UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

or

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

For the transition period from to

Commission file number: 1-35229

Xylem Inc.

(Exact name of registrant as specified in its charter)

Indiana	**45-2080495**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

300 Water Street SE, Washington, DC 20003
(Address of principal executive offices and zip code)
(202) 869-9150
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	XYL	New York Stock Exchange

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

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

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

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

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

Large Accelerated Filer ☑ Accelerated Filer ☐ Non-Accelerated Filer ☐ Smaller reporting company ☐ Emerging growth company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes ☑ No ☐

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

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

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

The aggregate market value of the common stock of the registrant held by non-affiliates of the registrant as of June 30, 2022 was approximately $14.0 billion. As of February 17, 2023, there were 180,278,376 outstanding shares of the registrant’s common stock, par value $0.01 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s definitive proxy statement for its 2023 Annual Meeting of Shareowners, to be held in May 2023, are incorporated by reference into Part II and Part III of this Report.

Xylem Inc.
ANNUAL REPORT ON FORM 10-K
For the fiscal year ended December 31, 2022

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* Included pursuant to the Instruction to Item 401(b) of Regulation S-K.

PART I

The following discussion should be read in conjunction with the consolidated financial statements, including the notes, included elsewhere in this Annual Report on Form 10-K (this "Report").

Forward-Looking Statements

This Report contains “forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Generally, the words “anticipate,” “estimate,” “expect,” “project,” “intend,” “plan,” "contemplate," "predict," “forecast,” “likely,” “believe,” “target,” “will,” “could,” “would,” “should,” "potential," "may" and similar expressions or their negative, may, but are not necessary to, identify forward-looking statements. By their nature, forward-looking statements address uncertain matters and include any statements that: are not historical, such as statements about our strategy, financial plans, outlook, objectives, plans, intentions or goals (including those related to our social, environmental and other sustainability goals); or address possible or future results of operations or financial performance, including statements relating to orders, revenues, operating margins and earnings per share growth.

Although we believe that the expectations reflected in any of our forward-looking statements are reasonable, actual results could differ materially from those projected or assumed in any of our forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to change and to inherent risks and uncertainties, many of which are beyond our control. Additionally, many of these risks and uncertainties are, and may continue to be, amplified by impacts from changes in international conditions, including as a result of the war between Russia and Ukraine, coronavirus (“COVID-19”) pandemic and macroeconomic conditions, including inflation. Important factors that could cause our actual results, performance and achievements, or industry results to differ materially from estimates or projections contained in or implied by our forward-looking statements include, among others, the following: the impact of overall industry and general economic conditions, including industrial, governmental, and public and private sector spending, inflation, interest rates and related monetary policy by governments in response to inflation, and the strength of the residential and commercial real estate markets, on economic activity and our operations; geopolitical events, including the war between Russia and Ukraine, and regulatory, economic and other risks associated with our global sales and operations, including with respect to domestic content requirements applicable to projects with governmental funding; continued uncertainty around the ongoing impacts of the COVID-19 pandemic on the macroeconomy and our business, operations, growth, and financial condition; actual or potential other epidemics, pandemics or global health crises; availability, shortage or delays in receiving electronic components (in particular, semiconductors), parts and raw materials from our supply chain; manufacturing and operating cost increases due to macroeconomic conditions, including inflation, energy supply, supply chain shortages, logistics challenges, tight labor markets, prevailing price changes, tariffs and other factors; demand for our products, disruption, competition or pricing pressures in the markets we serve; cybersecurity incidents or other disruptions of information technology systems on which we rely, or involving our products; disruptions in operations at our facilities or that of third parties upon which we rely; ability to retain and attract senior management and other diverse and key talent, as well as competition for overall talent and labor; difficulty predicting our financial results; defects, security, warranty and liability claims, and recalls with respect to products; availability, regulation or interference with radio spectrum used by certain of our products; uncertainty related to restructuring and realignment actions and related costs and savings; our ability to continue strategic investments for growth; our ability to successfully identify, execute and integrate acquisitions; volatility in served markets or impacts on business and operations due to weather conditions, including the effects of climate change; fluctuations in foreign currency exchange rates; our ability to borrow or refinance our existing indebtedness, and uncertainty around the availability of liquidity sufficient to meet our needs; risk of future impairments to goodwill and other intangible assets; failure to comply with, or changes in, laws or regulations, including those pertaining to anti-corruption, data privacy and security, export and import, our products, competition, and the environment and climate change; changes in our effective tax rates or tax expenses; legal, governmental or regulatory claims, investigations or proceedings and associated contingent liabilities; risks related to our proposed acquisition of Evoqua Water Technologies ("Evoqua"), including related to realization of expected benefits and synergies, our ability to complete the transaction and need to incur additional transaction costs and expenses, impacts to our share price and dilution of shareholders’ ownership, and incurrence of additional costs and expenses to integrate the combined companies; and other factors set forth under "Item 1A. Risk Factors” in this Report and in subsequent filings we make with the Securities and Exchange Commission (“SEC”).

Additionally, risks and uncertainties relating to our plans to acquire Evoqua could cause our actual results to differ, perhaps materially, from those indicated by these forward-looking statements, including: the risk that the conditions to the closing of the transaction are not satisfied, including the risk that required approvals of the transaction from the shareholders of Xylem or stockholders of Evoqua or from regulators are not obtained; litigation relating to the transaction; uncertainties as to the timing of the consummation of the transaction and the ability of each party to consummate the transaction; risks that the proposed transaction disrupts the current plans or operations of Xylem or Evoqua; the ability of Xylem and Evoqua to retain and hire key personnel; competitive responses to the proposed transaction; unexpected costs, charges or expenses resulting from the transaction; potential adverse reactions or changes to relationships with customers, suppliers, distributors and other business partners resulting from the announcement or completion of the transaction; the combined company's ability to achieve the synergies expected from the transaction, as well as delays, challenges and expenses associated with integrating the combined company's existing businesses.

Forward-looking and other statements in this Form 10-K regarding our environmental and other sustainability plans and goals are not an indication that these statements are necessarily material to investors or are required to be disclosed in our filings with the SEC. In addition, historical, current, and forward-looking social, environmental and sustainability-related statements may be based on standards for measuring progress that are still developing, internal controls and processes that continue to evolve, and assumptions that are subject to change in the future. All forward-looking statements made herein are based on information currently available to us as of the date of this Report. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

ITEM 1. BUSINESS

Business Overview

Xylem is a leading global water technology company with 2022 revenues of $5.5 billion and approximately 17,800 employees worldwide. We design, manufacture and service highly engineered products and solutions across a wide variety of critical applications, primarily in the water sector, but also in energy. Our broad portfolio of products, services and solutions addresses customer needs of scarcity, resilience, and affordability across the water cycle, from the delivery, measurement and use of drinking water, to the collection, testing, analysis and treatment of wastewater, to the return of water to the environment.

We have differentiated market positions in core application areas including transport, treatment, dewatering, analytic instrumentation and measurement, smart metering, infrastructure assessment services, digital software solutions for utilities, and applied water systems for commercial and residential building services and industrial processes. Setting us apart is a unique set of global assets that include:

- Market-leading brands, some of which have been in use for more than 100 years
- Global distribution networks consisting of direct sales forces and independent channel partners serving a diverse customer base in approximately 150 countries
- A substantial global installed base across the water cycle that provides for steady recurring and replacement revenue
- A strong history of bringing innovative products, solutions, and business models to customers
- A strong financial position and cash generation profile that enables us to fund strategic organic and inorganic growth initiatives, and consistently return capital to shareholders
- A demonstrated commitment to corporate governance, social and environmental sustainability and delivering a positive impact to our customers, communities and employees
- A dedicated, experienced, qualified and technologically advanced group of experienced employees focused on safely satisfying our customers' requirements in the water and energy spaces

Our Industry

Our vision is to create a world in which water issues are no longer a constraint to health, prosperity and sustainable development.

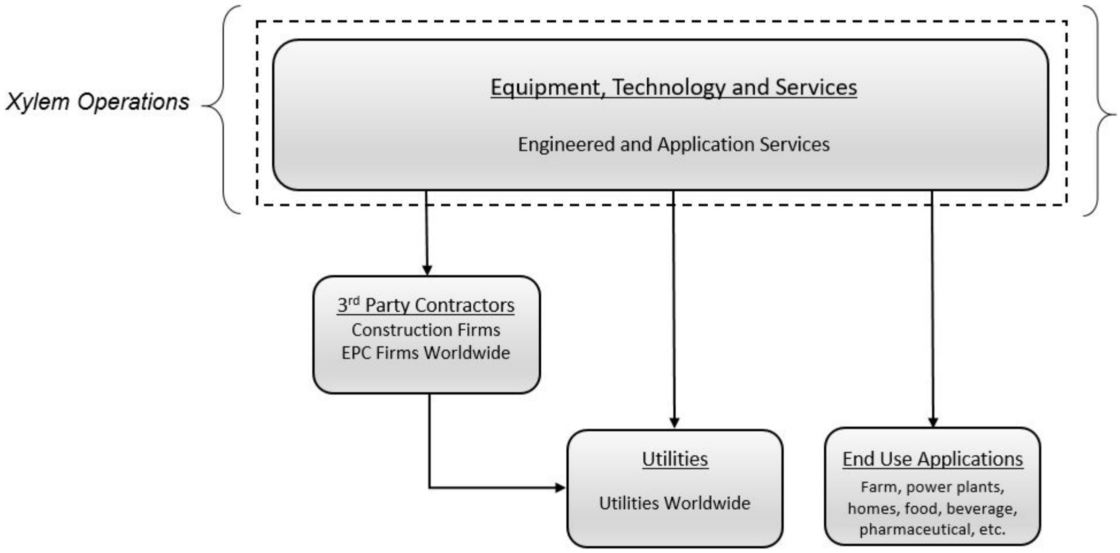
Our planet faces serious water challenges. Less than 1% of the total water available on earth is fresh water, and these supplies are threatened by factors such as the draining of aquifers, increased pollution and the effects of climate change. Demand for fresh water is rising rapidly due to population growth, industrial expansion, and increased agricultural development, with consumption estimated to double every 20 years. By 2025, more than 30% of the world’s population is expected to live in areas without adequate water supply. Even in developed countries with sufficient clean water supply, existing water supply infrastructure is aging and often inefficient. In the U.S., deteriorating pipe systems, theft or inaccurate meters result in approximately one out of every six gallons of treated water being lost prior to reaching the end customer. This problem of "non-revenue" water is a major financial challenge of many utilities globally, especially in developing markets where non-revenue water can represent 10% to 60% or more of net water produced. These and other challenges create opportunities for growth in the global water industry. We estimate the total addressable market size of the global water industry, excluding operational expenditures related to labor, energy, and chemicals, to be approximately $700 billion.

Global water needs cannot be met without streamlining the water industry’s cost structure with technologies that fundamentally change the provision and management of water. We compete in areas that are pivotal to improving "water affordability" and "resilience", while reducing the impact of "water scarcity". "Water affordability" refers to the more efficient delivery, use and treatment of clean water and wastewater. "Resilience" refers to the management of water-related risks, including climate change mitigation, and the resilience of water infrastructure. "Water scarcity" refers to the management of limited supplies of water due to climate change, overpopulation and pollution. Our customers often face all three of these challenges, ranging from inefficient and aging water distribution networks and energy-intensive or unreliable water and wastewater management systems (requiring improvements in water affordability); droughts and pollution which limit the amount of water readily available (causing water scarcity); or exposure to natural disasters such as floods or droughts (requiring improvements in resilience). Additionally, we also provide solutions to enhance communications and efficiency, improve safety and conserve resources to customers in the water and energy sectors. Delivering value in these areas creates significant opportunity for the Company.

The Global Water Industry Value Chain

The water industry value chain includes Equipment, Technology and Services companies, like Xylem, that address the unique challenges and demands of a diverse customer base. This customer base includes water and wastewater utilities that supply, treat and monitor clean water or transport, treat and analyze wastewater or storm water through an infrastructure network, and engineering, procurement and construction ("EPC") firms and third party contractors, that work with utilities to design and build water and wastewater infrastructure networks, as depicted below. Utilities and other customers require products, solutions, services, technology and application expertise from their Equipment, Technology and Services providers to address trends such as rising pollution, stricter regulations, increasing operational costs and the increased outsourcing of process knowledge. In addition to utilities, Equipment, Technology and Service companies also provide distinct technologies and application expertise to a wide array of entities, including farms, mines, power plants, industrial facilities (such as food and beverage and pharmaceutical manufacturers) and residential and commercial customers seeking to address similar trends.

Water Industry Supply Chain



Business Strategy

Our overarching strategy is to help customers solve the world's greatest water challenges with innovative products, services and solutions to deliver sustainable economic, social and environmental benefits. The following strategic pillars guide where and how we focus our efforts and resources to implement this strategy:

- **Drive Customer Success.** We seek to partner with customers to meet their stakeholders' needs through our broad portfolio of products, services and solutions. We are focused on several key areas, beginning with making it easier for customers to do business with Xylem and access the full range of our capabilities. As part of this, we are implementing a digital platform to discover, select, get price quotes, and purchase our offerings. Second, we seek to lead the way as digital technologies transform our sector by further integrating our digital solution portfolio and broadening our solution sales, digital literacy and marketing capabilities company-wide. Third, we seek to help customers get the most out of their systems by providing world-class services that enable increased uptime, efficiency and resilience. We partner with them by providing powerful, integrated lifecycle services and solutions.

- **Grow in the Emerging Markets.** We continue to invest in localizing our capabilities in the emerging markets. We will continue building innovation, product management and engineering teams in these regions, expanding our market coverage in key growth markets such as China, India, Eastern Europe, Latin America and Africa. We seek to address the base of the pyramid population by providing water and sanitation needs with new solutions and business models.
- **Strengthen Innovation and Technology.** We seek to create new customer offerings that help them solve water challenges more powerfully than ever before, while also providing our company with rapid growth opportunities. We are focused on building and enabling infrastructure for digital growth by making our hardware, networks and software applications interoperable and creating a common software experience. This will further strengthen our core product offerings, and deliver strategic, sustainable innovations that help us tap into new markets through advanced technology and new business models.
- **Build a Culture of Continuous Improvement.** We seek to continue embedding a continuous improvement mindset throughout the Company, and will continue to improve our efficiency, simplify our business and manage costs to support continued growth. We are committed to eliminating business complexity by streamlining internal bureaucracy and expanding standard business platforms and processes to help people do their jobs. This will result in freeing up time to ensure that we focus on work that creates customer value. Other focus areas include removing unnecessary costs from our end-to-end value chain to free up resources for growth; and building resilience and sustainability into our supply chain to protect our ability to serve customers.
- **Cultivate Leadership and Talent Development.** We continue to foster an empowering, mission-driven, diverse, equitable and inclusive culture. We will continue to build leadership succession depth and breadth in keeping with our commitment to developing the next generation of leaders. We will also align our incentives, including share-based and performance-based compensation, and organizational structure to our strategy, favoring approaches to drive 'one company' skills, mindset and behaviors, and stakeholder value creation.

Our strategic plan firmly embeds sustainability at the heart of our competitive advantage and unique business model, and aligns each of our five core strategic pillars to the overarching goal of integrating sustainability into everything we do.

While our strategy will evolve in response to the changing world, our four values are the enduring principles that go to the heart of who we are and guide how we conduct ourselves each day: Respect, Responsibility, Integrity and Creativity.

Business Segments, Distribution and Competitive Landscape

We have three reportable business segments that are aligned around the critical market applications they provide: Water Infrastructure, Applied Water, and Measurement & Control Solutions. See Note 21, "Segment and Geographic Data," in our consolidated financial statements for financial information about segments and geographic areas.

The table and descriptions below provide an overview of our business segments:

	Market Applications	2022 Revenue (in millions)	% Revenue	Major Products	Primary Brands
Water Infrastructure	Transport	$ 1,943	82 %	• Water and wastewater pumps • Filtration, disinfection and biological treatment equipment • Mobile dewatering equipment and rental services	• Flygt • Godwin • Leopold • Sanitaire • Wedeco • Xylem Vue
	Treatment	421	18 %		
		$ 2,364	100 %		
Applied Water	Commercial Building Services	$ 659	37 %	• Pumps • Valves • Heat exchangers • Controls • Dispensing equipment systems	• A-C Fire Pump • Bell & Gossett • Flojet • Goulds Water Technology • Jabsco • Lowara • Standard Xchange • Xylem Vue
	Residential Building Services	306	17 %		
	Industrial Water	802	46 %		
		$ 1,767	100 %		
Measurement & Control Solutions	Water	$ 1,126	81 %	• Smart meters • Networked communication devices • Data analytics • Test equipment • Controls • Sensor devices • Software & managed services • Critical infrastructure services	• Pure Technologies • Sensus • Smith Blair • WTW • YSI • Xylem Vue
	Energy	265	19 %		
		$ 1,391	100 %		

Water Infrastructure

Our Water Infrastructure segment primarily supports the process that collects water from a source, treats it and distributes it to users, and then treats and returns the wastewater responsibly to the environment through two closely linked applications: Transport and Treatment. The Transport application also includes sales and rental of specialty dewatering pumps and related equipment and services, which provide the safe removal or draining of groundwater and surface water from construction sites or other industrial sites and bypass pumping for the repair of aging utility infrastructure, as well as emergency water transport and removal during severe weather events.

The customer base consists of two primary end markets: utility and industrial. The utility market includes public, private and public-private entities that support water, wastewater and storm water networks. The industrial market includes customers that require similar water and wastewater infrastructure applications to support various industrial operations.

Water Infrastructure sells primarily through direct channels with remaining sales through indirect channels and service capabilities. Both utility and industrial facility customers increasingly require our teams' global but locally proficient expertise to use our equipment in their specific applications. Several trends are increasing demand for this application expertise: (i) the increase in both the type and amount of contaminants found in the water supply, (ii) increasing environmental regulations, (iii) the need to increase system efficiencies and resilience to optimize energy and other operational costs, (iv) the retirement of an aging water industry workforce that has not been systematically renewed at utilities and other end-user customers, and (v) the build-out of water infrastructure in the emerging markets.

Given the highly fragmented nature of the water industry, the Water Infrastructure segment competes with a large number of businesses and no one business competes across all the markets Water Infrastructure serves. We differentiate ourselves in the market by focusing on product and service performance, quality and reliability, innovation, speed to market with new or disruptive technologies and business models, application expertise, brand reputation, energy efficiency, product security, product life-cycle cost, timeliness of delivery, proximity of service centers, effectiveness of our distribution channels, price and customers' experience in doing business with us. Increasingly digital solutions and analytics are important competitive differentiators. We are actively expanding our capabilities in these areas and integrating them together with our legacy technologies and service offerings as well as capabilities from other Xylem business units to present ever more compelling solutions to our customers. In the sale or rental of products and provision of services, we benefit from our large installed base, which requires maintenance, repair and replacement parts due to the critical application and nature of the products and the conditions under which they operate. Timeliness of delivery, quality and the proximity of service centers are important customer considerations when selecting a provider for after-market products and services as well as equipment rentals. In geographic regions where we are locally positioned to provide a quick response, customers have historically relied on us, rather than our competitors, for after-market products relating to our highly engineered and customized solutions. Our key competitors in the Water Infrastructure segment include KSB Inc., Sulzer Ltd., Grundfos, United Rentals, Trojan (Danaher Corporation) and Evoqua.

Applied Water

Applied Water encompasses the uses of water to serve a diverse set of customers in the commercial, residential and industrial end markets. Residential consumers represent the end users in the residential market, while owners and managers of properties such as apartment buildings, retail stores, institutional buildings, restaurants, schools/universities, hospitals and hotels are examples of end users in the commercial market. The industrial market includes original equipment manufacturers ("OEMs"), exploration and production firms, and developers and managers of industrial facilities, such as electrical power generators, chemical manufacturers, machine shops, clothing manufacturers, marine, food and beverage companies and car washes.

In the Applied Water segment, end markets vary widely and, as a result, specialized distribution partners are often preferred. As such, the Applied Water segment provides the majority of its sales through strong indirect channels with the remaining sales going through our global direct sales channels. We have long-standing relationships with many of the leading independent distributors in the markets we serve and we provide incentives to distributors, such as specialized loyalty and training programs.

Population growth and urbanization, climate and regulation on energy efficiency, and digitalization enabling self-service and preventive maintenance are macro growth drivers of these markets, driving the need for housing, food, community services and retail goods within growing city centers.

Competition in the Applied Water segment focuses on brand reputation, application expertise, product delivery, performance and energy efficiency, quality and reliability, and price. We compete by offering a wide variety of innovative and high-quality products, coupled with world-class application expertise. We believe our distribution through well-established channels and our reputation for quality significantly enhance our market position. Our ability to deliver innovative product offerings has enabled us to compete effectively, to cultivate and maintain customer relationships and to serve and expand into many niche and new markets. Our key competitors in the Applied Water segment include Grundfos, Wilo SE, Pentair plc and Franklin Electric Co., Inc.

Measurement & Control Solutions

Measurement & Control Solutions develops advanced technology solutions that enable intelligent use and conservation of critical water and energy resources. The segment delivers communications, smart metering, measurement and control capabilities and critical infrastructure technologies that allow customers to more effectively use their distribution networks for the delivery, monitoring and control of critical resources such as water, electricity and natural gas. We also provide analytical instrumentation used to measure and analyze water quality, flow and level in clean water, wastewater, outdoor water environments. Additionally, we offer software and services including cloud-based analytics, remote monitoring and data management, leak detection, condition assessment, asset management and pressure monitoring solutions.

At the heart of our leading technologies are automation, data management and decision support. Communications networks enable customers to automate and optimize meter reading, bill customers, monitor flow rates and detect and enable rapid response to changing and unsafe conditions. In short, they provide insight into operations and enable our customers to manage the entire scope of their operations remotely through their networks. At the center of our offering is the FlexNet communication network, which provides a common communications platform and infrastructure for essential metering services. This two-way communication technology remotely connects a wide variety of smart points in a given network with protocols, frequently on Federal Communications Commission ("FCC") licensed spectrum in the U.S., to enable reliable, resilient and secure transmissions. These technologies allow our customers to remotely and continuously monitor their water and energy distribution infrastructure, prioritize and manage maintenance, and use data to optimize many aspects of their networks. Our digital software solutions complement these offerings with intelligent applications that help utility decision-makers manage and maintain their networks more effectively in real time.

The majority of our sales in the U.S. are conducted through strong, long-standing relationships with leading distributors and dedicated channel partners for the water and energy markets. Internationally, direct sales are often made in markets without established distribution channels; however, some distribution channels are used in more developed markets. A more direct sales approach, with key account management, is employed for large utilities and government programs.

Macro growth drivers include increasing regulation, aging infrastructure and worldwide movement towards smart grid implementation. Water scarcity and conservation, as well as the need to prevent revenue loss (via inaccurate meter readings, leaks or theft) are among the drivers of smart meter and leak detection technologies.

Our Sensus-branded meters are well positioned in the smart metering sector, the fastest growing sector of the global meter industry. We set ourselves apart in the industry by focusing on our communication network, innovation, new product development and service offerings that deliver tangible savings from efficiency of operating costs in meter reading and billing as well as reduction of non-revenue water through improved meter accuracy, reduced theft and identification of leaks. Our YSI and WTW-branded instruments have a strong position in the analytical instrumentation market and provide critical readings of various water quality, level and flow parameters for customers. We provide a differentiated offering in the reliability and accuracy of our products often in rugged, remote, and hazardous locations. Our Pure Technologies equipment and services are also well positioned in the leak detection sector, which is attracting considerable attention as aging infrastructure and increased regulatory scrutiny exert pressure on operating budgets. Our key competitors in the Measurement & Control Solutions segment include Itron, Badger Meter, Landis+Gyr, Neptune (Roper), Kamstrup, Echologics (Mueller Water Products), Hach (Danaher Corporation) and Teledyne.

Geographic Profile

The table below illustrates the annual revenue and percentage of revenue by geographic area for each of the three years ended December 31.

	Revenue					
(in millions)	**2022**		2021		2020	
	$ Amount	**% of Total**	$ Amount	% of Total	$ Amount	% of Total
United States	**$ 2,573**	**47 %**	$ 2,280	44 %	$ 2,297	47 %
Western Europe	**1,411**	**26 %**	1,414	27 %	1,259	26 %
Emerging Markets (a)	**1,074**	**19 %**	1,066	21 %	919	19 %
Other	**464**	**8 %**	435	8 %	401	8 %
Total	**$ 5,522**		$ 5,195		$ 4,876	

(a) Emerging Markets includes results from the following regions: Eastern Europe, the Middle East and Africa, Latin America and Asia Pacific (excluding Japan, Australia and New Zealand, which are presented in "Other")

Supply and Seasonality

We have a global manufacturing and assembly footprint, with production facilities in Europe, North America, Latin America, Asia and the Middle East. All of our businesses require various parts and raw materials, the availability and prices of which may fluctuate. Parts and raw materials commonly used in our products include motors, fabricated parts, castings, magnets, bearings, seals, batteries, printed circuit boards ("PCBs") and electronic components, including semiconductors, as well as commodities, including steel, brass, nickel, copper, aluminum and plastics. While we may recover some cost increases through operational improvements, we are still exposed to pricing risk, including due to duty and tariff assessments by the U.S. or other governments on foreign imports. We attempt to control costs through fixed-priced contracts with suppliers and various other programs, such as our global procurement initiative.

Our business relies on third-party suppliers, contract manufacturing and commodity markets to secure raw materials, parts and components used in our products. We typically acquire materials and components through a combination of blanket and scheduled purchase orders to support our materials requirements. For many of our products we have existing alternate sources of supply, or such sources may be readily available.

We have experienced price volatility or supply constraints when materials have not been available from multiple sources. From time to time, we acquire certain inventory in anticipation of supply constraints or enter into longer-term pricing commitments with suppliers to improve the priority, price and availability of supply.

Our business segments experience a modest level of seasonality in their operations. This seasonality is dependent on factors such as customers' capital spending, as well as the effects of climate change and weather conditions, including heavy flooding, prolonged droughts and fluctuations in temperatures or weather patterns, all of which can positively or negatively impact portions of our business.

Customers

Our business is not dependent on any single customer or a few customers, the loss of which would have a material adverse effect on our Company. No individual customer accounted for more than 10% of our consolidated revenues in 2022, 2021 or 2020.

Backlog

Backlog includes orders on hand as well as contractual customer agreements at the end of the period. Delivery schedules vary from customer to customer based on their requirements. Annual or multi-year contracts are subject to rescheduling and cancellation by customers due to the long-term nature of the contracts. As such, beginning total backlog, plus orders, minus revenues, will not equal ending total backlog due to contract adjustments, foreign currency fluctuations, and other factors. Typically, large projects require longer lead production cycles and deployment schedules, and delays occur from time to time. Total backlog was $3,605 million at December 31, 2022 and $3,240 million at December 31, 2021. We anticipate that approximately 55% of the backlog at December 31, 2022 will be recognized as revenue during 2023.

Research and Development

Research and development (“R&D”) is a key foundation of our growth strategy and we focus on the design and development of products and application know-how that address anticipated customer needs and emerging trends. Our engineers are involved in new product development as well as improvement of existing products to increase customer value. Our businesses invest substantial resources into R&D. We anticipate we will continue to develop and invest in our R&D capabilities to promote a steady flow of innovative, high-quality and reliable products and integrated solutions to further strengthen our position in the markets we serve. In addition to investments made in software development, which were capitalized, we incurred $206 million, $204 million, and $187 million as a result of R&D investment spending in 2022, 2021 and 2020, respectively.

We have R&D and product development capabilities around the world. R&D activities are initially conducted in our technology centers, located in conjunction with some of our major manufacturing facilities to enable an efficient and robust development process. We have several global technical centers and local development teams around the world where we are supporting global needs and accelerating the customization of our products and solutions to address local needs. In some cases, our R&D activities are conducted at our piloting and testing facilities and at strategic customer sites. These piloting and testing facilities enable us to serve our strategic markets globally. As part of expanding our bandwidth and to increase our access to technology, we have built innovation eco-system partnerships with academic institutions as well as other technology firms, start-up accelerators and venture capital organizations.

Capitalized Software

We offer software as a product or service directly to external customers, which is included within "Other intangible assets, net" on our Consolidated Balance Sheets. As of December 31, 2022 and 2021 we had net capitalized software used in sales and services to external customers of $213 million and $211 million, respectively.

Intellectual Property

We generally seek patent protection for inventions that we believe will improve our competitive position and are not suitable to be kept as a trade secret. While we own, control or license a significant number of patents, trade secrets, proprietary information, trademarks, trade names, copyrights and other intellectual property rights which, in the aggregate, are of material importance to our business, management believes that our business, as a whole, as well as each of our core business segments, is not materially dependent on any one intellectual property right or related group of such rights.

Patents, patent applications and license agreements expire or terminate over time by operation of law, in accordance with their terms or otherwise. As the portfolio of our patents, patent applications and license agreements has evolved over time, we do not expect the expiration of any specific patent to have a material adverse effect on our financial position or results of operations.

Governmental Regulations

Environmental Regulations

Our global operations are subject to various laws and regulations governing the environment and climate change, such as those promulgated by the U.S. Environmental Protection Agency and similar state and foreign environmental agencies, including the discharge of pollutants and the management and disposal of hazardous substances. While environmental and climate change laws and regulations are subject to change, such changes can be difficult to predict reliably and the timing of potential changes is uncertain. Management does not believe, based on current circumstances, that compliance costs pursuant to such regulations will have a material adverse effect on our financial position or results of operations. However, the effect of future legislative or regulatory changes could be material to our financial condition or results of operations.

We continue to be dedicated to environmental and sustainability programs to minimize the use of natural resources, reduce the utilization and generation of hazardous materials from our processes and remediate identified environmental concerns. We are currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at a number of current and former manufacturing facilities. We do not anticipate these liabilities will have a material adverse effect on our consolidated financial position or results of operations. At December 31, 2022, we had estimated and accrued $4 million related to environmental matters.

Other Regulations

As a company with global operations, we are subject to complex U.S. federal, state and local and foreign laws and regulations in the countries where we conduct business, including with respect to trade, such as tariffs, imports and exports; anti-bribery and corruption; antitrust and competition; data security and privacy, such as the EU General Data Protection Regulation (“GDPR”) and the China Personal Information Protection Law ('PIPL"); use of regulated radio spectrum, including that of the U.S. FCC; lobbying activity; health and safety; and the environment, among other matters. We have policies and procedures in place to promote compliance with these laws and regulations. Additional information about the impact of government regulations on Xylem’s business is included in Item 1A. “Risk Factors” under the headings Risks Related to Our Business and Operations, Risks Related to Financial and Tax, and Risks Related to Legal and Regulatory.

Sustainability

At Xylem, sustainability is at the center of who we are and what we do. As a leading global water technology company, we address some of the world's most urgent sustainability challenges - responsible stewardship of our shared water resources and resiliency of communities to climate change. Technology is playing an increasingly important role in helping the world solve water issues. We have a long history of innovation and we are focusing on the powerful capabilities of smart technology, integrated management and data analytics.

We believe our financial performance and commitment to sustainability go hand in hand. Xylem approaches business sustainability as a way to generate economic value while also creating value for society, thus meeting the needs of both. Accordingly, in 2019, we evolved our approach to leverage sustainability in our decision-making toward long-term value creation for our shareholders, customers, employees and communities in which we operate and we announced an ambitious slate of 2025 Sustainability goals. The progress towards these goals can be found in our 2021 Sustainability Report, which is aligned to the Global Reporting Initiative and the Sustainability Accounting Standards Board frameworks.

In setting our 2025 Sustainability goals, we also aligned them with the United Nations Sustainable Development Goals ("UNSDGs"), not only to substantiate our contribution to achieving global objectives, but also to be transparent in our communication to stakeholders by providing details on our responsibility to build a sustainable future. While Xylem embraces all 17 of the UNSDGs, we have a special focus on SDG6: Clean Water and Sanitation.

Additionally, in 2021, Xylem announced our commitment to reach Net Zero greenhouse gas ("GHG") emissions before 2050 across our value chain, further aligning our long-term commitment to sustainability with sector-wide moves towards reduced carbon footprint. In 2022, we submitted our 2030 GHG reduction targets to the Science Based Target Initiative for validation. As of year end, these are currently under review.

In 2022, we announced investments in CNote's Impact Cash™ platform, a mechanism through which we invest and deposit cash at scale in community finance institutions that strengthen and transform underserved communities. In 2021, in partnership with Goldman Sachs, we continued our work towards further integrating our business and finance strategies with sustainability by creating a cash account tied to performance of select 2025 Sustainability goals. In 2020, Xylem completed a $1 billion Green Bond offering in senior unsecured notes, consisting of $500 million of 1.950% senior notes due in January 2028 and $500 million of 2.250% senior notes due in January 2031. The proceeds of this offering were allocated to green projects that help improve water accessibility, water affordability, and water systems resilience. This follows our 2019 execution of a five-year revolving credit facility (the "2019 Credit Facility") with Citibank, N.A., as Administrative Agent, and a syndicate of lenders. The 2019 Credit Facility includes a pricing grid that determines the applicable margin based on Xylem's credit rating, with a further adjustment depending on Xylem's annual Sustainalytics Environmental, Social and Governance ("ESG") score, an important barometer of Xylem's continued commitment to sustainability. Additionally, during the first quarter of 2021, we issued a special grant of less than 0.1 million ESG performance share units.

Human Capital

Our colleagues around the globe are united in a shared purpose – to solve water – and, as such, are key to the Company's success and execution of our strategy. We continue to foster an empowering, mission-driven, people-centered, diverse, equitable and inclusive culture. We believe that our overall success and long-term growth depend, in part, on our continued ability to attract and retain diverse and highly skilled colleagues, including senior leaders and colleagues with skills in our strategic competencies, such as engineering, innovation, digital technologies, sales excellence, sustainability and product and project management, as well as production and technical services talent. The market for production, technical services, leadership and highly-skilled talent is increasingly competitive, but we believe our culture is a differentiator and therefore important to our ability to attract and retain employees.

As of December 31, 2022, Xylem employed approximately 17,800 employees worldwide. We have approximately 5,600 employees in the U.S., 7,100 in Western Europe, and 4,300 in the Emerging Markets, with the remaining 800 in other geographies in which we operate. Approximately 37% of our colleagues are represented by labor unions, including 16% of our U.S. colleagues. In certain foreign countries, our colleagues are represented by work councils. We believe that our relations with our employees are good, including with our employees that are represented by labor unions or works councils.

We conduct regular employee engagement surveys to understand our employees' perspectives, identify areas for additional focus and establish action plans. These surveys cover a range of topics, including employee engagement, company culture, customer focus, organizational effectiveness, employee well-being, safety, diversity, equity and inclusion, pay for performance and career development opportunities. Our approach currently includes a periodic comprehensive global survey, shorter pulse surveys and listening sessions. 86% of our employees globally participated in our 2021 comprehensive engagement survey, and our engagement index showed increases from the 2019 survey.

Our Vision and Values

Our vision and values provide the foundation for how we want to grow as a company as well as the inspiration for how we want to behave as industry leaders and ethical corporate citizens. Our vision is to create a world in which water issues are no longer a constraint to health, prosperity, and sustainable development. We devote our technology, time and talent to advance the smarter use of water and our colleagues are guided by our core values:

- Respect for each other, for diversity of people and opinions, for the environment;
- Responsibility for our words and actions, for customer satisfaction, for giving back to our communities;
- Integrity for acting ethically, for doing what we say we'll do, for having the courage to communicate with candor; and
- Creativity for thinking beyond boundaries, for anticipating tomorrow's challenges, for unlocking growth potential.

Diversity, Equity and Inclusion

We are committed to a workplace that creates a sense of belonging for everyone: where all our colleagues feel involved, respected, valued, heard, connected and able to bring their authentic selves to work. At Xylem, we recognize the power of diversity, equity and inclusion to drive innovation, make us more competitive, positively impact employee and customer satisfaction and the Company's performance, better serve the communities in which we operate, create value for our shareholders and other stakeholders and advance social equity.

Our commitment to building a global, diverse, equitable and inclusive culture starts with our Board of Directors and senior leadership team members, who represent a broad spectrum of backgrounds and perspectives. We believe that the diversity of our Board of Directors and senior leadership enhances our ability to evolve and execute our business strategy and to attract and retain diverse and highly-qualified talent, and also fuels our commitment to foster a culture of inclusion and provide our colleagues with equitable access to opportunities. As of December 31, 2022 globally, 26% of our colleagues identify as female; in the U.S., 28% of our colleagues identify as U.S. minorities.

Diversity and inclusion metrics are included in our regular business reviews to provide transparency and drive accountability by highlighting progress on goals and outlining steps to achieve them. In addition, we publicly disclose various workforce metrics regarding gender, age and racial and ethnic diversity, including our U.S. EEO-1 report. One of our strategies for becoming a more diverse organization—and incorporating broader experiences, skill sets, and perspectives into our work—is expanding sourcing channels for diverse talent through external diversity partnerships and affiliations.

We offer Employee Network Groups, which are voluntary, employee-led groups formed by people with a common affinity, such as gender, race, sexual orientation and gender identity, military status or other attributes. Each Employee Network Group is sponsored and supported by one or more senior leaders and all groups are open to all employees regardless of any diversity attributes with which they may identify. Collectively, approximately 3,900 colleagues participate as members of our network groups.

Health and Safety

Protecting the safety, health and well-being of our colleagues is one of our highest priorities. We have a strong Environmental, Health and Safety program that focuses on governance, risk reduction, training and education, and leadership accountability to provide our colleagues with safe and healthy workplaces.

In our 2021 employee engagement survey, we sought specific feedback from our colleagues on their efforts to manage stress and disconnect from work and, based on the survey responses, we have augmented our holistic well-being strategies, including providing mental health awareness training to our people leaders, which more than 500 people managers have participated in, and expanding our Employee Assistance Program support across the globe.

In response to the ongoing crisis in Ukraine, we continue to provide financial and logistical support to our colleagues and partners in Ukraine, including travel assistance and temporary accommodations near our facilities in Poland.

Compensation and Benefits

Xylem takes a total rewards approach that integrates programs for compensation, benefits, recognition and work-life balance and we strive to provide our colleagues with competitive compensation and benefits. In 2022, for our U.S. colleagues, we enhanced our paid parental leave and short-term disability coverage, provided for flexible time off, and expanded our health and welfare benefits, including with respect to reproductive care. While individual program components may differ by country, role or level, our culture and commitment to results and equity remain constant. We are currently conducting a pay equity assessment based on gender and U.S. minority classifications and will use the results of this assessment to continue to support our commitment to equitable pay by role.

We seek to align our human capital and sustainability strategies to support our mission-driven culture and further our shared value approach, which is designed to generate increased economic and social value for our investors and other stakeholders. Accordingly, in 2021, the Company expanded its sustainability-linked compensation for all of our senior leaders, as well as a broader group of executives, with a special, one-time grant of performance share units with goals that are based on 5 of our strategically transformative 2025 Sustainability goals. We continue to expand our long-term incentive program to reach deeper in the organization to recognize key talent and top performers and attract and retain digital technology talent.

We have heard from many of our office-based colleagues that they greatly value the increased flexibility and autonomy that come with remote working. We believe that an appropriately tailored approach that balances in the office, fully remote and hybrid arrangements increases our ability to retain and attract the best, most diverse talent, while reducing our carbon footprint associated with unnecessary commuting and business travel. We are continuing to explore ways to help our colleagues thrive in a variety of work settings and have formalized guidelines that support remote and hybrid work. To better support our colleagues in a more flexible workplace, we also provide high-touch global onboarding and leverage collaboration technologies.

