Tall Oil and Black Liquor Soap Skimmings Agreement by and between Ingevity Corporation, WestRock Shared Services, LLC and WestRock MWV, 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 May 16, 2016).
10.5	Amendment No. 1 dated March 1, 2017, to Crude Tall Oil and Black Liquor Soap Skimming Agreement by and between WestRock Shared Services, LLC, WestRock MWV, LLC, on behalf of the affiliates of WestRock Company, and Ingevity Corporation. (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on May 4, 2017).
10.6	Credit Agreement, dated as of March 7, 2016, among Ingevity Corporation, as U.S. borrower, the lenders from time to time party thereto and Wells Fargo Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.8 to the Company's Amendment No. 2 to Form 10, as filed with the U.S. Securities and Exchange Commission on March 7, 2016).
10.7	Incremental Facility Agreement and Amendment No. 1, by and among Ingevity Corporation, Ingevity Holdings SPRL, the other loan parties party thereto, the lenders party thereto and Wells Fargo Bank, N.A., as administrative agent, dated as of August 21, 2017 (incorporated by reference to Exhibit 10.1 to Form 8-K (File No. 001-37586) filed August 22, 2017).
10.8	Incremental Facility Agreement and Amendment No. 2, by and among Ingevity Corporation, Ingevity Holdings SPRL, the other loan parties party thereto, the lenders party thereto and Wells Fargo Bank, N.A., as administrative agent, dated as of August 7, 2018 (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 9, 2018).
10.9	Amendment No. 3, by and among Ingevity Corporation, Ingevity Holdings SPRL, the other loan parties party thereto, the lenders party thereto and Wells Fargo Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to Form 8-K (File No. 001-37586) filed March 7, 2019).
10.10	Incremental Facility Agreement and Amendment No. 4, by and among Ingevity Corporation, Ingevity Holdings SPRL, the other loan parties party thereto, the lenders party thereto and Wells Fargo Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.2 to Form 8-K (File No. 001-37586) filed March 7, 2019).
10.11	Incremental Facility Agreement and Amendment No. 5, by and among Ingevity Corporation, Ingevity Holdings SPRL, the other loan parties party thereto, the lenders party thereto and JPMorgan Chase Bank, N.A., as successor administrative agent and Wells Fargo Bank, N.A., as resigning administrative agent (incorporated by reference to Exhibit 10.1 to Form 8-K filed October 28, 2020).

Exhibit No.	Exhibit Description
10.12	Intellectual Property Agreement by and between WestRock Company and Ingevity Corporation (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 May 16, 2016).
10.13+	Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.6 to the Company's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on May 16, 2016).
10.14+	Employment Letter, dated October 2, 2015, between WestRock Company, Ingevity Corporation and Katherine P. Burgeson (incorporated by reference to Exhibit 10.11 to the Company's Amendment No. 3 to Form 10, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).
10.15+	Employment Letter, dated July 24, 2015, between WestRock Company, Ingevity Corporation and Michael Wilson (incorporated by reference to Exhibit 10.12 to the Company's Amendment No. 3 to Form 10, as filed with the U.S. Securities and Exchange Commission on April 4, 2016).
10.16+	Ingevity Corporation Amended and Restated 2016 Omnibus Incentive Plan, restated as of July 31, 2019 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on October 30, 2019).
10.17	Trust Agreement, between Ingevity Corporation, The Bank of New York Mellon Trust Company, N.A. and WestRock 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 May 11, 2016).
10.18a+	Form of Option Award Term under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.13a to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2016).
10.18b+†	Form of Performance-based Restricted Stock Unit Terms under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.13b to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2016).
10.18c+	Form of Replacement Cash Awards under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.13c to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2016).
10.18d+	Form of Restricted Stock Unit Terms (three year vesting) under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.13d to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2016).
10.18e+	Form of Restricted Stock Unit Terms (cliff vesting) under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.13e to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2016).
10.18f+	Form of Restricted Stock Unit Terms (D. Michael Wilson) under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.13f to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2016).
10.18g+	Non-Employee Director Terms and Conditions for Restricted Stock Units under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.14g to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.18h+	Non-Employee Director Terms and Conditions for Deferred Stock Units in lieu of Restricted Stock Units under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.14h to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.18i+	Non-Employee Director Terms and Conditions for Deferred Stock Units in lieu of Annual Cash Retainer under the Ingevity Corporation 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.14i to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).