Career Development

We are committed to enhancing colleagues’ capabilities needed for the Company to win in the marketplace. We also are focused on internal talent mobility across functions, geographies and businesses. Through our continuous improvement program, we nurture and grow a continuous improvement mindset throughout all areas of the Company.

We have a broad range of talent development programs and experiences to facilitate the continued professional growth and leadership development of our colleagues and to support our succession plans. These programs span across all levels, businesses and functions, including entry-level talent recruitment programs, development programs for emerging leaders, people leader training and executive leadership development. We also provide on-demand/self-paced learning through our learning management systems.

We prioritize employee engagement through regular, year-round discussions focused on employee performance feedback and development, opportunities to work on special projects, and volunteer activities involving Watermark, our corporate social responsibility program, as well as Xylem Ignite, our youth engagement program. Our Employee Network Groups foster inclusion and support the development of our colleagues by offering formal and informal leadership opportunities and creating visibility for colleagues.

Labor Relations

Xylem recognizes the work of labor organizations, work councils and trade unions to better the lives of working people. Accordingly, Xylem respects the legal rights of its employees to join or to refrain from joining such organizations. An employee’s decision to join or not join a labor organization will in no way result in any discrimination against that employee. Xylem informs managers at all levels of the importance of respecting the rights of colleagues to organize or be represented. We work to establish favorable employment conditions that promote positive relationships between our colleagues and their managers, facilitate communications among our colleagues and support their development.

Available Information

We are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and amendments to those reports are available free of charge on our website *www.xylem.com* as soon as reasonably practicable after such reports are electronically filed with or furnished to the SEC. The information on our website is not, and shall not be deemed to be, a part hereof or incorporated into this or any of our other filings with the SEC.

In addition, the public may read or copy any materials filed with the SEC, free of charge, at *www.sec.gov.*

ITEM 1A. RISK FACTORS

In evaluating our business and investment in our securities, investors should carefully consider the following discussion of material factors and events, along with all of the other information in this Report and in our other filings with the SEC. The events and consequences discussed below could, in circumstances that we may not be able to accurately predict, recognize or control, have a material adverse effect on our business, financial condition, cash flows, results of operations and/or market price of our common stock.

These risk factors do not identify all of the risks we face. Our business is also subject to general risks that affect many other companies. In addition, we operate in a continually changing business, economic and geopolitical environment and as a result, new risk factors, or changes to our risk profile, may emerge from time to time. Risks not currently known to us, or that we currently believe are immaterial, may impact our business, operations, financial condition or share price. The global economic and geopolitical climate, including as a result of the war between Russia and Ukraine, the coronavirus ("COVID-19") pandemic, and macroeconomic conditions, amplify many of the risks below. Risks in this section are grouped in the following categories: (1) Risks Related to Geopolitical, Macroeconomic and Industry Factors; (2) Risks Related to Our Business and Operations; (3) Risks Related to Financial and Tax; (4) Risks Related to Legal and Regulatory; and (5) Risks Related to the Proposed Acquisition of Evoqua. Many risks affect more than one category, and as a result the risks are not in order of significance or probability of occurrence.

Risks Related to Geopolitical, Macroeconomic and Industry Factors

Industry and economic conditions may adversely affect our markets and our customers' operating conditions, which can in turn affect our business, results of operations and financial condition.

With sales in approximately 150 countries, we compete across a wide range of geographic and end-markets. Material economic and industry factors impacting our businesses include: (i) the overall strength of, and our customers' confidence in, local and global macroeconomic conditions; (ii) inflation, (iii) overall strength of industrial, governmental, public and private sector spending; (iv) overall strength of the industrial, residential and commercial real estate markets; (v) federal, state, local and municipal governmental fiscal, trade and procurement laws, regulations and policies, including with respect to domestic content; (vi) the availability of commercial financing for our customers and end-users; and (vii) the degree of funding for our public sector customers, including with respect to water infrastructure investments. Macroeconomic impacts and dynamics, including as a result of the COVID-19 pandemic, with respect to supply chain shortages, logistics challenges, tight labor markets and inflation, have had, and continue to have, a material adverse effect on our business and results of operations. Future slowdowns, economic recession, or other prolonged downturns in the global economy or our markets could have material adverse effects on our business, financial condition, cash flows, results of operations and stock price.

We are exposed to geopolitical, regulatory, economic, foreign exchange and other risks associated with our global sales, supply chain and operations.

In 2022, 47% of our total revenue was from sales to U.S. customers and 53% was from sales to customers outside the U.S. We expect our sales from international operations and export sales to continue to be a significant portion of our revenue. Many of our manufacturing operations, employees, suppliers and distribution channels are located outside of the U.S. Our operations, supply chain and sales both within the U.S. and internationally are subject, in varying degrees, to risks and uncertainties inherent in doing business globally, including:

- economic nationalism, populism, protectionism, anti-global sentiment and changes in trade protection measures, including embargoes, tariffs and other trade barriers, import and export regulations, licensing requirements, and new and existing domestic content requirements for projects receiving governmental funding;
- instability of and impacts from the evolving global geopolitical environment, including with respect to the relationships among the U.S., European Union, China, Taiwan, or other foreign countries, and the international community at large;
- threat, outbreak, uncertainty or escalation of terrorism, political instability, insurrection, war or other armed conflict, including between Russia and Ukraine;
- threat or outbreak of epidemics, global health crises or pandemics, such as COVID-19, and related uncertainties;

- changes in tax laws and potential negative consequences from the interpretation, application and enforcement by governmental tax authorities of tax laws and policies, and changes in other laws and regulations or how such provisions are interpreted or administered;
- disruptions in our global supply chain, operations or those of third parties upon which we rely, including due to labor or supply shortages, freight and logistics challenges;
- actual or threatened war or armed conflict, labor actions, or civil, political or other disturbances;
- unfavorable circumstances arising from host country laws or regulations, including those related to infrastructure and data transmission, security and privacy;
- theft, compromise or misappropriation of our technology, intellectual property or data;
- shocks to the global financial system, including due to the outbreak or threat of war, armed conflict, other geopolitical conflicts, terrorism or global health crises, the effects of climate change, or other idiosyncratic events;
- foreign currency exchange rate fluctuations, restrictions on repatriation of earnings or payment of distributions, dividends, loans or advances to us by foreign subsidiaries;
- global or regional safety and security considerations; and
- increased costs and risks in developing, staffing and simultaneously managing our many global operations as a result of distance, remote work arrangements, language and cultural differences.

In the year ended December 31, 2022, 19% of our total revenues were generated in emerging markets and we have placed a particular emphasis in our strategy on increasing our growth and presence in emerging markets, including China, India, and key markets in Africa. Beyond the general risks that we face outside the U.S., our operations in emerging markets are subject to additional risks and uncertainties, including: (i) governments may impose or increase withholding or other taxes on remittances and other payments to us; (ii) governments may seek to nationalize our assets; (iii) governments may impose or increase investment barriers or other restrictions affecting our business; (iv) difficulty in enforcing commercial agreements; (v) challenges collecting receivables, or protecting our intellectual property and other assets; (vi) pressure on the pricing of our products and services; (vii) higher business conduct risks; and (viii) challenges in our ability to attract and retain qualified talent and labor. We cannot predict the impact that such factors might have on our business, financial condition, cash flows, results of operations and stock price.

We have significant sales, operations and direct or indirect suppliers located in China, which have been in the past, or could in the future be, adversely affected by China’s evolving laws, regulations and policies, including with respect to its evolving COVID Policy, import and export tariffs and restrictions, and information security and privacy. Our business and operating results could also be adversely impacted by changes in the political and geopolitical environment involving China, including U.S.-China or China-Taiwan relations. For example, the U.S.’ imposition of tariffs on goods imported from China or deemed to be of Chinese origin, as well as the potential for new tariffs, other governmental actions, trade embargoes or sanctions by the U.S., or countermeasures imposed by China in response, has in the past and could in the future have an adverse direct or indirect impact our global supply chain, manufacturing costs, and sales and operations in China. Furthermore, geopolitical changes in China-Taiwan relations could disrupt the operations of several companies in Taiwan that are critical to our complex, global supply chain, including with respect to the supply of semiconductors (“chips”) and other electronic components. Such changes could likely have significant negative effects on the global semiconductor industry and could adversely affect our ability to manufacture our digitally-enabled products, such as pumps, controllers and smart meters.

In the year ended December 31, 2022, 47% of our revenues was from sales to U.S. customers, which included sales of products sold into federally funded projects. We expect our U.S. sales in 2023 and beyond to be similar. However, we may not be able to successfully compete for federally funded projects as some of our products may not comply with the domestic content requirements of the U.S. Buy America mandate under the Infrastructure Investment and Jobs Act (“IIJA”), as well as other federally funded projects. We continue to evaluate the risks associated with the Buy America mandate, as well as related mitigation options around sourcing and manufacturing, but there is no guarantee that we will be able to meet applicable domestic content requirements across all our product lines. While governmental exemptions and waivers may in the future be issued that negate the application of the Buy America mandate to some or all of our potential sales into IIJA and other federally funded projects, it is uncertain whether and to what extent such exemptions or waivers may be issued. An inability to meet applicable domestic content requirements for U.S. federally funded projects could have a material adverse impact on our business, financial condition or results of operations.

We are unable to predict the extent to which the ongoing global COVID-19 pandemic, or other outbreaks, epidemics, pandemics, or public health crises may adversely impact our business, results of operations and financial condition.

Our global operations expose us to risks associated with public health crises, including epidemics and pandemics. Outbreaks of epidemics, pandemics, or public health crises could adversely affect, among other things, demand for our products and services; our operations and sales; our supply chain; our research and development capabilities, engineering, design, and manufacturing processes; and other important business activities. Such outbreaks could result in the restriction or suspension of travel, prohibitions of non-essential activities, and limit in-person activities within our Company and with customers and could also present operational challenges, such as disruptions in our manufacturing and supply chain and logistics, all of which can adversely affect our ability to fulfill orders, provide services, respond to customer requests and maintain our business operations. We are unable to predict the full extent of the impact of the outbreak of epidemics, pandemics, or public health crises on our operations, customers and suppliers.

Since early 2020, the COVID-19 pandemic and its variants have resulted in, and may continue to result in, a slowdown of global economic activity, travel restrictions, prohibitions of non-essential activities in some cases, disruption and shutdown of businesses, including that of our customers and suppliers. Our operations have been affected by a range of external factors related to the COVID-19 pandemic that are not within our control, including the various governmental restrictions on employees, customers, partners and suppliers, such as China's COVID Policy, designed to limit the spread of COVID-19. The pandemic and broader global market supply and demand dynamics have impacted, and continue to impact our supply chain with unpredictable disruptions due to material and component shortages, including with respect to key electronic components such as chips, capacity constraints, delays in shipment of materials necessary to the manufacture of our products, freight and logistics challenges, tight labor markets and inflation. While component supply shortages are showing signs of recovery, they may nevertheless persist, adversely disrupting our business. The ultimate extent of the impacts of the COVID-19 pandemic, including as a result of possible subsequent outbreaks of new variants and measures taken in response thereto remains highly uncertain and cannot currently be predicted and we may not be successful at mitigating such impacts.

The COVID-19 pandemic caused significant volatility and uncertainty in the global financial and capital markets. A further disruption of these markets, or resulting economic downturn from the COVID-19 pandemic or outbreak of other global health crises, may impact our ability to incur debt or access capital, or increase our cost of capital. There are no assurances that the credit markets or the capital markets will be available to us in the future or that the lenders participating in our credit facilities will be able to provide financing in accordance with their contractual obligations. Additionally, concerns over the economic impacts of COVID-19 have caused, and may continue to cause, volatility in our stock price. A sustained economic downturn could impact our liquidity position, including our ability to continue to pay dividends, or could impact our asset values resulting in the carrying value of our goodwill or other intangible assets exceeding their fair value, which may require us to recognize an impairment to those assets.

Inflation, tariffs, customs duties and other increases in manufacturing and operating costs have, and could continue to, adversely affect our cash flows and results of operations.

Our operating costs are subject to fluctuations, particularly due to changes in prices for commodities, parts, raw materials, energy and related utilities, freight and logistics, and cost of labor, which have been and may continue to be driven by a variety of factors, including inflation, tight labor markets, prevailing price levels, exchange rates, changes in trade agreements and trade protection measures including tariffs, and other economic factors. Throughout 2022 our operating costs have been adversely impacted by price inflation, including with respect to the cost of certain raw materials, electronic components, commodities, freight and logistics, and we expect this to continue for the foreseeable future. In addition, we have significant manufacturing operations in Europe, which could be adversely impacted by increased costs for energy as a result of the Russia-Ukraine conflict and governments' efforts to decrease dependence on Russia energy supplies. The U.S. has enacted various trade actions, including imposing tariffs on certain goods we import from China and other countries, which has resulted in retaliatory tariffs by China and other countries. Additional tariffs imposed by the U.S., or further retaliatory trade measures taken by China or other countries, could increase the cost of our products that we may not be able to offset through price increases or productivity. Further, in a declining price environment, our operating margins may contract because we account for inventory using the first-in, first-out method. Actions we take to mitigate volatility in manufacturing and operating costs may not be successful and, as a result, our business, financial condition, cash flows and results of operations could be materially and adversely affected.

Risks Related to Our Business and Operations

Failure to compete successfully in our markets, including our ability to develop and commercialize innovative and disruptive technologies, could adversely affect our business.

We offer our technologies, products and services in highly competitive markets. We believe the principal points of competition are product and service performance, quality and reliability, innovation, speed to market with new or disruptive technologies and business models, application expertise, brand reputation, energy efficiency, product security, product life cycle cost, timeliness of delivery, proximity of our service centers to customers, effectiveness of our distribution channels, price and customers' experience in doing business with us. Maintaining and improving our competitive position will require successful management of these factors in a business environment with increasingly rapid rates of change and disruption.

Our competitive position and future growth rate depend upon a number of factors, including our ability to successfully: (i) innovate, develop and maintain competitive and secure products and services, as well as business models and customer experience, to address emerging regulations and trends and meet customers' needs (including those related to social, environmental and sustainability matters), (ii) defend our market share against an ever-expanding number of competitors, many of which are new and non-traditional competitors from outside our industry, such as large technology firms, or those out of emerging markets, (iii) enhance our product and service offerings by adding innovative features, increased efficiency or disruptive technologies that differentiate them from those of our competitors and prevent commoditization, (iv) develop, manufacture and bring compelling, secure and efficient new products and services to market quickly and cost-effectively, (v) continue to cultivate, develop and maintain our distribution network of channel partners, (vi) attract, develop and retain individuals with the requisite innovation, digital and technical expertise and understanding of customers' needs to develop and commercialize new technologies, products and services, (vii) continue to leverage and expand our external ecosystem of innovation partners from universities, venture capital, the start-up of community and other technology firms, (viii) continue to invest in our manufacturing, research and development, engineering, sales and marketing, digitization of customer service and support tools, and distribution networks, (ix) win large contracts, and (i) compete for business subject to applicable governmental procurement laws, regulations and policies, including new and existing domestic content requirements in the U.S. and globally, as they may evolve over time.

We may not be successful in maintaining our competitive position, which could adversely affect our business, financial condition, cash flows or results of operations. The failure of our technologies, products or services to maintain and gain market acceptance due to more attractive offerings, failure of our products to comply with new governmental regulations or policies, or customers' slower-than-expected adoption of and investment in our new and innovative technologies could significantly reduce our revenues or market share and adversely affect our competitive position. Pricing pressures could cause us to adjust the prices of certain products to stay competitive, or we may not be able to continue to win large contracts, which could adversely affect our market share and competitive position.

Cybersecurity incidents or other disruptions to our information technology infrastructure, communications networks and operations could adversely affect our business, products and services.

Our business operations, including manufacturing, rely on information technology, operational technology, and communications networks, some of which are operated by third parties, including cloud-based service providers, to process, transmit and store our electronic information, including sensitive data such as confidential business information and personal data relating to employees, customers or other business partners. As a result of the evolution of new ways of working, a significant portion of our workforce has transitioned to remote working and are therefore reliant on our information technology infrastructure and communication networks and access to reliable and safe communication networks in their communities in order to be able to perform their jobs. We also rely on third parties' information technology systems to run manufacturing processes, to store or manage data, or to manage or support a variety of business processes and activities, including with regard to remote work. Regardless of protection measures, essentially all systems are susceptible to damage, disruption or shut-down due to cybersecurity attacks, including ransomware, denial-of-service, computer viruses and security breaches; equipment or system failure, including due to maintenance, obsolescence or age; and other events or circumstances, such as human error or malfeasance, vandalism, natural disaster, fire, power, communication or other utility outage, shutdown or failure. While we have certain system redundancies as well as business continuity and disaster recovery planning and response plans, we cannot guarantee that these measures will be effective or adequate to respond to damage, disruption or shut-down circumstances.

In addition, we have in the past offered and continue to offer certain services and products, including pumps, controllers and meters, that are digitally-enabled or that connect to and are part of the "Internet of Things" (IoT), and are used by our customers and other third parties for operational purposes or to collect data. Cybersecurity attacks may target hardware, software and information installed, stored or transmitted by our products after they have been purchased and incorporated into customers and other third parties' products, facilities or infrastructure, including critical infrastructure applications. While we attempt to provide security measures to safeguard our products and services from cyber threats, the potential for an attack remains. In addition, our customers may continue to use digitally-enabled products that were designed, manufactured and sold by us at a time when current security features were not available. A successful attack may result in the misappropriation, destruction, unauthorized access to or disclosure of customers or other third parties' confidential information, damage or disruption to customer or third parties' operations, potentially with personal health and safety risks, recall of our products or increased costs for security and remediation, as well as damage to our brand reputation.

Like many multinational companies, we, and some third parties upon which we rely, have experienced cybersecurity attacks on information technology networks and systems, products and services in the past and may experience them in the future, likely with more frequency and involving a broader range of devices and modes of attack. To date, none have resulted in any material adverse impact to our business, operations, products, services or customers. We have adopted measures designed to mitigate potential risks associated with cybersecurity threats, breaches or other disruptions or damage to our information technology networks and systems, products and services but the unpredictability of the timing, nature and scope of such disruptions and threats could impact our business, operations, products and services. Disruption to information technology and communications networks on which we rely, or an attack on our products and services, could interfere with our operations, disrupt our supply chain and service to our customers, interrupt production and shipments, result in theft or compromise of our and our customers' intellectual property and trade secrets, damage employee, customer and business partner relationships, negatively impact our reputation, result in legal claims and proceedings or regulatory enforcement actions, and increase our costs for security and remediation, any of which could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

Although we continue to assess these risks, implement measures to mitigate these risks and perform business continuity and disaster recovery planning, we cannot be sure that cybersecurity attacks or other interruptions with material adverse effects will not occur, or that our business continuity and disaster recovery efforts will be effective and adequate.

Lack of or delay in availability of products, parts, raw materials and energy from our supply chain or the inability of suppliers to meet delivery and other requirements, could adversely affect our business.

Our business relies on a large and complex network of suppliers (and their suppliers), including contract manufacturing, commodity markets and freight and logistics providers, to secure and ship finished goods and raw materials, parts, electronic components and other components that are used in our products. We expect that our reliance on, and the complexity of, the supply chain will continue to increase. Parts and raw materials commonly used in our products include electronic components, including semiconductors, motors, fabricated parts, castings, magnets, bearings, seals, batteries, and PCBs, as well as commodities, including steel, brass, nickel, copper, aluminum and plastics. We are exposed to the availability of these parts, components, materials and finished goods, which throughout 2022 have been and may in the future be subject to delay, curtailment or change due to, among other things, macroeconomic factors including supply and demand dynamics, labor shortages, changes in the strategy or production planning of suppliers including decisions to exit production of key components upon which we rely, interruptions in suppliers' production, labor disputes, the impaired financial condition of a particular supplier, suppliers’ capacity allocations to other purchasers, changes in trade agreements and trade protection measures including tariffs, exchange rates and prevailing price levels, ability to meet regulatory requirements, weather emergencies and associated effects of climate change, the ongoing effects of the COVID-19 pandemic, or other public health crises, or threatened or actual terrorism, armed conflict, or war, including the ongoing conflict between Russia and Ukraine. In addition, any threatened or actual escalation of the Russia-Ukraine conflict, including impacts such as disruption or increased cost of energy supply in Europe, could delay or interrupt our supplies from suppliers of energy intensive materials, such as steel, glass and plastics, among others. We have also experienced, and continue to experience, increased freight and logistics costs, delivery delays related to port congestion and other logistics-related challenges. Although we have insurance, we cannot be certain that this insurance coverage will continue to be available to us at a reasonable cost or will be adequate to cover any or all aspects of supply chain disruptions.

Some of our key components are available only from a sole or single source supplier or a limited group of suppliers and so we are subject to supply and pricing risk. In addition, if a sole or single source supplier were to cease or interrupt production or otherwise fail to supply a key component to us, it could adversely affect our product sales and operating results.

In addition, as a result of the ongoing COVID-19 pandemic and broader global market supply and demand dynamics, we have experienced and may continue to experience shortages, capacity constraints and delays with respect to the supply of components, including electronic components (in particular, chips), and other parts and raw materials. We have and continue to take measures, including with respect to buffer stock, the use of alternative suppliers and re-design of certain products, to mitigate the impacts of the ongoing supply chain, freight and logistics issues. However, if these shortages and disruptions continue, if additional disruptions occur (including related to the aforementioned risk of disruption in the global semiconductor industry due to China-Taiwan geopolitical issues), or if our efforts to mitigate these shortages and disruptions are insufficient or unsuccessful, we may be unable to, or delayed in our ability to execute on our backlog, fill new customer orders or timely deliver products to our customers and therefore could have a material adverse effect on our business, financial condition or results of operations.

A material disruption to any of our facilities or operations, or that of third parties upon which we rely, may adversely affect our business and financial performance.

Our facilities and operations rely on a complex and highly reactive global supply chain, including suppliers (and their suppliers), some of which are a single-or sole-source, distributors, contract manufacturers, utilities providers, and freight and logistics providers. In addition, we rely on certain third parties to supply critical business processes and activities, including in the areas of Finance, Human Resources, Procurement, Travel and Information Technology. Our facilities and operations and those of certain third parties on which we rely, have experienced, and may in the future experience, disruptions or delays as a result of an actual or threatened event or circumstance, including due to a significant equipment, technological or system failure, natural disaster, weather event, effects of climate change, power, energy curtailment or outage, water or communications outage, fire, explosion, critical supply chain failure, terrorism, cybersecurity attack, political disruption, the effects of COVID-19, outbreak of an epidemic, pandemic or other public health crisis, insurrection, armed conflict or war, labor dispute, work stoppage or slowdown, technology failure, financial viability or other reason. In addition, our facilities or that of third parties upon which we rely operate in certain circumstances with equipment that may be unique and difficult to replace or involve long lead times for replacement. A significant disruption to any of our facilities or operations, or that of third parties upon which we rely, could cause material adverse impacts to our financial performance, operations and business, including an inability to meet customer demand or contractual commitments, increased costs, and reduced sales, and could impact our business processes and activities, including our ability to timely report financial results. Any interruption in capability may be lengthy and have lasting effects, require a significant amount of management and other employees' time and focus, and require us to make substantial expenditures to mitigate the situation, which could negatively affect our operations, business processes and activities, profitability, financial condition and reputation. Any recovery under our insurance policies may not offset the lost sales, increased costs, or longer term loss of suppliers, sales or customers that we may experience as a result of a disruption. Although we continue to assess these risks, implement mitigation plans and perform business continuity and disaster recovery planning, we cannot be sure that interruptions with material adverse effects on our operational and financial performance will not occur.

Failure to retain our existing senior management, engineering, technology, sales, services and other key talents or the inability to attract new qualified and diverse talent could negatively impact our business.

Our success has depended, and will continue to depend on our ability to attract and retain highly qualified and diverse employees in senior management positions, and in strategic or core competencies, including engineering, innovation, digital technologies, commercial excellence, service, and project management, as well as general production-related talent. The market for highly-skilled talent, leaders and labor in our industry remains highly competitive. As a result, our success in attracting and retaining employees, particularly in the areas of services, digital technologies, innovation and data science, has depended, and will continue to depend on our ability to offer attractive career growth opportunities, work arrangements, compensation, and benefits, and also policies and ways of working that support employee wellbeing. In addition, continuing to evolve our culture, which includes advancing diversity, equity and inclusion, is critical to attracting and retaining talent needed to execute our strategy, while also driving innovation, remaining competitive and creating long-term value. We also need to continue to develop qualified talent to support business growth and robust succession plans, both of which are critical to our long-term success. A failure to attract or retain highly engaged and skilled talent and labor could adversely affect our ability to meet and exceed the needs of our customers, operate and grow our business and execute our strategy.

Defects, unanticipated use or inadequate disclosures with respect to our products could adversely affect our business, reputation and financial condition and results of operations.

Defects, inadequacies or quality issues in the manufacture, design, software, security or service of our products (including finished goods, parts or components that we source from third parties), unanticipated use, or inadequate disclosure of risks relating to the use of our products could result in product safety, product security, regulatory or environmental risks, including personal injury, death, property or environmental damage. These events could also lead to recalls, safety or security alerts relating to our products, result in the removal of a product from the market and/or result in warranty or liability claims against us. Although we have liability insurance, we cannot be certain that this insurance coverage will continue to be available to us at a reasonable cost or will be adequate to cover any or all aspects of liability claims. Manufacturing, design, software, security or service defects or inadequacies may also result in contractual damages against us, warranty expenses or issuance of credits, which could impact our profitability. Recalls, removals, and warranty, liability and quality claims can result in significant costs, as well as negative publicity and damage to our reputation that could reduce demand for our products and have a material adverse effect on our business, financial condition and results of operations.

We may not achieve some or all of the expected benefits of our restructuring and realignment plans or our restructuring and realignment may adversely affect our business.

In 2022 and recent prior fiscal years, we initiated restructuring and realignment plans in an effort to optimize our cost structure, improve our operational efficiency and effectiveness, strengthen our competitive positioning and better serve our customers. Additionally, in 2020, in response to the business and economic conditions resulting from the COVID-19 pandemic, we initiated additional restructuring and realignment activity. We are also engaged in a multi-year effort to transform many of our support functions and related technologies, including Finance, Human Resources and Procurement. Challenges with the enabling technologies and delays in implementing planned restructuring and realignment activities have delayed the realization of some of the expected operational and financial benefits from such actions. We may not be able to obtain all of the cost savings and benefits that were initially anticipated in connection with our restructuring and realignment plans. Additionally, as a result of these plans, we may experience a loss of continuity or, accumulated knowledge or inefficiencies during transitional periods and ongoing operations. Realignment and restructuring require a significant amount of management and other employees' time and focus, which may divert attention from operating and growing our business.

The successful implementation and execution of our restructuring and realignment actions are critical to achieving our expected cost savings, as well as effectively competing in the marketplace and positioning us for future growth. Factors that may impede a successful implementation and execution include the retention of key employees, the impact of regulatory matters including tax, matters involving certain third-party service providers selected to assist us, including staffing, technology, and compliance of service providers with our internal controls over financial reporting, and adverse economic market conditions. If our restructuring and realignment actions are not executed successfully, it could have material adverse impacts on the effectiveness of our internal controls over financial reporting, our competitive position, business, financial condition, cash flows and results of operations.

The execution of our strategy includes acquisitions, which we may be unable to successfully execute or effectively integrate.

To execute our growth strategy, we plan to continue to pursue the acquisition of companies, assets, technologies, product lines and customer channels that complement or expand our existing business or improve our competitive position. We may not be able to complete acquisitions with favorable terms or timing, or at all, or obtain financing that may be needed to consummate acquisitions. In addition, our results of operations may be adversely impacted by: (i) the failure to successfully integrate acquired businesses into our operations, technology and financial and other systems, (ii) the failure of acquired businesses to meet or exceed expected returns, which in the past has led to, and in the future may lead to, accounting impairments, (iii) the discovery of unanticipated liabilities, labor relations difficulties, cybersecurity concerns, control or compliance issues, or other issues for which we lack contractual protections, insurance or indemnities.

Acquisitions involve a number of risks and present financial, managerial and operational challenges, including: diversion of management's attention from existing businesses and operations; insufficient internal controls over financial or compliance activities or financial reporting; the failure to realize expected synergies; the assumption of new material risks associated with the acquired businesses; and the loss of key employees of the acquired businesses. Failure to successfully execute our growth strategy via acquisitions and successfully integrate these acquisitions could adversely affect our competitive position, business, financial condition or results of operations.

A significant portion of our products and offerings in our Measurement & Control Solutions segment are affected by the availability, regulation of and interference with radio spectrum that we use.

A significant portion of the offerings in our Measurement & Control Solutions segment use radio spectrum, which is subject to government regulation. To the extent we introduce new products designed for use in the U.S. or another country, such products may require significant modification or redesign in order to meet frequency requirements and other regulatory specifications. Limitations on frequency availability or the cost of making necessary modifications may preclude us from selling our products in certain countries. The regulations that govern our use of radio spectrum may change, which may require us to modify our products or seek new partnerships, either directly or due to interference caused by new consumer products allowed under the regulations. In addition, we may not be able to secure suitable partners for co-development of products.The inability to modify our products to meet such requirements, the possible delays in completing or the cost of such modifications could have a material adverse effect on our business, financial condition, and results of operations.

In the U.S., our products are primarily designed to use FCC-licensed spectrum in the 900MHz range. If the FCC does not renew our existing spectrum licenses, or materially changes regulations affecting the use of these licenses, our business, financial condition, and results of operations could be adversely affected. In addition, there may be insufficient available frequencies in some markets to sustain or develop our planned operations at a commercially feasible price or at all.

Outside the U.S., certain of our products require the use of radio frequency and are subject to regulations. In some jurisdictions, radio station licenses may be granted for a fixed term and must be periodically renewed. Our advanced and smart metering systems offerings transmit to (and receive information from, if applicable) handheld, mobile, or fixed network reading devices in licensed bands made available to us through strategic partnerships and are reliant to some extent on the licensed spectrum continuing to be available through our partners or our customers. We may be unable to find partners or customers that have access to sufficient frequencies in some markets to sustain or develop our planned operations, or to find partners or customers that have access to sufficient frequencies in the relevant markets at a commercially feasible price or at all.

Weather conditions, including the effects of climate change and associated efforts by governmental or regulatory authorities to mitigate such effects, may cause volatility in our served markets, and may affect our businesses, operations and financial results.

Globally, the frequency and severity of weather events due to the effects of climate change is increasing. The unpredictable nature of weather events and related conditions, including heavy flooding, water stress due to prolonged droughts, and fluctuations in temperatures or weather patterns, including as a result of climate change, can positively or negatively impact portions of our business. For example, heavy flooding and rain events attributable to the effects of global climate change may increase customer demand for some of our solutions that help manage water and stormwater overflows or remove and transfer excess or unwanted water. Prolonged drought conditions may increase demand for our pumping technology used in agriculture and turf irrigation applications. Demand for water reuse applications, including those provided by our treatment business, may also increase as communities look to address water scarcity challenges due to the effects of climate change. In addition, fluctuations in temperatures result in varying levels of demand for our products used in residential and commercial hydronic applications, where homes and buildings use circulating water to heat and cool living spaces. Significant fluctuations in these weather conditions and climate changes can therefore result in volatility in our financial results.

Severe weather events and other effects of climate change have also caused, and may in the future cause, disruptions to our facilities and operations, as well as those of our customers and suppliers. In 2021, a physical risk analysis using the Task Force on Climate Related Financial Disclosures (“TCFD”) framework indicated that certain of our facilities are at a moderate risk for exposure to water stress, coldwave and wildfire impacts due to the effects of climate change. While we continue to assess these risks, implement mitigation plans and perform business continuity and disaster recovery planning, we cannot be sure that disruptions with material adverse effects will not occur.

Governments may implement emissions trading schemes, carbon taxes, fuel taxes and other policies to reduce the impacts of climate change that could impact our business and financial results. The timing, scope and effect of governments’ implementation of carbon pricing and taxes are uncertain, but could significantly increase our expenses in the future and therefore have material adverse impacts on our business, financial condition, cash flows, results of operations and market price of our common stock.

Our commitments, goals, targets, objectives and initiatives related to sustainability, and our public statements and disclosures regarding them, expose us to numerous risks.

We have developed, and will continue to establish, goals, targets, and other objectives related to sustainability matters, including our sustainability goals and commitments to Science-Based Targets aligned to limiting global temperature increase to 1.5°C above pre-industrial level, in line with the Paris Agreement, by 2030 and net zero greenhouse gas (GHG) emissions (Scope 1, 2 and 3) before 2050. Achieving these goals and commitments will require evolving our business, making capital investments and developing technologies that might not currently exist. We might incur additional expense or be required to recognize impairment charges in connection with our efforts. These commitments, goals, targets and other objectives reflect our current plans and there is no guarantee that they will be achieved. Our efforts to research, establish, accomplish, and accurately report on these commitments, goals, targets and objectives expose us to operational, reputational, financial, legal, and other risks. Our ability to achieve any stated commitment, goal, target, or objective is subject to factors and conditions, many of which are outside of our control, including the pace of changes in technology, the availability of requisite financing, and the availability of suppliers that can meet our sustainability and other standards.

Our business may face increased scrutiny from the investment community, regulators, media and other stakeholders related to our sustainability activities, including our commitments, goals, targets and objectives, and our methodologies and timelines for pursuing them. We are subject to increasing regulatory requirements around sustainability-related disclosures, including significant anticipated rulemaking by the SEC, which may continue to evolve. Complying with regulators’ disclosure requirements may impose substantial additional costs and require additional resources, including with respect to third-party attestation, to enable the capture, analysis and audit of appropriate data. Any actual or alleged failure to comply with regulatory requirements could result in fines, penalties and civil liabilities, and damage to our reputation. Furthermore, if our sustainability reporting and practices do not meet investor, regulator or other stakeholders’ expectations, standards and requirements, our reputation, ability to attract or retain employees, and attractiveness as an investment, business partner or acquiror could be negatively impacted. Similarly, our failure or perceived failure to pursue or fulfill our sustainability commitments, goals, targets, and objectives, to comply with ethical, environmental, or other standards, regulations, or expectations, or to comply with reporting requirements and standards with respect to these matters, within the timelines we announce, or at all, could have operational, reputational, financial and legal impacts.

Risks Related to Financial and Tax

Our business is subject to foreign currency exchange rates fluctuations.

Sales outside of the U.S. for the year ended December 31, 2022 accounted for approximately 53% of our net sales. We also have significant operations in various locations outside of the U.S. Our principal currency exposures for which we enter into cash flow hedges relate to the Euro, Swedish Krona, British Pound, Canadian Dollar, Australian Dollar, and Polish Zloty. Changes in the value of currencies of the countries in which we do business relative to the value of the U.S. Dollar or Euro could affect our ability to sell products competitively and control our cost structure, which has had and may continue to have a material adverse effect on our business, financial condition, cash flows and results of operations. Additionally, we are subject to foreign exchange translation risk due to changes in the value of foreign currencies in relation to our reporting currency, the U.S. Dollar. The translation risk is primarily concentrated in the exchange rate between the U.S. Dollar and the Euro, Chinese Yuan, British Pound, Canadian Dollar, Australian Dollar, Swedish Krona and Indian Rupee. As the U.S. Dollar fluctuates against other currencies in which we transact business, revenue and income may be impacted. Strengthening of the U.S. Dollar relative to the Euro and the currencies of the other countries in which we do business, has materially and adversely affected, and could in the future materially and adversely affect, our sales growth and profitability in future periods. Refer to

Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" for additional information on foreign exchange risk.

Our financial results can be difficult to predict.

Our business is impacted by a substantial amount of short cycle and book-and-bill business, which we have limited insight into, particularly for the business that we transact through our significant distribution network. Our businesses, including that of our Measurement & Control Solutions segment, are also impacted by our long-cycle business, including large projects, which could be unexpectedly cancelled, or whose timing can change based upon customer requirements due to a number of factors affecting the project that are beyond our knowledge or control, such as funding, readiness of the project and regulatory approvals. We rely on a complex global supply chain, which has been subject to dynamic conditions, volatility, unexpected changes and disruptions due to international conditions, including as a result of the war between Russia and Ukraine, the COVID-19 pandemic and macroeconomic conditions, including high inflation. These supply chain challenges have affected, and may continue to affect, our cost structure, production and ability to timely fill customer orders. We cannot predict when, or if, these conditions will ease or subside in the future. Accordingly, our financial results for any given period have been and will continue to be difficult to predict.

We may incur additional impairment charges for our goodwill and other indefinite-lived intangible assets which would negatively impact our operating results.

We have a significant amount of goodwill and purchased intangible assets on our balance sheet as a result of acquisitions. As of December 31, 2022, the net carrying value of our goodwill and other indefinite-lived intangible assets totaled approximately $3 billion. In accordance with generally accepted accounting principles, we evaluate these assets for impairment at least annually, or more frequently if changes in events or circumstances indicate it is more likely than not that a potential impairment could exist. Significant negative industry or economic trends, disruptions to our business or our customers’ business, inability to effectively integrate or scale acquired businesses, increases in cost of capital, unexpected significant changes or planned changes in use of the assets, failure of the FCC to renew radio spectrum licenses, and divestitures and market capitalization declines may cause impairment of our goodwill and other indefinite-lived intangible assets. For example, in 2020 we recorded goodwill impairment charges $58 million within our Measurement & Control Solutions segment primarily related to the performance of the business of the Pure Technologies Ltd. acquisition ("Pure") (as detailed in Note 11, “Goodwill and Other Intangible Assets”). We did not record goodwill impairment charges within our Measurement & Control Solutions segment in 2021 or 2022. Material impairment charges have in the past and could in the future adversely affect our results of operations and financial condition.

Changes in our effective tax rates and tax expenses may adversely affect our financial results.

We sell our products in approximately 150 countries and 53% of our revenue was generated outside the U.S. for the year ended December 31, 2022. Given the global nature of our business, a number of factors may increase our effective tax rates and tax expense, including:

- the geographic mix of jurisdictions in which profits are earned and taxed;
- the statutory tax rates and tax laws in jurisdictions in which we conduct business;
- the resolution of tax issues arising from tax examinations by various tax authorities; and
- the valuation of our deferred tax assets and liabilities.

Additionally, tax laws, regulations, and administrative practices in various jurisdictions may be subject to significant change, with or without notice, due to economic, political, and other conditions, and significant judgment is required in evaluating and estimating our provision and accruals for these taxes. The recent agreement by countries in the Organization for Economic Cooperation and Development to implement additional legislative changes increases the uncertainty of future income tax positions, and such changes may result in additional tax expense and effective tax rate volatility.

Our businesses are regularly examined by various tax authorities throughout the world and the resolutions of these examinations do not typically have a significant impact on our effective tax rates and tax expenses, but they could. For example, following an examination regarding aspects of the reorganization of our European business that occurred in 2013, the Swedish tax authority issued a tax assessment to Xylem’s Swedish subsidiary in 2019, which we are appealing as further described in Note 6, “Income Taxes.” This examination as well as other examinations can result in increased tax assessments, and settlement or litigation about the assessments and final resolution could be unfavorable to Xylem. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes, including unrecognized tax benefits; however, developments in an audit or litigation could materially and adversely affect us. Although we believe our tax estimates and accruals are reasonable, there can be no assurance that any final determination will not be materially different than the treatment reflected in its historical income tax provisions, accruals and unrecognized tax benefits, which could materially and adversely affect our business, operating results, cash flows and financial condition.

Our pension and other defined benefit plans are subject to financial market risks that could adversely impact our earnings, financial condition and cash flows in future periods.

Certain current and retired employees are covered by pension and other defined benefit plans (collectively, “post-retirement benefit plans”). We make contributions to fund our post-retirement benefit plans when we consider it necessary or advantageous to do so. Significant changes in market interest rates, decreases in fair value of or investment losses on plan assets, changes in discount rates, or changes in minimum funding requirements established by governments, taxing authorities or other agreements, could increase our funding obligations and adversely impact our earnings, financial condition and cash flows in future periods. In addition, the cost of our post-retirement benefit plans is incurred over long periods of time and involves factors that can be volatile and unpredictable, including rates of return on plan assets, discount rates used to calculate liabilities and expenses, change in laws and regulatory actions, and changes in actuarial experience and assumptions, which could adversely impact our earnings, results of operations, financial condition and cash flows.

Our debt obligations may adversely affect our business and our ability to meet our obligations and pay dividends.

As of December 31, 2022, our total outstanding indebtedness was $1,880 million as described under “Liquidity and Capital Resources" and we may incur additional debt in the future. Our current or future indebtedness could have adverse consequences to us and our investors, including:

- increasing our vulnerability to general adverse economic and industry conditions;
- limiting our ability to obtain additional financing or borrow additional funds;
- reducing or eliminating our ability to pay future dividends or repurchase our common stock;
- limiting our flexibility in planning for, or reacting to, changes in our business and industry;
- requiring a substantial portion of our cash flows from operations to make principal and interest payments;
- reducing the cash flows available to fund working capital, capital expenditures, acquisitions or other investments to grow our business;
- increasing the amount of interest expense that we must pay if future borrowings are at variable interest rates, which, as interest rates increase, would result in higher interest expense; and
- increasing the risk of a future credit rating downgrade, which could increase future debt costs and limit the availability of debt financing.

In addition, there can be no assurance that future borrowings or equity financing will be available to us on favorable terms or at all for the payment or refinancing of our indebtedness. The terms of any future debt indentures, including those related to green financing, may also impose additional and more stringent restrictions on our operations than we currently have.

Our ability to make scheduled principal payments of, to pay interest on, or to refinance our indebtedness and to satisfy our other debt obligations will depend on our future cash flows from operations, which may not be sufficient or may be affected by factors beyond our control. If we are unable to service our indebtedness, our business, financial condition, results of operations and share price could be materially adversely affected.

<u>Risks Related to Legal and Regulatory</u>

Failure to comply with laws, regulations and policies, including the U.S. Foreign Corrupt Practices Act, other applicable anti-corruption laws, trade regulations, and data privacy and security laws, could have a material adverse impact on our business, results of operations, financial condition and reputation.

Given our global operations, we are subject to regulation under a wide variety of U.S. and non-U.S. laws, regulations and policies, including laws and regulations related to anti-corruption, trade including export and import compliance, anti-trust and money laundering. Our policies mandate compliance with these laws and regulations. The U.S. Foreign Corrupt Practices Act (the "FCPA"), the U.K. Bribery Act of 2010 and similar anti-corruption laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to government officials or other persons for the purpose of obtaining or retaining business. We operate in many parts of the world that are recognized as having governmental and commercial corruption and in certain circumstances, strict compliance with anti-corruption laws may conflict with local business customs and practices. We cannot guarantee that our internal controls, policies and procedures will always prevent and protect us from improper conduct of our employees or business partners. In the event that we believe or have reason to believe that our employees or business partners have or may have violated applicable laws, regulations or policies, including anti-corruption laws, we are required to investigate the relevant facts and circumstances, which can be expensive and require significant time and attention from senior management. Any such violation could result in substantial fines, sanctions, civil and/or criminal penalties, termination of relationships with business partners and curtailment of operations in certain jurisdictions, and as a result might materially and adversely affect our business, results of operations or financial condition. In addition, actual or alleged violations could damage our reputation and ability to do business.

Additionally, to conduct our operations, we regularly move data across borders, and consequently we are subject to a variety of continuously evolving and developing laws and regulations regarding data privacy, data protection and data security, including the California Consumer Protection Act, the EU's GDPR and PIPL. The scope of the laws that may be applicable to us is evolving, often uncertain and may be conflicting, particularly with respect to foreign laws. GDPR greatly increases the jurisdictional reach of EU law and adds a broad array of requirements for handling personal data, including the enforcement of data subject rights, enhanced security requirements, obligations to guarantee EU data subject rights are not compromised in countries outside the EU, and public disclosure of significant data breaches. Other countries, such as China with its PIPL, have enacted or are enacting data localization and security laws that require data to stay within their borders. All of these evolving legal and operational requirements impose significant costs of compliance that are likely to increase over time. In addition, any such violation could result in substantial fines, sanctions and/or civil penalties, damage to our reputation and might materially and adversely affect our business, results of operations or financial condition.

We face risks related to legal and regulatory proceedings.

We are subject to various laws, regulations and other requirements of government authorities in the U.S. and foreign countries, any violation of which could potentially create substantial liability for us and damage our reputation. Changes in laws, ordinances, regulations or other government policies, the nature, timing, and effect of which are uncertain, may significantly increase our expenses and liabilities.

From time to time, we are involved in legal and regulatory proceedings that are incidental to the operation of our businesses (or the business operations of previously owned entities). These proceedings may seek remedies relating to environmental matters, tax, intellectual property, acquisitions or divestitures, product liability, property damage, personal injury, privacy, employment, labor and pensions, government contract issues and commercial or contractual disputes. Our continued transition to connected and digital technologies and solutions has increased our exposure to intellectual property litigation and we expect that this risk will continue to increase as we execute on our innovation and technology priorities.

It is not possible to predict with certainty the outcome of claims, investigations, regulatory proceedings and lawsuits, and we could in the future incur judgments, fines or penalties or enter into settlements and claims that could have an adverse effect on our reputation, our business, results of operations and financial condition. Additionally, we may be required to change or cease operations at one or more facilities if a regulatory agency determines that we have failed to comply with laws, regulations or orders applicable to our business.

The global and diverse nature of our operations, coupled with the increase in regulation and enforcement in many regions of the globe, means that legal and compliance risks will continue to exist and additional legal and regulatory proceedings and other contingencies, the outcome of which cannot be predicted with certainty, will arise from time to time. In addition, subsequent developments in legal and regulatory proceedings may affect our assessments and estimates of loss contingencies recorded as a reserve and require us to make payments in excess of our reserves, which could have an adverse effect on our results of operations and financial condition.

Infringement or expiration of our intellectual property rights, or allegations that we have infringed upon the intellectual property rights of third parties could negatively affect us.

We own numerous patents, trademarks, copyrights, trade secrets and other intellectual property and licenses to intellectual property owned by others, that are important to our business. Our intellectual property rights may provide us with competitive advantage because they may help us differentiate our technologies, products and services, including our growing portfolio of data analytics and digitally-enabled offerings. However, our current or future intellectual property rights may not be sufficiently broad or may be challenged, invalidated, circumvented, misappropriated, independently developed, or designed-around, particularly given our operations in countries where laws governing intellectual property rights are not highly developed, protected or enforced. Our failure to obtain or maintain intellectual property rights that convey competitive advantage, adequately protect our intellectual property, or detect or prevent circumvention, misappropriation or unauthorized use of such property, as well as the cost of enforcing our intellectual property rights, could adversely impact our business, financial condition and results of operations.

From time to time, we receive notices from third parties alleging intellectual property infringement or misappropriation. Any dispute or litigation regarding intellectual property could be costly and time-consuming to defend due to the complexity and uncertainty of intellectual property litigation. We may not be successful in asserting a counterclaim, or negotiating a license, in response to a claim of infringement or misappropriation. In addition, as a result of such claims of infringement or misappropriation, we could lose our rights to use critical technology, be unable to license critical technology or sell critical products and services, be required to pay substantial damages or license fees with respect to the use of third-party intellectual property rights, or be required to redesign our products at substantial cost, any of which could adversely impact our competitive position, financial condition and results of operations. Even if we successfully defend against claims of infringement or misappropriation, we may incur significant costs and diversion of management attention and resources, which could adversely affect our business, financial condition and results of operations.

Developments in, and compliance with, current and future environmental and climate change laws and regulations could impact our business, financial condition or results of operations.

Our business, operations, and product and service offerings are subject to and affected by many U.S. federal, state, local and foreign environmental laws and regulations, including those enacted in response to climate change concerns.

Increasing public and governmental awareness and concern regarding the effects of climate change has led to significant legislative and regulatory efforts to limit greenhouse gas emissions and will likely result in further environmental and climate change laws and regulations. Compliance with existing laws and regulations currently requires, and compliance with future laws is expected to continue to require, increasing research and development, operating and capital expenditures, including with respect to the design or re-design of our products in order to conform to changing environmental standards and regulations, including with respect to emissions and efficiency, which could impact our business, financial condition and results of operations. Furthermore, environmental laws and regulations may authorize substantial fines and criminal sanctions as well as facility shutdowns to address violations, and may require the installation of costly pollution control equipment or operational changes to limit emissions or discharges. We also incur, and expect to continue to incur, costs to comply with current environmental laws and regulations. Developments such as the adoption of new environmental laws and regulations, stricter enforcement of laws and regulations, violations by us of such laws and regulations, discovery of previously unknown or more extensive contamination conditions, litigation involving environmental impacts, our inability to recover costs associated with any such developments, or financial insolvency of other responsible parties could have a material adverse effect on our financial condition and results of operations.

Risks Related to the Proposed Acquisition of Evoqua

We may not realize some or all the expected benefits and synergies from our proposed acquisition of Evoqua.

On January 23, 2023, we announced that we entered into a definitive merger agreement under which we will acquire Evoqua. While we and Evoqua will continue to operate independently until the completion of the acquisition, the success of the acquisition will depend, in part, on our ability to realize the anticipated benefits from successfully combining our and Evoqua's businesses. We plan on devoting substantial management attention and resources to integrating our and Evoqua's business practices and operations so that we can fully realize the anticipated benefits and synergies of the acquisition. Nonetheless, difficulties may arise during the integration process that could result in the failure to achieve the synergies that we anticipate, including the loss of key talent that may be difficult to replace, the disruption of each company's ongoing business or inconsistencies in each company's standards, controls, procedures and policies that adversely affect the combined company's ability to maintain relationships with customers, partners, suppliers or creditors. As a result, the anticipated benefits of the acquisition may not be realized fully within the expected timeframe or at all, may take longer to realize, or may cost more than expected, which could materially and adversely affect our business, results of operations or financial condition, as well as adversely impact the stock price of the combined company.

In addition, at times, the attention of certain members of each company's management and each company's resources may be focused on completion of the merger and the integration of the businesses of the two companies, which may divert attention from day-to-day business operations and disrupt each company's ongoing business, as well as the business of the combined company.

Furthermore, we and Evoqua could potentially become targets of securities class actions or derivative lawsuits in connection with the acquisition, which could result in diversion of management's attention and resources and substantial costs, and could delay or prevent the acquisition from being completed.

Failure to complete our proposed acquisition of Evoqua could negatively impact our reputation, stock price and our future business and financial results.

Our obligations and the obligations of Evoqua to complete the merger are subject to satisfaction or waiver of a number of conditions. There can be no assurance that the conditions to completion of the acquisition will be satisfied or waived or that the acquisition will be completed. If the acquisition is not consummated for any reason, we may receive negative reactions from our shareholders, suppliers, customers, regulators and employees, including damage to our reputation. We may be subjected to various material risks, including the possibility that the price of our common stock and other securities may decline to the extent that current market prices reflect a market assumption that the acquisition will be completed.

Also, in the event of a termination of the merger agreement under certain specified circumstances, we would be required to reimburse expenses of Evoqua or pay Evoqua a termination fee of up to $325 million. We could also be subject to litigation related to any failure to complete the merger or to specifically enforce our obligation to perform our obligations under the merger agreement. In addition, the merger agreement places certain restrictions on the conduct of our businesses prior to completion of the merger, and such restrictions, the waiver of which is subject to a written consent of Evoqua in advance, may prevent us from making certain acquisitions or taking certain other specified actions during the pendency of the merger that we would have made or taken if these restrictions were not in place.

If any of these risks materialize, they may materially and adversely affect our business, reputation, results of operations, financial condition, ratings, stock prices and/or bond prices.

If our pending acquisition of Evoqua is consummated, our shareholders' ownership percentage will be diluted, and the combined company's earnings per share may decrease.

If the proposed acquisition is consummated, we will issue to Evoqua stockholders shares of our common stock. As a result of the issuance of these shares, our shareholders will own a smaller percentage of the combined company after the acquisition and will therefore have a reduced voting interest after the acquisition. In addition, the market value of the combined company's common stock may also decrease due to the additional transaction and integration-related costs or other factors beyond our control. All of these factors could cause dilution of the combined company's earnings per share, or decrease or delay the expected accretive effect of the acquisition, which could negatively affect the market price of our common stock.

The acquisition and integration of Evoqua may result in additional costs and expenses.

We have incurred and expect to continue to incur a number of non-recurring costs, expenses and fees for professional services and other transaction-related costs in connection with the proposed acquisition and integration of Evoqua, whether or not the acquisition is completed. We may also incur unanticipated accounting and other costs in the integration of the businesses of Evoqua, which may lead to reserves in the future. Such costs could negatively impact our free cash flow, and the net benefit from efficiencies and synergies related to the integration of the businesses may not be realized in the near term or at all.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES

We have approximately 370 locations in more than 50 countries. These properties total approximately 13 million square feet, of which more than 300 locations, or approximately 7 million square feet, are leased. We consider the offices, plants, warehouses and other properties that we own or lease to be in good condition and generally suitable for the purposes for which they are used. The following table shows our significant locations by segment:

Location	State or Country	Principal Business Activity	Approx. Square Feet	Owned or Leased
		Water Infrastructure		
Emmaboda	Sweden	Administration and Manufacturing	1,197,000	Owned
Vadodara	India	Manufacturing and Research & Development	366,000	Leased
Stockholm	Sweden	Administration and Research & Development	182,000	Leased
Bridgeport	NJ	Administration and Manufacturing	136,000	Leased
Shenyang	China	Manufacturing	125,000	Owned
		Applied Water		
Morton Grove	IL	Administration and Manufacturing	530,000	Owned
Montecchio	Italy	Administration and Manufacturing	379,000	Owned
Nanjing	China	Manufacturing	363,000	Owned
Auburn	NY	Manufacturing	273,000	Owned
Abony	Hungary	Manufacturing	250,000	Leased
Stockerau	Austria	Sales & Service Office	234,000	Owned
Strzelin	Poland	Manufacturing	185,000	Owned
Cheektowaga	NY	Manufacturing	147,000	Owned
		Measurement & Control Solutions		
Ludwigshafen	Germany	Manufacturing	318,000	Owned
Texarkana	AR	Manufacturing	254,000	Owned
Uniontown	PA	Manufacturing	240,000	Leased
DuBois	PA	Manufacturing	197,000	Owned
Durham	NC	Administration and Research & Development	172,000	Leased
Weilheim	Germany	Manufacturing	160,000	Leased
Dubois	PA	Manufacturing	137,000	Leased
		Regional Locations		
Dubai	United Arab Emirates	Manufacturing	144,000	Owned
Nottinghamshire	United Kingdom	Administration	139,000	Leased
Nanterre	France	Sales & Service Office	139,000	Leased
Langenhagen	Germany	Sales & Service Office	134,000	Owned
Schaffhausen	Switzerland	Administration	26,000	Leased
		Corporate Headquarters		
Washington	DC	Administration	18,000	Leased

ITEM 3. LEGAL PROCEEDINGS

From time to time, we are involved in legal and regulatory proceedings that are incidental to the operation of our businesses (or the business operations of previously-owned entities). These proceedings may seek remedies relating to matters including environmental, tax, intellectual property, acquisitions or divestitures, product liability, property damage, personal injury, privacy, employment, labor and pension, government contract issues and commercial or contractual disputes. See Note 19, "Commitments and Contingencies", of the consolidated financial statements included in Item 8 of Part II of this 10-K for information regarding certain legal and regulatory proceedings we are involved in.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The following information is provided regarding the executive officers of Xylem as of February 7, 2023:

NAME	AGE	CURRENT TITLE	OTHER BUSINESS EXPERIENCE DURING PAST 5 YEARS
Patrick K. Decker	58	President and Chief Executive Officer (2014)	
Sandra E. Rowland	51	Senior VP and Chief Financial Officer (2020)	• Executive Vice President and Chief Financial Officer, Harman International Industries Inc. (2015)
Dorothy Capers	61	Senior VP, General Counsel (2022)	• Executive Vice President, Global General Counsel and Corporate Secretary, National Express Group (2015)
Franz Cerwinka	53	Senior VP and President, Emerging Markets and Applied Water Systems (2023)	• Senior VP and President, Emerging Markets (2020) • Chief Executive Officer, Johnson Controls-Hitachi Air Conditioning (2015)
Michael McGann	52	Senior VP and President, Americas and Measurement & Control Solutions (2023)	• VP, North America Utilities Commercial Team (2022) • VP, Sensus Americas, Global Engineering and Assessment Services (2017) • VP, Quality, Sensus USA Inc. (2013)
Geri McShane	49	VP, Controller and Chief Accounting Officer (2019)	• Controller, Accounting and Reporting (2016)
Matthew Pine	51	Chief Operating Officer (2023)	• Senior VP and President, Americas, Applied Water Systems and Measurement & Control Systems (2022) • Senior VP and President, Americas and Applied Water Systems (2020) • President, Carrier Residential, United Technologies Corporations (2018) • VP and General Manager, Carrier Residential, United Technologies Corporations (2017)
Claudia S. Toussaint	59	Senior VP, Chief People and Sustainability Officer (2021)	• Senior VP, General Counsel and Corporate Secretary (2014)
Hayati Yarkadas	54	Senior VP and President, Europe, Water Infrastructure and Global Services (2020)	• Senior Vice President and President, Performance Materials, Trinseo S.A. (2015)

Note: Date in parentheses indicates the year in which the position was assumed.

BOARD OF DIRECTORS

The following information is provided regarding the Board of Directors of Xylem as of February 7, 2023:

NAME	TITLE
Robert F. Friel	Board Chair, Xylem Inc., Former Chairman, President and CEO, PerkinElmer, Inc.
Jeanne Beliveau-Dunn	Chief Executive Officer and President of Claridad, LLC
Patrick K. Decker	President and Chief Executive Officer, Xylem Inc.
Victoria D. Harker	Executive Vice President and Chief Financial Officer, TEGNA, Inc.
Steven R. Loranger	Former Chairman, President and Chief Executive Officer, ITT Corporation
Mark D. Morelli	President and Chief Executive Officer, Vontier Corporation
Jerome A. Peribere	Former President and Chief Executive Officer, Sealed Air Corporation
Markos I. Tambakeras	Former Chairman, President and Chief Executive Officer, Kennametal, Inc.
Lila Tretikov	Corporate Vice President & Deputy Chief Technology Officer, Microsoft Corporation
Uday Yadav	Chief Executive Officer, TK Elevator

PART II

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

Market Price and Dividends

Our common stock trades publicly on the New York Stock Exchange under the trading symbol "XYL". As of January 31, 2023, there were 8,359 holders of record of our common stock.

Dividends are declared and paid on the common stock at the discretion of our Board of Directors and depend on our profitability, financial condition, capital needs, future prospects and other factors deemed relevant by our Board. Therefore, there can be no assurance as to what level of dividends, if any, will be paid in the future. In the first quarter of 2023, we declared a dividend of $0.33 per share to be paid on March 22, 2023 for shareholders of record on February 22, 2023.

There were no unregistered offerings of our common stock during 2022.

Fourth Quarter 2022 Share Repurchase Activity

The following table summarizes our purchases of our common stock for the quarter ended December 31, 2022:

(in millions, except per share amounts)

Period	Total Number of Shares Purchased	Average Price Paid per Share (a)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (b)	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (b)
10/1/22 - 10/31/22	—	—	—	$182
11/1/22 - 11/30/22	—	—	—	$182
12/1/22 - 12/31/22	—	—	—	$182

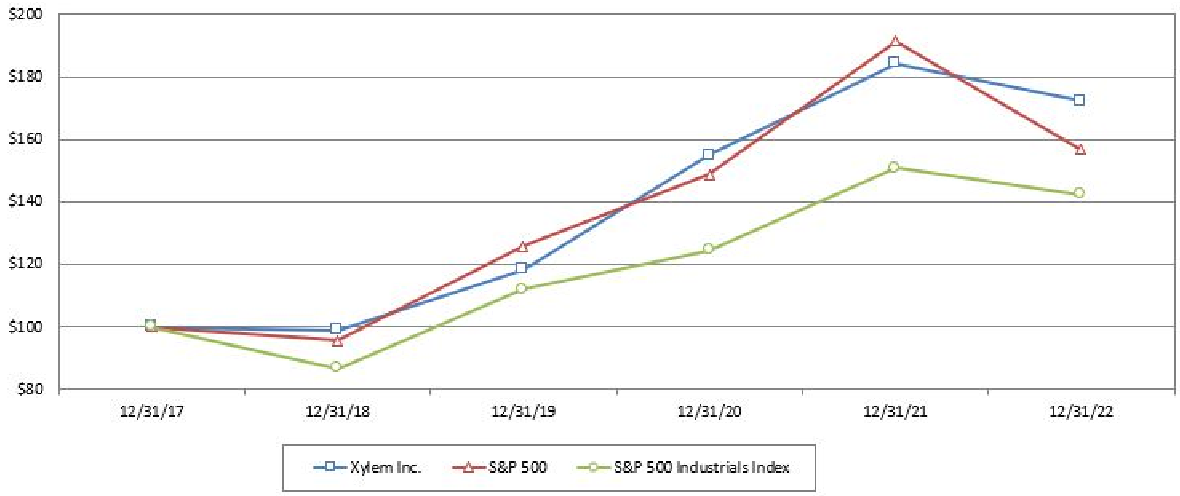
(a) Average price paid per share is calculated on a settlement basis.

(b) On August 24, 2015, our Board of Directors authorized the repurchase of up to $500 million in shares with no expiration date. The program's objective is to deploy our capital in a manner that benefits our shareholders and maintains our focus on growth. There were no shares repurchased under this program during the three months ended December 31, 2022. There are up to $182 million in shares that may still be purchased under this plan as of December 31, 2022.

PERFORMANCE GRAPH

CUMULATIVE TOTAL RETURN

The following graph compares the relative performance of our common stock, the S&P 500 Index and the S&P 500 Industrials Index. This graph covers the period from December 31, 2017 through December 31, 2022 and assumes that $100 was invested on December 31, 2017 in our common stock, the S&P 500 and the S&P 500 Industrials with the reinvestment of any dividends.



	XYL	S&P 500	S&P 500 Industrials Index
December 31, 2017	100	100	100
December 31, 2018	99	96	87
December 31, 2019	118	126	112
December 31, 2020	155	149	124
December 31, 2021	184	191	151
December 31, 2022	172	157	142

The graph is not, and is not intended to be, indicative of future performance of our common stock.

This performance graph shall not be deemed “filed” with the SEC or subject to the liabilities of Section 18 of the Securities Exchange Act of 1934, and should not be deemed incorporated by reference into any of our prior or subsequent filings under the Securities Act of 1933 or the Securities Exchange Act of 1934, except as shall be expressly set forth by specific reference in such filing.

ITEM 6. [Reserved]

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

The following discussion should be read in conjunction with our consolidated financial statements and the notes thereto. This discussion summarizes the significant factors affecting our results of operations and the financial condition of our business. Except as otherwise indicated or unless the context otherwise requires, "Xylem," "we," "us," "our" and "the Company" refer to Xylem Inc. and its subsidiaries.

This section of this Form 10-K generally discusses 2022 and 2021 items and year-to-year comparisons between 2022 and 2021. Discussions of 2020 items and year-to-year comparisons between 2021 and 2020 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Overview

Xylem is a leading global water technology company. We design, manufacture and service highly engineered products and solutions ranging across a wide variety of critical applications in utility, industrial, residential and commercial building services settings. Our broad portfolio of solutions addresses customer needs across the water cycle, from the delivery, measurement and use of drinking water to the collection, test, treatment and analysis of wastewater to the return of water to the environment. Our product and service offerings are organized into three reportable segments that are aligned around the critical market applications they provide: Water Infrastructure, Applied Water and Measurement & Control Solutions.

- *Water Infrastructure* serves the water infrastructure sector with pump systems that transport water from aquifers, lakes, rivers and seas; with filtration, ultraviolet and ozone systems that provide treatment, making the water fit to use; and pumping solutions that move the wastewater and storm water to treatment facilities where our mixers, biological treatment, monitoring and control systems provide the primary functions in the treatment process. We also provide sales and rental of specialty dewatering pumps and related equipment and services. Additionally, our offerings use monitoring and control, smart and connected technologies to allow for remote monitoring of performance and enable products to self-optimize pump operations maximizing energy efficiency and minimizing unplanned downtime and maintenance for our customers. In the Water Infrastructure segment, we provide the majority of our sales directly to customers along with strong applications expertise, while the remaining amount is through distribution partners.
- *Applied Water* serves the water usage applications sector with water pressure boosting systems for heating, ventilation and air conditioning, and for fire protection systems to the residential and commercial building services markets. In addition, our pumps, heat exchangers and controls provide cooling to power plants and manufacturing facilities, circulation for food and beverage processing, as well as boosting systems for agricultural irrigation. In the Applied Water segment, we provide the majority of our sales through long-standing relationships with many of the leading independent distributors in the markets we serve, with the remainder going directly to customers.
- *Measurement & Control Solutions* primarily serves the utility infrastructure solutions and services sector by delivering communications, smart metering, measurement and control technologies and critical infrastructure technologies that allow customers to more effectively use their distribution networks for the delivery, monitoring and control of critical resources such as water, electricity and natural gas. We also provide analytical instrumentation used to measure and analyze water quality, flow and level in clean water, wastewater, and outdoor environments. Additionally, we offer software and services including cloud-based analytics, remote monitoring and data management, leak detection, condition assessment, asset management and pressure monitoring solutions. In the Measurement & Control Solutions segment, we generate our sales through a combination of long-standing relationships with leading distributors and dedicated channel partners as well as direct sales depending on the regional availability of distribution channels and the type of product.

COVID-19 Pandemic Update and Macroeconomic Conditions

The global spread of COVID-19 has curtailed the movement of people, goods and services worldwide, including in many of the regions where we sell our products and services and conduct operations.

This section summarizes the most significant impacts related to the ongoing COVID-19 pandemic that we have experienced to date, and we have included additional details as applicable throughout other sections of this Annual Report.

Given the magnitude and duration of the COVID-19 pandemic and its economic consequences, it has become more difficult to distinguish specific aspects of our operational and financial performance that are most directly related to the pandemic from those more broadly influenced by ongoing macroeconomic, market and industry dynamics that may be, to varying degrees, related to the pandemic and its consequences.

The COVID-19 pandemic, as well as broader global market supply and demand dynamics, have adversely affected, and are expected to continue to adversely affect, our supply chains. We have experienced, and expect to continue experiencing shortages in the supply of components, including electronics, particularly semiconductors ("chips"), parts and raw materials. To help mitigate the effects of these challenges and increase the resilience of our supply chain, we continue to enhance and augment our risk management activities, including supplier pulsing and redundancy. Additionally, we have and continue to take measures with respect to buffer stock, the use of alternative suppliers and redesign of certain products to mitigate the impacts of the ongoing supply chain, freight and logistics delays and bolster our access to electronics, parts and raw materials.

We have also experienced, and continue to experience, increased inflation, freight, logistics, labor and overhead costs. The Company has taken specific actions to mitigate these inflationary headwinds, including pricing actions to pass cost increases through to customers and productivity efforts, including selective chip allocation, product redesigns, alternate sourcing options, and global procurement efforts. We have also initiated and plan to continue to initiate restructuring actions in 2023 to further optimize our cost structure.

These supply chain issues have also impacted our delivery times to customers. To some extent, our mitigation strategies have alleviated these issues but our lead times continue to be impacted to varying degrees.

If these issues continue, they could have a negative impact on our results of operations.

Many of our offices globally remain in a substantially remote work from home or hybrid status, with no material disruption to operations, financial reporting systems, internal control over financial reporting or disclosure controls and procedures.

The severity, magnitude and duration of the COVID-19 pandemic and its economic consequences are uncertain, and the pandemic’s ongoing and future impacts on our business, financial condition, results of operations, and stock price remain uncertain and difficult to predict.

Risks related to the impacts of COVID-19 as well as our supply chain are described in further detail under "Item 1A. Risk Factors" in the Company's 2022 Annual Report.

Evoqua Acquisition

On January 23, 2023, Xylem entered into a definitive agreement under which Xylem will acquire Evoqua, a leader in mission-critical water treatment solutions and services, in an all-stock transaction that reflects an implied enterprise value of approximately $7.5 billion. The transaction, which is anticipated to close in mid-2023, is subject to approval by shareholders of Xylem and Evoqua, the receipt of required regulatory approvals and other customary closing conditions.

Evoqua, a leader in North America water treatment, complements Xylem’s distinctive portfolio of solutions with advanced water and wastewater treatment capabilities, a powerful and extensive network of service professionals and access to a number of attractive industrial markets with resilient, recurring revenue streams.

Key Performance Indicators and Non-GAAP Measures

Management reviews key performance indicators including revenue, gross margins, segment operating income and operating income margins, free cash flow, orders growth, working capital and backlog, among others. In addition, we consider certain non-GAAP (or "adjusted") measures to be useful to management and investors evaluating our operating performance for the periods presented, and to provide a tool for evaluating our ongoing operations, liquidity and management of assets. This information can assist investors in assessing our financial performance and measures our ability to generate capital for deployment among competing strategic alternatives and initiatives, including, but not limited to, dividends, acquisitions, share repurchases and debt repayment. Excluding revenue, Xylem provides guidance only on a non-GAAP basis due to the inherent difficulty in forecasting certain amounts that would be included in GAAP earnings, such as discrete tax items, without unreasonable effort. These adjusted metrics are consistent with how management views our business and are used to make financial, operating and planning decisions. These metrics, however, are not measures of financial performance under GAAP and should not be considered a substitute for revenue, operating income, net income, earnings per share (basic and diluted) or net cash from operating activities as determined in accordance with GAAP. We consider the following non-GAAP measures to be key performance indicators, as well as the related reconciling items to the most directly comparable measure calculated and presented in accordance with GAAP. The non-GAAP measures may not be comparable to similarly-titled measures reported by other companies.

- "organic revenue" and "organic orders" defined as revenue and orders, respectively, excluding the impact of fluctuations in foreign currency translation and contributions from acquisitions and divestitures. Divestitures include sales or discontinuance of insignificant portions of our business that did not meet the criteria for classification as a discontinued operation. The period-over-period change resulting from foreign currency translation impacts is determined by translating current period and prior period activity using the same currency conversion rate.
- "constant currency" defined as financial results adjusted for foreign currency translation impacts by translating current period and prior period activity using the same currency conversion rate. This approach is used for countries whose functional currency is not the U.S. Dollar.
- "adjusted net income" and "adjusted earnings per share" defined as net income and earnings per share, respectively, adjusted to exclude restructuring and realignment costs, special charges, gain or loss from sale of businesses and tax-related special items, as applicable. A reconciliation of adjusted net income and adjusted earnings per share is provided below.

(in millions, except per share data)	2022			2021	
Net income & Earnings per share	**$ 355**		**$ 1.96**	$ 427	$ 2.35
Restructuring and realignment	**34**		**0.19**	22	0.12
Special charges	**160**	**(a)**	**0.89**	12	0.07
(Gain) loss from sale of business	**(1)**		**(0.01)**	(2)	(0.01)
Tax effects of adjustments (b)	**(32)**	**(c)**	**$ (0.18)**	$ (7)	$ (0.04)
Adjusted net income & Adjusted earnings per share	**$ 516**		**$ 2.85**	$ 452	$ 2.49

(a) The special charges in the year primarily relate to the U.K. pension settlement expense of $140 million and asset impairment charges of $14 million recorded in the period.

(b) The tax effects of adjustments are calculated using the statutory tax rate, taking into consideration the nature of the item and the relevant taxing jurisdiction.

(c) The $32 million in tax effects of adjustments in the period primarily consists of $23 million related to the U.K. pension settlement expense and $3 million related to the asset impairment charge.

- "adjusted operating expenses" and "adjusted gross profit" defined as operating expenses and gross profit, respectively, adjusted to exclude restructuring and realignment costs and special charges.
- "adjusted operating income" defined as operating income, adjusted to exclude restructuring and realignment costs and special charges, and "adjusted operating margin" defined as adjusted operating income divided by total revenue.
- “EBITDA” defined as earnings before interest, taxes, depreciation and amortization expense, "EBITDA margin" defined as EBITDA divided by total revenue, "adjusted EBITDA" reflects the adjustment to EBITDA to exclude share-based compensation charges, restructuring and realignment costs, special charges and gain or loss from sale of businesses, and "adjusted EBITDA margin" defined as adjusted EBITDA divided by total revenue.

- “realignment costs” defined as costs not included in restructuring costs that are incurred as part of actions taken to reposition our business, including items such as professional fees, severance, relocation, travel, facility set-up and other costs.
- “special charges" defined as costs incurred by the Company, such as acquisition and integration related costs, non-cash impairment charges and both operating and non-operating adjustments for costs related to the U.K. pension plan buy-out.
- "tax-related special items" defined as tax items, such as tax return versus tax provision adjustments, tax exam impacts, tax law change impacts, excess tax benefits/losses and other discrete tax adjustments.
- "free cash flow" defined as net cash from operating activities, as reported in the Statement of Cash Flows, less capital expenditures. Our definition of "free cash flow" does not consider certain non-discretionary cash payments, such as debt. The following table provides a reconciliation of free cash flow.

(in millions)	2022	2021
Net cash provided by operating activities	**$ 596**	$ 538
Capital expenditures	**(208)**	(208)
Free cash flow	**$ 388**	$ 330
Net cash used in investing activities	**$ (191)**	$ (183)
Net cash provided (used) by financing activities	**$ (790)**	$ (855)

Executive Summary

Xylem reported revenue of $5,522 million for 2022, an increase of $327 million, or 6.3%, from $5,195 million reported in 2021. On a constant currency basis, revenue increased by $586 million, or 11.3%, during the year. The increase at constant currency was driven by an increase in organic revenue of $595 million reflecting strong organic growth in all end markets as well as across all major geographic regions.

Operating income for 2022 was $622 million, reflecting an increase of $37 million, or 6.3%, compared to $585 million in 2021. Operating margin was 11.3% for both 2022 and 2021. Operating income for 2022 included an increase in special charges of $12 million and an unfavorable impact from increased restructuring and realignment costs of $12 million as compared to 2021. Excluding the impact of these items, adjusted operating income was $672 million, with an adjusted operating margin of 12.2% in 2022 as compared to adjusted operating income of $611 million with an adjusted operating margin of 11.8% in 2021, an increase of 40 basis points. The increase in adjusted operating margin was primarily due to cost reductions from our productivity, restructuring and other cost saving initiatives, favorable volume and price realization. These impacts were partially offset by cost inflation and increased spending on strategic investments.

Additional financial highlights for 2022 include the following:

- Net income of $355 million, or $1.96 per diluted share, down 16.6% ($516 million or $2.85 per diluted share on an adjusted basis, up 14.5% from 2021)
- Net cash provided by operating activities of $596 million and free cash flow of $388 million, up 18% from 2021
- Orders of $6,257 million, down 0.7% from $6,300 million in 2021 (up 4.0% on an organic basis)
- Dividends paid to shareholders increased 7% in 2022.

2023 Business Outlook

We anticipate total revenue growth in the range of 3% to 5% in 2023, with organic revenue growth anticipated to be in the range of 4% to 6%. The following is a summary of our 2022 organic revenue performance and the 2023 organic revenue outlook by end market.

- Utilities revenue increased by approximately 10% for 2022 on an organic basis driven by strength in the U.S. and western Europe, partially offset by weakness in the emerging markets. For 2023, we expect organic revenue growth in the high-single-digits. On the clean water side, we expect improvements in chip supply through 2023 allowing for large deal deployments already secured in our backlog. Additionally, we can expect continued momentum for water quality products and increased demand for pipeline assessment services due to aging infrastructure. We expect wastewater utilities to remain focused on mission-critical applications in wastewater. Long-term capital expenditure outlook is strong due to aging infrastructure and the emerging markets’ continued advancement.

- Industrial revenue increased by approximately 13% for 2022 on an organic basis driven by strength across all major geographic regions. For 2023, we expect organic revenue growth in the low to mid-single-digit range. We expect to see continued robust growth in our dewatering business, driven by mining demand and strategic growth investments. We expect sustained demand in light industrial activity globally.

- In the commercial market, organic revenue in 2022 increased by approximately 12%, led by growth in the U.S and western Europe. For 2023, we expect organic revenue growth in the low-single-digit range. We expect sustained demand for energy efficient related projects, particularly in Europe, and continued commercial development in the emerging markets, partially offset by moderation in new construction.

- In the residential market, organic revenue increased by approximately 16% in 2022 driven primarily by strength in the U.S. as well as strength in the emerging markets. This market is primarily driven by replacement revenue serviced through our distribution network. For 2023, we expect a low-single-digit organic revenue decline due to normalizing demand in the U.S., partially offset by continued strength in emerging markets.

We will continue to strategically execute restructuring and realignment actions in an effort to optimize our cost structure, improve our operational efficiency and effectiveness, strengthen our competitive positioning and better serve our customers. During 2022, we incurred $15 million and $19 million in restructuring and realignment costs, respectively. We realized approximately $3 million of net savings from our 2022 actions. As a result of our 2022 actions we expect to realize approximately $14 million of incremental net savings in 2023 and beyond. During 2023, we currently expect to incur between $25 million and $35 million in restructuring and realignment costs.

We are strongly positioned to deliver on our 2023 commitments with commercial and operational momentum. We expect resilient demand due to our differentiated solutions addressing long-term secular trends in our largest end markets. Our 2023 commitments are supported by backlog execution, price realization, continued productivity actions to more than offset the impact of persistent inflation and potential headwinds from slowing demand in our most cyclical end markets. Beyond 2023, we remain on track to deliver our longer-term strategic and financial milestones. In addition to our organic 2023 commitments, we expect to successfully integrate the planned merger of Xylem and Evoqua with a closing estimated by mid-2023.