Exhibit No.	Exhibit Description
10.19+	Ingevity Corporation Deferred Compensation Plan, effective January 1, 2016. (incorporated by reference to Exhibit 10.15 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.20+	Ingevity Corporation Non-Employee Director Deferred Compensation Plan (incorporated by reference to Exhibit 10.16 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016).
10.21+	Restated Ingevity Corporation Non-Employee Director Compensation Policy, effective April 24, 2019 (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on May 2, 2019).
10.22+	Severance and Change of Control Agreement between Ingevity Corporation and D. Michael Wilson dated March 1, 2017 (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 March 7, 2017).
10.23+	Separation and Release Agreement, between Ingevity Corporation and D. Michael Wilson, dated as of February 20, 2020 (incorporated by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 26, 2020).
10.24+†	Severance and Change of Control Agreement between Ingevity Corporation and John C. Fortson dated August 21, 2020 (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 24, 2020).
10.25+†	Severance and Change of Control Agreement between Ingevity Corporation and Katherine P. Burgeson dated March 1, 2017 (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 March 7, 2017).
10.26+†	Severance and Change of Control Agreement between Ingevity Corporation and S. Edward Woodcock, Jr. dated March 1, 2017 (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 March 7, 2017).
10.27+	Severance and Change of Control Agreement between Ingevity Corporation and Michael P. Smith dated March 1, 2017 (incorporated by reference to Exhibit 10.28 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 26, 2020).
10.28+†	Severance and Change of Control Agreement between Ingevity Corporation and Stacy Cozad dated January 8, 2021 (incorporated by reference to Exhibit 10.29 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 19, 2021).
10.29	Crude Tall Oil Supply Agreement between Ingevity Corporation and Georgia-Pacific LLC, dated as of March 8, 2018 (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 March 8, 2018).
10.30†	Amendment to the Crude Tall Oil Supply Agreement, dated as of May 1, 2020, by and between Ingevity Corporation and Georgia-Pacific LLC (incorporated by reference to Exhibit 10.31 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 19, 2021).
10.31+†	Severance and Change of Control Agreement between Ingevity Corporation and Mary Dean Hall dated March 19, 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 March 24, 2021).
10.32+	2017 Ingevity Corporation Employee Stock Purchase Plan Effective July 1, 2017 (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-8, as filed with the U.S. Securities and Exchange Commission on May 23, 2017).
10.33+†	Severance and Change of Control Agreement between Ingevity Corporation and Steven P. Hulme dated December 15, 2021 (incorporated by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).

Exhibit No.	Exhibit Description
10.34+†	Severance and Change of Control Agreement between Ingevity Corporation and Rich A. White Jr. dated December 14, 2021 (incorporated by reference to Exhibit 10.34 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.35+	Offer Letter between John C. Fortson and Ingevity Corporation dated August 21, 2020 (incorporated by reference to Exhibit 10.35 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.36+	Offer Letter between Mary Dean Hall and Ingevity Corporation dated March 17, 2021 (incorporated by reference to Exhibit 10.36 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.37+	Offer Letter between Stacy L. Cozad and Ingevity Corporation dated January 5, 2021 (incorporated by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.38+	Offer Letter between Rich A. White Jr. and Ingevity Corporation dated December 2, 2021 (incorporated by reference to Exhibit 10.38 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.39+	Offer Letter between Steven P. Hulme and Ingevity Corporation dated December 2, 2021 (incorporated by reference to Exhibit 10.39 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.40+	Form of Option Award under the Ingevity Corporation 2016 Omnibus Incentive Plan - U.S. Employees (incorporated by reference to Exhibit 10.40 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.41+	Form of Option Award under the Ingevity Corporation 2016 Omnibus Incentive Plan - U.K. Employees (incorporated by reference to Exhibit 10.41 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.42+†	Form of Performance-Based Restricted Stock Unit Award under the Ingevity Corporation 2016 Omnibus Incentive Plan – U.S. Employees (incorporated by reference to Exhibit 10.42 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.43+†	Form of Performance-Based Restricted Stock Unit Award under the Ingevity Corporation 2016 Omnibus Incentive Plan – U.K. Employees (incorporated by reference to Exhibit 10.43 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.44+	Form of Restricted Stock Unit Award (three-year ratable vesting) under the Ingevity Corporation 2016 Omnibus Incentive Plan – U.S. Employees (incorporated by reference to Exhibit 10.44 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.45+	Form of Restricted Stock Unit Award (three-year ratable vesting) under the Ingevity Corporation 2016 Omnibus Incentive Plan – U.K. Employees (incorporated by reference to Exhibit 10.45 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.46+	Form of Restricted Stock Unit Award (three-year cliff vesting) under the Ingevity Corporation 2016 Omnibus Incentive Plan – U.S. Employees (incorporated by reference to Exhibit 10.46 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.47+	Form of Restricted Stock Unit Award (three-year cliff vesting) under the Ingevity Corporation 2016 Omnibus Incentive Plan – U.K. Employees (incorporated by reference to Exhibit 10.47 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).