Results of Operations

(in millions)	2022	2021	2022 v. 2021
Revenue	**$ 5,522**	$ 5,195	6.3 %
Gross profit	**2,084**	1,975	5.5 %
Gross margin	**37.7 %**	38.0 %	(30)bp
Realignment costs	**4**	4	— %
Adjusted gross profit	**2,088**	1,979	5.5 %
Adjusted gross margin	**37.8 %**	38.1 %	(30)bp
Total operating expenses	**1,462**	1,390	5.2 %
Expense to revenue ratio	**26.5 %**	26.8 %	(30)bp
Restructuring and realignment costs	**(30)**	(18)	66.7 %
Special charges	**(16)**	(4)	300.0 %
Adjusted operating expenses	**1,416**	1,368	3.5 %
Adjusted operating expenses to revenue ratio	**25.6 %**	26.3 %	(70)bp
Operating income	**622**	585	6.3 %
Operating margin	**11.3 %**	11.3 %	— bp
U.K. pension settlement expense	**140**	—	NM
Interest and other non-operating expense, net	**43**	76	(43.4) %
Gain from sale of business	**1**	2	(50.0) %
Income tax expense	**85**	84	1.2 %
Tax rate	**19.2 %**	16.3 %	290 bp
Net income	**$ 355**	$ 427	(16.9) %

NM Not Meaningful

2022 versus 2021

Revenue

Revenue generated for 2022 was $5,522 million, an increase of $327 million, or 6.3%, compared to $5,195 million in 2021. On a constant currency basis, revenue grew 11.3% during 2022. The increase at constant currency was driven by an increase in organic revenue of $595 million, reflecting strong organic growth in all end markets as well as across all major geographic regions.

The following table illustrates the impact from organic growth, recent acquisitions and divestitures, and foreign currency translation in relation to revenue during 2022:

	Water Infrastructure		Applied Water		Measurement & Control Solutions		Total Xylem	
(in millions)	$ Change	% Change	$ Change	% Change	$ Change	% Change	$ Change	% Change
2021 Revenue	$ 2,247		$ 1,613		$ 1,335		$ 5,195	
Organic Impact	266	11.8 %	220	13.6 %	109	8.2 %	595	11.5 %
Acquisitions/(Divestitures)	—	— %	—	— %	(9)	(0.7)%	(9)	(0.2)%
Constant Currency	266	11.8 %	220	13.6 %	100	7.5 %	586	11.3 %
Foreign currency translation (a)	(149)	(6.6)%	(66)	(4.1)%	(44)	(3.3)%	(259)	(5.0)%
Total change in revenue	117	5.2 %	154	9.5 %	56	4.2 %	327	6.3 %
2022 Revenue	**$ 2,364**		**$ 1,767**		**$ 1,391**		**$ 5,522**	

(a) Foreign currency translation impact for the year primarily due to the weakening in value of various currencies against the U.S. Dollar, the largest being the Euro, the British Pound, the Swedish Krona, the Canadian Dollar, the Australian Dollar and the Hungarian Forint.

Water Infrastructure

Water Infrastructure revenue increased $117 million, or 5.2%, to $2,364 million in 2022 (11.8% increase on a constant currency basis) compared to 2021. Revenue was negatively impacted by $149 million of foreign currency translation, with the change at constant currency coming entirely from organic growth of $266 million. Organic growth for the year was driven by strength in both the utility and industrial end markets. The utilities end market experienced organic growth of $151 million led by strength in the U.S. driven by strong price realization, solid backlog execution, timing of projects as compared to prior year and continued strength in the construction sector. Western Europe also experienced strong organic growth due to good price realization, coupled with strong demand in utilities' capital spending. This increase was partially offset by weakness in the emerging markets, primarily due to the continued negative impacts from COVID lockdowns in China. The industrial end market had $115 million of organic growth across all major geographic regions, particularly in western Europe due to strong backlog execution and good price realization, and in the emerging markets, driven by mining projects and price realization in both Latin America and Africa.

From an application perspective, organic revenue growth was driven by our transport applications. Transport experienced $247 million of revenue growth, almost half of which came from the dewatering application. All three of our major geographic regions contributed to the organic revenue growth in transport, led by the U.S. where we continued to experience strong price realization and had strong backlog coming into the year, followed by western Europe, which also experienced strong price realization coupled with strong demand from utility capital projects. We also experienced strong growth in the emerging markets driven by good price realization as well as robust mining demand in our dewatering business, particularity in Latin America and Africa, which more than offset declines in China due to COVID impacts. Organic revenue for the treatment application was $19 million for the year, as revenue growth from strong backlog execution in western Europe and the U.S. was partially offset by declines in emerging markets led by the continued negative COVID impacts on China.

Applied Water

Applied Water revenue increased $154 million, or 9.5%, in 2022 (13.6% increase on a constant currency basis) compared to 2021. Revenue was negatively impacted by $66 million of foreign currency translation, with the change at constant currency coming entirely from organic growth during the year of $220 million. Organic growth was driven by strength in all three end markets and across all major geographic regions. The organic revenue growth was led by strength in the industrial water application of $103 million, where in the U.S. we benefited from price realization and demand from OEM customers, in western Europe where we had healthy order intake across the sector, and in the emerging markets where we saw market recovery in China, despite continued COVID restrictions. Commercial building services grew $74 million organically during the year, particularly in the U.S. and western Europe, where we benefited from strong price realization and healthy market conditions. The residential building services application had $43 million of organic revenue growth during the period, primarily in the U.S. driven by price realization and healthy market conditions.

Measurement & Control Solutions

Measurement & Control Solutions revenue increased $56 million, or 4.2%, in 2022 (7.5% increase on a constant currency basis) compared to 2021. Revenue was negatively impacted by $44 million of foreign currency translation during the year, with the change at constant currency driven by an organic growth of $109 million, or 8.2%, and $9 million of reduced revenue related to divestiture impacts during the year. We experienced organic revenue growth across all three major geographic regions and in both of the segment's end markets for the year, driven by $91 million of organic growth in the utility end market, primarily in the U.S. as a result of the easing of electronic component shortage and strong price realization, followed by $18 million in the industrial end market driven by strong backlog execution in our test business.

From an application perspective, organic revenue growth during the year consisted entirely of growth in the water application of $114 million, which was slightly offset by a decline in the energy applications of $5 million. Organic revenue growth in the water application was driven by strength in the U.S. as a result of easing of electronic component shortages and strong price realization. Backlog execution in the emerging markets and strength in our test and pipeline assessment services businesses in western Europe also contributed to the growth. Declines in the energy applications were driven by impacts from electronic component shortages in the U.S. during the first half of the year, more than offsetting modest growth in the second half of the year.

Orders/Backlog

An order represents a legally enforceable, written document that includes the scope of work or services to be performed or equipment to be supplied to a customer, the corresponding price and the expected delivery date for the applicable products or services to be provided. An order often takes the form of a customer purchase order or a signed quote from a Xylem business. Orders received during 2022 decreased by $43 million, or 0.7%, to $6,257 million (3.7% increase on a constant currency basis). Order intake was negatively impacted by $279 million of foreign currency translation and $18 million of reduced orders related to divestiture impacts. The increase on a constant currency basis primarily consisted of organic order growth of $254 million, or 4.0%, over the prior year.

The following table illustrates the impact from organic growth, recent acquisitions and divestitures, and foreign currency translation in relation to orders during 2022:

	Water Infrastructure		Applied Water		Measurement & Control Solutions		Total Xylem	
(in millions)	$ Change	% Change	$ Change	% Change	$ Change	% Change	$ Change	% Change
2021 Orders	$ 2,471		$ 1,860		$ 1,969		$ 6,300	
Organic Impact	302	12.2 %	2	0.1 %	(50)	(2.5)%	254	4.0 %
Acquisitions/(Divestitures)	—	— %	—	— %	(18)	(0.9)%	(18)	(0.3)%
Constant Currency	302	12.2 %	2	0.1 %	(68)	(3.5)%	236	3.7 %
Foreign currency translation (a)	(166)	(6.7)%	(68)	(3.7)%	(45)	(2.3)%	(279)	(4.4)%
Total change in orders	136	5.5 %	(66)	(3.5)%	(113)	(5.7)%	(43)	(0.7)%
2022 Orders	**$ 2,607**		**$ 1,794**		**$ 1,856**		**$ 6,257**	

(a) Foreign currency translation impact for the year primarily due to the weakening in value of various currencies against the U.S. Dollar, the largest being the Euro, the British Pound, the Swedish Krona, the Canadian Dollar, the Australian Dollar and the Hungarian Forint.

Water Infrastructure

Water Infrastructure segment orders increased $136 million, or 5.5%, to $2,607 million (12.2% increase on a constant currency basis). Order intake during the year was negatively impacted by $166 million of foreign currency translation. Organic orders increased during the year as strength in the transport applications came primarily from the U.S. where we benefited from strong market demand in water utilities, price realization and timing of large infrastructure projects. Western Europe also contributed to order growth from increased demand in utility capital projects and healthy market conditions. The treatment application saw a slight decrease in orders driven by the emerging markets due to declines in China related to COVID impacts, which more than offset modest growth in the U.S. and western Europe.

Applied Water

Applied Water segment orders decreased $66 million, or 3.5%, to $1,794 million (flat on a constant currency basis). Order intake during the year was negatively impacted by $68 million of foreign currency translation, making organic order growth relatively flat. Weakness in the U.S. from lapping strong demand in the prior year was partially offset by strength in the emerging markets and western Europe as a result of strong project orders and stocking by channel partners.

Measurement & Control Solutions

Measurement & Control Solutions segment orders decreased $113 million, or 5.7%, to $1,856 million (3.5% decrease on a constant currency basis). Order weakness during the year was negatively impacted by $45 million of foreign currency translation and reduced orders related to divestiture impacts of $18 million. The organic order decrease was $50 million, or (2.5)%. The order declines during the year are lapping strong organic order growth of 38% in the prior year. The order weakness for the year was driven by the water application due to the moderation of early orders to mitigate electronic component shortages and longer lead times that drove order growth in the prior year. This decrease was partially offset by strength in the energy applications, primarily driven by demand and advanced ordering to address electronic component shortages.

Backlog

Backlog includes orders on hand as well as contractual customer agreements at the end of the period. Delivery schedules vary from customer to customer based on their requirements. Annual or multi-year contracts are subject to rescheduling and cancellation by customers due to the long-term nature of the contracts. As such, beginning total backlog, plus orders, minus revenues, will not equal ending total backlog due to contract adjustments, foreign currency fluctuations, and other factors. Typically, large projects require longer lead production cycles and deployment schedules and delays occur from time to time. Total backlog was $3,605 million at December 31, 2022 and $3,240 million at December 31, 2021, an increase of 11.3%. We anticipate that approximately 55% of our total backlog at December 31, 2022 will be recognized as revenue during 2023.

Gross Margin

Gross margin as a percentage of consolidated revenue decreased 30 basis points to 37.7% in 2022 as compared to 38.0% in 2021.The gross margin decline for the year included 730 basis points of negative impacts, driven by 580 basis points of cost inflation, as well as increased spending on strategic investments of 60 basis points and 40 basis points of inventory management costs. These negative impacts were partially offset by favorable impacts of 700 basis points, driven by 470 basis points of price realization and 230 basis points of productivity savings.

Operating Expenses

(in millions)	**2022**	2021	Change
Selling, general and administrative expenses	**$ 1,227**	$ 1,179	4.1 %
SG&A as a % of revenue	**22.2 %**	22.7 %	(50)bp
Research and development expenses	**206**	204	1.0 %
R&D as a % of revenue	**3.7 %**	3.9 %	(20)bp
Restructuring and asset impairment charges	**29**	7	314.3 %
Operating expenses	**$ 1,462**	$ 1,390	5.2 %
Expense to revenue ratio	**26.5 %**	26.8 %	(30)bp

Selling, General and Administrative ("SG&A") Expenses

SG&A expenses increased by $48 million (increase of 4.1%) to 22.2% of revenue in 2022, as compared to 22.7% of revenue in 2021. Revenue growth was higher than SG&A increases resulting in a lower SG&A as a percentage of sales. Cost increases were driven by increased investments in strategic growth initiatives of $59 million and inflation of $38 million, partially offset by $48 million of favorable currency impacts.

Research and Development ("R&D") Expenses

R&D expense was $206 million, or 3.7% of revenue, in 2022 which was fairly consistent with the 2021 expense of $204 million, or 3.9% of revenue.

Restructuring and Asset Impairment Charges

Restructuring

From time to time, the Company will incur costs related to restructuring actions in order to optimize our cost base and more strategically position itself. Restructuring charges were $15 million in 2022 as compared to $6 million in 2021.

During 2022 we incurred these charges primarily as a continuation of our efforts to reposition our business to optimize our cost structure and improve our operational efficiency and effectiveness. The charges primarily included the reduction of headcount across all segments.

In response to the changes in business and economic conditions arising as a result of the COVID-19 pandemic, on June 2, 2020 management committed to a restructuring plan that includes actions across our businesses and functions globally. The plan was designed to support our long-term financial resilience and simplify our operations, strengthen our competitive positioning and better serve our customers.

As a result of this action, during 2021, we recognized restructuring charges of $4 million and $2 million in our Water Infrastructure and Applied Water segments, respectively. These charges included reduction of headcount across both segments. Other less significant restructuring actions taken in 2021 resulted in $3 million of charges during 2021 and are included in the information presented below.

The following is a roll-forward of employee position eliminations associated with restructuring activities for the years ended December 31, 2022 and 2021:

	2022	2021
Planned reductions - January 1	**60**	319
Additional planned reductions	**203**	83
Actual reductions and reversals	**(161)**	(342)
Planned reductions - December 31	**102**	60

The following table presents the total costs expected to be incurred, the amount incurred in the period, and the cumulative costs incurred to date for our 2020, 2021 and 2022 restructuring actions:

(in millions)	Water Infrastructure	Applied Water	Measurement & Control Solutions	Corporate	Total
Actions Commenced in 2022:					
Total expected costs	$ 6	$ 4	$ 4	$ —	$ 14
Costs incurred during 2022	6	4	4	—	14
Total expected costs remaining	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Actions Commenced in 2021:					
Total expected costs	$ 3	$ —	$ —	$ —	$ 3
Costs incurred during 2021	3	—	—	—	3
Costs incurred during 2022	—	—	—	—	—
Total expected costs remaining	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Actions Commenced in 2020:					
Total expected costs	$ 23	$ 6	$ 30	$ —	$ 59
Costs incurred during 2020	19	4	30	—	53
Costs incurred during 2021	4	2	—	—	6
Costs incurred during 2022	—	—	—	—	—
Total expected costs remaining	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**

During 2022, we also incurred charges of $1 million within the Measurement & Control Solutions segment, related to actions commenced prior to 2020. During 2021, we recorded a reduction of $3 million within the Measurement & Control Solutions segment, related to actions commenced prior to 2020.

The Water Infrastructure, Applied Water and Measurement & Control Solutions actions commenced in 2022 consist primarily of severance charges. The actions commenced in 2022 are complete.

The Water Infrastructure actions commenced in 2021 consist primarily of severance charges. The actions commenced in 2021 are complete.

As a result of the actions initiated in 2022, we achieved savings of approximately $2 million in 2022 and estimate annual future net savings beginning in 2023 of approximately $14 million, resulting in $12 million of incremental savings from 2022 actions.

Asset Impairment

During 2022, we determined that certain assets, primarily software and customer relationships, within our Measurement & Control Solutions segment were impaired. Accordingly, we recognized an impairment charge of $14 million. Refer to Note 11, "Goodwill and Other Intangible Assets," for additional information.

Operating Income and Adjusted EBITDA

Operating income was $622 million (operating margin of 11.3%) during 2022, an increase of $37 million, or 6.3%, when compared to operating income of $585 million (operating margin of 11.3%) during the prior year. Operating margin included unfavorable impacts of 40 basis points from increases in special charges and restructuring and realignment costs as compared to the prior year. Additionally, operating margin included 1020 basis points of expansion from favorable operating impacts, driven by a 670 basis point increase from price realization, 280 basis points from productivity savings and 70 basis points from favorable volume. Margin expansion was offset by 980 basis points of unfavorable impacts driven by 660 basis points of inflation, 180 basis points of increased spending on strategic investments, 40 basis points of inventory management costs and 30 basis points of unfavorable mix. Excluding special charges and restructuring and realignment costs, adjusted operating income was $672 million (adjusted operating margin of 12.2%) for 2022 as compared to adjusted operating income of $611 million (adjusted operating margin of 11.8%) during the prior year.

Adjusted EBITDA was $940 million (adjusted EBITDA margin of 17.0%) during 2022, an increase of $50 million, or 5.6%, when compared to adjusted EBITDA of $890 million (adjusted EBITDA margin of 17.1%) during the prior year. The slight decrease in adjusted EBITDA margin was primarily due to the same factors impacting adjusted operating margin noted above; however, adjusted EBITDA margin did not benefit from a year over year reduction in depreciation and amortization expense.

The table below provides a reconciliation of total and each segment's operating income to adjusted operating income, and a calculation of the corresponding adjusted operating margin:

(In millions)	2022	2021	Change
Water Infrastructure			
Operating income	**$ 418**	$ 387	8.0 %
Operating margin	***17.7 %***	*17.2 %*	*50 bp*
Restructuring and realignment costs	**11**	12	(8.3) %
Adjusted operating income	**$ 429**	$ 399	7.5 %
Adjusted operating margin	***18.1 %***	*17.8 %*	*30 bp*
Applied Water			
Operating income	**$ 258**	$ 240	7.5 %
Operating margin	***14.6 %***	*14.9 %*	*(30) bp*
Restructuring and realignment costs	**13**	7	85.7 %
Special charges	**—**	1	(100.0) %
Adjusted operating income	**$ 271**	$ 248	9.3 %
Adjusted operating margin	***15.3 %***	*15.4 %*	*(10) bp*
Measurement & Control Solutions			
Operating income	**$ 2**	$ 12	(83.3) %
Operating margin	***0.1 %***	*0.9 %*	*(80) bp*
Restructuring and realignment costs	**10**	3	233.3 %
Special charges	**14**	—	NM %
Adjusted operating income	**$ 26**	$ 15	73.3 %
Adjusted operating margin	***1.9 %***	*1.1 %*	*80 bp*
Corporate and other			
Operating loss	**$ (56)**	$ (54)	3.7 %
Special charges	**2**	3	(33.3)
Adjusted operating loss	**$ (54)**	$ (51)	5.9 %
Total Xylem			
Operating income	**$ 622**	$ 585	6.3 %
Operating margin	***11.3 %***	*11.3 %*	*— bp*
Restructuring and realignment costs	**34**	22	54.5 %
Special charges	**16**	4	300.0 %
Adjusted operating income	**$ 672**	$ 611	10.0 %
Adjusted operating margin	***12.2 %***	*11.8 %*	*40 bp*

NM Not Meaningful

The table below provides a reconciliation of net income to consolidated EBITDA and adjusted EBITDA:

(in millions)	Year Ended December 31,			
	2022	2021	Change	
Net Income	**$ 355**	$ 427	(17)	%
Net Income margin	**6.4 %**	8.2 %	*(180)*	*bp*
Depreciation	**111**	118	(6)	%
Amortization	**125**	127	(2)	%
Interest expense, net	**34**	69	(51)	%
Income tax expense	**85**	84	1	%
EBITDA	**$ 710**	$ 825	(14)	%
Share-based compensation	**37**	33	12	%
Restructuring & realignment	**34**	22	55	%
U.K. pension settlement expense	**140**	—	100	%
Special charges	**20**	12	67	%
Gain from sale of business	**(1)**	(2)	(50)	%
Adjusted EBITDA	**$ 940**	$ 890	6	%
Adjusted EBITDA margin	**17.0 %**	17.1 %	*(10)*	*bp*

The tables below provide a reconciliation of each segment's operating income (loss) to EBITDA and adjusted EBITDA:

	Year Ended December 31, 2022		
(in millions)	**Water Infrastructure**	**Applied Water Systems**	**Measurement & Control Solutions**
Operating Income	**$ 418**	**$ 258**	**$ 2**
Gain from sale of business	**—**	**—**	**1**
Depreciation	**44**	**17**	**33**
Amortization	**9**	**2**	**104**
Other non-operating expense	**(4)**	**(2)**	**(2)**
EBITDA	**$ 467**	**$ 275**	**$ 138**
Share-based compensation	**2**	**4**	**6**
Restructuring & realignment	**11**	**13**	**10**
Special charges	**—**	**—**	**14**
Gain from sale of business	**—**	**—**	**(1)**
Adjusted EBITDA	**$ 480**	**$ 292**	**$ 167**
Adjusted EBITDA margin	***20.3 %***	***16.5 %***	***12.0 %***

(in millions)	Year Ended December 31, 2021 Water Infrastructure	Applied Water Systems	Measurement & Control Solutions
Operating Income	**$ 387**	**$ 240**	**$ 12**
Gain from sale of business	—	2	—
Depreciation	43	20	38
Amortization	8	2	107
Other non-operating expense	(5)	(3)	(2)
EBITDA	**$ 433**	**$ 261**	**$ 155**
Share-based compensation	2	4	6
Restructuring & realignment	12	7	3
Special charges	—	1	—
Gain from sale of business	—	(2)	—
Adjusted EBITDA	**$ 447**	**$ 271**	**$ 164**
Adjusted EBITDA margin	***19.9 %***	***16.8 %***	***12.3 %***

(in millions)	2022 versus 2021 Water Infrastructure	Applied Water Systems	Measurement & Control Solutions
Operating Income (Loss)	**$ 31**	**$ 18**	**$ (10)**
Gain from sale of business	—	(2)	1
Depreciation	1	(3)	(5)
Amortization	1	—	(3)
Other non-operating expense	1	1	—
EBITDA	**$ 34**	**$ 14**	**$ (17)**
Share-based compensation	—	—	—
Restructuring & realignment	(1)	6	7
Special charges	—	(1)	14
Gain from sale of business	—	2	(1)
Adjusted EBITDA	**$ 33**	**$ 21**	**$ 3**
Adjusted EBITDA margin	***0.4 %***	***(0.3)%***	***(0.3)%***

Water Infrastructure

Operating income was $418 million for our Water Infrastructure segment (operating margin of 17.7%) during 2022, an increase of $31 million, or 8.0%, when compared to operating income of $387 million (operating margin of 17.2%) during the prior year, or a total increase of 50 basis points. Operating margin expansion included favorable impacts of 20 basis points from a decrease in restructuring and realignment costs as compared to the prior year. Additionally, operating margin expansion included 940 basis points from favorable operating impacts, driven by 560 basis points of price realization, 270 basis points from productivity savings and 110 basis points of favorable volume. Margin expansion was offset by 910 basis points of unfavorable impacts driven by 560 basis points of inflation, 220 basis points due to increased spending on strategic investments and 70 basis points of unfavorable mix. Excluding special charges and restructuring and realignment costs, adjusted operating income was $429 million (adjusted operating margin of 18.1%) during 2022 as compared to adjusted operating income of $399 million (adjusted operating margin of 17.8%) during the prior year.

Adjusted EBITDA was $480 million (adjusted EBITDA margin of 20.3%) during 2022, an increase of $33 million, or 7.4%, when compared to adjusted EBITDA of $447 million (adjusted EBITDA margin of 19.9%) during the prior year. The increase in adjusted EBITDA margin was primarily due to the same factors impacting the increase in adjusted operating margin.

Applied Water

Operating income was $258 million for our Applied Water segment (operating margin of 14.6%) during 2022, an increase of $18 million, or 7.5%, when compared to operating income of $240 million (operating margin of 14.9%) during the prior year, or a total decrease of 30 basis points. Operating margin declines included unfavorable impacts of 20 basis points from an increase in restructuring and realignment costs and special charges as compared to the prior year. Additionally, operating margin decline included 1290 basis points of unfavorable operating impacts, driven by 880 basis points of inflation, 110 basis points of increased spending on strategic investments, 120 basis points of increased inventory management costs and 40 basis points of unfavorable mix. Margin declines were offset by 1280 basis points from favorable operating impacts, which were driven by 930 basis points of price realization, 340 basis points from productivity savings and 10 basis points from favorable volume. Excluding special charges and restructuring and realignment costs, adjusted operating income was $271 million (adjusted operating margin of 15.3%) during 2022 as compared to adjusted operating income of $248 million (adjusted operating margin of 15.4%) during the prior year.

Adjusted EBITDA was $292 million (adjusted EBITDA margin of 16.5%) during 2022, an increase of $21 million, or 7.7%, when compared to adjusted EBITDA of $271 million (adjusted EBITDA margin of 16.8%) during the prior year. The decrease in adjusted EBITDA margin was primarily due to the same factors impacting the decrease in adjusted operating margin.

Measurement & Control Solutions

Operating income was $2 million for our Measurement & Control Solutions (operating margin of 0.1%) during 2022, a decrease of $10 million, or 83.3%, when compared to operating income of $12 million (operating margin of 0.9%) during the prior year, or a total decrease of 80 basis points. Operating margin declines included unfavorable impacts of 160 basis points from an increase in special charges (asset impairment) and restructuring and realignment costs as compared to the prior year. Operating margin impacts included 790 basis points from favorable operating impacts consisting of 450 basis points of price realization, 230 basis points from productivity savings and 70 basis points from favorable volume. Favorable impacts were offset by 710 basis points of unfavorable impacts driven by 520 basis points of inflation, 100 basis points of higher performance related incentive costs and 40 basis points of increased spending on strategic investments. Excluding special charges and restructuring and realignment costs, adjusted operating income was $26 million (adjusted operating margin of 1.9%) during 2022 as compared to adjusted operating income of $15 million (adjusted operating margin of 1.1%) during the prior year.

Adjusted EBITDA was $167 million (adjusted EBITDA margin of 12.0%) during 2022, an increase of $3 million, or 1.8%, when compared to adjusted EBITDA of $164 million (adjusted EBITDA margin of 12.3%) during the prior year. The decrease in adjusted EBITDA margin was due to the same factors as those impacting the increase in adjusted operating margin; however, adjusted EBITDA margin did not benefit from a year over year reduction in depreciation and amortization expense.

Corporate and other

Operating loss for corporate and other increased $2 million, or 3.7%, compared to the prior year. The increase in operating loss for the year was primarily due to higher performance related incentive costs.

Interest Expense

Interest expense was $50 million and $76 million for 2022 and 2021, respectively. The decrease in interest expense was primarily driven by interest expense incurred during 2021 related to our 4.875% Senior Notes due 2021 that were paid off in October 2021 and interest income related to additional net investment hedges executed in during 2022. See Note 14, "Credit Facilities and Debt", of our consolidated financial statements for a description of our credit facilities and long-term debt and related interest.

U.K. Pension Settlement Expense

The Company initiated the process for a full buy-out of its largest defined benefit plan in the U.K. in 2019. During the first quarter of 2020, the Company purchased a bulk annuity policy as a plan asset to facilitate the termination and buy-out of the plan. The buy-out was completed in September 2022, at which point the remaining benefit obligations were transferred to the insurer and we were relieved of any further obligation. As a result, we recorded a pension settlement charge of £123 million (approximately $140 million) in the third quarter of 2022, primarily consisting of unrecognized actuarial losses. Refer to Note 15, "Post-retirement Benefit Plans", of our consolidated financial statements for additional information.

Income Tax Expense

The income tax provision for 2022 was $85 million at an effective tax rate of 19.2% as compared to $84 million at an effective tax rate of 16.3% in 2021. The 2022 effective tax rate differs from that of 2021 primarily due to the impact of higher U.S. domestic pre-tax income in the current period.

Liquidity and Capital Resources

The following table summarizes our sources and uses of cash:

	Year Ended December 31,		
(in millions)	**2022**	2021	Change
Operating activities	**$ 596**	$ 538	$ 58
Investing activities	**(191)**	(183)	(8)
Financing activities	**(790)**	(855)	65
Foreign exchange (a)	**(20)**	(26)	6
Total	**$ (405)**	$ (526)	$ 121

(a) The decrease in negative impact of foreign exchange as compared to 2021 is primarily due to strengthening of the Euro partially offset by weakening of the Chinese Yuan.

Sources and Uses of Liquidity

Operating Activities

During 2022, net cash provided by operating activities was $596 million, compared to $538 million in 2021. The $58 million year-over-year increase was primarily driven by higher customer prepayments, timing of employee benefit payments and lower interest payments. Higher working capital levels, reflecting increased sales, partially offset these items.

Investing Activities

Cash used in investing activities was $191 million in 2022, compared to $183 million in 2021. This increase in cash used of $8 million was mainly driven by cash paid for investments, the settlement of a currency forward agreement and reduced proceeds from sales of businesses. Cash received from cross-currency swaps and cash investments partially offset the increased outflow.

Financing Activities

Cash used in financing activities was $790 million in 2022, compared to $855 million in 2021. The year-over-year decrease in cash used was mainly driven by lower debt repayments and reduced repurchases of common stock. Higher dividend payments and lower proceeds from employee stock options partially offset these items.

Funding and Liquidity Strategy

Our ability to fund our capital needs depends on our ongoing ability to generate cash from operations and access to bank financing and the capital markets. We continually evaluate aspects of our spending, including capital expenditures, strategic investments and dividends.

Historically, we have generated operating cash flow sufficient to fund our primary cash needs. We currently do not expect any significant impact to our capital and financial resources from the COVID-19 pandemic, including our overall liquidity position based on our available cash and cash equivalents and our access to credit facilities and the capital markets, however we continue to monitor the ongoing impacts of the pandemic.

If our cash flows from operations are less than we expect, we may need to incur debt or issue equity. From time to time, we may need to access the long-term and short-term capital markets to obtain financing. Our access to, and the availability of, financing on acceptable terms and conditions in the future will be impacted by many factors, including: (i) our credit ratings or absence of a credit rating, (ii) the liquidity of the overall capital markets, and (iii) the current state of the economy. There can be no assurance that such financing will be available to us on acceptable terms or that such financing will be available at all. Our securities are rated investment grade. A significant change in credit rating could impact our ability to borrow at favorable rates. See Note 14, "Credit Facilities and Debt", of our consolidated financial statements for a description of our credit facilities and long-term debt and a description of limitations on obtaining additional funding.

We monitor our global funding requirements and seek to meet our liquidity needs on a cost-effective basis. In addition, our existing committed credit facilities and access to the public debt markets would provide further liquidity if required.

Based on our current global cash positions, cash flows from operations and access to the capital markets, we believe there is sufficient liquidity to meet our funding requirements and service debt and other obligations in both the U.S. and outside of the U.S. over the next 12 months. Currently, we have available liquidity of approximately $1.7 billion, consisting of $944 million of cash and $800 million of available credit facilities as disclosed in Note 14, "Credit Facilities and Debt", of our consolidated financial statements.

Risk related to these items are described in our risk factor disclosures referenced under “Item 1A. Risk Factors".

In the fourth quarter of 2022, the Company entered into an agreement with Idrica, a leader in water data management and analytics, to distribute Idrica’s GoAigua technology globally and take a minority stake in Idrica. Subject to customary closing conditions and regulatory clearance, Xylem expects to fund the investment with cash on hand for approximately €100 million in the first half of 2023.

Contractual Obligations

Material contractual obligations arising in the normal course of business primarily consist of debt obligations and related interest payments, lease obligations and unconditional purchase obligations. Refer Note 14, “Credit Facilities and Debt” and Note 10, “Leases” of the consolidated financial statements for related to these matters.

The Company has future unconditional purchase commitments which are legally binding and that specify all significant terms including price and/or quantity. Total future commitments within the next twelve months for these obligations is $421 million, excluding contracts that can be canceled without penalty.

Credit Facilities & Long-Term Contractual Commitments

See Note 14, "Credit Facilities and Debt" of our consolidated financial statements for a description of our credit facilities and long-term debt.

Non-U.S. Operations

As we continue to grow our operations in the emerging markets and elsewhere outside of the U.S., we expect to continue to generate significant revenue from non-U.S. operations and expect that a substantial portion of our cash will be predominately held by our foreign subsidiaries. We expect to manage our worldwide cash requirements considering available funds among the many subsidiaries through which we conduct business and the cost effectiveness with which those funds can be accessed. We may transfer cash from certain international subsidiaries to the U.S. and other international subsidiaries when we believe it is cost effective to do so. We continually review our domestic and foreign cash profile, expected future cash generation and investment opportunities and reassess whether there is a need to repatriate funds held internationally to support our U.S. operations. As of December 31, 2022, we have provided a deferred tax liability of $5 million for net foreign withholding taxes and state income taxes on $467 million of earnings expected to be repatriated to the U.S. parent as deemed necessary in the future.

Off-Balance Sheet Arrangements

We are a party to certain off-balance sheet arrangements including certain guarantees. For discussion of these arrangements, see Note 19, “Commitments and Contingencies” of the consolidated financial statements.

Critical Accounting Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and the disclosure of contingent liabilities. Management bases its estimates on historical experience and on various other assumptions that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources.

Significant accounting policies used in the preparation of the consolidated financial statements are discussed in Note 1, “Summary of Significant Accounting Policies,” of the consolidated financial statements. Accounting estimates and assumptions discussed in this section are those that we consider most critical to an understanding of our financial statements because they are inherently uncertain, involve significant judgments, include areas where different estimates reasonably could have been used, and changes in the estimates that are reasonably possible could materially impact the financial statements. Management believes that the accounting estimates employed and the resulting balances are reasonable; however, actual results in these areas could differ from management’s estimates under different assumptions or conditions.

Revenue Recognition. Xylem recognizes revenue in a manner that depicts the transfer of promised goods and services to customers in an amount that reflects the consideration to which it expects to be entitled for providing those goods and services. For each arrangement with a customer, we identify the contract and the associated performance obligations within the contract, determine the transaction price of that contract, allocate the transaction price to each performance obligation and recognize revenue as each performance obligation is satisfied.

The satisfaction of performance obligations in a contract is based upon when the customer obtains control over the asset. Depending on the nature of the performance obligation, control transfers either at a particular point in time, or over time, which determines the recognition pattern of revenue.

For product sales, other than long-term construction-type contracts, we recognize revenue once control has passed at a point in time, which is generally when products are shipped. In instances where contractual terms include a provision for customer acceptance, revenue is recognized when either (i) we have previously demonstrated that the product meets the specified criteria based on either seller or customer-specified objective criteria or (ii) upon formal acceptance received from the customer where the product has not been previously demonstrated to meet customer-specified objective criteria. We recognize revenue on product sales to channel partners, including resellers, distributors or value-added solution providers, at the point in time when the risks and rewards, possession, and title have transferred to the customer, which usually occurs at the point of delivery.

Revenue from performance obligations related to services is primarily recognized over time, as the performance obligations are satisfied. In these instances, the customer consumes the benefit of the service as Xylem performs.

Certain businesses also enter into long-term construction-type sales contracts where revenue is recognized over time. In these instances, revenue is recognized using a measure of progress that applies an input method based on costs incurred in relation to total estimated costs. We also recognize revenue for certain of these arrangements using the output method and measure progress based on shipments of product where control has transferred to the customer.

For all contracts with customers, we determine the transaction price in the arrangement and allocate the transaction price to each performance obligation identified in the contract. Judgment is required to determine the appropriate unit of account, and we separate out the performance obligations if they are capable of being distinct and are distinct within the context of the contract. The transaction price is adjusted for our estimate of variable consideration, which may include a right of return, discounts, rebates, penalties and retainage. To estimate variable consideration, we apply the expected value or the most likely amount method, based on whichever method most appropriately predicts the amount of consideration we expect to be entitled to. The method applied is typically based on historical experience and known trends. We constrain the amounts of variable consideration that are included in the transaction price, to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur or when uncertainties around the variable consideration are resolved.

Income Taxes. Deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and tax bases of assets and liabilities, applying enacted tax rates in effect for the year in which we expect the differences will reverse. Based on the evaluation of available evidence, we recognize future tax benefits, such as net operating loss carryforwards, to the extent that we believe it is more likely than not we will realize these benefits. We periodically assess the likelihood that we will be able to recover our deferred tax assets and reflect any changes to our estimate of the amount we are more likely than not to realize in the valuation allowance, with a corresponding adjustment to earnings or other comprehensive income, as appropriate.

In assessing the need for a valuation allowance, we look to the future reversal of existing taxable temporary differences, taxable income in carryback years and the feasibility of tax planning strategies and estimated future taxable income. The valuation allowance can be affected by changes to tax laws, changes to statutory tax rates and changes to future taxable income estimates.

We have recorded net foreign withholding taxes and state income taxes on earnings that are expected to be repatriated to the U.S. parent. We have not recorded any deferred taxes on the amounts that the Company currently does not intend to repatriate. The determination of deferred taxes on this amount is not practicable.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws in a multitude of jurisdictions across our global operations. We recognize potential liabilities and record tax liabilities for anticipated tax audit issues in the U.S. and other tax jurisdictions based on our estimate of whether, and the extent to which, additional taxes will be due. Furthermore, we recognize the tax benefit from an uncertain tax position only if based on the technical merits of the position it is more likely than not that the tax position will be sustained on examination by the taxing authorities or upon completion of the litigation process. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution.

We adjust our liability for uncertain tax positions in light of changing facts and circumstances; however, due to the complexity of some of these uncertainties, the ultimate resolution may result in a payment that is materially different from our current estimate of the tax liabilities. If our estimate of tax liabilities proves to be less than the ultimate assessment, an additional tax expense would result. If a payment of these amounts ultimately proves to be less than the recorded amounts, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary.

Business Combinations. We record acquisitions using the purchase method of accounting. All of the assets acquired, liabilities assumed, contractual contingencies and contingent consideration is recorded at fair value as of the acquisition date. The excess of the purchase price over the estimated fair values of the net tangible and intangible assets acquired is recorded as goodwill. The application of the purchase method of accounting for business combinations requires management to make significant estimates and assumptions in the determination of the fair value of assets acquired and liabilities assumed, in order to properly allocate purchase price consideration between assets that are depreciated and amortized from goodwill. These assumptions and estimates include a market participant's use of the asset and the appropriate discount rates for a market participant. Our estimates are based on historical experience, information obtained from the management of the acquired companies and, when appropriate, includes assistance from independent third-party appraisal firms. Significant assumptions and estimates include, but are not limited to, the cash flows that an asset is expected to generate in the future, the cost to build/recreate certain technology, the appropriate weighted-average cost of capital, and the cost savings expected to be derived from acquiring an asset. These estimates are inherently uncertain and unpredictable. In addition, unanticipated events and circumstances may occur which may affect the accuracy or validity of such estimates.

Goodwill and Intangible Assets. We review goodwill and indefinite-lived intangible assets for impairment annually and whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable. We also review the carrying value of our finite-lived intangible assets for potential impairment when impairment indicators arise. We conduct our annual impairment test as of the first day of the fourth quarter. For goodwill, the estimated fair value of each reporting unit is compared to the carrying value of the net assets assigned to that reporting unit. If the estimated fair value of the reporting unit exceeds its carrying value, goodwill is not impaired. If the carrying value of the reporting unit exceeds its estimated fair value, then an impairment charge is recognized for that excess up to the amount of recorded goodwill. We estimate the fair value of our reporting units using an income approach. We estimate the fair value of our intangible assets with indefinite lives using either the income approach or the market approach. Under the income approach, we calculate fair value based on the present value of estimated future cash flows. Under the market approach, we calculate fair value based on recent sales and selling prices of similar assets.

Determining the fair value of a reporting unit or an indefinite-lived intangible asset is judgmental in nature and involves the use of significant estimates and assumptions, particularly related to future operating results and cash flows. These estimates and assumptions include, but are not limited to, revenue growth rates and operating margins used to calculate projected future cash flows, risk-adjusted discount rates, assumed royalty rates, future economic and market conditions and identification of appropriate market comparable data. In addition, the identification of reporting units and the allocation of assets and liabilities to the reporting units when determining the carrying value of each reporting unit also require judgment. Goodwill is tested for impairment at either the operating segment identified in Note 21, "Segment and Geographic Data," of the consolidated financial statements, or one level below. The fair value of our reporting units and indefinite-lived intangible assets is based on estimates and assumptions that are believed to be reasonable. Significant changes to these estimates and assumptions could adversely impact our conclusions. Actual future results may differ from those estimates.

The risks around impairment of our assets are included in our risk factor disclosures referenced under “Item 1A. Risk Factors".

During the fourth quarter of 2022, we performed our annual impairment assessment and determined that the estimated fair values of our goodwill reporting units were substantially in excess of each of their carrying values. However, future goodwill impairment tests could result in a charge to earnings. We will continue to evaluate goodwill on an annual basis as of the beginning of our fourth quarter and whenever events and changes in circumstances require us to do so. We determined that no material impairment of the indefinite-lived intangibles existed as of the measurement date in 2022. However, future indefinite-lived intangible impairment tests could result in a charge to earnings. We will continue to evaluate indefinite-lived intangibles on an annual basis as of the beginning of our fourth quarter and whenever events and changes in circumstances indicate there may be a potential impairment.

Post-retirement Benefit Plans. Company employees around the world participate in numerous defined benefit plans. The determination of projected benefit obligations and the recognition of expenses related to these plans are dependent on various assumptions. These major assumptions primarily relate to discount rates, expected long-term rates of return on plan assets, rate of future compensation increases, mortality, years of service and other factors (some of which are disclosed in Note 15, “Post-retirement Benefit Plans,” of the consolidated financial statements). Actual results that differ from our assumptions are accumulated and amortized on a straight-line basis only to the extent they exceed 10% of the higher of the market-related value or projected benefit obligation, over the average remaining service period of active plan participants, or for plans with all or substantially all inactive participants, over the average remaining life expectancy.

Significant Assumptions

Management develops each assumption using relevant Company experience, in conjunction with market-related data for each individual country in which such plans exist. All assumptions are reviewed annually with third-party consultants and are adjusted as necessary. The table below provides the weighted average assumptions used to estimate our defined benefit pension obligations and costs as of and for the years ended 2022 and 2021.

	2022		2021	
	U.S.	**Int’l**	**U.S.**	**Int’l**
Benefit Obligation Assumptions				
Discount rate	**5.25 %**	**4.13 %**	3.00 %	1.55 %
Rate of future compensation increase	**NM**	**2.79 %**	NM	2.84 %
Net Periodic Benefit Cost Assumptions				
Discount rate	**3.00 %**	**1.55 %**	2.50 %	1.06 %
Expected long-term return on plan assets	**5.50 %**	**2.79 %**	6.50 %	2.60 %
Rate of future compensation increase	**NM**	**2.84 %**	NM	2.79 %

NM Not meaningful. The pension benefits for future service for all the U.S. pension plans are based on years of service and not impacted by future compensation increases.

We determine the expected long-term rate of return on plan assets by evaluating both historical returns and estimates of future returns. Specifically, the Company analyzes the estimated future returns based on independent estimates of asset class returns and evaluates historical broad market returns over long-term timeframes based on the strategic asset allocation, which is detailed in Note 15, “Post-retirement Benefit Plans,” of the consolidated financial statements.

For the recognition of net periodic pension cost, the calculation of the expected return on plan assets is generally derived by applying the expected long-term rate of return to the market-related value of plan assets. The market-related value of plan assets is based on average asset values at the measurement date over the last five years. The use of fair value, rather than a calculated value, could materially affect net periodic pension cost. The weighted average expected long-term rate of return for all of our plan assets to be used in determining net periodic benefit costs for 2023 is estimated at 5.90%. We estimate that every 25 basis point change in the expected return on plan assets impacts the expense by less than $1 million.

The discount rate reflects our expectation of the present value of expected future cash payments for benefits at the measurement date. A decrease in the discount rate increases the present value of benefit obligations and increases pension expense. We base the discount rate assumption on current investment yields of high-quality fixed income investments during the retirement benefits maturity period. The pension discount rate was determined by considering an interest rate yield curve comprising AAA/AA bonds, with maturities between zero and 30 years, developed by the plan’s actuaries. Annual benefit payments are then discounted to present value using this yield curve to develop a single-point discount rate matching the plan's characteristics. Our weighted average discount rate for all pension plans effective January 1, 2023, is 4.35%. We estimate that every 25 basis point change in the discount rate impacts the expense by less than $1 million.

The rate of future compensation increase assumption reflects our long-term actual experience and future and near-term outlook. Effective January 1, 2023, our expected rate of future compensation is 2.94% for all pension plans. The estimated impact of a 25 basis point change in the expected rate of future compensation is less than $1 million.

The Company initiated the process for a full buy-out of its largest defined benefit plan in the U.K. in 2019. During the first quarter of 2020, the Company purchased a bulk annuity policy as a plan asset to facilitate the termination and buy-out of the plan. The buy-out was completed in September 2022, at which point the remaining benefit obligations were transferred to the insurer and we were relieved of any further obligation. As a result, we recorded a pension settlement charge of £123 million (approximately $140 million), primarily consisting of unrecognized actuarial losses. The settlement also resulted in the recognition of $23 million in net tax benefits. The settlement of the plan did not impact our cash position.

We currently anticipate making contributions to our pension and post-retirement benefit plans in the range of $18 million to $26 million during 2023. Approximately $5 million of contributions are expected to be made in the first quarter.

Funded Status

Funded status is derived by subtracting the respective year-end values of the projected benefit obligations from the fair value of plan assets. We estimate that every 25 basis point change in the discount rate impacts the funded status by approximately $10 million.

Fair Value of Plan Assets

The plan assets of our pension plans comprise a broad range of investments, including domestic and foreign equity securities, interests in hedge funds, fixed income investments, insurance contracts, and cash and cash equivalents.

A portion of our pension benefit plan assets portfolio comprises investments in hedge funds which are generally measured at net asset value. However, in certain instances, the values reported by the asset managers were not current at the measurement date. Accordingly, we made estimate adjustments to the last reported value where necessary to measure the assets at fair value at the measurement date. These adjustments consider information received from the asset managers, as well as general market information. The adjustment recorded at December 31, 2022 and 2021 for these assets represented less than 1% of total plan assets in each respective year. Asset values for other positions were generally measured using market observable prices. We estimate that a 5% change in asset values will impact funded status by approximately $10 million.

New Accounting Pronouncements

See Note 2, "Recently Issued Accounting Pronouncements," of the consolidated financial statements for a complete discussion of recent accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk, primarily related to foreign currency exchange rates and interest rates. These exposures are actively monitored by management. Our exposure to foreign exchange rate risk is due to certain costs, revenue and borrowings being denominated in currencies other than one of our subsidiaries' functional currency. Similarly, we are exposed to market risk as a result of changes in interest rates which may affect the cost of our financing. It is our policy and practice to use derivative financial instruments only to the extent necessary to manage exposures.

Foreign Currency Exchange Rate Risk

Approximately 53% of our 2022 revenues were from customers in various locations outside the U.S.

Our economic foreign currency risk primarily relates to receipts from customers, payments to suppliers and intercompany transactions denominated in foreign currencies. We may use derivative financial instruments to offset risk related to receipts from customers and payments to suppliers, when it is believed that the exposure will not be limited by our normal operating and financing activities. We enter into currency forward contracts periodically in order to manage the exchange rate fluctuation risk on certain intercompany transactions associated with third-party sales and purchases. These risks are also mitigated by natural hedges including the presence of manufacturing facilities outside the U.S., global sourcing and other spending which occurs in foreign countries. Our principal foreign currency transaction exposures primarily relate to the Euro, Swedish Krona, British Pound, Canadian Dollar, Australian Dollar, and Polish Zloty. We estimate that a hypothetical 10% movement in foreign currency exchange rates would not have a material economic impact to Xylem’s financial position and results of operations.

Additionally, we are subject to foreign exchange translation risk due to changes in the value of foreign currencies in relation to our reporting currency, the U.S. Dollar. The translation risk is primarily concentrated in the exchange rate between the U.S. Dollar and the Euro, Chinese Yuan, British Pound, Canadian Dollar, Australian Dollar, Swedish Krona and Indian Rupee. As the U.S. Dollar strengthens against other currencies in which we transact business, revenue and income will generally be negatively impacted, and if the U.S. Dollar weakens, revenue and income will generally be positively impacted. We expect to continue to generate significant revenue from non-U.S. operations and we expect our cash will be predominately held by our foreign subsidiaries. We expect to manage our worldwide cash requirements considering available funds among the many subsidiaries through which we conduct business and the cost effectiveness with which those funds can be accessed. We may transfer cash from certain international subsidiaries to the U.S. and other international subsidiaries when it is cost effective to do so, though we continually review our domestic and foreign cash profile, expected future cash generation and investment opportunities and reassess whether there is a need to repatriate funds held internationally to support our U.S. operations. We also hedge our investment in certain foreign subsidiaries via the use of cross-currency swaps. Accordingly, we estimate that a 10% movement of the U.S. Dollar to various foreign currency exchange rates we translate from, in aggregate would not have a material economic impact on our financial position and results of operations.

Interest Rate Risk

As of December 31, 2022, our long-term debt portfolio is primarily comprised of four series of fixed-rate senior notes that total approximately $1.9 billion. The senior notes are not exposed to interest rate risk as the bonds are at a fixed rate until maturity. Based on the current interest rate market we do not anticipate material risk associated with our debt refinancing within the target time frame of maturity.

Commodity Price Exposures

For a discussion of risks relating to commodity prices, refer to “Item 1A. Risk Factors.”

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Xylem Inc.

Opinion on the Financial Statements

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

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 24, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

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

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

Critical Audit Matter

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

Goodwill - M&CS Reporting Units - Refer to Note 11 to the financial statements

Critical Audit Matter Description

The Company’s evaluation of goodwill for impairment involves the comparison of the fair value of each reporting unit to its carrying value. The goodwill balance was $2.7 billion as of December 31, 2022, of which $1.6 billion is allocated to the M&CS Reporting Units. The fair value of the M&CS reporting units exceeded its carrying value as of the 2022 measurement date and, therefore, no impairment was recognized.

To determine the fair value of the M&CS reporting units, the Company used the income approach. Under the income approach, the fair value of the M&CS reporting units was based on the discounted value of the estimated cash flows that the reporting unit is expected to generate. Cash flow projections were based on management’s estimates of revenue growth rates and operating margins, taking into consideration industry and market conditions. The discount rate was based on the weighted average cost of capital appropriate for the M&CS reporting units.

Given the significant judgments made by management to estimate the fair value of the M&CS reporting units, performing audit procedures to evaluate the reasonableness of management’s estimates and assumptions related to the selection of the discount rate and forecasts of future revenue required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to forecasts of future revenue and selection of the discount rate for the M&CS reporting units included the following, among others:

- We tested the effectiveness of controls over management’s goodwill impairment evaluation, including those over the determination of the fair value of the M&CS reporting units, such as controls related to management’s forecasts of future revenue and the selection of the discount rate.
- We evaluated the reasonableness of management’s revenue forecasts by comparing the forecasts to:
  - Historical revenues
  - Internal communications to management and the Board of Directors.
  - Information included in industry reports and certain peer company data.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology, (2) discount rate, and (3) long-term revenue growth rate, including testing the source information underlying the determination of the discount rate and long-term revenue growth rate, testing the mathematical accuracy of the calculation, and developing a range of independent estimates and comparing those to the discount rate selected by management.
- Our fair value specialists also assisted in evaluating the reasonableness of the M&CS reporting units fair value by considering comparable EBITDA multiples of peer companies.

/s/ Deloitte & Touche LLP

Stamford, Connecticut
February 24, 2023
We have served as the Company's auditor since 2010.

XYLEM INC. AND SUBSIDIARIES
CONSOLIDATED INCOME STATEMENTS
(In Millions, except per share data)

Year Ended December 31,	**2022**	2021	2020
Revenue	**$ 5,522**	$ 5,195	$ 4,876
Cost of revenue	**3,438**	3,220	3,046
Gross profit	**2,084**	1,975	1,830
Selling, general and administrative expenses	**1,227**	1,179	1,143
Research and development expenses	**206**	204	187
Restructuring and asset impairment charges	**29**	7	75
Goodwill impairment charge	**—**	—	58
Operating income	**622**	585	367
Interest expense	**50**	76	77
U.K. pension settlement expense	**140**	—	—
Other non-operating income (expense), net	**7**	—	(5)
Gain on sale of businesses	**1**	2	—
Income before taxes	**440**	511	285
Income tax expense	**85**	84	31
Net income	**$ 355**	$ 427	$ 254
Earnings per share:			
Basic	**$ 1.97**	$ 2.37	$ 1.41
Diluted	**$ 1.96**	$ 2.35	$ 1.40
Weighted average number of shares:			
Basic	**180.2**	180.2	180.1
Diluted	**181.0**	181.5	181.1

See accompanying notes to consolidated financial statements.

XYLEM INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In Millions)

Year Ended December 31,	**2022**	2021	2020
Net income	**$ 355**	$ 427	$ 254
Other comprehensive income (loss), before tax:			
Foreign currency translation adjustment	**(53)**	20	(23)
Net change in derivative hedge agreements:			
Unrealized gain (loss)	**(24)**	(10)	9
Amount of (gain) loss reclassified into net income	**21**	4	(3)
Net change in post-retirement benefit plans:			
Net gain (loss)	**101**	51	(78)
Prior service credit	**—**	—	5
Amortization of prior service credit cost	**(2)**	(3)	(3)
Amortization of net actuarial loss into net income	**12**	23	19
U.K. pension settlement	**137**	—	—
Foreign currency translation adjustment	**39**	11	(19)
Other comprehensive income (loss), before tax	**231**	96	(93)
Income tax (benefit) expense related to other comprehensive loss	**86**	54	(54)
Other comprehensive income (loss), net of tax	**145**	42	(39)
Comprehensive income	**$ 500**	$ 469	$ 215
Less: comprehensive (loss) gain attributable to noncontrolling interests	**—**	—	(1)
Comprehensive income attributable to Xylem	$ 500	$ 469	$ 216

See accompanying notes to consolidated financial statements.

XYLEM INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In Millions, except per share amounts)

December 31,		2022		2021
ASSETS				
Current assets:				
Cash and cash equivalents	**$**	**944**	$	1,349
Receivables, less allowances for discounts, returns and credit losses of $50 and $44 in 2022 and 2021, respectively		**1,096**		953
Inventories		**799**		700
Prepaid and other current assets		**173**		158
Total current assets		**3,012**		3,160
Property, plant and equipment, net		**630**		644
Goodwill		**2,719**		2,792
Other intangible assets, net		**930**		1,016
Other non-current assets		**661**		664
Total assets	**$**	**7,952**	$	8,276
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	**$**	**723**	$	639
Accrued and other current liabilities		**867**		752
Total current liabilities		**1,590**		1,391
Long-term debt, net		**1,880**		2,440
Accrued post-retirement benefit obligations		**286**		438
Deferred income tax liabilities		**222**		287
Other non-current accrued liabilities		**471**		494
Total liabilities		**4,449**		5,050
Commitment and Contingencies (Note 19)				
Stockholders' equity:				
Common stock — par value $0.01 per share:				
Authorized 750.0 shares, issued 196.0 and 195.6 shares in 2022 and 2021, respectively		**2**		2
Capital in excess of par value		**2,134**		2,089
Retained earnings		**2,292**		2,154
Treasury stock – at cost 15.8 shares and 15.2 shares in 2022 and 2021, respectively		**(708)**		(656)
Accumulated other comprehensive loss		**(226)**		(371)
Total stockholders' equity		**3,494**		3,218
Non-controlling interest		**9**		8
Total equity		**3,503**		3,226
Total liabilities and stockholders' equity	**$**	**7,952**	$	8,276

See accompanying notes to consolidated financial statements.

XYLEM INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS (In Millions)

Year Ended December 31,	2022	2021	2020
Operating Activities			
Net income	$ 355	$ 427	$ 254
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	111	118	117
Amortization	125	127	134
Deferred income taxes	(64)	10	(31)
Share-based compensation	37	33	26
Restructuring and asset impairment charges	29	7	75
Goodwill impairment charge	—	—	58
U.K. pension settlement expense	140	—	—
Gain from sale of businesses	(1)	(2)	—
Other, net	(4)	8	46
Payments for restructuring	(11)	(25)	(36)
Contributions to post-retirement benefit plans	(19)	(29)	(27)
Changes in assets and liabilities (net of acquisitions):			
Changes in receivables	(192)	(70)	109
Changes in inventories	(147)	(167)	(5)
Changes in accounts payable	117	81	(39)
Changes in accrued liabilities	57	7	101
Changes in accrued taxes	57	(9)	20
Net changes in other assets and liabilities	6	22	22
Net Cash — Operating activities	596	538	824
Investing Activities			
Capital expenditures	(208)	(208)	(183)
Proceeds from sale of businesses	1	10	—
Cash received from investments	8	3	200
Cash paid for investments	(11)	—	(200)
Cash received from cross-currency swaps	28	14	12
Settlement of currency forward agreement	(10)	—	—
Other, net	1	(2)	2
Net Cash — Investing activities	(191)	(183)	(169)
Financing Activities			
Short-term debt issued, net	—	—	359
Short-term debt repaid, net	—	—	(640)
Long-term debt issued, net	—	—	985
Long-term debt repaid, net	(527)	(600)	—
Repurchase of common stock	(52)	(68)	(61)
Proceeds from exercise of employee stock options	8	19	20
Dividends paid	(217)	(203)	(188)
Other, net	(2)	(3)	(2)
Net Cash — Financing activities	(790)	(855)	473
Effect of exchange rate changes on cash	(20)	(26)	23
Net change in cash and cash equivalents	(405)	(526)	1,151
Cash and cash equivalents at beginning of year	1,349	1,875	724
Cash and cash equivalents at end of year	$ 944	$ 1,349	$ 1,875
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Interest	$ 76	$ 99	$ 77
Income taxes (net of refunds received)	$ 91	$ 83	$ 41

See accompanying notes to consolidated financial statements.

XYLEM INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(In Millions, except per share amounts)

	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Non-Controlling Interest	**Total**
Balance at December 31, 2019	$ 2	$ 1,991	$ 1,866	$ (375)	$ (527)	$ 10	$ 2,967
Cumulative effect of change in accounting principle			(2)				(2)
Net income			254				254
Other comprehensive loss, net				(38)		(1)	(39)
Distribution to minority shareholders						(1)	(1)
Dividends declared ($1.04 per share)			(188)				(188)
Stock incentive plan activity		46			(11)		35
Repurchase of common stock					(50)		(50)
Acquisition activity							—
Balance at December 31, 2020	$ 2	$ 2,037	$ 1,930	$ (413)	$ (588)	$ 8	$ 2,976
Net Income			427				427
Other comprehensive income, net				42			42
Dividends declared ($1.12 per share)			(203)				(203)
Stock incentive plan activity		52			(8)		44
Repurchase of common stock					(60)		(60)
Balance at December 31, 2021	$ 2	$ 2,089	$ 2,154	$ (371)	$ (656)	$ 8	$ 3,226
Net income			**355**				**355**
Other comprehensive income, net				**145**		**—**	**145**
Other activity						**1**	**1**
Dividends declared ($1.20 per share)			**(217)**				**(217)**
Stock incentive plan activity		**45**			**(6)**		**39**
Repurchase of common stock					**(46)**		**(46)**
Balance at December 31, 2022	**$ 2**	**$ 2,134**	**$ 2,292**	**$ (226)**	**$ (708)**	**$ 9**	**$ 3,503**

See accompanying notes to consolidated financial statements.

Note 1. Summary of Significant Accounting Policies

Xylem Inc. (“Xylem” or the “Company”) is a leading equipment and service provider for water and wastewater applications with a broad portfolio of products and services addressing the full cycle of water, from collection, distribution and use to the return of water to the environment.

Xylem operates in three segments, Water Infrastructure, Applied Water and Measurement & Control Solutions. See Note 21, "Segment and Geographic Data," for further segment background information.

Hereinafter, except as otherwise indicated or unless the context otherwise requires, “Xylem,” “we,” “us,” “our” and “the Company” refer to Xylem Inc. and its subsidiaries.

Basis of Presentation

The consolidated financial statements reflect our financial position and results of operations in conformity with accounting principles generally accepted in the United States of America (“GAAP”). All intercompany transactions between our businesses have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Estimates are revised as additional information becomes available. Estimates and assumptions are used for, but not limited to, post-retirement obligations and assets, revenue recognition, income taxes, valuation of intangible assets, goodwill and indefinite-lived intangible impairment testing and contingent liabilities. Actual results could differ from these estimates. The global outbreak of COVID-19 in March 2020, declared a pandemic by the World Health Organization, has created significant global volatility, uncertainty and economic disruption. The COVID-19 pandemic also has caused increased uncertainty in estimates and assumptions affecting the consolidated financial statements. Actual results could differ from these estimates.

Consolidation Principles

We consolidate companies in which we have a controlling financial interest or when Xylem is considered the primary beneficiary of a variable interest entity. We account for investments under the equity method in companies over which we have the ability to exercise significant influence but do not hold a controlling financial interest, and we record our proportionate share of income or losses in the Consolidated Income Statements. Equity method investments are reviewed for impairment when events or circumstances indicate the investment may be other than temporarily impaired. This requires significant judgment, including an assessment of the investee’s financial condition, the possibility of subsequent rounds of financing, and the investee’s historical and projected results of operations. If the actual results of operations for the investee are significantly different from projections, we may incur future charges for the impairment of these investments.

Foreign Currency Translation

The national currencies of our foreign companies are generally the functional currencies. Balance sheet accounts are translated at the exchange rate in effect at the end of each period; income statement accounts are translated at the average rates of exchange prevailing during the period. Gains and losses on foreign currency translations are reflected in the cumulative translation adjustments component of stockholders’ equity. Net gains or losses from foreign currency transactions are reported currently in selling, general and administrative expenses.

Revenue Recognition

Xylem recognizes revenue in a manner that depicts the transfer of promised goods and services to customers in an amount that reflects the consideration to which it expects to be entitled for providing those goods and services. For each arrangement with a customer, we identify the contract and the associated performance obligations within the contract, determine the transaction price of that contract, allocate the transaction price to each performance obligation and recognize revenue as each performance obligation is satisfied.

The satisfaction of performance obligations in a contract is based upon when the customer obtains control over the asset. Depending on the nature of the performance obligation, control transfers either at a particular point in time, or over time which determines the recognition pattern of revenue.

For product sales, other than long-term construction-type contracts, we recognize revenue once control has passed at a point in time, which is generally when products are shipped. In instances where contractual terms include a provision for customer acceptance, revenue is recognized when either (i) we have previously demonstrated that the product meets the specified criteria based on either seller or customer-specified objective criteria or (ii) upon formal acceptance received from the customer where the product has not been previously demonstrated to meet customer-specified objective criteria. We recognize revenue on product sales to channel partners, including resellers, distributors or value-added solution providers, at the point in time when control is transferred which is determined based on when the risks and rewards, possession, and title have transferred to the customer, which usually occurs at the point of delivery.

Revenue from performance obligations related to services is primarily recognized over time, as the performance obligations are satisfied. In these instances, the customer consumes the benefit of the service as Xylem performs.

Certain businesses also enter into long-term construction-type sales contracts where revenue is recognized over time. In these instances, revenue is recognized using a measure of progress that applies an input method based on costs incurred in relation to total estimated costs. We also recognize revenue for certain of these arrangements using the output method and measure progress based on shipments of product where control has transferred to the customer.

If shipping and handling activities are performed after a customer obtains control of a good, we account for the shipping and handling activities as activities to fulfill a promise to transfer a good. Shipping and handling related costs are accrued as revenue is recognized.

For all contracts with customers, we determine the transaction price in the arrangement and allocate the transaction price to each performance obligation identified in the contract. Judgment is required to determine the appropriate unit of account, and we separate out the performance obligations if they are capable of being distinct and are distinct within the context of the contract. We base our allocation of the transaction price to the performance obligations on the relative stand-alone selling prices for the goods or services contained in a particular performance obligation. The stand-alone selling prices are determined first by reference to observable prices. In the event observable prices are not available, we estimate the stand-alone selling price by maximizing observable inputs and applying an adjusted market assessment approach, expected cost plus margin approach, or a residual approach in limited situations. Revenue in these instances is recognized on individual performance obligations within the same contract as they are satisfied.

The transaction price is adjusted for our estimate of variable consideration which may include a right of return, discounts, rebates, penalties and retainage. To estimate variable consideration, we apply the expected value or the most likely amount method, based on whichever method most appropriately predicts the amount of consideration we expect to receive. The method applied is typically based on historical experience and known trends. We constrain the amounts of variable consideration that are included in the transaction price, to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur or when uncertainties around the variable consideration are resolved.

We exclude from the measurement of the transaction price all taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction and collected from a customer, for example sales, use, value added and some excise taxes.

For all contracts with customers, payment received for our products and services may not necessarily follow the same pattern of revenue recognition to which it relates and are dictated by the terms and conditions of our contracts with customers. Payments received for product sales typically occur following delivery and the satisfaction of the performance obligations based upon the terms outlined in the contracts. Payments received for services typically occur following the services being rendered. For long-term construction-type projects, payments are typically made throughout the contract as progress is made.

In limited situations, contracts with customers include financing components where payment terms exceed one year; however, we believe that the financing effects are not significant to Xylem. In addition, we apply a practical expedient and do not adjust the promised amount of consideration in a contract for the effects of significant financing components when we expect payment terms to be one year or less from the time the goods or services are transferred until ultimate payment.

We offer standard warranties for our products to ensure that our products comply with agreed-upon specifications in our contracts. Standard warranties do not give rise to performance obligations and represent assurance-type warranties. In certain instances, product warranty terms are adjusted to account for the specific nature of the contract. In these instances, we assess the warranties to determine whether they represent service-type warranties, and should be accounted for as a separate performance obligation in the contract.

Costs to obtain a contract include incremental costs that the Company has incurred that it expects to recover. Incremental costs only include costs that the Company would not have incurred had the contract not been obtained. Costs that would have been incurred regardless of whether or not the contract was obtained are expensed as incurred, unless they are explicitly chargeable to the customer whether or not the contract is obtained.

Costs to obtain contracts are capitalized when incurred, and are then amortized in a manner that is consistent with the pattern of transfer of the related goods or services provided in the contract. The Company elects to apply the practical expedient to expense costs to obtain contracts when the associated amortization period of those costs would be one year or less.

Shipping and Handling Costs

Shipping and handling costs are recorded as a component of cost of revenue.

Share-Based Compensation

Share-based awards issued to employees include non-qualified stock options, restricted stock unit awards and performance share unit awards. Share-based awards issued to members of the Board of Directors include restricted stock unit awards. Compensation costs resulting from share-based payment transactions are recognized primarily within selling, general and administrative expenses, at fair value over the requisite service period (typically three years) on a straight-line basis. The calculated compensation cost is adjusted based on an estimate of awards ultimately expected to vest. The fair value of a non-qualified stock option is determined on the date of grant using a binomial lattice pricing model incorporating multiple and variable assumptions over time, including assumptions such as employee exercise patterns, stock price volatility and changes in dividends. The fair value of restricted stock unit awards is determined using the closing price of our common stock on date of grant. The fair value of Return on Invested Capital ("ROIC") and Revenue performance share units at 100% target is determined using the closing price of our common stock on date of grant.The calculated compensation cost is adjusted based on an estimate of awards ultimately expected to vest and our assessment of the probable outcome of the performance condition. The fair value of Total Shareholder Return ("TSR") performance share units is calculated on the date of grant using a Monte Carlo simulation model utilizing several key assumptions, including expected Company and peer company share price volatility, correlation coefficients between peers, the risk-free rate of return, the expected dividend yield and other award design features.

Research and Development

We conduct research and development activities, which consist primarily of the development of new products, product applications, and manufacturing processes. To the extent these activities are related to developing software that is sold to our customers, we capitalize the applicable development costs. All other research and development costs are charged to expense as incurred.

Exit and Disposal Costs

We periodically initiate management-approved restructuring activities to achieve cost savings through reduced operational redundancies and to position ourselves strategically in the market in response to prevailing economic conditions and associated customer demand. Costs associated with restructuring actions can include severance, infrastructure charges to vacate facilities or consolidate operations, contract termination costs and other related charges. For involuntary separation plans, a liability is recognized when it is probable and reasonably estimable. For voluntary separation plans, a liability is recognized when the employee irrevocably accepts the voluntary termination. For one-time termination benefits, such as additional severance pay or benefit payouts and other exit costs, the liability is measured and recognized initially at fair value in the period in which the liability is incurred, with subsequent changes to the liability recognized as adjustments in the period of change.

Deferred Financing Costs

Deferred financing costs represent costs incurred in conjunction with our debt financing activities and are capitalized in long-term debt and amortized over the life of the related financing arrangements. If the debt is retired early, the related unamortized deferred financing costs are recorded within the results of operations under the caption “interest expense” in the period the debt is retired.

Income Taxes

Income taxes are calculated using the asset and liability method. Deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and tax bases of assets and liabilities, applying enacted tax rates in effect for the year in which we expect the differences will reverse.

We maintain valuation allowances when it is more likely than not that all or a portion of a deferred asset will not be realized. In determining whether a valuation allowance is warranted, we consider all positive and negative evidence and all sources of taxable income such as prior earnings history, expected future earnings, carryback and carryforward periods and tax strategies to estimate if sufficient future taxable income will be generated to realize the deferred tax asset. The assessment of the adequacy of our valuation allowance is based on our estimates of taxable income by jurisdiction in which we operate and the period over which our deferred tax assets will be recoverable. If actual results differ from these estimates, or we adjust these estimates in future periods for current trends or expected changes in our estimating assumptions, we may need to modify the level of valuation allowance that could materially impact our business, financial condition and results of operations.

We have recorded net foreign withholding taxes and state income taxes on earnings that are expected to be repatriated to the U.S. parent. We have not recorded any deferred taxes on the amounts that the Company currently does not intend to repatriate. The determination of deferred taxes on this amount is not practicable.

Tax benefits are recognized for an uncertain tax position when, based on the technical merits of the position it is more likely than not that the position will be sustained upon examination by a taxing authority or upon completion of the litigation process. For a tax position that meets the more-likely-than-not recognition threshold, the tax benefit is measured as the largest amount that is judged to have a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority. The liability associated with unrecognized tax benefits is adjusted periodically due to changing circumstances and when new information becomes available. Such adjustments are recognized in the period in which they are identified. The effective tax rate includes the net impact of changes in the liability for unrecognized tax benefits and subsequent adjustments as considered appropriate by management. While it is often difficult to predict the final outcome or the timing of resolution of any particular tax matter, we believe our liability for unrecognized tax benefits is adequate. We classify interest relating to unrecognized tax benefits as a component of other non-operating (expense) income, net and tax penalties as a component of income tax expense in our Consolidated Income Statements.

Earnings Per Share

We present two calculations of earnings per share (“EPS”). “Basic” EPS equals net income divided by weighted average shares outstanding during the period. “Diluted” EPS equals net income divided by the sum of weighted average common shares outstanding during the period plus potentially dilutive shares. Potentially dilutive common shares that are anti-dilutive are excluded from diluted EPS.

Cash Equivalents

We consider all liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Receivables and Allowance for Credit Losses and Discounts

Receivables are primarily comprised of uncollected amounts owed to us from transactions with customers and are presented net of allowances for credit losses, returns and early payment discounts.

We determine our allowance for credit losses using a combination of factors to reduce our trade receivable balances to the net amount expected to be collected. We maintain an allowance for credit losses based on a variety of factors, including the length of time receivables were past due, macro-economic trends and conditions, significant one-time events, historical experience, and current and future expectations of economic conditions. In addition, we record an allowance for individual accounts when we become aware of specific customer circumstances, such as in the case of bankruptcy filings or deterioration in the customer’s operating results or financial position. The past due or delinquency status of a receivable is based on the contractual payment terms of the receivable. If circumstances related to the specific customer change, we adjust estimates of the recoverability of receivables as appropriate. We determine our allowance for early payment discounts primarily based on historical experience with customers.

Credit risk with respect to accounts receivable is generally diversified due to the large number of entities comprising our customer base and their dispersion across many different geographical regions. We evaluate the financial condition of our third-party distributors, resellers and other customers and require collateral, such as letters of credit and bank guarantees, in certain circumstances. As of December 31, 2022 and 2021 we do not believe we have any significant concentrations of credit risk.

Inventories

Inventories, which include the costs of material, labor and overhead, are stated at the lower of cost or net realizable value. Estimated losses from obsolete and slow-moving inventories are recorded to reduce inventory values to their estimated net realizable value. Our manufacturing operations recognize costs of sales using standard costs with full overhead absorption, which generally approximates actual cost.

Property, Plant and Equipment

These assets are recorded at historical cost and are depreciated using the straight-line method of depreciation over the estimated useful lives as follows:

	Estimated Life
Buildings and improvements	5 to 40 years
Machinery and equipment	2 to 10 years
Furniture and fixtures	3 to 7 years
Equipment held for lease or rental	2 to 10 years

Leasehold improvements are depreciated over the shorter of their estimated useful life or the term of the lease. Costs related to maintenance and repairs that do not prolong the assets' useful lives are expensed as incurred.

Leases

We determine if an arrangement is a lease at inception. We have recorded right of use (“ROU”) assets and liabilities for lease arrangements that are reasonably certain to extend beyond 12 months. ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments under the lease. ROU assets and liabilities are recognized at lease commencement date based on the present value of lease payments over the lease term. The implicit rate within our leases is generally not determinable, and we use our incremental borrowing rate at the lease commencement date to determine the net present value of lease payments. The determination of the appropriate incremental borrowing rate requires judgment. We determine the appropriate incremental borrowing rate for each lease using our current borrowing rate, adjusted for various factors including geographic region, level of collateralization and term, to align with the term of the underlying lease.

Lease expense for lease payments is recognized on a straight-line basis over the lease term. Many of our leases are subject to payment adjustments to reflect annual changes in price indexes, such as the Consumer Price Index. While associated lease liabilities are not re-measured as a result of changes in the applicable price indexes, changes to required lease payments are treated as variable lease payments and recognized in the period in which the obligation for those payments was incurred.

Leases with a lease term of 12 months or less, including renewal options that are reasonably certain to be exercised, that also do not include an option to purchase the underlying asset that is reasonably certain of exercise, are not recorded on the balance sheet. Instead, lease payments for these leases are recognized as a lease cost on a straight-line basis over the lease term.

We elected the package of practical expedients, which among other things, does not require reassessment of lease classification. Additionally, we have made an accounting policy election whereby we chose not to separate non-lease components from lease components in agreements in all leases which we are the lessee.

Goodwill and Intangible Assets

Goodwill represents purchase consideration paid in a business combination that exceeds the values assigned to the net assets of acquired businesses. Intangible assets include customer relationships, proprietary technology, brands and trademarks, patents, software and other intangible assets. Intangible assets with a finite life are amortized on a straight-line basis over an estimated economic useful life which ranges from 1 to 25 years and is included in cost of revenue or selling, general and administrative expenses. Certain of our intangible assets, namely certain brands and trademarks, as well as FCC licenses, have an indefinite life and are not amortized.

Long-Lived Asset Impairment

Long-lived assets, including intangible assets with finite lives, are amortized and tested for impairment whenever events or changes in circumstances indicate their carrying value may not be recoverable. We assess the recoverability of long-lived assets based on the undiscounted future cash flow the assets are expected to generate and recognize an impairment loss when estimated undiscounted future cash flows expected to result from the use of the asset plus net proceeds expected from disposition of the asset, if any, are less than the carrying value of the asset. When an impairment is identified, we reduce the carrying amount of the asset to its estimated fair value based on a discounted cash flow approach or, when available and appropriate, to comparable market values.

Goodwill and indefinite-lived intangible assets are not amortized, but rather are tested for impairment annually (or more frequently if impairment indicators arise, such as changes to the reporting unit structure, significant adverse changes in the business or business climate or an adverse action or assessment by a regulator). We conduct our annual impairment testing as of the beginning of the fourth quarter. For goodwill, the estimated fair value of each reporting unit is compared to the carrying value of the net assets assigned to that reporting unit. If the estimated fair value of the reporting unit exceeds its carrying value, goodwill is not impaired. If the carrying value of the reporting unit exceeds its estimated fair value, then an impairment charge is recognized for that excess up to the amount of recorded goodwill. We estimate the fair value of our reporting units using an income approach. We estimate the fair value of our intangible assets with indefinite lives using either the income approach or the market approach. Under the income approach, we calculate fair value based on the present value of estimated future cash flows. Under the market approach, we calculate fair value based on recent sales and selling prices of similar assets.

Product Warranties

For assurance-type warranties, we accrue for the estimated cost of product warranties at the time revenue is recognized and record it as a component of cost of revenue. Our product warranty liability reflects our best estimate of probable liability under the terms and conditions of our product warranties offered to customers. We estimate the liability based on our standard warranty terms, the historical frequency of claims and the cost to replace or repair our products under warranty. Factors that impact our warranty liability include the number of units sold, the length of warranty term, historical and anticipated rates of warranty claims and cost per claim. We also record a warranty liability for specific matters. We assess the adequacy of our recorded warranty liabilities quarterly and adjust amounts as necessary.

For service-type warranties (i.e. non-standard warranties) costs incurred to fulfill the extended or service warranty are recognized/recorded as the costs are incurred.

Post-retirement Benefit Plans

The determination of defined benefit pension and post-retirement plan obligations and their associated costs requires the use of actuarial computations to estimate participant plan benefits to which the employees will be entitled. The significant assumptions primarily relate to discount rates, expected long-term rates of return on plan assets, rate of future compensation increases, mortality, years of service and other factors. We develop each assumption using relevant company experience in conjunction with market-related data for each individual country in which such plans exist. All actuarial assumptions are reviewed annually with third-party consultants and adjusted as necessary. For the recognition of net periodic post-retirement cost, the calculation of the expected return on plan assets is generally derived by applying the expected long-term rate of return on the market-related value of plan assets. The market-related value of plan assets is based on average asset values at the measurement date over the last five years. Actual results that differ from our assumptions are accumulated and amortized on a straight-line basis only to the extent they exceed 10% of the higher of the market-related value or the projected benefit obligation, over the average remaining service period of active participants, or for plans with all or substantially all inactive participants, over the average remaining life expectancy. The fair value of plan assets is determined based on market prices or estimated fair value at the measurement date.

We consider changes to a plan’s benefit formula that eliminate the accrual for future service but continue to allow for future salary increases (i.e. “soft freeze”) to be a curtailment.

Business Combinations

We allocate the purchase price of acquisitions to the tangible and intangible assets acquired, liabilities assumed, and non-controlling interests in the acquiree based on their estimated fair value at the acquisition date. The excess of the acquisition price over those estimated fair values is recorded as goodwill. Changes to the acquisition date provisional fair values prior to the expiration of the measurement period, a period not to exceed 12 months from date of acquisition, are recorded as an adjustment to the associated goodwill. Acquisition-related expenses and restructuring costs, if any, are recognized separately from the business combination and are expensed as incurred.

Derivative Financial Instruments

We record all derivatives on the balance sheet at fair value. The accounting for changes in the fair value of derivatives depends on whether we have elected to designate a derivative in a hedging relationship and apply hedge accounting and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting. Derivatives designated and qualifying as a hedge of the exposure to changes in the fair value of an asset, liability, or firm commitment attributable to a particular risk are considered fair value hedges. Derivatives designated and qualifying as a hedge of the exposure to variability in expected future cash flows, including forecasted transactions, are considered cash flow hedges. Derivatives may also be designated as hedges of the foreign currency exposure of a net investment in a foreign operation. Hedge accounting generally provides for the matching of the timing of gain or loss recognition on the hedging instrument with the recognition of the changes in the fair value of the hedged asset or liability that are attributable to the hedged risk in a fair value hedge or the earnings effect of the hedged forecasted transactions in a cash flow hedge. We may enter into derivative contracts that are intended to hedge certain risks economically, even though hedge accounting does not apply or we elect not to apply hedge accounting.