Exhibit No.	Exhibit Description
10.48+†	Form of Performance-Based Cash Award under the Ingevity Corporation 2016 Omnibus Incentive Plan – International Employees (incorporated by reference to Exhibit 10.48 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.49+	Form of Service-Based Cash Award under the Ingevity Corporation 2016 Omnibus Incentive Plan – International Employees (incorporated by reference to Exhibit 10.49 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.50+†	Amended and Restated Severance and Change of Control Agreement between Ingevity Corporation and John C. Fortson dated February 17, 2022 (incorporated by reference to Exhibit 10.50 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.51+†	Amended and Restated Severance and Change of Control Agreement between Ingevity Corporation and Mary Dean Hall dated February 14, 2022 (incorporated by reference to Exhibit 10.51 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.52+†	Amended and Restated Severance and Change of Control Agreement between Ingevity Corporation and Stacy L. Cozad dated February 17, 2022 (incorporated by reference to Exhibit 10.52 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.53+†	Amended and Restated Severance and Change of Control Agreement between Ingevity Corporation and Richard A. White Jr. dated February 14, 2022 (incorporated by reference to Exhibit 10.53 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.54+†	Amended and Restated Severance and Change of Control Agreement between Ingevity Corporation and Steven P. Hulme dated February 21, 2022 (incorporated by reference to Exhibit 10.54 to the Company's Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission on February 24, 2022).
10.55	Consulting Agreement between Ingevity Corporation and Michael P. Smith dated February 23, 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 Commission on February 23, 2022).
10.56+	Special Cash Award Agreement between Ingevity Corporation and Steven P. Hulme dated July 1, 2021 (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, as filed with the U.S. Securities Commission on May 5, 2022).
10.57+	Offer Letter between Ingevity Corporation and Christine Stunyo dated April 27, 2022 (incorporated by reference to Exhibit 10.1 to Ingevity Corporation's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on August 3, 2022).
10.58+†	Severance and Change of Control Agreement between Ingevity Corporation and Christine Stunyo dated May 1, 2022 (incorporated by reference to Exhibit 10.2 to Ingevity Corporation's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on August 3, 2022).
10.59+†	Severance and Change of Control Agreement between Ingevity Corporation and Erik Ripple dated February 14, 2022 (incorporated by reference to Exhibit 10.3 to Ingevity Corporation's Quarterly Report on Form 10-Q, as filed with the U.S. Securities and Exchange Commission on August 3, 2022).
10.60	Amendment and Restatement Agreement, dated as of June 23, 2022, among Ingevity Corporation, Ingevity Holdings SRL, Ingevity UK Ltd, the other loan parties party thereto, JPMorgan Chase Bank, N.A., as the administrative agent, and the lenders party thereto (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 24, 2022).

Exhibit No.	Exhibit Description
10.61†	Transaction Support Agreement, dated July 31, 2022, by and among Ingevity Corporation, William H. Carr, Jerry N. Carr, Leon M. Gross, III, Ozark Holdings, Inc. and each of the other entities that are signatories thereto (incorporated by reference to Exhibit 10.1 to Ingevity Corporation's Current Report on Form 8-K, as filed with the U.S. Securities and Exchange Commission on August 2, 2022).
21.1	Ingevity Corporation List of Significant Subsidiaries*
23.1	Consent of PricewaterhouseCoopers LLP.*
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.*
101	Inline XBRL Instance Document and Related Items - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
104	The cover page from the Company's Annual Report on Form 10-K formatted in Inline XBRL (included in Exhibit 101).

⁺ Management contract or compensatory plan or arrangement * Filed or furnished, as applicable, herewith.

ITEM 16. FORM 10-K SUMMARY

None.

[†] Indicates that certain information has been omitted pursuant to Item 601(b)(2) and/or Item 601(b)(10) of Regulation S-K.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

INGEVITY CORPORATION (Registrant)

By:	/S/ MARY DEAN HALL
	Mary Dean Hall
	Executive Vice President and Chief Financial Officer
	(Principal Financial Officer and Duly Authorized Officer)

Date: February 28, 2023

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

Signature	Title	Date
/s/ John C. Fortson	President, Chief Executive Officer and Director	
John C. Fortson	(Principal Executive Officer)	February 28, 2023
/s/ Mary Dean Hall Mary Dean Hall	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 28, 2023
/s/ Phillip J. Platt Phillip J. Platt	Vice President, Chief Accounting Officer and Business Transformation Lead (Principal Accounting Officer)	February 28, 2023
/s/ Jean S. Blackwell Jean S. Blackwell	Director	February 28, 2023
/s/ Luis Fernandez-Moreno Luis Fernandez-Moreno	Director	February 28, 2023
/s/ Diane H. Gulyas Diane H. Gulyas	Director	February 28, 2023
/s/ Bruce D. Hoechner Bruce D. Hoechner	Director	February 28, 2023
/s/ Frederick J. Lynch Frederick J. Lynch	Director	February 28, 2023
/s/ Karen G. Narwold Karen G. Narwold	Director	February 28, 2023
/s/ Daniel F. Sansone Daniel F. Sansone	Director	February 28, 2023
/s/ William J. Slocum William J. Slocum	Director	February 28, 2023
/s/ Benjamin G. Wright Benjamin G. Wright	Director	February 28, 2023

Non-GAAP Financial Measures Reconciliation

Ingevity has presented certain financial measures, defined below, which have not been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and has provided a reconciliation to the most directly comparable financial measure calculated in accordance with GAAP. These financial measures are not meant to be considered in isolation or as a substitute for the most directly comparable financial measure calculated in accordance with GAAP. The Company believes these non-GAAP measures provide investors, potential investors, securities analysts and others with useful information to evaluate the performance of the business, because such measures, when viewed together with our financial results computed in accordance with GAAP, provide a more complete understanding of the factors and trends affecting our historical financial performance and projected future results.

Further, these financial measures are the primary measures of profitability used by managers of the business and its segments. In addition, Ingevity believes these measures are useful because they exclude the effects of financing and investment activities as well as non-operating activities. These non-GAAP financial measures are not intended to replace the presentation of financial results in accordance with GAAP and investors should consider the limitations associated with these non-GAAP measures, including the potential lack of comparability of these measures from one company to another. Reconciliations of these non-GAAP financial measures are set forth within the following pages.

The non-GAAP measures referenced herein are (i) Diluted Adjusted Earnings (Loss) Per Share, (ii) Adjusted EBITDA, (iii) Adjusted EBITDA Margin, and (iv) Net Debt Ratio.

Adjusted earnings (loss) is defined as net income (loss) plus restructuring and other (income) charges, net, acquisition and other-related costs, debt refinancing fees, litigation verdict charges, pension and postretirement settlement and curtailment (income) charges and the income tax expense (benefit) on those items, less the provision (benefit) from certain discrete tax items.

Diluted adjusted earnings (loss) per share is defined as diluted earnings (loss) per common share plus restructuring and other (income) charges, net per share, acquisition and other-related costs per share, debt refinancing fees per share, litigation verdict charge per share, pension and postretirement settlement and curtailment (income) charges per share and the income tax expense (benefit) per share on those items, less the per share tax provision (benefit) from certain discrete tax items per share.

Reconciliation of Net Income (Loss) (GAAP) to Adjusted Earnings (Loss) (Non-GAAP) and Reconciliation of Diluted Earnings (Loss) per Common Share (GAAP) to Diluted Adjusted Earnings per Share (Non-GAAP)