Changes in the fair value of derivatives designated and that qualify as cash flow hedges of foreign exchange risk are recorded in Other Comprehensive Income (Loss) ("OCI/L") and are subsequently reclassified into either revenue or cost of revenue (hedge of sales classified into revenue and hedge of purchases classified into cost of revenue) in the period that the hedged forecasted transaction affects earnings. Our policy is to de-designate cash flow hedges at the time forecasted transactions are recognized as assets or liabilities on a business unit’s balance sheet and report subsequent changes in fair value through selling, general and administrative expenses where the gain or loss due to movements in currency rates on the underlying asset or liability is revalued. If it becomes probable that the originally forecasted transaction will not occur, the gain or loss related to the hedge recorded within Accumulated Other Comprehensive Loss ("AOCL") is immediately recognized into net income.

Effectiveness of derivatives designated as net investment hedges is assessed using the spot method. The changes in the fair value of these derivatives due to movements in spot exchange rates are recorded in OCI/L. Amounts in AOCL are reclassified into earnings at the time the hedged net investment is sold or substantially liquidated. Furthermore, we recognize interest income based on the interest rate differential embedded in the derivative instrument.

Commitments and Contingencies

We record accruals for commitments and loss contingencies for those which are both probable and for which the amount can be reasonably estimated. In addition, legal fees are accrued for cases where a loss is probable and the related fees can be reasonably estimated. Significant judgment is required to determine both probability and the estimated amount of loss. We review these accruals quarterly and adjust the accruals to reflect the impact of negotiations, settlements, rulings, advice of legal counsel, and other current information.

Accruals for environmental matters are recorded on a site-by-site basis when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, based on current law and existing technologies. Our estimated liability is reduced to reflect the anticipated participation of other potentially responsible parties in those instances where it is probable that such parties are legally responsible and financially capable of paying their respective shares of the relevant costs. These accruals are reviewed quarterly and are adjusted as assessment and remediation efforts progress or as additional technical or legal information becomes available. Actual costs to be incurred at identified sites in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures. Accruals for environmental liabilities are primarily included in other non-current liabilities at undiscounted amounts.

Concentrations of Credit Risk

Financial instruments that potentially subject us to significant concentrations of credit risk consist principally of cash and cash equivalents, derivative contracts and accounts receivable from trade customers. We maintain cash and cash equivalents and derivative contracts with various financial institutions. These financial institutions are located in many different geographical regions, and our policy is designed to limit exposure with any one institution. As part of our cash and risk management processes, we perform periodic evaluations of the relative credit standing of the financial institutions. We have not sustained any material credit losses during the previous three years from instruments held at financial institutions. We may utilize forward contracts to protect against the effects of foreign currency fluctuations. Such contracts involve the risk of non-performance by the counterparty. Credit risk with respect to accounts receivable is generally diversified due to the large number of entities comprising our customer base and their dispersion across many different industries and geographic regions. We perform ongoing credit evaluations of the financial condition of our third-party distributors, resellers and other customers and require collateral, such as letters of credit and bank guarantees, in certain circumstances.

Substantially all of the cash and cash equivalents, including foreign cash balances, at December 31, 2022 and 2021 were uninsured. Foreign cash balances at December 31, 2022 and 2021 were $813 million and $596 million, respectively.

Fair Value Measurements

We determine fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. We use a hierarchical structure to prioritize the inputs to valuation techniques used to measure fair value into three broad levels defined as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 inputs are other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include quoted prices (in non-active markets or in active markets for similar assets or liabilities), inputs other than quoted prices that are observable, and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 inputs are unobservable inputs for the assets or liabilities.

The fair value hierarchy is based on maximizing the use of observable inputs and minimizing the use of unobservable inputs when measuring fair value. Classification within the fair value hierarchy is based on the lowest level input that is significant to the fair value measurement.

Certain investments which measure fair value using the net asset value (“NAV”) per share practical expedient are not classified within the fair value hierarchy and are separately disclosed.

Note 2. Recently Issued Accounting Pronouncements

Pronouncements Not Yet Adopted

In September 2022, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update (“ASU”) 2022-04, "*Liabilities-Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations.*" This guidance requires disclosure of the key terms of outstanding supplier finance programs and a rollforward of the related obligations. The new standard does not affect the recognition, measurement, or financial statement presentation of supplier finance program obligations. The ASU becomes effective January 1, 2023, except for the rollforward requirement, which becomes effective January 1, 2024. Early adoption is permitted. We will reflect the impact of these disclosure updates in our Form 10-Q for the quarterly period ended March 31, 2023.

In October 2021, the FASB issued ASU No. 2021-08, “Business Combinations (Topic 805) - Accounting for Contract Assets and Contract Liabilities from Contracts with Customers.” This guidance requires an acquirer to apply the guidance in ASC 606, Revenue from Contracts with Customers, to recognize and measure contract assets and contract liabilities in a business combination, rather than using fair value. The ASU is effective for fiscal years beginning after December 15, 2022, with early adoption permitted. We are currently evaluating the impact of the guidance on our financial condition and results of operations in light of the proposed acquisition of Evoqua.

Note 3. Revenue

Disaggregation of Revenue

The following table illustrates the sources of revenue:

(in millions)	Year Ended December 31, 2022	2021	2020
Revenue from contracts with customers	$ 5,294	$ 4,998	$ 4,681
Lease Revenue	228	197	195
Total	$ 5,522	$ 5,195	$ 4,876

The following table reflects revenue from contracts with customers by application:

(in millions)	Year Ended December 31, 2022	2021	2020
Water Infrastructure			
Transport	$ 1,715	$ 1,619	$ 1,484
Treatment	421	431	400
Applied Water			
Commercial Building Services	659	609	558
Residential Building Services	306	268	238
Industrial Water	802	736	638
Measurement and Control Solutions			
Water	1,126	1,055	1,039
Energy	265	280	324
Total	$ 5,294	$ 4,998	$ 4,681

The following table reflects revenue from contracts with customers by geographical region:

	Year Ended December 31,		
(in millions)	2022	2021	2020
Water Infrastructure			
United States	$ 664	$ 556	$ 558
Western Europe	757	753	675
Emerging Markets (a)	495	537	468
Other	220	204	183
Applied Water			
United States	914	804	754
Western Europe	380	370	316
Emerging Markets (a)	349	324	260
Other	124	115	104
Measurement and Control Solutions			
United States	857	796	856
Western Europe	240	256	234
Emerging Markets (a)	198	189	177
Other	96	94	96
Total	$ 5,294	$ 4,998	$ 4,681

(a) Emerging Markets includes results from the following regions: Eastern Europe, the Middle East and Africa, Latin America and Asia Pacific (excluding Japan, Australia and New Zealand, which are presented in "Other")

Contract Balances

We receive payments from customers based on a billing schedule as established in our contracts. Contract assets relate to costs incurred to perform in advance of scheduled billings. Contract liabilities relate to payments received in advance of performance under the contracts. Changes in contract assets and liabilities are due to our performance under the contract.

The table below provides contract assets, contract liabilities, and significant changes in contract assets and liabilities:

(in millions)	Contract Assets (a)	Contract Liabilities
Balance at 1/1/2021	$ 117	$ 166
Additions, net	**112**	**117**
Revenue recognized from opening balance	**—**	**(117)**
Billings transferred to accounts receivable	**(103)**	**—**
Other	**(1)**	**(2)**
Balance at 1/1/2022	$ 125	$ 164
Additions, net	**115**	**137**
Revenue recognized from opening balance	**—**	**(109)**
Billings transferred to accounts receivable	**(82)**	**—**
Other	**(7)**	**(9)**
Balance at 12/31/2022	**$ 151**	**$ 183**

(a) Excludes receivable balances which are disclosed on the balance sheet

Performance obligations

Delivery schedules vary from customer to customer based upon their requirements. Typically, large projects require longer lead production cycles and delays can occur from time to time. As of December 31, 2022, the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied for contracts with performance obligations, amount to $424 million. We expect to recognize the majority of revenue upon the completion of satisfying these performance obligations in the following 60 months. The Company elects to apply the practical expedient to exclude from this disclosure revenue related to performance obligations that are part of a contract whose original expected duration is less than one year.

Note 4. Restructuring and Asset Impairment Charges

From time to time, the Company will incur costs related to restructuring actions in order to optimize our cost base and more strategically position itself. During 2022 we incurred these charges primarily as a continuation of our efforts to reposition our business to optimize our cost structure and improve our operational efficiency and effectiveness. The charges primarily included the reduction of headcount across all segments.

In response to the changes in business and economic conditions arising as a result of the COVID-19 pandemic, on June 2, 2020 management committed to a restructuring plan that includes actions across our businesses and functions globally. The plan was designed to support our long-term financial resilience and simplify our operations, strengthen our competitive positioning and better serve our customers.

As a result of this action, during 2021, we recognized restructuring charges of $4 million and $2 million in our Water Infrastructure and Applied Water segments, respectively. These charges included reduction of headcount across both segments. Other, less significant, restructuring actions taken in 2021 resulted in $3 million of charges during 2021 and are included in the information presented below.

During 2020, we recognized restructuring costs of $19 million, $4 million and $30 million in our Water Infrastructure, Applied Water and Measurement & Control Solutions segments, respectively. These charges included reduction of headcount across all segments and asset impairments within our Measurement & Control Solutions segment. Immaterial restructuring charges from other actions incurred during the first quarter of 2020 are included in the 2020 plan information presented below.

The following table presents the components of restructuring expense and asset impairment charges incurred during each of the previous three years:

	Year Ended December 31,		
(in millions)	**2022**	2021	2020
By component:			
Severance and other charges	**$ 15**	$ 10	$ 36
Asset impairment	**—**	1	18
Other restructuring charges	**—**	1	1
Reversal of restructuring accruals	**—**	(6)	(1)
Total restructuring costs	**15**	6	54
Asset impairment charges	**14**	1	21
Total restructuring and asset impairment charges	**$ 29**	$ 7	$ 75
By segment:			
Water Infrastructure	**$ 6**	$ 8	$ 20
Applied Water	**4**	2	4
Measurement & Control Solutions	**19**	(3)	51

Restructuring

The following table displays a roll-forward of the restructuring accruals, presented on our Consolidated Balance Sheets within "accrued and other current liabilities" and "other non-current accrued liabilities," for the years ended December 31, 2022 and 2021:

(in millions)	**2022**	2021
Restructuring accruals - January 1	**$ 7**	$ 29
Restructuring costs	**15**	6
Cash payments	**(11)**	(25)
Asset impairment	**—**	(1)
Foreign currency and other	**(1)**	(2)
Restructuring accruals - December 31	**$ 10**	$ 7
By segment:		
Water Infrastructure	**$ 1**	$ 1
Applied Water	**—**	1
Measurement & Control Solutions	**3**	4
Regional selling locations (a)	**4**	1
Corporate and other	**2**	—

(a) Regional selling locations consist primarily of selling and marketing organizations that incurred restructuring expense which was allocated to the segments. The liabilities associated with restructuring expense were not allocated to the segments.

The following table presents the total costs expected to be incurred, the amount incurred in the period, and the cumulative costs incurred to date for our 2020, 2021 and 2022 restructuring actions:

(in millions)	Water Infrastructure	Applied Water	Measurement & Control Solutions	Corporate	Total
Actions Commenced in 2022:					
Total expected costs	$ 6	$ 4	$ 4	$ —	$ 14
Costs incurred during 2022	6	4	4	—	14
Total expected costs remaining	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Actions Commenced in 2021:					
Total expected costs	$ 3	$ —	$ —	$ —	$ 3
Costs incurred during 2021	3	—	—	—	3
Costs incurred during 2022	—	—	—	—	—
Total expected costs remaining	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Actions Commenced in 2020:					
Total expected costs	$ 23	$ 6	$ 30	$ —	$ 59
Costs incurred during 2020	19	4	30	—	53
Costs incurred during 2021	4	2	—	—	6
Costs incurred during 2022	—	—	—	—	—
Total expected costs remaining	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**

During 2022, we also incurred charges of $1 million within the Measurement & Control Solutions segment, related to actions commenced prior to 2020. During 2021, we recorded a reduction of $3 million within the Measurement & Control Solutions segment, related to actions commenced prior to 2020.

The Water Infrastructure, Applied Water and Measurement & Control Solutions actions commenced in 2022 consist primarily of severance charges. The actions commenced in 2022 are complete.

The Water Infrastructure actions commenced in 2021 consist primarily of severance charges. The actions commenced in 2021 are complete.

Asset Impairment

During 2022, we determined that certain assets including primarily software and customer relationships within our Measurement & Control Solutions segment were impaired. Accordingly, we recognized an impairment charge of $14 million. Refer to Note 11,"Goodwill and Other Intangible Assets," for additional information.

During the third quarter of 2020, we determined that certain assets including software and proprietary technology within our Measurement & Control Solutions segment were impaired. Accordingly, we recognized an impairment charge of $11 million. Refer to Note 11, "Goodwill and Other Intangible Assets," for additional information.

During the second quarter of 2020, we determined that internally developed in-process software within our Measurement & Control Solutions segment was impaired as a result of actions taken to prioritize strategic investments. Accordingly, we recognized an impairment charge of $10 million. Refer to Note 11, "Goodwill and Other Intangible Assets," for additional information.

Note 5. Other Non-Operating (Expense) Income, Net

The components of other non-operating income, net are as follows:

	Year Ended December 31,		
(in millions)	**2022**	2021	2020
Interest income	**$ 16**	$ 7	$ 7
Income from equity method investments	**—**	9	2
Other (expense) – net	**(9)**	(16)	(14)
Total other non-operating (expense) income, net	**$ 7**	$ —	$ (5)

Note 6. Income Taxes

The source of pre-tax income and the components of income tax expense are as follows:

	Year Ended December 31,		
(in millions)	**2022**	2021	2020
Income (loss) components:			
Domestic	**$ 90**	$ 45	$ (33)
Foreign	**350**	466	318
Total pre-tax income	**$ 440**	$ 511	$ 285
Income tax expense components:			
Current:			
Domestic – federal	**$ 77**	$ 16	$ 24
Domestic – state and local	**16**	5	5
Foreign	**56**	53	33
Total Current	**149**	74	62
Deferred:			
Domestic – federal	**$ (43)**	$ (2)	$ (21)
Domestic – state and local	**(12)**	—	(8)
Foreign	**(9)**	12	(2)
Total Deferred	**(64)**	10	(31)
Total income tax provision	**$ 85**	$ 84	$ 31
Effective income tax rate	**19.2 %**	16.3 %	10.9 %

Reconciliations between taxes at the U.S. federal income tax rate and taxes at our effective income tax rate on earnings before income taxes are as follows:

	Year Ended December 31,		
	2022	2021	2020
Tax provision at U.S. statutory rate	**21.0 %**	21.0 %	21.0 %
Increase (decrease) in tax rate resulting from:			
State income taxes	**1.2**	0.8	0.7
Uncertain tax positions	**(1.2)**	(0.1)	(3.9)
U.S. foreign derived intangible income tax benefit	**(1.3)**	(0.6)	(1.0)
Net interest deductions	**(1.8)**	(2.4)	(4.5)
Tax on Distribution of Foreign Earnings	**1.4**	(0.2)	(0.2)
U.S. tax on foreign earnings	**2.7**	2.2	5.3
Tax incentives	**(4.4)**	(5.5)	(7.4)
Rate change	**(0.6)**	0.9	(1.3)
Goodwill impairment	**—**	—	2.9
Federal R&D tax credit	**(0.7)**	(0.7)	(1.3)
Stock compensation	**0.1**	(0.6)	(2.4)
Other—net	**2.8**	1.5	3.0
Effective income tax rate	**19.2 %**	16.3 %	10.9 %

Items in the prior year table of rate reconciliation above have been reclassified to conform to the current presentation. These reclassifications had no effect on the reported Consolidated Balance Sheets, Consolidated Statements of Income, Comprehensive Income, Stockholders' Equity, or Cash Flow.

Deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and tax bases of assets and liabilities, applying enacted tax rates in effect for the year in which we expect the differences will reverse.

The following is a summary of the components of the net deferred tax assets and liabilities recognized in the Consolidated Balance Sheets:

	December 31,	
(in millions)	**2022**	2021
Deferred tax assets:		
Employee benefits	**$ 58**	$ 111
Accrued expenses	**36**	35
Loss and other tax credit carryforwards	**245**	250
R&D capitalization	**32**	—
Inventory	**5**	6
Lease Liabilities	**68**	70
Other	**7**	8
	451	480
Valuation allowance	**(204)**	(201)
Net deferred tax asset	**$ 247**	$ 279
Deferred tax liabilities:		
Intangibles	**$ 155**	$ 155
Investment in foreign subsidiaries	**5**	4
Property, plant and equipment	**65**	77
Lease right-of-use assets	**67**	69
Hedging Instruments	**20**	—
Other	**11**	35
Total deferred tax liabilities	**$ 323**	$ 340

Management assesses all available positive and negative evidence, including prudent and feasible tax planning strategies, and estimates if sufficient future taxable income will be generated to realize existing deferred tax assets. On the basis of this evaluation, as of December 31, 2022, a valuation allowance of $204 million has been established to reduce the deferred income tax asset related to certain U.S. and foreign net operating losses and U.S. and foreign capital loss carryforwards.

A reconciliation of the change in valuation allowance on deferred tax assets is as follows:

(in millions)	**2022**	2021	2020
Valuation allowance — January 1	**$ 201**	$ 217	$ 191
Change in assessment (a)	**1**	—	1
Current year operations	**3**	4	4
Other comprehensive income	**—**	(4)	3
Foreign currency and other (b)	**(1)**	(16)	18
Valuation allowance — December 31	**$ 204**	$ 201	$ 217

(a) Increase in assessment in 2022 is primarily attributable to loss positions in various jurisdictions.

(b) Decrease in assessment in 2021 is primarily attributable to foreign exchange movement impacting foreign balances. Increase in assessment in 2020 is primarily attributable to loss positions in various jurisdictions and foreign exchange movement impacting foreign balances.

Deferred taxes are classified in the Consolidated Balance Sheets as follows:

	December 31,	
(in millions)	**2022**	2021
Non-current assets	**$ 146**	$ 226
Non-current liabilities	**(222)**	(287)
Total net deferred tax liabilities	**$ (76)**	$ (61)

Tax attributes available to reduce future taxable income begin to expire as follows:

(in millions)	December 31, 2022	First Year of Expiration
U.S. net operating loss	$ 5	December 31, 2025
State net operating loss	97	December 31, 2024
State excess interest expense	19	Indefinite
State tax credits	1	Indefinite
Foreign net operating loss	992	December 31, 2023
Foreign tax credits	4	December 31, 2030

As of December 31, 2022, the Company has provided a deferred tax liability of $5 million for net foreign withholding taxes and state income taxes on $467 million of foreign earnings expected to be repatriated to the U.S. parent. The Company currently does not intend to repatriate approximately $1.5 billion of foreign earnings. It is not practicable to estimate the amount of deferred taxes that would be recorded if such foreign earnings were repatriated by the U.S. parent.

Unrecognized Tax Benefits

We recognize tax benefits from uncertain tax positions only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities or upon the completion of the litigation process, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such positions are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution.

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

(in millions)	**2022**	2021	2020
Unrecognized tax benefits — January 1	**$ 111**	$ 114	$ 129
Gross Increases - Current year tax positions	**—**	—	—
Gross Increases - Prior year tax positions	**3**	—	—
Gross Decreases - Prior year tax positions	**(8)**	(1)	(3)
Settlements	**(1)**	—	(12)
Lapse of Statute of Limitations	**(2)**	(1)	—
Currency Translation Adjustment	**(1)**	(1)	—
Unrecognized tax benefits — December 31	**$ 102**	$ 111	$ 114

The amount of unrecognized tax benefits at December 31, 2022 which, if ultimately recognized, will reduce our effective tax rate is $102 million. Changes in tax laws, regulations, administrative practices, principles, and interpretations may impact our unrecognized tax benefits. The timing of the resolution of income tax controversies is highly uncertain, and the amounts ultimately paid, if any, upon resolution of the issues raised by the taxing authorities may differ from the amounts accrued. It is reasonably possible that within the next twelve months we will receive additional assessments by various tax authorities or possibly reach resolution of income tax controversies in one or more jurisdictions. These assessments or settlements could result in changes to our unrecognized tax benefits related to positions on prior years' tax filings. The actual amount of any change could vary significantly depending on the ultimate timing and nature of any settlements. We cannot currently provide an estimate of the range of possible outcomes.

We classify interest relating to unrecognized tax benefits as a component of other non-operating (expense) income, net and tax penalties as a component of income tax expense in our Consolidated Income Statements. The amount of accrued interest relating to unrecognized tax benefits was $9 million for both December 31, 2022 and 2021.

During 2019, Xylem's Swedish subsidiary received a tax assessment for the 2013 tax year related to the tax treatment of an intercompany transfer of certain intellectual property that was made in connection with a reorganization of our European businesses. Xylem filed an appeal with the Administrative Court of Vaxjo, which rendered a decision adverse to Xylem in June 2022 for SEK794 million (approximately $76 million USD), consisting of the full tax assessment amount plus penalties and interest. Xylem has appealed this decision with the intermediate appellate court, the Administrative Court of Appeal (the "Court"). At this time, management, in consultation with external legal advisors, continues to believe it is more likely than not that Xylem will prevail on the proposed assessment and will continue to vigorously defend our position through the appellate process. The appeal to the Court is expected to take approximately one year; however, there can be no assurance as to the timing of the Court's decision. Both parties will have the ability to seek appeal of the Court's decision to the Supreme Administrative Court of Sweden. There can be no assurance that the final determination by the authorities will not be materially different than our position. As of December 31, 2022, we have not recorded any unrecognized tax benefits related to this uncertain tax position.

The following table summarizes our earliest open tax years by major jurisdiction:

Jurisdiction	Earliest Open Year
Italy	2016
Luxembourg	2017
Sweden	2013
Germany	2016
United Kingdom	2015
United States	2017
Switzerland	2019

Note 7. Earnings Per Share

The following is a reconciliation of the shares used in calculating basic and diluted EPS:

	Year Ended December 31,		
	2022	2021	2020
Net income (in millions)	**$ 355**	$ 427	$ 254
Shares (in thousands):			
Weighted average common shares outstanding	**180,189**	180,225	180,094
Add: Participating securities (a)	**28**	22	22
Weighted average common shares outstanding — Basic	**180,217**	180,247	180,116
Plus incremental shares from assumed conversions: (b)			
Dilutive effect of stock options	**549**	871	671
Dilutive effect of restricted stock units and performance share units	**213**	408	312
Weighted average common shares outstanding — Diluted	**180,979**	181,526	181,099
Basic earnings per share	**$ 1.97**	$ 2.37	$ 1.41
Diluted earnings per share	**$ 1.96**	$ 2.35	$ 1.40

(a) Restricted stock units containing rights to non-forfeitable dividends that participate in undistributed earnings with common shareholders are considered participating securities for purposes of computing EPS.

(b) Incremental shares from stock options, restricted stock units and performance share units are computed by the treasury stock method. The weighted average shares listed below were not included in the computation of diluted earnings per share because to do so would have been anti-dilutive for the periods presented or were otherwise excluded under the treasury stock method. The treasury stock method calculates dilution assuming the exercise of all in-the-money options and vesting of restricted stock units and performance share units, reduced by the repurchase of shares with the proceeds from the assumed exercises and unrecognized compensation expense for outstanding awards. Performance share units are included in the treasury stock calculation of diluted earnings per share based upon achievement of underlying performance and market conditions at the end of the reporting period, as applicable. See Note 16, "Share-Based Compensation Plans" for further detail on the performance share units.

	Year Ended December 31,		
(in thousands)	**2022**	2021	2020
Stock options	**1,453**	1,132	1,545
Restricted stock units	**353**	271	362
Performance share units	**284**	330	305

Note 8. Inventories

The components of total inventories are summarized as follows:

	December 31,	
(in millions)	**2022**	2021
Finished goods	**$ 286**	$ 236
Work in process	**58**	58
Raw materials	**455**	406
Total inventories	**$ 799**	$ 700

Note 9. Property, Plant and Equipment

The components of total property, plant and equipment, net are as follows:

(in millions)	December 31, 2022	2021
Land, buildings and improvements	**$ 360**	$ 370
Machinery and equipment	**896**	933
Equipment held for lease or rental	**263**	250
Furniture and fixtures	**124**	127
Construction work in progress	**106**	115
Other	**38**	31
Total property, plant and equipment, gross	**1,787**	1,826
Less accumulated depreciation	**1,157**	1,182
Total property, plant and equipment, net	**$ 630**	$ 644

Depreciation expense was $111 million, $118 million, and $117 million for 2022, 2021, and 2020, respectively.

Note 10. Leases

Leasing Arrangements

We lease certain offices, manufacturing buildings, transportation equipment, machinery, computers and other equipment. Our most significant lease liabilities relate to real estate leases. These leases include renewal, termination or purchase options, and we have assessed these to determine whether it is reasonably certain for us to exercise any of the previously mentioned options. All periods relating to options that are reasonably certain to be exercised have been included in the lease term of the respective leases.

We did not identify any events or conditions during the 12 month period ended December 31, 2022 to indicate that a reassessment or re-measurement of our existing leases was required. There also were no impairment indicators identified during the 12 month period ended December 31, 2022 that required an impairment test for the Company's ROU assets.

Our current lease liabilities of $69 million for both December 31, 2022 and 2021 are included in "Accrued and other current liabilities." Our non-current lease liabilities of $249 million and $243 million are included in "Other non-current accrued liabilities" as of December 31, 2022 and 2021, respectively. Our ROU asset balances are included in "Other non-current assets." The net balance of our ROU assets as of December 31, 2022 and 2021 was $310 million and $304 million, respectively. These balances include an immaterial amount related to finance leases.

The components of our lease cost were as follows:

(in millions)	Year Ended December 31, 2022	2021	2020
Lease cost			
Operating lease cost	**$ 83**	$ 84	$ 77
Short-term lease cost	**2**	2	2
Variable lease cost	**21**	23	22
Total lease cost	**$ 106**	$ 109	$ 101

The supplemental cash flow information related to leases are as follows:

(in millions)	Year Ended December 31, 2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	**$ 82**	$ 83	$ 75
Right-of-use assets obtained in exchange for lease obligations:			
Operating leases	**$ 94**	$ 109	$ 64

Information relating to the lease term and discount rate are as follows:

	Year Ended December 31, 2022	2021
Weighted-average remaining lease term (years)		
Operating leases	**7 Years**	7 Years
Weighted-average discount rate		
Operating leases	**2.3%**	2.2%

As of December 31, 2022, the maturities of operating lease liabilities were as follows:

(in millions)	
2023	$ 71
2024	58
2025	45
2026	35
2027	28
Thereafter	78
Total lease payments	315
Less: Imputed interest	(22)
Total	$ 293

Lessor arrangements

In addition to manufacturing and selling equipment, we also lease equipment to customers in exchange for consideration. These arrangements are generally short term in nature and predominantly involve the rental of pumps and accessories within the Water Infrastructure segment. Rental arrangements generally do not provide the customer the right to purchase the equipment as Xylem's strategy is to rent these items over their useful lives. Customers may be billed based on daily, weekly or monthly rates depending on the expected rental period. We assessed that these arrangements constitute a lease under ASC 842, and have recognized them as operating leases. In situations where arrangements contain both the sale of products and a leasing component, contract consideration is allocated based on relative standalone selling price.

Total revenue from lease arrangements was $228 million, $197 million and $195 million for the 12-month period ended December 31, 2022, 2021 and 2020, respectively. Our gross assets available for rent were $263 million and $251 million as of December 31, 2022 and 2021, respectively. The accumulated amortization related to our gross assets was $161 million and $158 million as of December 31, 2022 and 2021, respectively. Depreciation expense for these assets was $27 million, $24 million and $25 million for the 12 month period ended December 31, 2022, 2021 and 2020, respectively.

Note 11. Goodwill and Other Intangible Assets

Changes in the carrying value of goodwill by reportable segment during the years ended December 31, 2022 and 2021 are as follows:

(in millions)	Water Infrastructure	Applied Water	Measurement & Control Solutions	Total
Balance as of December 31, 2020	$ 668	$ 529	$ 1,657	$ 2,854
Activity in 2021				
Foreign currency and other	(12)	(14)	(36)	(62)
Balance as of December 31, 2021	$ 656	$ 515	$ 1,621	$ 2,792
Activity in 2022				
Foreign currency and other	**(18)**	**(13)**	**(42)**	**(73)**
Balance as of December 31, 2022	**$ 638**	**$ 502**	**$ 1,579**	**$ 2,719**

As of December 31, 2022 and 2021, goodwill included accumulated impairment losses of $206 million, within the Measurement & Control Solutions segment.

During the fourth quarter of 2022, we performed our annual impairment assessment and determined that the estimated fair values of our goodwill reporting units were in excess of each of their carrying values. However, future goodwill impairment tests could result in a charge to earnings. We will continue to evaluate goodwill on an annual basis as of the beginning of our fourth quarter and whenever events and changes in circumstances indicate there may be a potential impairment.

During the third quarter of 2020, the Company recorded a goodwill impairment charge of $58 million related to a reporting unit within our Measurement & Control Solutions segment.

Other Intangible Assets

Information regarding our other intangible assets is as follows:

	December 31, 2022			December 31, 2021		
(in millions)	**Carrying Amount**	**Accumulated Amortization**	**Net Intangibles**	Carrying Amount	Accumulated Amortization	Net Intangibles
Customer and distributor relationships	**$ 784**	**$ (371)**	**$ 413**	$ 929	$ (456)	$ 473
Proprietary technology and patents	**165**	**(118)**	**47**	201	(142)	59
Trademarks	**137**	**(80)**	**57**	141	(72)	69
Software	**514**	**(268)**	**246**	548	(303)	245
Other	**5**	**(3)**	**2**	21	(18)	3
Indefinite-lived intangibles	**165**	**—**	**165**	167	—	167
Other intangibles	**$ 1,770**	**$ (840)**	**$ 930**	$ 2,007	$ (991)	$ 1,016

We determined that no material impairment of the indefinite-lived intangibles existed as of the measurement date of our impairment assessment in 2022. Future impairment tests could result in a charge to earnings. We will continue to evaluate the indefinite-lived intangible assets on an annual basis as of the beginning of our fourth quarter and whenever events and changes in circumstances indicate there may be a potential impairment.

During 2022, the Company assessed whether the carrying amounts of long-lived assets in the Measurement & Control Solutions segment may not be recoverable based on the updated forecast of future cash flows, and therefore impaired. Our assessment resulted in an impairment charge of $14 million, primarily related to software and customer relationships. The charge was calculated using an income approach, which is considered a Level 3 input for fair value measurement, and is reflected in “Restructuring and asset impairment charges” in our Consolidated Income Statements.

During the third quarter of 2020, the Company assessed whether the carrying amounts of long-lived assets in the Measurement & Control Solutions segment may not be recoverable based on the updated forecast of future cash flows, and therefore impaired. Our assessment resulted in an impairment charge of $11 million, primarily related to software and proprietary technology. The charge was calculated using an income approach, which is considered a Level 3 input for fair value measurement, and is reflected in “Restructuring and asset impairment charges” in our Consolidated Income Statements.

During the second quarter of 2020, we recognized impairment charges of $16 million primarily related to customer relationships and trademarks due to discontinuance of a product line within our Measurement & Control Solutions segment. We also determined that internally developed in-process software within our Measurement & Control Solutions segment was impaired as a result of actions taken to prioritize strategic investments and recognized an impairment charge of $10 million.

Customer and distributor relationships, proprietary technology and patents, trademarks, software and other are amortized over weighted average lives of approximately 16 years, 15 years, 13 years, 10 years and 5 years, respectively.

Total amortization expense for intangible assets was $125 million, $127 million, and $134 million for 2022, 2021 and 2020, respectively.

Estimated amortization expense for each of the five succeeding years is as follows:

(in millions)		
2023	$	127
2024		121
2025		116
2026		102
2027		90

Note 12. Derivative Financial Instruments

Risk Management Objective of Using Derivatives

We are exposed to certain risks arising from both our business operations and economic conditions, and we principally manage our exposures to these risks through management of our core business activities. Certain of our foreign operations expose us to fluctuations of foreign interest rates and exchange rates that may impact revenue, expenses, cash receipts, cash payments, and the value of our stockholders' equity. We enter into derivative financial instruments to protect the value or fix the amount of certain cash flows in terms of the functional currency of the business unit with that exposure and reduce the volatility in stockholders' equity.

Cash Flow Hedges of Foreign Exchange Risk

We are exposed to fluctuations in various foreign currencies against our functional currencies. We use foreign currency derivatives, including currency forward agreements, to manage our exposure to fluctuations in the various exchange rates. Currency forward agreements involve fixing the foreign currency exchange rate for delivery of a specified amount of foreign currency on a specified date.

Certain business units with exposure to foreign currency exchange risks have designated certain currency forward agreements as cash flow hedges of forecasted intercompany inventory purchases and sales. Our principal currency exposures relate to the Euro, Swedish Krona, British Pound, Canadian Dollar, Australian Dollar and Polish Zloty. We had foreign exchange contracts with purchase notional amounts totaling $255 million and $301 million as of December 31, 2022 and 2021, respectively. As of December 31, 2022, our most significant foreign currency derivatives included contracts to sell U.S. Dollar and purchase Euro, purchase Swedish Krona and sell Euro, sell British Pound and purchase Euro, purchase U.S. Dollar and sell Canadian Dollar, purchase Polish Zloty and sell Euro, sell Canadian Dollar and purchase Euro and to sell Australian Dollar and purchase Euro. The purchased notional amounts associated with these currency derivatives are $105 million, $73 million, $29 million, $13 million, $13 million, $13 million and $9 million, respectively. As of December 31, 2021 the purchased notional amounts associated with these currency derivatives were $130 million,$88 million, $31 million, $14 million, $11 million, $14 million and $13 million, respectively.

Hedges of Net Investments in Foreign Operations

We are exposed to changes in foreign currencies impacting our net investments held in foreign subsidiaries.

Cross-Currency Swaps

Beginning in 2015, we entered into cross-currency swaps to manage our exposure to fluctuations in the Euro-U.S. Dollar exchange rate. During the second quarter of 2019 and third quarter of 2020 we entered into additional cross-currency swaps. The total notional amount of derivative instruments designated as net investment hedges was and $1,616 million and $1,151 million as of December 31, 2022 and 2021, respectively.

Foreign Currency Denominated Debt

On March 11, 2016, we issued 2.250% Senior Notes of €500 million aggregate principal amount due March 2023.

On June 2, 2022, we de-designated the entirety of the outstanding balance of the €500 million 2.250% Senior Notes, or $533 million from the net investment hedge relationship. Previously, the entirety of the outstanding balance, or $563 million as of December 31, 2021, net of unamortized discount, was designated as a hedge of a net investment in certain foreign subsidiaries.

Fair Value Hedges of Foreign Exchange Risk

The de-designation of our 2.250% Senior Notes of €500 million resulted in exposure to fluctuations in the Euro-U.S. Dollar exchange rate. We use currency forward agreements to manage our exposure to fluctuations in the Euro-U.S. Dollar exchange rate. Currency forward agreements involve fixing the foreign currency exchange rate for delivery of a specified amount of foreign currency on a specified date.

On June 2, 2022, we entered into a currency forward agreement with a total notional amount of €500 million, designating the agreement as a fair value hedge of our Euro denominated notes. On December 12, 2022 the currency forward agreement matured.

Effectiveness of derivatives designated as fair value hedges is assessed using the spot method. The changes in the fair value of these derivatives due to movements in spot exchange rates are recorded in Selling, general and administrative expenses. Changes in the fair value of the 2.250% Senior Notes of €500 million related to spot exchange rates are also recorded in Selling, general and administrative expenses. Changes in the spot-forward differential and counterparty non-performance risk of the derivatives are excluded from the assessment of hedge effectiveness and will be recognized in AOCL. Amounts in AOCL are recognized in earnings, specifically Interest expense, using a systematic and rational method over the life of the hedging instrument.

The table below presents the effect of our derivative financial instruments on the Consolidated Income Statements and Consolidated Statements of Comprehensive Income:

(in millions)	Year Ended December 31, 2022	2021	2020
Derivatives in Cash Flow Hedges			
Foreign Exchange Contracts			
Amount of gain (loss) recognized in OCI/L	**$ (24)**	$ (10)	$ 9
Amount of (gain) loss reclassified from OCI/L into revenue	**19**	4	(4)
Amount of loss reclassified from OCI/L into cost of revenue	**2**	—	1
Derivatives in Net Investment Hedges			
Cross-Currency Swaps			
Amount of (loss) gain recognized in OCI/L	**$ 94**	$ 94	$ (103)
Amount of income recognized in Interest Expense	**29**	21	19
Foreign Currency Denominated Debt			
Amount of (loss) gain recognized in OCI/L	**$ 31**	$ 48	$ (55)
Fair Value Hedges			
Foreign Exchange Contracts			
Amount of (loss) recognized in Selling, general and administrative expenses	**$ (7)**	$ —	$ —
Amount recognized in Interest expense	**(3)**	—	—

As of December 31, 2022, $6 million of the net losses on cash flow hedges are expected to be reclassified into earnings in the next 12 months.

As of December 31, 2022, no gains or losses on the net investment hedges are expected to be reclassified into earnings over their duration.

The fair values of our derivative assets and liabilities are measured on a recurring basis using Level 2 inputs and are determined through the use of models that consider various assumptions including yield curves, time value and other measurements.

The fair values of our derivative contracts currently included in our hedging program were as follows:

(in millions)	December 31, 2022	2021
Derivatives designated as hedging instruments		
Assets		
Net Investment Hedges		
Other non-current assets	**79**	8
Liabilities		
Cash Flow Hedges		
Other current liabilities	**—**	(1)
Net Investment Hedges		
Other non-current liabilities	**(6)**	(26)

Our long-term debt, due in 2023, was de-designated from the hedging relationship in June 2022.The fair value of our long-term debt designated as a net investment hedge was $577 million as of December 31, 2021.

Note 13. Accrued and Other Current Liabilities

The components of total accrued and other current liabilities are as follows:

(in millions)	December 31, 2022	December 31, 2021
Compensation and other employee-benefits	$ **285**	$ 273
Customer-related liabilities	**210**	186
Accrued taxes	**186**	86
Lease liabilities	**69**	69
Accrued warranty costs	**37**	40
Other accrued liabilities	**80**	98
Total accrued and other current liabilities	$ **867**	$ 752

Note 14. Credit Facilities and Debt

Total debt outstanding is summarized as follows:

(in millions)	December 31, 2022	December 31, 2021
2.250% Senior Notes due 2023 (a)	**—**	564
3.250% Senior Notes due 2026 (a)	**500**	500
1.950% Senior Notes due 2028 (a)	**500**	500
2.250% Senior Notes due 2031 (a)	**500**	500
4.375% Senior Notes due 2046 (a)	**400**	400
Debt issuance costs and unamortized discount (b)	**(20)**	(24)
Total debt	$ **1,880**	$ 2,440
Less: short-term borrowings and current maturities of long-term debt	**—**	—
Total long-term debt	$ **1,880**	$ 2,440

(a) The fair value of our Senior Notes was determined using quoted prices in active markets for identical securities, which are considered Level 1 inputs. The fair value of our Senior Notes due 2023 was $577 million as of December 31, 2021. The fair value of our Senior Notes due 2026 was $470 million and $537 million as of December 31, 2022 and 2021, respectively. The fair value of our Senior Notes due 2028 was $430 million and $497 million as of December 31, 2022 and 2021 respectively. The fair value of our Senior Notes due 2031 was $406 million and $496 million as of December 31, 2022 and 2021 respectively. The fair value of our Senior Notes due 2046 was $333 million and $481 million as of December 31, 2022 and 2021, respectively.

(b) The debt issuance costs and unamortized discount is recognized as a reduction in the carrying value of the Senior Notes in the Consolidated Balance Sheets and is being amortized to interest expense in our Consolidated Income Statements over the expected remaining terms of the Senior Notes.

Senior Notes

On June 26, 2020, we issued 1.950% Senior Notes of $500 million aggregate principal amount due January 2028 (the “Senior Notes due 2028”) and 2.250% Senior Notes of $500 million aggregate principal amount due January 2031 (the “Senior Notes due 2031" and, together with the Senior Notes due 2028, the “Green Bond”).

The Green Bond includes covenants that restrict our ability, and the ability of our restricted subsidiaries, to incur debt secured by liens on certain property above a threshold, to engage in certain sale and leaseback transactions involving certain property above a threshold, and to consolidate or merge, or convey or transfer all or substantially all of our assets. We may redeem the Green Bond at any time, at our option, subject to certain conditions, at specified redemption prices, plus accrued and unpaid interest to the redemption date.

If a change of control triggering event (as defined in the applicable Green Bond indenture) occurs, we will be required to make an offer to purchase the notes at a price equal to 101% of their principal amount plus accrued and unpaid interest to the date of repurchase.

Interest on the Green Bond is payable on January 30 and July 30 of each year. As of December 31, 2022, we are in compliance with all covenants for the Green Bond.

On March 11, 2016, we issued 2.250% Senior Notes of €500 million aggregate principal amount due March 2023 (the "Senior Notes due 2023"). On October 11, 2016, we issued 3.250% Senior Notes of $500 million aggregate principal amount due October 2026 (the “Senior Notes due 2026”) and 4.375% Senior Notes of $400 million aggregate principal amount due October 2046 (the “Senior Notes due 2046” and, together with the Senior Notes due 2021, the Senior Notes due 2023 and the Senior Notes due 2026, the “Senior Notes”).

The Senior Notes include covenants that restrict our ability, and the ability of our restricted subsidiaries, to incur debt secured by liens on certain property above a threshold, to engage in certain sale and leaseback transactions involving certain property above a threshold, and to consolidate or merge, or convey or transfer all or substantially all of our assets. We may redeem the Senior Notes, as applicable, in whole or in part, at any time at a redemption price equal to the principal amount of the Senior Notes to be redeemed, plus a make-whole premium. We may also redeem the Senior Notes in certain other circumstances, as set forth in the applicable Senior Notes indenture.

If a change of control triggering event (as defined in the applicable Senior Notes indenture) occurs, we will be required to make an offer to purchase the Senior Notes at a price equal to 101% of their principal amount plus accrued and unpaid interest to the date of repurchase.

Interest on the Senior Notes due 2023 is payable on March 11 of each year. Interest on the Senior Notes due 2026 and the Senior Notes due 2046 is payable on May 1 and November 1 of each year. As of December 31, 2022, we are in compliance with all covenants for the Senior Notes.

On December 12th, 2022 our Senior Notes due 2023 were settled with cash on hand for a total of $527 million.

Credit Facilities

2019 Five-Year Revolving Credit Facility

On March 5, 2019, Xylem entered into a Five-Year Revolving Credit Facility (the “2019 Credit Facility”) with Citibank, N.A., as Administrative Agent, and a syndicate of lenders. The 2019 Credit Facility provides for an aggregate principal amount of up to $800 million (available in U.S. Dollars and in Euros), with increases of up to $200 million for a maximum aggregate principal amount of $1 billion at the request of Xylem and with the consent of the institutions providing such increased commitments.

Interest on all loans under the 2019 Credit Facility is payable either quarterly or at the expiration of any LIBOR or EURIBOR interest period applicable thereto. Borrowings accrue interest at a rate equal to, at Xylem's election, a base rate or an adjusted LIBOR or EURIBOR rate plus an applicable margin. The 2019 Credit Facility includes customary provisions for implementation of replacement rates for LIBOR-based and EURIBOR-based loans. The 2019 Credit Facility also includes a pricing grid that determines the applicable margin based on Xylem's credit rating, with a further adjustment depending on Xylem's annual Sustainalytics Environmental, Social and Governance ("ESG") score, determined based on the methodology in effect as of March 5, 2019. Xylem will also pay quarterly fees to each lender for such lender’s commitment to lend accruing on such commitment at a rate based on our credit rating, whether such commitment is used or unused, as well as a quarterly letter of credit fee accruing on the letter of credit exposure of such lender during the preceding quarter at a rate based on the credit rating of Xylem (as adjusted for the ESG score).

The 2019 Credit Facility requires that Xylem maintain a consolidated total debt to consolidated EBITDA ratio (or maximum leverage ratio), which will be based on the last four fiscal quarters; and in addition contains a number of customary covenants, including limitations on the incurrence of secured debt and debt of subsidiaries, liens, sale and lease-back transactions, mergers, consolidations, liquidations, dissolutions and sales of assets. The 2019 Credit Facility also contains customary events of default. Finally, Xylem has the ability to designate subsidiaries that can borrow under the 2019 Credit Facility, subject to certain requirements and conditions set forth in the 2019 Credit Facility. As of December 31, 2022, the 2019 Credit Facility was undrawn and we are in compliance with all covenants.

Commercial Paper

U.S. Dollar Commercial Paper Program

Our U.S. Dollar commercial paper program generally serves as a means of short-term funding with a $600 million maximum issuing balance and a combined limit of $800 million inclusive of the 2019 Credit Facility. As of December 31, 2022 and 2021, none of the Company's $600 million U.S. Dollar commercial paper program was outstanding. We have the ability to continue borrowing under this program going forward in future periods.

Euro Commercial Paper Program

On June 3, 2019, Xylem entered into a Euro commercial paper program with ING Bank N.V., as administrative agent, and a syndicate of dealers. The Euro commercial paper program provides for a maximum issuing balance of up to €500 million (approximately $532 million) which may be denominated in a variety of currencies. The maximum issuing balance may be increased in accordance with the Dealer Agreement. As of December 31, 2022 and 2021, none of the Company's Euro commercial paper program was outstanding. We have the ability to continue borrowing under this program going forward in future periods.

Note 15. Post-retirement Benefit Plans

Defined contribution plans – Xylem and certain of our subsidiaries maintain various defined contribution savings plans, which allow employees to contribute a portion of their pre-tax and/or after-tax income in accordance with specified guidelines. Several of the plans require us to match a percentage of the employee contributions up to certain limits, generally between 3.0% – 7.0% of employee eligible pay. Matching obligations, the majority of which were funded in cash in connection with the plans, and other company contributions are as follows:

(in millions)	Defined Contribution
2022	**$ 53**
2021	60
2020	56

The Xylem Stock Fund, an investment option under the defined contribution plan in which Company employees participate is considered an Employee Stock Ownership Plan. As a result, participants in the Xylem Stock Fund may receive dividends in cash or may reinvest such dividends into the Xylem Stock Fund. Company employees held approximately 245 thousand and 256 thousand shares of Xylem Inc. common stock in the Xylem Stock Fund at December 31, 2022 and 2021, respectively.

Defined benefit pension plans and other post-retirement plans – We historically have maintained qualified and non-qualified defined benefit retirement plans covering certain current and former employees, including hourly and union plans as well as salaried plans, which generally require up to 5 years of service to be vested and for which the benefits are determined based on years of credited service and either specified rates, final pay, or final average pay. The other post-retirement benefit plans are all unfunded plans in the U.S. and Canada.

During 2022 and 2021, we made several amendments to plans that had no material impact to the Company's financial statements.

The Company initiated the process for a full buy-out of its largest defined benefit plan in the U.K. in 2019. During the first quarter of 2020, the Company purchased a bulk annuity policy as a plan asset to facilitate the termination and buy-out of the plan. The buyout was completed in September 2022, at which point the remaining benefit obligations were transferred to the insurer and we were relieved of any further obligation. As a result, we recorded a pension settlement charge of £123 million (approximately $140 million), primarily consisting of unrecognized actuarial losses.

Amounts recognized in the Consolidated Balance Sheets for pension and other employee-related benefit plans (collectively, "Post-retirement Plans") reflect the funded status of the post-retirement benefit plans. The following table provides a summary of the funded status of our Post-retirement Plans, the presentation of such balances and a summary of amounts recorded within AOCL:

(in millions)	December 31, 2022			December 31, 2021		
	Pension	**Other**	**Total**	Pension	Other	Total
Fair value of plan assets	**$ 246**	**$ —**	**$ 246**	$ 679	$ —	$ 679
Projected benefit obligation	**(482)**	**(31)**	**(513)**	(1,043)	(42)	(1,085)
Funded status	**$ (236)**	**$ (31)**	**$ (267)**	$ (364)	$ (42)	$ (406)
Amounts recognized in the balance sheet						
Other non-current assets	**$ 34**	**$ —**	**$ 34**	$ 48	$ —	$ 48
Accrued and other current liabilities	**(12)**	**(3)**	**(15)**	(13)	(3)	(16)
Accrued post-retirement benefit obligations	**(258)**	**(28)**	**(286)**	(399)	(39)	(438)
Net amount recognized	**$ (236)**	**$ (31)**	**$ (267)**	$ (364)	$ (42)	$ (406)
Accumulated other comprehensive loss:						
Net actuarial losses	**$ (50)**	**$ (6)**	**$ (56)**	$ (326)	$ (17)	$ (343)
Prior service credit	**(1)**	**4**	**3**	(4)	7	3
Total	**$ (51)**	**$ (2)**	**$ (53)**	$ (330)	$ (10)	$ (340)

The unrecognized amounts recorded in AOCL will be subsequently recognized as expense on a straight-line basis only to the extent they exceed 10% of the higher of the market-related value or the projected benefit obligation, over the average remaining service period of active participants, or for plans with all or substantially all inactive participants, over the average remaining life expectancy. Actuarial gains and losses incurred in future periods and not recognized as expense in those periods will be recognized as increases or decreases in other comprehensive income, net of tax.

The benefit obligation, fair value of plan assets, funded status, and amounts recognized in the consolidated financial statements for our defined benefit domestic and international pension plans were:

	Domestic Plans		International Plans	
	December 31,		December 31,	
(in millions)	**2022**	2021	**2022**	2021
Change in benefit obligation:				
Benefit obligation at beginning of year	**$ 117**	$ 123	**$ 926**	$ 1,032
Service cost	**3**	3	**12**	14
Interest cost	**3**	3	**13**	11
Benefits paid	**(7)**	(7)	**(29)**	(34)
Actuarial loss (gain) (a)	**(24)**	(5)	**(241)**	(56)
Plan amendments, settlements and curtailments (b)	**—**	—	**(202)**	(3)
Foreign currency translation and other	**—**	—	**(89)**	(38)
Benefit obligation at end of year	**$ 92**	$ 117	**$ 390**	$ 926
Change in plan assets:				
Fair value of plan assets at beginning of year	**$ 108**	113	**$ 571**	$ 578
Employer contributions		—	**16**	26
Actual return on plan assets	**(21)**	2	**(133)**	9
Benefits paid	**(7)**	(7)	**(29)**	(34)
Plan amendments, settlements and curtailments (b)	**—**	—	**(202)**	(3)
Foreign currency translation and other	**—**	—	**(57)**	(5)
Fair value of plan assets at end of year	**$ 80**	$ 108	**$ 166**	$ 571
Unfunded status of the plans	**$ (12)**	$ (9)	**$ (224)**	$ (355)

(a) Actuarial gains for our qualified defined benefit pension plans in 2022 primarily reflect an increase in the discount rate in 2022 as compared to 2021, which decreased benefit obligations.

(b) Qualified defined benefit pension plan settlements in 2022 predominantly related to the transfer of gross benefit obligations and related plan assets to an insurance company upon completion of the U.K. pension buy-out as described above.

The following table provides a roll-forward of the projected benefit obligation for the other post-retirement employee benefit plans:

(in millions)	**2022**	2021
Change in benefit obligation:		
Benefit obligation at beginning of year	**$ 42**	$ 44
Interest cost	**1**	1
Benefits paid	**(3)**	(3)
Actuarial gain	**(9)**	—
Benefit obligation at the end of year	**$ 31**	$ 42

The accumulated benefit obligation ("ABO") for all the defined benefit pension plans was $460 million and $1,009 million at December 31, 2022 and 2021, respectively.

For defined benefit pension plans in which the ABO was in excess of the fair value of the plans' assets, the projected benefit obligation, ABO and fair value of the plans' assets were as follows:

	December 31,	
(in millions)	**2022**	2021
Projected benefit obligation	**$ 391**	$ 574
Accumulated benefit obligation	**372**	541
Fair value of plan assets	**121**	164

The components of net periodic benefit cost for our defined benefit pension plans are as follows:

	Year Ended December 31,		
(in millions)	**2022**	2021	2020
Domestic defined benefit pension plans:			
Service cost	**$ 3**	$ 3	$ 3
Interest cost	**3**	3	3
Expected return on plan assets	**(6)**	(7)	(7)
Amortization of net actuarial loss	**3**	4	3
Net periodic benefit cost	**$ 3**	$ 3	$ 2
International defined benefit pension plans:			
Service cost	**$ 12**	$ 14	$ 13
Interest cost	**13**	11	16
Expected return on plan assets	**(13)**	(14)	(14)
Amortization of net actuarial loss	**10**	17	14
U.K. pension settlement expense	**140**	—	—
Net periodic benefit cost	**$ 162**	$ 28	$ 29
Total net periodic benefit cost	**$ 165**	$ 31	$ 31

Aside from the U.K. pension settlement expense, the components of net periodic benefit cost other than the service cost component are included in the line item "Other non-operating (expense) income, net" in the Consolidated Income Statements.

Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss), as they pertain to our defined benefit pension plans are as follows:

	Year Ended December 31,		
(in millions)	**2022**	2021	2020
Domestic defined benefit pension plans:			
Net (gain) loss	**$ 3**	$ —	$ 3
Amortization of net actuarial loss	**(3)**	(4)	(3)
(Gains) losses recognized in other comprehensive income (loss)	**$ —**	$ (4)	$ —
International defined benefit pension plans:			
Net (gain) loss	**$ (95)**	$ (51)	$ 74
Amortization of net actuarial loss	**(8)**	(17)	(14)
U.K. pension settlement expense	**(137)**	—	—
Foreign Exchange	**(39)**	(11)	19
(Gains) losses recognized in other comprehensive income (loss)	**$ (279)**	$ (79)	$ 79
Total (gains) losses recognized in other comprehensive income (loss)	**$ (279)**	$ (83)	$ 79
Total (gains) losses recognized in comprehensive income	**$ (114)**	$ (52)	$ 110

The components of net periodic benefit cost for other post-retirement employee benefit plans are as follows:

	Year Ended December 31,		
(in millions)	**2022**	2021	2020
Interest cost	**1**	1	2
Amortization of prior service credit	**(2)**	(2)	(3)
Amortization of net actuarial loss	**1**	2	2
Net periodic benefit cost	**$ —**	$ 1	$ 1

Other changes in benefit obligations recognized in other comprehensive income (loss), as they pertain to other post-retirement employee benefit plans are as follows:

(in millions)	Year Ended December 31, 2022	2021	2020
Net loss (gain)	**$ (9)**	$ —	$ 1
Prior service credit	**—**	—	(5)
Amortization of prior service credit	**2**	3	3
Amortization of net actuarial loss	**(1)**	(2)	(2)
Losses (gains) recognized in other comprehensive income (loss)	**$ (8)**	$ 1	$ (3)
Total losses (gains) recognized in comprehensive income	**$ (8)**	$ 2	$ (2)

Assumptions

The following table provides the weighted-average assumptions used to determine projected benefit obligations and net periodic benefit cost, as they pertain to our pension plans.

	2022		2021		2020	
	U.S.	Int'l	U.S.	Int'l	U.S.	Int'l
Benefit Obligation Assumptions						
Discount rate	**5.25 %**	**4.13 %**	3.00 %	1.55 %	2.50 %	1.06 %
Rate of future compensation increase	**NM**	**2.79 %**	NM	2.84 %	NM	2.79 %
Net Periodic Benefit Cost Assumptions						
Discount rate	**3.00 %**	**1.55 %**	2.50 %	1.06 %	3.25 %	1.80 %
Expected long-term return on plan assets	**5.50 %**	**2.79 %**	6.50 %	2.60 %	6.50 %	2.82 %
Rate of future compensation increase	**NM**	**2.84 %**	NM	2.79 %	NM	2.94 %

NM Not meaningful. The pension benefits for future service for all the U.S. pension plans are based on years of service and not impacted by future compensation increases.

Management develops each assumption using relevant company experience in conjunction with market-related data for each individual country in which plans exist. Assumptions are reviewed annually and adjusted as necessary.

The expected long-term rate of return on assets reflects the expected returns for each major asset class in which the plans hold investments, the weight of each asset class in the target mix, the correlations among asset classes and their expected volatilities. The assets of the pension plans are held by a number of independent trustees, managed by several investment institutions and are accounted for separately in the Company's pension funds.

Our expected return on plan assets is estimated by evaluating both historical returns and estimates of future returns. Specifically, we analyze the plans' actual historical annual return on assets, net of fees, over the past 15, 20 and 25 years; we estimate future returns based on independent estimates of asset class returns; and we evaluate historical broad market returns over long-term timeframes based on our asset allocation range. For the U.S. Master Trust which has existed since 2011, historical returns were estimated using a constructed portfolio that reflects the Company's strategic asset allocation and the historical compound geometric returns of each asset class for the longest time period available. Based on this approach, the weighted average expected long-term rate of return for all of our plan assets to be used in determining net periodic benefit costs for 2023 is estimated at 5.90%.

Investment Policy

The investment strategy for managing worldwide post-retirement benefit plan assets is to seek an optimal rate of return relative to an appropriate level of risk for each plan. Investment strategies vary by plan, depending on the specific characteristics of the plan, such as plan size and design, funded status, liability profile and legal requirements. In general, the plans are managed closely to their strategic allocations.

The following table provides the actual asset allocations of plan assets as of December 31, 2022 and 2021, and the related asset target allocation ranges by asset category:

	2022	2021	Target Allocation Ranges
Equity securities	**47.1 %**	23.0 %	35-75%
Fixed income	**43.9 %**	21.9 %	45-70%
Cash, insurance contracts and other	**9.0 %**	55.1 %	0-15%

Fair Value of Plan Assets

In measuring plan assets at fair value, the fair value hierarchy is applied which categorizes and prioritizes the inputs used to estimate fair value into three levels. See Note 1, "Summary of Significant Accounting Policies" for further detail on fair value hierarchy.

In certain instances, fair value is estimated using quoted market prices obtained from external pricing services. In obtaining such data from the pricing service, we have evaluated the methodologies used to develop the estimate of fair value in order to assess whether such valuations are representative of fair value, including NAV.

The following is a description of the valuation methodologies and inputs used to measure fair value for major categories of investments.

- Equity securities — Equities (including common and preferred shares, domestic listed and foreign listed and closed end mutual funds) are generally valued at the closing price reported on the major market on which the individual securities are traded at the measurement date. Equity securities and mutual funds held by the Company that are publicly traded in active markets are classified within Level 1 of the fair value hierarchy. Those equities that are held in proprietary funds pooled with other investor accounts and collective trust funds measured at fair value using the NAV per share practical expedient are not classified in the fair value hierarchy.
- Fixed income — Government securities are generally valued using quoted prices of securities with similar characteristics. Corporate bonds are generally valued by using pricing models, quoted prices of securities with similar characteristics or broker quotes and are classified in Level 2. Fixed income securities held in proprietary funds pooled with other investor accounts and collective trust funds measured at fair value using the NAV per share practical expedient are not classified in the fair value hierarchy. Hedging instruments are collateralized daily with either cash or government bonds, have daily liquidity and pricing based on observable inputs from over-the-counter markets, and are classified as Level 2.
- Insurance contracts and other — Primarily comprised of insurance contracts held by foreign plans. Insurance contracts are valued on an insurer pricing basis calculated at purchase price adjusted for changes in discount rates and other actuarial assumptions or contract value, which approximates fair value. Insurance contracts are generally classified as Level 3.
- Cash — Cash and cash equivalents are held in accounts with brokers or custodians, available on demand, for liquidity and investment collateral and are classified as Level 1.

The following table provides the fair value of plan assets held by our pension benefit plans by asset class:

(in millions)	2022 Level 1	2022 Level 2	2022 Level 3	2022 NAV Practical Expedient	2022 Total	2021 Level 1	2021 Level 2	2021 Level 3	2021 NAV Practical Expedient	2021 Total
Equity securities										
Global stock funds/securities	**$ 37**	**$ 51**	**$ —**	**$ 9**	**$ 97**	$ 43	$ 71	$ —	$ 14	$ 128
Diversified growth and income funds	**—**	**—**	**—**	**19**	**19**	—	—	—	28	28
Fixed income										
Corporate bonds	**1**	**67**	**—**	**5**	**73**	1	92	—	7	100
Government bonds	**—**	**13**	**—**	**18**	**31**	—	17	—	27	44
Hedging instruments	**—**	**4**	**—**	**—**	**4**	—	5	—	—	5
Insurance contracts and other	**—**	**—**	**20**		**20**	—	—	368	—	368
Cash & cash equivalents	**2**	**—**	**—**	**—**	**2**	6	—	—	—	6
Total plan assets subject to leveling	**$ 40**	**$ 135**	**$ 20**	**$ 51**	**$ 246**	$ 50	$ 185	$ 368	$ 76	$ 679

The following table presents a reconciliation of the beginning and ending balances of fair value measurement within our pension plans using significant unobservable inputs (Level 3):

(in millions)	**Insurance Contracts and Other**
Balance, December 31, 2020	$ 384
Purchases, sales, settlements, net	(8)
Actual return on plan assets	(6)
Currency impact	(2)
Balance, December 31, 2021	368
Purchases, sales, settlements, net	(210)
Actual return on plan assets	(99)
Currency impact	(39)
Balance, December 31, 2022	**$ 20**

Contributions and Estimated Future Benefit Payments

Funding requirements under governmental regulations are a significant consideration in making contributions to our post-retirement plans. We made contributions of $19 million and $29 million to our pension and post-retirement defined benefit plans during 2022 and 2021, respectively. We currently anticipate making contributions to our pension and post-retirement defined benefit plans in the range of $18 million to $26 million during 2023, of which approximately $5 million is expected to be made in the first quarter.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid as follows:

(in millions)	Pension	Other Benefits
2023	$ 27	$ 3
2024	27	3
2025	27	3
2026	28	3
2027	28	3
Years 2026 - 2030	147	11

Note 16. Share-Based Compensation Plans

Our share-based compensation program is a broad-based program designed to attract and retain employees while also aligning employees' interests with the interests of our shareholders. In addition, members of our Board of Directors participate in our share-based compensation program in connection with their service on our board. Share-based awards issued to employees include non-qualified stock options, restricted stock unit awards and performance share unit awards. Under the 2011 Omnibus Incentive Plan, the number of shares initially available for awards was 18 million. On November 18, 2022, there were an additional 3.2 million of shares registered for issuance under this plan but does not increase the total pool of 18 million. As of December 31, 2022, there were approximately 7 million shares of common stock available for future awards.

Total share-based compensation costs recognized for 2022, 2021 and 2020 were $37 million, $33 million, and $26 million, respectively. The unamortized compensation expense at December 31, 2022 related to our stock options, restricted share units and performance share units was $7 million, $26 million and $13 million, respectively, and is expected to be recognized over a weighted average period of 1.7, 1.8 and 2.1 years, respectively.

The amount of cash received from the exercise of stock options was $8 million, $19 million and $20 million for 2022, 2021 and 2020 with a tax benefit of $3 million, $6 million and $13 million realized associated with stock option exercises and vesting of restricted stock units, respectively. We classify as an operating activity the cash flows attributable to excess tax benefits arising from stock option exercises and restricted stock unit vestings.

Stock Option Grants

Options are awarded with a contractual term of 10 years and generally vest over a three-year period and are exercisable within the contractual term, except in certain instances of termination due to death, retirement, disability and other limited circumstances in accordance with the terms of the grant agreements. The exercise price per share is the fair market value of the underlying common stock on the date each option is awarded. At December 31, 2022, there were options to purchase an aggregate of 1.9 million shares of common stock. The following is a summary of the changes in outstanding stock options for 2022:

	Share units (in thousands)	**Weighted Average Exercise Price / Share**	**Weighted Average Remaining Contractual Term (Years)**	**Aggregate Intrinsic Value** (in millions)
Outstanding at January 1, 2022	1,827	$ 64.12	6.1	
Granted	323	87.72		
Exercised	(131)	60.07		
Forfeited and expired	(84)	82.35		
Outstanding at December 31, 2022	**1,935**	**$ 67.55**	**5.9**	**$ 83**
Options exercisable at December 31, 2022	**1,342**	**$ 58.69**	**4.7**	**$ 70**
Vested and non-vested expected to vest as of December 31, 2022	**1,889**	**$ 67.03**	**5.6**	**$ 82**

The amount of non-vested options outstanding was 0.6 million, 0.7 million and 0.7 million at a weighted average grant date share price of $87.62, $84.66 and $74.00 as of December 31, 2022, 2021 and 2020, respectively. The total intrinsic value of options exercised (which is the amount by which the stock price exceeded the exercise price of the options on the date of exercise) during 2022, 2021 and 2020 was $4 million, $27 million and $20 million, respectively.

The fair value of each option grant was estimated on the date of grant using the binomial lattice pricing model which incorporates multiple and variable assumptions over time, including assumptions such as employee exercise patterns, stock price volatility and changes in dividends. The following are weighted-average assumptions used for 2022, 2021, and 2020:

	2022	2021	2020
Dividend yield	**1.37 %**	1.10 %	1.42 %
Volatility	**26.25 %**	26.29 %	24.16 %
Risk-free interest rate	**1.74 %**	0.86 %	0.83 %
Expected term (in years)	**5.6**	5.7	5.8
Weighted-average fair value per option	**$ 20.38**	$ 23.26	$ 14.84

Expected volatility is calculated based on an analysis of historic volatility measures for Xylem. We use historical data to estimate option exercise and employee termination behavior within the valuation model. Employee groups and option characteristics are considered separately for valuation purposes. The expected term represents an estimate of the period of time options are expected to remain outstanding. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of option grant.

Restricted Stock Unit Grants

Restricted stock units awarded to employees vest over a three-year period. Prior to the time a restricted unit becomes fully vested, the awardees cannot transfer, pledge or encumber such units. Prior to the time a restricted unit is fully vested, the awardees do not have certain rights of a stockholder, such as the right to vote and receive dividends; however, dividends accrue during the vesting period and are paid upon vesting. If an employee leaves prior to vesting, whether through resignation or termination for cause, the restricted stock unit and related accrued dividends are forfeited. If an employee retires, a pro-rata portion of the restricted stock unit may vest in accordance with the terms of the grant agreements. Restricted stock units awarded to Board members become fully vested upon the day prior to the next annual meeting. The fair value of the restricted stock unit awards is determined using the closing price of our common stock on date of grant.

The following is a summary of the changes in outstanding restricted stock units for 2022:

	Share Units (in thousands)		Weighted Average Grant Date Fair Value / Share
Outstanding at January 1, 2022	484	$	88.47
Granted	349		87.01
Vested	(231)		84.75
Forfeited	(49)		90.99
Outstanding at December 31, 2022	**553**	**$**	**88.88**

Performance Share Units

Performance share units awarded under the long-term incentive plan vest based upon performance by the Company over a three-year period against targets approved by the Leadership Development & Compensation Committee of the Company's Board of Directors prior to the grant date. For the performance periods, the performance share units were awarded at a target of 100% with actual payout contingent upon the achievement of a pre-set, three-year adjusted ROIC performance target for ROIC performance share units, a pre-set third year revenue target for Revenue performance share units and a relative TSR performance for TSR performance share units. The calculated compensation cost for ROIC and Revenue performance share units is adjusted based on an estimate of awards ultimately expected to vest and our assessment of the probable outcome of the performance condition.

ROIC Performance Share Unit Grants

The fair value of the ROIC performance share unit awards is determined using the closing price of our common stock on date of grant.

The following is a summary of the changes in outstanding ROIC performance share units for 2022:

	Share units (in thousands)		Weighted Average Grant Date Fair Value / Share
Outstanding at January 1, 2022	177	$	84.84
Granted	35		86.77
Forfeited	(66)		77.15
Outstanding at December 31, 2022	**146**	**$**	**88.78**

Revenue Performance Share Unit Grants

The fair value of the Revenue performance share unit awards is determined using the closing price of our common stock on date of grant.

The following is a summary of our Revenue performance share unit grants for 2022:

	Share units (in thousands)		Weighted Average Grant Date Fair Value / Share
Outstanding at January 1, 2022	—	$	—
Granted	35		86.77
Forfeited	(3)		86.76
Outstanding at December 31, 2022	**32**	**$**	**86.77**

TSR Performance Share Unit Grants

The following is a summary of the changes in outstanding TSR performance share units for 2022:

	Share units (in thousands)	Weighted Average Grant Date Fair Value / Share
Outstanding at January 1, 2022	177	$ 102.96
Granted	70	71.18
Adjustment for Market Condition Achieved (a)	22	89.62
Vested	(75)	89.62
Forfeited	(16)	89.04
Outstanding at December 31, 2022	**178**	**$ 100.67**

(a) Represents an increase in the number of original TSR performance share units awarded based on the final market condition achievement at the end of the performance period of such awards. The fair value of TSR performance share units were calculated on the date of grant using a Monte Carlo simulation model utilizing several key assumptions, including expected Company and peer company share price volatility, correlation coefficients between peers, the risk-free rate of return, the expected dividend yield and other award design features. The following are weighted-average key assumptions for 2022 grants.

	2022	2021	2020
Volatility	**33.3 %**	33.5 %	22.6 %
Risk-free interest rate	**1.44 %**	0.24 %	1.08 %

ESG Performance Share Unit Grants
During the first quarter of 2021, we issued a special grant of less than 0.1 million ESG performance share units. The shares will vest on March 1, 2026 based on our performance as of December 31, 2025 against certain of the Company's 2025 sustainability goals.

Note 17. Capital Stock

The Company has the authority to issue an aggregate of 750 million shares of common stock having a par value of $0.01 per share. The stockholders of Xylem common stock are entitled to receive dividends as declared by the Xylem Board of Directors. Dividends declared were $1.20, $1.12 and $1.04 during 2022, 2021 and 2020, respectively.

The changes in shares of common stock outstanding for the three years ended December 31 are as follows:

(share units in thousands)	**2022**	2021	2020
Beginning Balance, January 1	**180,392**	180,354	180,140
Stock incentive plan net activity	**437**	716	986
Repurchase of common stock	**(576)**	(678)	(772)
Ending Balance, December 31	**180,253**	180,392	180,354

For the years ended December 31, 2022 and December 31, 2021 the Company repurchased 0.6 million shares of common stock for $52 million and repurchased 0.7 million shares of common stock for $68 million, respectively. Repurchases include both share repurchase programs approved by the Board of Directors and repurchases in relation to settlement of employee tax withholding obligations due as a result of the vesting of restricted stock units. The detail of repurchases by each program are as follows:

On August 24, 2015, our Board of Directors authorized the repurchase of up to $500 million in shares with no expiration date. The program's objective is to deploy our capital in a manner that benefits our stockholders and maintains our focus on growth. For the year ended December 31, 2022 we repurchased 0.5 million shares for $46 million. For the year ended December 31, 2021 we repurchased 0.6 million shares for $60 million. There are up to $182 million in shares that may still be purchased under this plan as of December 31, 2022.

Aside from the aforementioned repurchase programs, we repurchased approximately 0.1 million and 0.1 million shares for $6 million and $8 million during 2022 and 2021, respectively, in relation to settlement of employee income tax withholding obligations due as a result of the vesting of restricted stock units. These repurchases are included in the stock incentive plan net activity in the above table.

Note 18. Accumulated Other Comprehensive Loss

The following table provides the components of accumulated other comprehensive loss for 2022, 2021 and 2020:

(in millions)	Foreign Currency Translation	Post-retirement Benefit Plans	Derivative Instruments	Total
Balance at January 1, 2020	(103)	(269)	(3)	(375)
Foreign currency translation adjustment	(22)			(22)
Income tax impact on foreign currency translation adjustment	39			39
Changes in post-retirement benefit plans		(73)		(73)
Foreign currency translation adjustment for post-retirement benefit plans		(19)		(19)
Income tax expense on changes in post-retirement benefit plans, including settlement		18		18
Amortization of prior service cost and net actuarial loss on post-retirement benefit plans into other non-operating income (expense), net		16		16
Income tax impact on amortization of post-retirement benefit plan items		(3)		(3)
Unrealized loss on derivative hedge agreements			9	9
Reclassification of unrealized gain on foreign exchange agreements into revenue			(4)	(4)
Reclassification of unrealized (gain) loss on foreign exchange agreements into cost of revenue			1	1
Balance at December 31, 2020	(86)	(330)	3	(413)
Foreign currency translation adjustment	20			20
Income tax impact on foreign currency translation adjustment	(35)			(35)
Changes in post-retirement benefit plans		51		51
Foreign currency translation adjustment for post-retirement benefit plans		11		11
Income tax expense on changes in post-retirement benefit plans		(15)		(15)
Amortization of prior service cost and net actuarial loss on post-retirement benefit plans into other non-operating income (expense), net		20		20
Income tax impact on amortization of post-retirement benefit plan items		(5)		(5)
Unrealized gain on derivative hedge agreements			(10)	(10)
Tax on unrealized gain on derivative hedge agreements			1	1
Reclassification of unrealized gain on foreign exchange agreements into revenue			4	4
Balance at December 31, 2021	$ (101)	$ (268)	$ (2)	$ (371)
Foreign currency translation adjustment	**(53)**			**(53)**
Income tax impact on foreign currency translation adjustment	**(26)**			**(26)**
Changes in post-retirement benefit plans		**101**		**101**

(in millions)	Foreign Currency Translation	Post-retirement Benefit Plans	Derivative Instruments	Total
U.K. pension settlement		**137**		**137**
Foreign currency translation adjustment for post-retirement benefit plans		**39**		**39**
Income tax expense on changes in post-retirement benefit plans, including settlement		**(58)**		**(58)**
Amortization of prior service cost and net actuarial loss on post-retirement benefit plans into other non-operating income (expense), net		**10**		**10**
Income tax impact on amortization of post-retirement benefit plan items		**(2)**		**(2)**
Unrealized gain on derivative hedge agreements			**(24)**	**(24)**
Tax on unrealized gain on derivative hedge agreements			**—**	**—**
Reclassification of unrealized gain on foreign exchange agreements into revenue			**19**	**19**
Reclassification of unrealized gain on foreign exchange agreements into cost of revenue			**2**	**2**
Balance at December 31, 2022	**(180)**	**(41)**	**(5)**	**(226)**

Note 19. Commitments and Contingencies

Legal Proceedings

From time to time, we are involved in legal and regulatory proceedings that are incidental to the operation of our businesses (or the business operations of previously-owned entities). These proceedings may seek remedies relating to matters including environmental, tax, intellectual property, acquisitions or divestitures, product liability, property damage, personal injury, privacy, employment, labor and pension, government contract issues and commercial or contractual disputes.

See Note 6 "Income Taxes" of our consolidated financial statements for a description of a pending tax litigation matter.

Although the ultimate outcome of any legal matter cannot be predicted with certainty, based on present information, including our assessment of the merits of the particular claims, we do not believe it is reasonably possible that any asserted or unasserted legal claims or proceedings, individually or in aggregate, will have a material adverse effect on our results of operations, or financial condition.

We have estimated and accrued $5 million and $4 million as of December 31, 2022 and 2021, respectively, for these general legal matters.

Guarantees

We obtain certain stand-by letters of credit, bank guarantees, surety bonds and insurance letters of credit from third-party financial institutions in the ordinary course of business when required under contracts or to satisfy insurance related requirements. As of December 31, 2022 and 2021, the amount of surety bonds, bank guarantees, insurance letters of credit and stand-by letters of credit was $451 million and $415 million, respectively.

Environmental

In the ordinary course of business, we are subject to federal, state, local, and foreign environmental laws and regulations. We are responsible, or are alleged to be responsible, for ongoing environmental investigation and remediation of sites in various countries. These sites are in various stages of investigation and/or remediation and in many of these proceedings our liability is considered de minimis. We have received notification from the U.S. Environmental Protection Agency, and from similar state and foreign environmental agencies, that a number of sites formerly or currently owned and/or operated by Xylem and other properties or water supplies that may be or have been impacted from those operations, contain disposed or recycled materials or wastes and require environmental investigation and/or remediation. These sites include instances where we have been identified as a potentially responsible party under federal and state environmental laws and regulations.

Accruals for environmental matters are recorded on a site-by-site basis when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, based on current law and existing technologies. Our accrued liabilities for these environmental matters represent our best estimates related to the investigation and remediation of environmental media such as water, soil, soil vapor, air and structures, as well as related legal fees. These estimates, and related accruals, are reviewed quarterly and updated for progress of investigation and remediation efforts and changes in facts and legal circumstances. Liabilities for these environmental expenditures are recorded on an undiscounted basis. We have estimated and accrued $4 million and $3 million as of December 31, 2022 and 2021, respectively, for environmental matters.

It is difficult to estimate the final costs of investigation and remediation due to various factors, including incomplete information regarding particular sites and other potentially responsible parties, uncertainty regarding the extent of investigation or remediation and our share, if any, of liability for such conditions, the selection of alternative remedial approaches, and changes in environmental standards and regulatory requirements. We believe the total amount accrued is reasonable based on existing facts and circumstances.

Warranties

We warrant numerous products, the terms of which vary widely. In general, we warrant products against defect and specific non-performance. Warranty expense was $24 million, $27 million, and $57 million for 2022, 2021 and 2020, respectively. The table below provides changes in the combined current and non-current product warranty accruals over each period.

(in millions)	**2022**	2021	2020
Warranty accrual – January 1	**$ 57**	$ 65	$ 41
Net charges for product warranties in the period	**24**	27	57
Settlement of warranty claims	**(25)**	(32)	(34)
Foreign currency and other	**(2)**	(3)	1
Warranty accrual – December 31	**$ 54**	$ 57	$ 65

Note 20. Related Party Transactions

Sales to and purchases from unconsolidated entities for 2022, 2021 and 2020 are as follows:

(in millions)	**2022**	2021	2020
Sales to unconsolidated affiliates	**$ 1**	$ 1	$ 10
Purchases from unconsolidated affiliates	**16**	18	16

Note 21. Segment and Geographic Data

Our business has three reportable segments: Water Infrastructure, Applied Water and Measurement & Control Solutions. When determining the reportable segments, the Company aggregated operating segments based on their similar economic and operating characteristics. The Water Infrastructure segment focuses on the transportation and treatment of water, offering a range of products including water, wastewater and storm water pumps, treatment equipment, and controls and systems. The Applied Water segment serves many of the primary uses of water and focuses on the residential, commercial and industrial markets. The Applied Water segment's major products include pumps, valves, heat exchangers, controls and dispensing equipment. The Measurement & Control Solutions segment focuses on developing advanced technology solutions that enable intelligent use and conservation of critical water and energy resources as well as analytical instrumentation used in the testing of water. The Measurement & Control Solutions segment's major products include smart metering, networked communications, measurement and control technologies, critical infrastructure technologies, software and services including cloud-based analytics, remote monitoring and data management, leak detection and pressure monitoring solutions and testing equipment.