In millions, except per share amounts (unaudited)	 2020	2021	2022
Net income (loss)	\$ 181.4	\$ 118.1	\$ 211.6
Restructuring and other (income) charges, net	18.5	16.2	13.8
Acquisition and other related costs	1.8	0.6	5.9
Pension and postretirement settlement and curtailment charges (income)	0.1	_	0.2
Litigation verdict charge	_	85.0	_
Debt refinancing fees	_	_	5.1
Tax effect on items above	(4.4)	(23.8)	(5.9)
Certain discrete tax provision (benefit) ⁽¹⁾	5.2	13.4	0.7
Adjusted earnings (loss) (Non-GAAP)	\$ 202.6	\$ 209.5	\$ 231.4
Diluted earnings (loss) per share (GAAP)	\$ 4.37	\$ 2.95	\$ 5.50
Restructuring and other (income) charges, net	0.45	0.40	0.36
Acquisition and other related costs	0.04	0.01	0.14
Pension and postretirement settlement and curtailment charges (income)	_		0.01
Litigation verdict charge	_	2.12	_
Debt refinancing fees	_	_	0.13
Tax effect on items above	(0.10)	(0.59)	(0.15)
Certain discrete tax provision (benefit) ⁽¹⁾	0.12	0.34	0.02
Diluted adjusted earnings (loss) per share (Non-GAAP)	\$ 4.88	\$ 5.23	\$ 6.01
Weighted average common shares outstanding - Diluted	 41.5	40.1	38.5

⁽¹⁾ Represents certain discrete tax items such as excess tax benefits on stock compensation and impacts of legislative tax rate changes. Management believes excluding these discrete tax items assists investors, potential investors, securities analysts, and others in understanding the tax provision and the effective tax rate related to continuing operating results thereby providing useful supplemental information about operational performance.

Adjusted EBITDA is defined as net income (loss) plus interest expense, net, provision (benefit) for income taxes, depreciation, amortization, restructuring and other (income) charges, net, acquisition and other-related costs, litigation verdict charge, pension and postretirement settlement and curtailment (income) charges, net.

Adjusted EBITDA Margin is defined as Adjusted EBITDA divided by Net sales.

Reconciliation of Net Income (Loss) (GAAP) to Adjusted EBITDA (Non-GAAP)

In millions (unaudited)		2020		2021		2022	
Net income (loss) (GAAP)	\$	181.4	\$	118.1	\$	211.6	
Interest expense		42.2		47.7		54.3	
Provision (benefit) for income taxes		53.7		44.7		58.0	
Depreciation and amortization		100.2		109.9		108.8	
Restructuring and other (income) charges, net		18.5		16.2		13.8	
Acquisition and other related costs		1.8		0.6		5.9	
Litigation verdict charge		_		85.0		_	
Pension and postretirement settlement and curtailment charges (income), net		0.1				0.2	
Adjusted EBITDA (Non-GAAP)	\$	397.9	\$	422.2	\$	452.6	
Net sales	\$	1,216.1	\$ 1	,391.5	\$	1,668.3	
Net income (loss) margin		14.9 %		8.5 %		12.7 %	
Adjusted EBITDA Margin (Non-GAAP)		32.7 %		30.3 %		27.1 %	

Net Debt is defined as the sum of notes payable, short-term debt, current maturities of long-term debt and long-term debt less the sum of cash and cash equivalents, restricted cash associated with our New Market Tax Credit financing arrangement, and restricted investment excluding the allowance for credit losses on held-to-maturity debt securities.

Net Debt Ratio is defined as Net Debt divided by last twelve months Adjusted EBITDA, inclusive of acquisition-related pro forma adjustments.

Calculation of Net Debt Ratio (Non-GAAP)

Culculation of Net Debt Ratio (Non Gran)	,	
In millions, except ratios (unaudited)	Decem	ber 31, 2022
Notes payable and current maturities of long-term debt	\$	0.9
Long-term debt including finance lease obligations		1,472.5
Debt issuance costs		6.5
Total Debt	\$	1,479.9
Less:		
Cash and cash equivalents (1)		77.0
Restricted investment (2)		78.6
Net Debt	\$	1,324.3
Net Debt Ratio (Non GAAP)		
Adjusted EBITDA (3)		
Adjusted EBITDA - last twelve months (LTM) as of December 31, 2022	\$	452.6
Net debt ratio (Non GAAP)		2.93x

⁽¹⁾ Includes \$0.3 million of Restricted Cash related to the New Markets Tax Credit arrangement.

⁽²⁾ Excludes \$0.6 million allowance for credit losses on held-to-maturity debt securities.

⁽³⁾ Refer to the Reconciliation of Net Income (GAAP) to Adjusted EBITDA (Non-GAAP) for the reconciliation to the most comparable GAAP financial measure.









Ingevity Corporation

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