Additionally, we have Regional selling locations, which consist primarily of selling and marketing organizations and related support services, that offer products and services across our reportable segments. Corporate and other consists of corporate office expenses including compensation, benefits, occupancy, depreciation, and other administrative costs, as well as charges related to certain matters, such as environmental matters, that are managed at a corporate level and are not included in the business segments in evaluating performance or allocating resources.

The accounting policies of each segment are the same as those described in the summary of significant accounting policies (see Note 1, "Summary of Significant Accounting Policies"). The following tables contain financial information for each reportable segment:

(in millions)	Year Ended December 31, 2022		2021		2020	
Revenue:						
Water Infrastructure	**$**	**2,364**	$	2,247	$	2,079
Applied Water		**1,767**		1,613		1,434
Measurement & Control Solutions		**1,391**		1,335		1,363
Total	**$**	**5,522**	$	5,195	$	4,876
Operating income:						
Water Infrastructure	**$**	**418**	$	387	$	318
Applied Water		**258**		240		205
Measurement & Control Solutions		**2**		12		(106)
Corporate and other		**(56)**		(54)		(50)
Total operating income		**622**		585		367
Interest expense		**50**		76		77
U.K. pension settlement expense		**140**		—		—
Other non-operating (expense) income, net		**7**		—		(5)
Gain on sale of businesses		**1**		2		—
Income before taxes	**$**	**440**	$	511	$	285
Depreciation and amortization:						
Water Infrastructure	**$**	**53**	$	51	$	57
Applied Water		**19**		22		24
Measurement & Control Solutions		**137**		145		142
Regional selling locations (a)		**19**		20		20
Corporate and other		**8**		7		8
Total	**$**	**236**	$	245	$	251
Capital expenditures:						
Water Infrastructure	**$**	**71**	$	74	$	48
Applied Water		**21**		22		18
Measurement & Control Solutions		**77**		79		90
Regional selling locations (b)		**23**		25		22
Corporate and other		**16**		8		5
Total	**$**	**208**	$	208	$	183

(a) Depreciation and amortization expense incurred by the Regional selling locations was included in an overall allocation of Regional selling location costs to the segments; however, a certain portion of that expense was not specifically identified to a segment. That expense is captured in this Regional selling location line.

(b) Represents capital expenditures incurred by the Regional selling locations not allocated to the segments.

The following table illustrates revenue by product category, net of intercompany revenue:

	Year Ended December 31,		
(in millions)	**2022**	2021	2020
Pumps, accessories, parts and service	**$ 3,728**	$ 3,442	$ 3,120
Other (a)	**1,794**	1,753	1,756
Total	**$ 5,522**	$ 5,195	$ 4,876

(a) Other includes treatment equipment, analytical instrumentation, heat exchangers, valves, controls and smart meters.

The following table contains the total assets for each reportable segment as of December 31, 2022, 2021 and 2020:

	Total Assets		
(in millions)	**2022**	2021	2020
Water Infrastructure	**$ 1,302**	$ 1,289	$ 1,255
Applied Water	**1,132**	1,093	1,005
Measurement & Control Solutions	**3,126**	3,198	3,345
Regional selling locations (a)	**844**	1,503	1,413
Corporate and other (b)	**1,548**	1,193	1,732
Total	**$ 7,952**	$ 8,276	$ 8,750

(a) The Regional selling locations have assets that consist primarily of cash, accounts receivable and inventory which are not allocated to the segments.

(b) Corporate and other consists of items pertaining to our corporate headquarters function, which principally consist of cash and pension assets.

Geographical Information

Revenue is attributed to countries based upon the location of the customer. Property, Plant & Equipment is attributed to countries based upon the location of the assets:

	Revenue		
	Year Ended December 31,		
(in millions)	**2022**	2021	2020
United States	**$ 2,573**	$ 2,280	$ 2,297
Western Europe	**1,411**	1,414	1,259
Emerging Markets	**1,074**	1,066	919
Other	**464**	435	401
Total	**$ 5,522**	$ 5,195	$ 4,876

	Property, Plant & Equipment		
	December 31,		
(in millions)	**2022**	2021	2020
United States	**$ 239**	$ 251	$ 253
Western Europe	**227**	231	235
Emerging Markets	**133**	132	139
Other	**31**	30	30
Total	**$ 630**	$ 644	$ 657

Note 22. Valuation and Qualifying Accounts

The table below provides changes in the allowance for credit losses over each period:

(in millions)	2022	2021	2020
Balance at beginning of year	**$ 35**	$ 38	$ 25
Additions charged to expense	**5**	2	25
Deductions/other	**(6)**	(5)	(12)
Balance at end of year	**$ 34**	$ 35	$ 38

Note 23. Subsequent Events

As previously announced on January 23, 2023, Xylem entered into a definitive agreement under which Xylem will acquire Evoqua in an all-stock transaction that reflects an implied enterprise value of approximately $7.5 billion. Evoqua shareholders will receive 0.480 shares of Xylem for each Evoqua share and upon closing, Xylem shareholders will own approximately 75 percent and Evoqua shareholders will own approximately 25 percent of the combined company on a fully diluted basis. The transaction, which is anticipated to close in mid-2023, is subject to approval by shareholders of Xylem and Evoqua, the receipt of required regulatory approvals and other customary closing conditions.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") of the Company, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the year ended December 31, 2022 pursuant to Rule 13a-15(b) and 15d-15(e) of the Securities Exchange Act of 1934 (“the Exchange Act”). Based upon that evaluation, our CEO and our CFO concluded that our disclosure controls and procedures as of the year ended December 31, 2022 were effective, in all material respects, and designed to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms and (2) accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosures.

Management's Annual Report on Internal Control Over Financial Reporting

As required by the SEC's rules and regulations for the implementation of Section 404 of the Sarbanes-Oxley Act, the Company's 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 Exchange Act. 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 management, including the CEO and CFO, conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2022 based on the framework established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organization of the Treadway Commission (2013). This assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of those controls. Based on our assessment, the Company's management has concluded that our internal control over financial reporting was effective as of December 31, 2022.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2022 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which appears following Item 9C of this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the 1934 Act) during the fiscal quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Xylem Inc.

Opinion on Internal Control over Financial Reporting

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

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 24, 2023, expressed an unqualified opinion on those financial statements.

Basis for Opinion

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ Deloitte & Touche LLP

Stamford, Connecticut
February 24, 2023

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item is incorporated herein by reference to the information in our Definitive Proxy Statement to be filed with the SEC in connection with our 2023 Annual Meeting of Shareholders (the “2023 Proxy Statement”) under the captions “Proposal 1 - Election of Directors,” "Board Composition and Refreshment," "Board Committees - Audit Committee," and "Audit Committee Report."

The information called for by Item 10 with respect to executive officers is set forth in Part I of this Report under the caption “Information about our Executive Officers” and is incorporated by reference in this section.

We have adopted Corporate Governance Principles and charters for each of our Board committees. The Corporate Governance Principles address director qualification standards, responsibilities, access to management and independent advisors, compensation, orientation and continuing education, succession planning and board and committee assessment. The Corporate Governance Principles and Board committee charters are available on the Company’s website at *www.xylem.com/en-us/investors/governance/*. A copy of the Corporate Governance Principles and Board committee charters are also available to any shareholder who requests a copy from the Company’s Corporate Secretary at our Principal Executive Offices.

We have also adopted a written Code of Conduct that is applicable to all of our directors, officers and employees, including the Company’s CEO and CFO and other executive officers identified pursuant to this Item 10. In accordance with the SEC’s rules and regulations, a copy of the Code of Conduct has been posted to our website and it is also available to any shareholder who requests a copy from the Company's Corporate Secretary at our Principal Executive Offices. We intend to disclose any amendments to our Code of Conduct and any waivers of the Code of Conduct on our website at *www.xylem.com* within four business days following the date of the amendment or waiver.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated herein by reference to the information in our 2023 Proxy Statement set forth under captions “Compensation Discussion and Analysis," "Director Compensation," "Board Committees - Leadership Development and Compensation Committee" and “Leadership Development and Compensation Committee Report.”

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

The information required by this Item is incorporated herein by reference to the information in our 2023 Proxy Statement set forth under the captions “Stock Ownership - Certain Beneficial Owners," "Stock Ownership - Directors and Named Executive Officers" and "Equity Compensation Plan Information."

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

The information required by this Item is incorporated herein by reference to the information in our 2023 Proxy Statement set forth under the captions "Corporate Governance - Director Independence" and “Corporate Governance Policies and Practices - Related Party Transactions.”

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is incorporated herein by reference to the information in our 2023 Proxy Statement set forth under the captions “Proposal 2 - Fees of Audit and Other Services” and "Proposal 2 - Pre-Approval of Audit and Non-Audit Services."

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) (1) The Index to Consolidated Financial Statements of the Registrant under Item 8 of this Report is incorporated herein by reference as the list of Financial Statements required as part of this Report.

(2) Financial Statement Schedules — All financial statement schedules have been omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

(3) Exhibits — See exhibits listed under Part (b) below.

EXHIBIT INDEX

Exhibit Number	Description	Location
2.1	Distribution Agreement, dated as of October 25, 2011, among ITT Corporation, Exelis Inc. and Xylem Inc.	Incorporated by reference to Exhibit 10.1 of ITT Corporation's Form 10-Q Quarterly Report filed on October 28, 2011 (CIK No. 216228, File No. 1-5672).
2.2	Agreement and Plan of Merger, dated as of January 22, 2023, among Xylem Inc., Fore Merger Sub, Inc. and Evoqua Water Technologies Corp.	Incorporated by reference to Exhibit 2.1 of Xylem Inc.'s Form 8-K filed on January 23, 2023 (CIK No. 1524472), File No. 1-35229)
3.1	Fourth Amended and Restated Articles of Incorporation of Xylem Inc.	Incorporated by reference to Exhibit 3.1 of Xylem Inc.'s Form 8-K filed on May 15, 2017 (CIK No. 1524472, File No. 1-35229).
3.2	Fifth Amended and Restated By-laws of Xylem Inc.	Incorporated by reference to Exhibit 3.1 of Xylem Inc.'s Form 8-K filed on November 15, 2022 (CIK No. 1524472, File No. 1-35229).
4.1	Description of securities registered under Section 12 of the Exchange Act	Filed herewith.
4.2	Indenture, dated as of September 20, 2011, between Xylem Inc., ITT Corporation, as initial guarantor, and Union Bank, N.A., as trustee.	Incorporated by reference to Exhibit 4.2 of ITT Corporation's Form 8-K filed on September 21, 2011 (CIK No. 216228, File No. 1-5672).
4.3	Senior Indenture, dated March 11, 2016, by and between the Company and Deutsche Bank Trust Company Americas, as trustee.	Incorporated by reference to Exhibit 4.1 of Xylem Inc.'s Form 8-K filed on March 11, 2016 (CIK No. 1524472, File No. 1-35229).
4.4	First Supplemental Indenture, dated March 11, 2016, by and between the Company and Deutsche Bank Trust Company Americas, as trustee.	Incorporated by reference to Exhibit 4.2 of Xylem Inc.'s Form 8-K filed on March 11, 2016 (CIK No. 1524472, File No. 1-35229)
4.5	Third Supplemental Indenture, dated October 11, 2016, by and between the Company and Deutsche Bank Trust Company Americas, as trustee.	Incorporated by reference to Exhibit 4.1 of Xylem Inc.'s Form 8-K filed on October 11, 2016 (CIK No. 1524472, File No. 1-35229).
4.6	Fourth Supplemental Indenture, dated June 26, 2020, by and between the Company and Deutsche Bank Trust Company Americas, as trustee.	Incorporated by reference to Exhibit 4.1 of Xylem Inc.'s Form 8-K filed on June 26, 2020 (CIK No. 1524472, File No. 1-35229
4.7	Form of Xylem Inc. 3.250% Senior Notes due 2026.	Incorporated by reference to Exhibit 4.1 of Xylem Inc.'s Form 8-K filed on October 11, 2016 (CIK No. 1524472, File No. 1-35229).
4.8	Form of 1.950% Senior Notes due 2028.	Incorporated by reference to Exhibit 4.1 of Xylem Inc.'s Form 8-K filed on June 26, 2020 (CIK 1524472, File No. 1-35229)

Exhibit Number		Description	Location
4.9		Form of 2.250% Senior Notes due 2031.	Incorporated by reference to Exhibit 4.1 of Xylem Inc.'s Form 8-K filed on June 26, 2020 (CIK 1524472, File No. 1-35229)
4.10		Form of Xylem Inc. 4.375% Senior Notes due 2046.	Incorporated by reference to Exhibit 4.1 of Xylem Inc.'s Form 8-K filed on October 11, 2016 (CIK No. 1524472, File No. 1-35229).
10.1	#	Xylem 2011 Omnibus Incentive Plan (Amended and Restated as of February 24, 2016).	Incorporated by reference to Exhibit 10.6 of Xylem Inc.'s Form 10-K Annual Report filed on February 26, 2016 (CIK No. 1524472, File No. 1-35229).
10.2	#	Xylem Retirement Savings Plan.	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on July 30, 2013 (CIK No. 1524472, File No. 1-35229).
10.3	#	Xylem Supplemental Retirement Savings Plan.	Incorporated by reference to Exhibit 10.11 of Xylem Inc.'s Form 10-Q Quarterly Report filed on November 21, 2011 (CIK No. 1524472, File No. 1-35229).
10.4	#	Xylem Deferred Compensation Plan.	Incorporated by reference to Exhibit 10.12 of Xylem Inc.'s Form 10-K Annual Report filed on February 23, 2017 (CIK No. 1524472, File No. 1-35229).
10.5	#	Xylem Annual Incentive Plan for the Senior Leadership Team (formerly "Annual Incentive Plan for Executive Officers") restated, with administrative changes only, on July 11, 2022	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on August 2, 2022 (CIK No. 1524472, File No. 1-35229).
10.6	#	Xylem Special Senior Executive Severance Pay Plan, restated, with administrative changes only, on July 11, 2022	Incorporated by reference to Exhibit 10.15 of Xylem Inc.'s Form 10-Q Quarterly Report filed on August 2, 2022 (CIK No. 1524472, File No. 1-35229).
10.7	#	Xylem Senior Executive Severance Pay Plan (Amended as of May 10, 2017).	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on August 1, 2017 (CIK No. 1524472, File No. 1-35229).
10.8	#	Form of Xylem 2011 Omnibus Incentive Plan Non-Qualified Stock Option Award Agreement (2015).	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-K Annual Report filed on February 26, 2015 (CIK No. 1524472, File No. 1-35229).
10.9	#	Form of Xylem 2011 Omnibus Incentive Plan Non-Qualified Stock Option Award Agreement (2013).	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on April 30, 2013 (CIK No. 1524472, File No. 1-35229).
10.10	#	Form of Xylem Non-Qualified Stock Option Award Agreement (Amended as of February 24, 2016).	Incorporated by reference to Exhibit 10.7 of Xylem Inc.'s Form 10-K Annual Report filed on February 26, 2016 (CIK No. 1524472, File No. 1-35229).
10.11	#	Form of Xylem Restricted Stock Unit Agreement (Amended as of February 21, 2018).	Incorporated by reference to Exhibit 10.31 of Xylem Inc.'s Form 10-K Annual Report filed on February 23, 2018 (CIK No. 1524472, File No. 1-35229).
10.12	#	Form of Xylem Performance Share Unit Agreement (Amended as of February 21, 2018).	Incorporated by reference to Exhibit 10.32 of Xylem Inc.'s Form 10-K Annual Report filed on February 23, 2018 (CIK No. 1524472, File No. 1-35229).
10.13	#	Form of Xylem 2011 Omnibus Incentive Plan Non-Qualified Stock Option Award Agreement (2021).	Incorporated by reference to Exhibit 10.3 of Xylem Inc.'s Form 10-Q Quarterly Report filed on May 4, 2021 (CIK No. 1524472, File No. 1-35229).
10.14	#	Form of 2011 Omnibus Incentive Plan Performance Share Unit Agreement (2021).	Incorporated by reference to Exhibit 10.4 of Xylem Inc.'s Form 10-Q Quarterly Report filed on May 4, 2021 (CIK No. 1524472, File No. 1-35229).
10.15	#	Form of 2011 Omnibus Incentive Plan Restricted Stock Unit Agreement (2021).	Incorporated by reference to Exhibit 10.5 of Xylem Inc.'s Form 10-Q Quarterly Report filed on May 4, 2021 (CIK No. 1524472, File No. 1-35229).

Exhibit Number		Description	Location
10.16	#	Form of 2011 Omnibus Incentive Plan ESG Performance Share Unit Agreement (2021).	Incorporated by reference to Exhibit 10.6 of Xylem Inc.'s Form 10-Q Quarterly Report filed on May 4, 2021 (CIK No. 1524472, File No. 1-35229).
10.17	#	Form of Xylem 2011 Omnibus Incentive Plan Non-Qualified Stock Option Award Agreement for Certain Executives and Executive Officers as Approved by the Leadership Development & Compensation Committee	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on August 3, 2021 (CIK No. 1524472, File No. 1-35229).
10.18	#	Form of 2011 Omnibus Incentive Plan Performance Share Unit Agreement (2022)	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on May 4, 2022 (CIK No. 1524472, File No. 1-35229)
10.19	#	Form of 2011 Omnibus Incentive Plan Restricted Stock Unit Agreement (2022)	Incorporated by reference to Exhibit 10.2 of Xylem Inc.'s Form 10-Q Quarterly Report filed on May 4, 2022 (CIK No. 1524472, File No. 1-35229)
10.20	#	Xylem Deferred Compensation Plan for Non-Employee Directors.	Incorporated by reference to Exhibit 10.13 of Xylem Inc.'s Form 10-Q Quarterly Report filed on November 21, 2011 (CIK No. 1524472, File No. 1-35229).
10.21	#	Form of Non-Employee Director Restricted Stock Unit Award Agreement.	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on July 30, 2015 (CIK No. 1524472, File No. 1-35229).
10.22	#	Form of Director's Indemnification Agreement restated, with administrative changes only, on November 12, 2020.	Incorporated by reference to Exhibit 10.20 of Xylem Inc.'s Form 10-K Annual Report filed on February 26, 2021 (CIK No. 1524472, File No. 1-35229).
10.23	#	Letter Agreement between Xylem Inc. and Patrick K. Decker.	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on April 29, 2014 (CIK No. 1524472, File No. 1-35229).
10.24	#	Letter Agreement between Xylem Inc. and Claudia S. Toussaint.	Incorporated by reference to Exhibit 10.23 of Xylem Inc.'s Form 10-K Annual Report filed on February 26, 2021 (CIK No. 1524472, File No. 1-35229).
10.25	#	Letter Agreement between Xylem Inc. and Sandra E. Rowland.	Incorporated by reference to Exhibit 10.24 of Xylem Inc.'s Form 10-K Annual Report filed on February 26, 2021 (CIK No. 1524472, File No. 1-35229).
10.26	#	Letter Agreement between Xylem Inc. and Matthew Pine.	Incorporated by reference to Exhibit 10.1 of Xylem Inc.'s Form 10-Q Quarterly Report filed on May 4, 2021 (CIK No. 1524472, File No. 1-35229).
10.27	#	Individual Employment Contract between Xylem Europe GmbH and Hayati Yarkadas.	Incorporated by reference to Exhibit 10.2 of Xylem Inc.'s Form 10-Q Quarterly Report filed on May 4, 2021 (CIK No. 1524472, File No. 1-35229).
10.28	#	Separation Agreement between Xylem Inc. and Colin R. Sabol	Incorporated by reference to Exhibit 10.3 of Xylem Inc.'s Form 10-Q Quarterly Report filed on August 2, 2022 (CIK No. 1524472, File No. 1-35229)
10.29		Five-Year Revolving Credit Facility Agreement, dated as of March 5, 2019 among Xylem Inc. and the Lenders party thereto.	Incorporated by reference to Exhibit 10.34 of Xylem Inc.'s Form 8-K filed on March 5, 2019 (CIK No. 1524472, File No. 1-35229).
10.30		Amendment No. 1, dated June 22, 2020, to the Five-Year Revolving Credit Facility Agreement, dated as of March 5, 2019, each among Xylem Inc. and Citibank, N.A., as administrative agent	Incorporated by reference to Exhibit 10.34.1 of Xylem Inc.'s Form 8-K filed on June 23, 2020 (CIK No. 1524472, File No. 1-35229).
21.0		Subsidiaries of the Registrant.	Filed herewith.
23.1		Consent of Independent Registered Public Accounting Firm.	Filed herewith.

Exhibit Number	Description	Location
31.1	Certification pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
31.2	Certification pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	This Exhibit is intended to be furnished in accordance with Regulation S-K Item 601(b) (32) (ii) and shall not be deemed to be filed for purposes of Section 18 of the Securities Exchange Act of 1934 or incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except as shall be expressly set forth by specific reference.
32.2	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	This Exhibit is intended to be furnished in accordance with Regulation S-K Item 601(b) (32) (ii) and shall not be deemed to be filed for purposes of Section 18 of the Securities Exchange Act of 1934 or incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except as shall be expressly set forth by specific reference.
101.0	The following materials from Xylem Inc.'s Annual Report on Form 10-K for the year ended December 31, 2022, formatted in Inline Extensible Business Reporting Language (Inline XBRL): (i) Consolidated Income Statements, (ii) Consolidated Statements of Comprehensive Income, (iii) Consolidated Balance Sheets, (iv) Consolidated Statements of Cash Flows, (v) Consolidated Statement of Stockholder's Equity and (vi) Notes to Consolidated Financial Statements.	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.
104.0	The cover page from Xylem Inc.'s Annual Report on Form 10-K for the year ended December 31, 2022, formatted in Inline XBRL and contained in Exhibit 101.0.	

#Management contract or compensatory plan or arrangement

ITEM 16. FORM 10-K SUMMARY

None

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.

XYLEM INC.
(Registrant)

/s/ Geri McShane
Geri McShane

Vice President, Controller and Chief Accounting Officer

February 24, 2023

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

February 24, 2023	/s/ Patrick K. Decker Patrick K. Decker President and Chief Executive Officer (Principal Executive Officer)
February 24, 2023	/s/ Sandra E. Rowland Sandra E. Rowland Senior Vice President and Chief Financial Officer
February 24, 2023	/s/ Geri McShane Geri McShane Vice President, Controller and Chief Accounting Officer
February 24, 2023	/s/ Robert F. Friel Robert F. Friel, Board Chair
February 24, 2023	/s/ Jeanne Beliveau-Dunn Jeanne Beliveau-Dunn, Director
February 24, 2023	/s/ Victoria D. Harker Victoria D. Harker, Director
February 24, 2023	/s/ Steven R. Loranger Steven R. Loranger, Director
February 24, 2023	/s/ Mark D. Morelli Mark D. Morelli, Director
February 24, 2023	/s/ Jerome A. Peribere Jerome A. Peribere, Director
February 24, 2023	/s/ Markos I. Tambakeras Markos I. Tambakeras, Director
February 24, 2023	/s/ Lila Tretikov Lila Tretikov, Director
February 24, 2023	Uday Yadav, Director

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of December 31, 2022, Xylem, Inc. ("Xylem," "we," "us" or "our") had one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our common stock, par value $0.01 per share (the "common stock").

DESCRIPTION OF COMMON STOCK

We are authorized to issue 750,000,000 shares of common stock and 50,000,000 shares of preferred stock, having no stated par value. No shares of preferred stock are currently outstanding.

The principal stock exchange on which our common stock is listed is the New York Stock Exchange under the symbol "XYL." All outstanding shares of common stock are validly issued, fully paid and nonassessable.

The following description of the terms of our common stock is not complete and is qualified in its entirety by reference to our fourth amended and restated articles of incorporation and our fifth amended and restated by-laws, each of which is incorporated by reference as exhibits to the Annual Report on Form 10-K of which this exhibit is a part.

Voting Rights

The holders of our common stock are entitled to one vote per share on all matters to be voted on by shareholders. There is no provision for cumulative voting with regard to the election of directors.

Dividend and Liquidation Rights

Subject to all the rights of the holders of the preferred stock, the holders of shares of common stock shall be entitled to receive, when, as and if declared by the board of directors, out of funds legally available for the payment thereof, dividends payable in cash, stock or otherwise. Upon any liquidation, dissolution or winding up, whether voluntary or involuntary, and subject to the rights of the holders of the preferred stock, the remaining assets of Xylem available for distribution shall be distributed to the holders of the common stock ratably according to the number of shares of common stock held by such holder.

Other Rights

The holders of our common stock have no preemptive rights and no rights to convert their common stock into any other securities, and our common stock is not subject to any redemption or sinking fund provisions.

Anti-Takeover Provisions of our Articles of Incorporation, our By-laws and Indiana Law

Various provisions contained in our articles of incorporation, our by-laws and Indiana law could delay or discourage some transactions involving an actual or potential change in control of Xylem and may limit the ability of our shareholders to remove current management or approve transactions that our shareholders may deem to be in their best interests. Provisions in our articles of incorporation and our by-laws:

- **authorize our board of directors to establish one or more series of undesignated preferred stock, the terms of which can be determined by the board of directors at the time of issuance;**
- **do not authorize cumulative voting;**
- **authorize the board of directors to supplement, amend, or repeal the by-laws and to adopt new by-laws;**
- **provide that a special meeting of the shareholders may be called by (i) the board of directors, (ii) the chair of the board of directors, or (iii) the secretary upon the request of at least 25 percent of the outstanding shares of common stock entitled to vote on the matter or matters to be brought before the proposed special meeting;**
- **in connection with shareholder meetings, provide an advance written notice procedure with respect to shareholder nomination for directors and bringing other business; and**
- **provide that our directors may fill any vacancies on our board of directors, including newly created board seats resulting from an increase in the authorized number of directors and vacancies resulting from death, retirement, resignation, or removal.**

EXHIBIT 21

SUBSIDIARIES OF THE REGISTRANT*

Legal Name	Jurisdiction	Name Under Which Doing Business
Aanderaa Data Instruments AS	Norway	
Anadolu Flygt Pompa Pazarlama Ve Ticaret A.Ş	Turkey	
AquaTune GmbH	Germany	
Arrow Rental Limited	Ireland	
Bellingham & Stanley Limited	England & Wales	
Bombas Flygt de Venezuela S.A.	Venezuela	
BS Pumps Limited	England & Wales	
CMS Research Corporation	Oklahoma	
Faradyne Motors (Suzhou) Co. Ltd.	China	
Faradyne Motors LLC	Delaware	
Flow Control LLC	Delaware	
Fluid Handling, LLC	Delaware	
Godwin Holdings Ltd.	England & Wales	
Goulds Water Technology Philippines, Inc	Philippines	
Grindex Pumps LLC	Delaware	
IMT B.V.	Netherlands	
Jabsco Marine Italia s.r.l.	Italy	
Jabsco S. de R.L. De C.V.	Mexico	
Jason Consultants, LLC	Delaware	
K201920713 (South Africa) Proprietary Limited	South Africa	
Lowara s.r.l. Unipersonale	Italy	Lowara
Lowara UK Ltd	England & Wales	
Lowara Vogel Polska SP.ZO.O.	Poland	
MJK Automation ApS	Denmark	
MultiTrode Inc.	Florida	
Multitrode Pty Ltd	Australia	
Nova Analytics Europe, LLC	Delaware	
O.I. Corporation	Oklahoma	OI Analytical
PCI Membrane Systems, Inc.	Delaware	
Pension Trustee Management Ltd	England & Wales	
Pipeline Technologies Philippines Corp	Philippines	
Portacel Inc.	Pennsylvania	
PT Xylem Water Solutions Indonesia	Indonesia	
Pure Technologies (China) Ltd.	Hong Kong	
Pure Technologies (UK) Ltd.	England & Wales	
Pure Technologies Canada Ltd.	Alberta	
Pure Technologies Ltd.	Alberta	

*Each of the named subsidiaries is not necessarily a “significant subsidiary” as defined in Rule 1-02(w) of Regulation S-X, and the Company has several additional subsidiaries not named above. The unnamed subsidiaries, considered in the aggregate as a single subsidiary, would not constitute a “significant subsidiary” at the end of the year covered by this report.

Legal Name	Jurisdiction	Name Under Which Doing Business
Pure Technologies U.S. Inc.	Delaware	Wachs Water Services
PureHM Inc.	Alberta	
PureHM U.S. Inc.	Delaware	
Sensus (UK Holdings) Ltd.	England & Wales	
Sensus Canada Inc.	Canada	
Sensus Chile SpA	Chile	
Sensus de Mexico, S de RL de CV	Mexico	
Sensus España SA (Spain)	Spain	
Sensus France Holdings SAS	France	
Sensus France SAS	France	
Sensus GmbH Hannover	Germany	
Sensus GmbH Ludwigshafen	Germany	
Sensus Italia S.R.L.	Italy	
Sensus Maroc SA	Morocco	
Sensus Metering Systems (Fuzhou) Co., Ltd.	China	
Sensus Metering Systems (LuxCo 2) S.àr.l	Luxembourg	
Sensus Metering Systems (LuxCo 3) S.àr.l	Luxembourg	
Sensus Metering Systems do Brasil Ltda	Brazil	
Sensus Metering Systems IP Holdings, Inc.	Delaware	
Sensus Polska sp. zoo	Poland	
Sensus Services Deutschland GmbH	Germany	
Sensus Slovensko a.s.	Slovak Republic	
Sensus South Africa (Proprietary) Ltd.	South Africa	
Sensus SPA (Algeria)	Algeria	
Sensus Spectrum LLC	Delaware	
Sensus UK Systems Limited	England & Wales	
Sensus USA Inc.	Delaware	
Sentec Limited	England & Wales	
Smith-Blair, Inc.	Delaware	
Texas Turbine, LLC	Delaware	Xylem Texas Turbine LLC
Tideland Signal Corporation	Texas	
Tideland Signal Limited	England & Wales	
Tideland Signal, LLC	Delaware	
UGI Global Ltd	England & Wales	
Water Asset Management, Inc.	Delaware	
Water Process Ltd	England & Wales	
Xylem (Beijing) Technology Co. Ltd	China	
Xylem (China) Company Limited	China	
Xylem (Hong Kong) Limited	Hong Kong	
Xylem (Nanjing) Co., Ltd	China	

*Each of the named subsidiaries is not necessarily a “significant subsidiary” as defined in Rule 1-02(w) of Regulation S-X, and the Company has several additional subsidiaries not named above. The unnamed subsidiaries, considered in the aggregate as a single subsidiary, would not constitute a “significant subsidiary” at the end of the year covered by this report.

Legal Name	Jurisdiction	Name Under Which Doing Business
Xylem Analytics Beijing Co., Ltd.	China	
Xylem Analytics France S.A.S.	France	
Xylem Analytics Germany GmbH	Germany	
Xylem Analytics Germany Sales GmbH & Co. KG	Germany	
Xylem Analytics IP GmbH & Co. KG	Germany	
Xylem Analytics IP Management GmbH	Germany	
Xylem Analytics LLC	Delaware	
Xylem Analytics UK Limited	England & Wales	
Xylem Australia Holdings PTY LTD	Australia	
Xylem Brasil Soluções para Água Ltda	Brazil	
Xylem Canada GP ULC	Ontario	
Xylem Canada LP	Ontario	
Xylem Česká republika spol. s r.o.	Czech Republic	
Xylem Chihuahua S. de R.L. de C.V.	Mexico	
Xylem Cote d'Ivoire	Ivory Coast	
Xylem Delaware, Inc.	Delaware	
Xylem Denmark Holdings ApS	Denmark	
Xylem Dewatering Solutions UK Ltd	England & Wales	
Xylem Dewatering Solutions, Inc.	New Jersey	Godwin Pumps of America
Xylem Egypt LLC	Egypt	
Xylem Egypt Manufacturing LLC	Egypt	
Xylem Europe GmbH	Switzerland	
Xylem Global S.àr.l.	Luxembourg	
Xylem Holdings Egypt LLC	Egypt	
Xylem Industriebeteiligungen GmbH	Germany	
Xylem Industries LLC	Delaware	
Xylem Industries S.àr.l.	Luxembourg	
Xylem Industries Singapore Pte. Ltd.	Singapore	
Xylem International S.àr.l.	Luxembourg	
Xylem IP Holdings LLC	Delaware	
Xylem IP UK S.àr.l.	Luxembourg	
Xylem Japan K.K.	Japan	
Xylem Lowara Ltd	England & Wales	
Xylem Luxembourg 1 S.àr.l	Luxembourg	
Xylem Management GmbH	Germany	
Xylem Manufacturing Middle East Region FZCO	United Arab Emirates	
Xylem Middle East Water Equipment Trading & Rental LLC	United Arab Emirates	
Xylem Ontario Inc.	Ontario	
Xylem Rus LLC	Russian Federation	
Xylem Saudi Arabia Limited	Saudi Arabia	

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Legal Name	Jurisdiction	Name Under Which Doing Business
Xylem Service Hungary Kft	Hungary	
Xylem Service Italia Srl	Italy	
Xylem Services GmbH	Germany	
Xylem Shared Services Sp. Z.o.o.	Poland	
Xylem South Africa Trust	South Africa	
Xylem Switzerland 1 GmbH	Switzerland	
Xylem Switzerland 2 GmbH	Switzerland	
Xylem Switzerland 3 GmbH	Switzerland	
Xylem Switzerland 4 GmbH	Switzerland	
Xylem Technologies & Partners SCS	Luxembourg	
Xylem Technologies GmbH	Germany	
Xylem Vue Inc.	Delaware	
Xylem Water Holdings Ltd	England & Wales	
Xylem Water Ltd	England & Wales	
Xylem Water Services Ltd	England & Wales	
Xylem Water Solutions Argentina S.A.	Argentina	
Xylem Water Solutions Australia Limited	Australia	
Xylem Water Solutions Austria GmbH	Austria	
Xylem Water Solutions Belgium BVBA	Belgium	
Xylem Water Solutions Chile S.A.	Chile	
Xylem Water Solutions Colombia S.A.S.	Colombia	
Xylem Water Solutions Denmark ApS	Denmark	
Xylem Water Solutions Deutschland GmbH	Germany	Flygt
Xylem Water Solutions España, S.L.U.	Spain	
Xylem Water Solutions Florida LLC	Florida	
Xylem Water Solutions France SAS	France	
Xylem Water Solutions (Thailand) Co., Ltd.	Thailand	
Xylem Water Solutions Global Services AB	Sweden	
Xylem Water Solutions Herford GmbH	Germany	
Xylem Water Solutions Holdings France SAS	France	
Xylem Water Solutions India Pvt. Ltd.	India	
Xylem Water Solutions Ireland Ltd.	Ireland	
Xylem Water Solutions Italia S.r.l.	Italy	Flygt
Xylem Water Solutions Kenya Limited	Kenya	
Xylem Water Solutions Korea Co., Ltd.	South Korea	
Xylem Water Solutions Magyarorszag KFT	Hungary	
Xylem Water Solutions Malaysia SDN. BHD.	Malaysia	
Xylem Water Solutions Manufacturing AB	Sweden	
Xylem Water Solutions Metz SAS	France	
Xylem Water Solutions Mexico S.de R.L. de C.V.	Mexico	

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Legal Name	Jurisdiction	Name Under Which Doing Business
Xylem Water Solutions Middle East Region FZCO	United Arab Emirates	
Xylem Water Solutions Muscat Co. LLC	Oman	
Xylem Water Solutions Nederland BV	Netherlands	Flygt
Xylem Water Solutions New Zealand Limited	New Zealand	
Xylem Water Solutions Norge AS	Norway	
Xylem Water Solutions Panama s.r.l.	Panama	
Xylem Water Solutions Peru S.A.	Peru	
Xylem Water Solutions Polska Sp.z.o.o.	Poland	
Xylem Water Solutions Portugal Unipessoal Lda.	Portugal	
Xylem Water Solutions Romania SRL	Romania	
Xylem Water Solutions Rugby Ltd	England & Wales	
Xylem Water Solutions Singapore PTE Ltd.	Singapore	
Xylem Water Solutions South Africa (Pty) Ltd.	South Africa	
Xylem Water Solutions Suomi Oy	Finland	
Xylem Water Solutions Sweden AB	Sweden	
Xylem Water Solutions U.S.A., Inc.	Delaware	
Xylem Water Solutions UK Holdings Ltd	England & Wales	
Xylem Water Solutions UK Ltd	England & Wales	
Xylem Water Solutions Zelienople LLC	Delaware	
Xylem Water Solutions (Shenyang) CO., Ltd.	China	
Xylem Water Systems (California), Inc.	California	
Xylem Water Systems Hungary KFT	Hungary	
Xylem Water Systems International, Inc.	Delaware	
Xylem Water Systems Philippines Holding, Inc.	Delaware	
Xylem Water Systems Texas Holdings LLC	Delaware	
Xylem Water Systems U.S.A., LLC	Delaware	
YSI (China) Limited	Hong Kong	
YSI Incorporated	Ohio	
YSI International, Inc.	Ohio	

*Each of the named subsidiaries is not necessarily a “significant subsidiary” as defined in Rule 1-02(w) of Regulation S-X, and the Company has several additional subsidiaries not named above. The unnamed subsidiaries, considered in the aggregate as a single subsidiary, would not constitute a “significant subsidiary” at the end of the year covered by this report.

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-239370 on Form S-3 and Registration Statement No. 333-268476 on Form S-8 of our reports dated February 24, 2023, relating to the financial statements of Xylem Inc. and the effectiveness of Xylem Inc.'s internal control over financial reporting appearing in this Annual Report on Form 10-K for the year ended December 31, 2022.

/s/ Deloitte & Touche LLP

Stamford, Connecticut
February 24, 2023

EXHIBIT 31.1

CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Patrick K. Decker, certify that:

1. I have reviewed this Annual Report on Form 10-K of Xylem Inc. for the period ended December 31, 2022;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 24, 2023

/s/ Patrick K. Decker

Patrick K. Decker
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sandra E. Rowland, certify that:

1. I have reviewed this Annual Report on Form 10-K of Xylem Inc. for the period ended December 31, 2022;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 24, 2023

/s/ Sandra E. Rowland

Sandra E. Rowland
Senior Vice President and Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Xylem Inc. (the “Company”) for the period ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Patrick K. Decker, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to 906 of the Sarbanes-Oxley Act of 2002, to my knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Patrick K. Decker

Patrick K. Decker

President and Chief Executive Officer
February 24, 2023

A signed original of this written statement required by Section 906 has been provided to Xylem Inc. and will be retained by Xylem Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Xylem Inc. (the “Company”) for the period ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Sandra E. Rowland, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to 906 of the Sarbanes-Oxley Act of 2002, to my knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Sandra E. Rowland

Sandra E. Rowland

Senior Vice President and Chief Financial Officer

February 24, 2023

A signed original of this written statement required by Section 906 has been provided to Xylem Inc. and will be retained by Xylem Inc. and furnished to the Securities and Exchange Commission or its staff upon request.